

Part 2

Project-level Evaluation

Chapter 1. External Evaluation by the Third Party

Chapter 2. Ex-post Evaluation*

* With the launch of new JICA in October 2008, JICA took over the ex-post evaluations of general grant aid projects and fisheries grant aid projects previously conducted by the Ministry of Foreign Affairs (MOFA), starting in FY2009. In FY2008, JICA conducted ex-post evaluations of two grant aid projects in the environmental sector (“The Project for Flood Protection and Drainage Improvement in the Municipality of Phnom Penh” in Cambodia and “The Project for Improvement of Solid Waste Management in Xi’an City” in China) on a pilot basis. In the pilot evaluations, JICA adopted the guidelines formulated by MOFA regarding evaluation perspectives and rating method and, as with the other assistance schemes, the external evaluation method was applied. The two projects that were evaluated in the pilot have improved peoples’ living environment through the development of waste disposal sites and drainage facilities in flood areas, and were determined to have demonstrated high, above-average performance. Based on the lessons learned from this pilot process, JICA aims to develop an ex-post evaluation and rating method that is consistent across the three schemes of assistance, while incorporating the advantages of ODA Loan evaluation method.

* The findings of 30 examples (11 technical cooperation projects, 19 ODA Loan projects) which were selected with the region, sector, and rating results in mind, are presented in Part 2.

All the evaluation results in FY 2008 are available on JICA’s website as below.

Technical Cooperation: http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex_post/

ODA Loan: http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/

Grant Aid: http://www.jica.go.jp/english/operations/evaluation/grant_aid/index.html

The Results of the External Evaluation and Rating

JICA is promoting external evaluations in order to improve the transparency and objectivity of evaluation results. Based on the project evaluation results, JICA is assigning the rating based on the rating methods for ODA Loan projects and technical cooperation.

Introduction

Ex-post evaluations, for which the results were published in FY2009, were conducted for 31 technical cooperation projects, 52 ODA Loan projects, and 2 Grant Aid projects (which previously were implemented by the Ministry of Foreign Affairs) on a trial basis.

In this year, referring to the rating method of ODA Loan

projects, rating system (A~D) is applied for technical cooperation on trial in order to show evaluation results clearly. As to the projects for which the ex-post evaluation results will be published in FY2010 and beyond, it is expected that the evaluation results will be shown in a consistent and clear way.

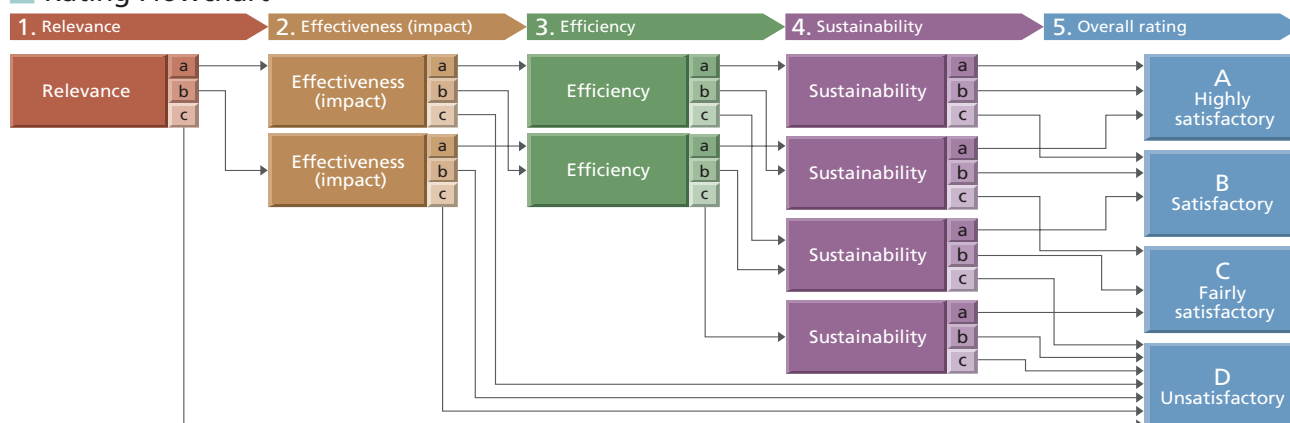
The Results of Ex-post Evaluation Rating for ODA Loan Projects

The results of ex-post evaluation of ODA Loan projects are rated using four grades - A (highly satisfactory), B (satisfactory), C (fairly satisfactory), and D (unsatisfactory). The rating started with the individual ex-post evaluation results published in FY2004. In assigning ratings, projects are first evaluated individually on: (1) relevance, (2) effectiveness (impact), (3) efficiency, and (4) sustainability. The result is inserted into the

Rating Flowchart, and an overall rating is assigned.

Out of 52 projects for which results were released in FY2009, 17 projects (32.7%) achieved a rating of A, 22 projects (42.3%) were rated B, 11 projects (21.2%) were rated C, and 1 project (1.9%) was rated D (see next page). For outlines of the ex-post evaluations for 19 projects out of the 52 projects, refer to page 40 and onwards.

Rating Flowchart



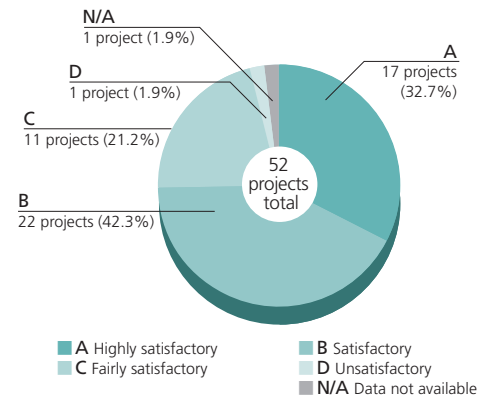
Rating Method

Item	Points	Criteria	Notes
1. Relevance	Evaluate the relevance to development needs at the time of the appraisal and at the time of the ex-post evaluation and evaluate the project's consistency with development policies.	Consistent with needs and policies	a
		Some problems in consistency	b
		Serious problems in consistency	c
2. Effectiveness (impact)	Compare planned and actual figures to measure effectiveness.	80% or more of target	a
		50% - 79% of target	b
		Below 50% of target	c
3. Efficiency	Compare the planned content and the actual content, in terms of project outputs, project period, and cost. Based on the results of each comparison, rate the overall efficiency of the project.	1. Outputs Not reflected in the ratings, but is taken into consideration when rating the items below. (Outputs)	
		2. Project period (Input)	
		100% or less of target	a 3 points
		Between 100% and 150% of target	b 2 points
		Exceeding 150% of target	c 1 point
		3. Project costs (total project costs in foreign currency) (Input)	
		100% or less of target	a 3 points
		Between 100% and 150% of target	b 2 points
		Exceeding 150% of target	c 1 point
		4. The points for the two items above are tallied together (a = 3 points, b = 2 points, c = 1 point)	
[aa] → Efficiency is a (a+a = 6 points)	a		
[ab, ba, ac, ca, bb] → Efficiency is b (4 - 5 points)	b		
[bc, cb, cc] → Efficiency is c (2 - 3 points)	c		
4. Sustainability	Evaluate sustainability based on the financial situation, and by considering technical capacity, operational system and the status of facilities.	Highly sustainable	a
		Some concerns but no major problems	b
		Major concern at the time of ex-post evaluation	c
5. Overall rating	Perform an overall rating.	See the flowchart above.	

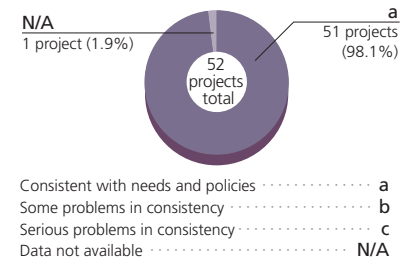
The Results of Ex-post Evaluation Rating for ODA Loan Projects

Country	No.	Project name	page	Rel- evance	Effec- tiveness	Effi- ciency	Sustain- ability	Overall rating
India	1	Power System Improvement and Small Hydro Electric Project		a	b	b	b	C
	2	Northern India Transmission System Project		a	a	b	a	A
Indonesia	3	Rating Schools Establishment Project		a	b	b	b	C
	4	Heavy Loaded Road Improvement Project (2)		a	a	c	a	B
	5	Transmission Line Construction Project in Java-Bali (1)-(3)		a	a	b	b	B
	6	Sumatra East Coast Highways		a	a	c	a	B
	7	Multipurpose Dam Hydroelectric Power Plants Project	40	a	a	b	a	A
	8	Upland Plantation and Land Development Project at Citarik Sub-watershed	41	a	a	b	b	B
	9	Small Ports Development Project in Eastern Indonesia	42	a	b	b	b	C
	10	New Padang Airport Construction Project		a	a	b	b	B
	11	Bajoe-Kolaka & Palembang-Muntok Ferry Terminals Development	43	a	b	b	b	C
	12	Disaster Prevention Ships Procurement Project		a	b	b	b	C
	13	Renun Hydroelectric Power and Associated Transmission Line Project (I) (II) (III)		a	a	b	a	A
Uzbekistan	14	Telecommunication Network Expansion Project (I) (II)		a	b	b	a	B
	15	Senior Secondary Education Project	44	a	b	b	b	C
Kyrgyz Republic	16	Bishkek-Osh Road Rehabilitation Project (I) (II)	45	a	a	b	b	B
Sri Lanka	17	Port of Colombo North Pier Development Project (I) (II), Urgent Upgrading of Colombo Port Project		a	a	b	c	C
	18	Towns North of Colombo Water Supply Project		a	b	b	a	B
	19	Transmission and Substation Development Project (II)		a	a	b	b	B
	20	Greater Colombo Flood Control and Environment Improvement Project (II)(III)	46	a	b	a	c	C
	21	Power Sector Restructuring Program*		N/A	N/A	N/A	N/A	N/A
	22	Medium Voltage Distribution Network Reinforcement Project	47	a	a	b	b	B
	23	Poverty Alleviation Micro Finance Project		a	a	b	b	B
Thailand	24	Regional Road Improvement Project (III)	48	a	b	a	a	A
	25	Thailand-Japan Technology Transfer Project	49	a	a	a	b	A
China	26	Yingkou Water Supply Project		a	a	b	a	A
	27	Xixiang-Zhengzhou Highway Construction Project		a	a	b	a	A
	28	Chongqing Water Supply Project		a	a	b	a	A
	29	Tangshan Water Supply Project	50	a	b	b	a	B
Pakistan	30	Ghazi Barotha Hydropower Project (I) (II)		a	a	b	a	A
	31	Karachi Water Supply Improvement Project		a	a	b	c	C
Bangladesh	32	Rural Electrification Project (Phase V-B)		a	a	b	b	B
	33	Power Distribution and Efficiency Enhancement Project	51	a	a	b	b	B
Philippines	34	Arterial Road Links Development Project (Phase III)	52	a	a	b	b	B
	35	Fisheries Resource Management Project		a	a	b	b	B
	36	Provincial Cities Water Supply Project (III) (IV) (V)		a	a	b	b	B
	37	Tiwai Geothermal Power Plant Complex Rehabilitation Project		a	b	c	b	D
	38	Domestic Shipping Modernization Program (Phase II)		a	a	b	a	A
	39	Third Elementary Education Project	53	a	a	a	b	A
	40	Mak-Ban Geothermal Power Plant Complex Rehabilitation Project		a	a	c	a	B
	41	Metro Manila Strategic Mass Rail Transit Development Project (I) (II) (III)		a	b	b	b	C
Viet Nam	42	Coastal Communication System Project in Southern Part of Viet Nam	54	a	a	b	a	A
	43	Ham Thuan - Da Mi Hydropower Project (I)-(IV)		a	a	b	a	A
	44	Phu My-Ho Chi Minh City 500kV Transmission Line Project		a	a	b	a	A
Malaysia	45	Port Dickson (Tuanku Jaafar) Power Station Rehabilitation Project	55	a	a	b	a	A
Tunisia	46	Sewage System Development Project in Four Cities		a	b	b	a	B
Columbia	47	Bogota Water Supply Improvement Project	61	a	a	b	a	A
Brazil	48	Tiete River Basin Depollution Project		a	a	b	b	B
Peru	49	El Nino-Affected Highway Rehabilitation Project	62	a	a	b	b	B
	50	Sierra-Natural Resources Management & Poverty Alleviation Project (II)		a	b	b	b	C
	51	Lima-Callao Metropolitan Area Water Supply & Sewerage Improvement Project		a	a	b	a	A
Bosnia and Herzegovina	52	Emergency Electric Power Improvement Project	64	a	a	b	b	B

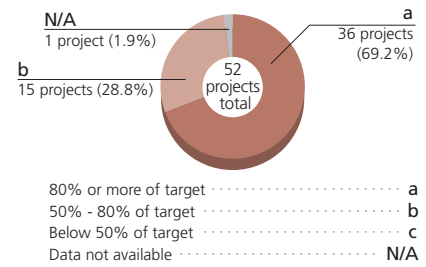
Overall rating



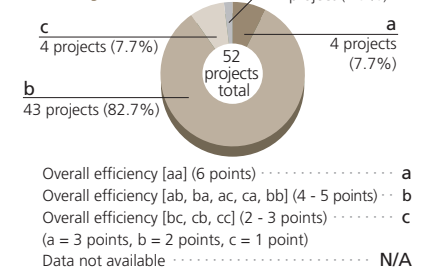
Relevance



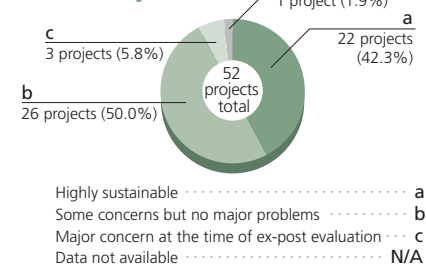
Effectiveness (impact)



Efficiency



Sustainability



* "Power Sector Restructuring Program" in Sri Lanka was not rated, as it was suspended because the loan conditions were partially unmet. In the future, such suspended projects will be reviewed according to the method described on page 34.

* For details on the projects, see their respective ex-post evaluation report. (URL: http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/)

* Outlines for ex-post evaluations of projects are found on page 40 and onwards.

Introduction

Japanese ODA and JICA

What is JICA's Evaluation System?

Part 1. Project Evaluation in JICA

Efforts to Improve its Evaluation

Topics

Part 2. Project-level Evaluation

External Evaluation by the Third Party

Asia Middle East Africa Latin America Oceania Europe

Ex-post Evaluation of Technical Cooperation and ODA Loans

Part 3. Program-level Evaluation

Program Evaluation

Thematic Evaluation

Reference

List of Evaluations and Glossary

The Results of Ex-post Evaluation Rating for Technical Cooperation Projects

External evaluation of ex-post evaluations

Since 2002, when the system was introduced, ex-post evaluations of technical cooperation projects had been conducted internally by JICA overseas offices. However, in light of the growing recognition of the importance of presenting a fair and objective understanding and explanation of project impacts, it was decided that ex-post evaluations would be conducted externally from FY2008.

Specifically, as noted on page 14, ex-post evaluations of projects over 200 million yen are outsourced to an external evaluator and in principle conducted within three years of project termination. In FY2008, 31 technical cooperation projects terminated in FY2005 were evaluated.

To get an overview of the entire project process from the fair perspective of an external evaluator, it was decided that rather than focusing on impact and sustainability as before, projects would be evaluated on all five of DAC's evaluation criteria (relevance, effectiveness, efficiency, impact, sustainability). However, because relevance, effectiveness, and efficiency are items that are judged based primarily on the conditions and processes during the projects' duration, the actual survey method used is secondary evaluations that rely on existing reports.

Furthermore, ex-post evaluations are now conducted externally, and it is possible to maintain the objectivity and transparency of evaluations at the ex-post evaluation phase. Therefore, secondary evaluations by external evaluators that had been conducted for terminal evaluations (internal evaluations) have been abolished. Accordingly, projects are now rated in the ex-post evaluations, not in the secondary evaluation for terminal evaluations.

Rating (on trial basis)

Ratings are given by the external evaluator, based on his/her findings, for DAC's five evaluation criteria and overall rating, on a scale of 1 to 5 (1: "highly unsatisfactory" - 5: "highly satisfactory"). In this report, the overall rating is represented on a scale of A to D for increased clarity (please refer to ex-post evaluation findings of individual projects on page 33 and page 35 onwards)*.

First, the scoring table that was used for the rating of terminal evaluations until last fiscal year was adopted. After each evaluator gave his/her score on a trial basis, a workshop was held and the evaluators worked to improve the score table and standardize the evaluation criteria. After that, the evaluators made a final decision on the scoring content.

It was confirmed that, while different evaluators rated each project, the scores for the overall rating, relevance, and sustainability were highly logic and reproducible because the scoring perspectives and standards were clear. On the other hand, the reproducibility of the scores for effectiveness,

efficiency, and impact were relatively low. The reasons may include: 1) There were not enough perspectives from which to give a score; 2) The criteria for evaluation were not standardized among the evaluators; and 3) There were not enough necessary information for evaluating the project. JICA aims to solve these issues and establish a rating system that is consistent with the other schemes. Ratings not only represent the evaluation findings in an easy-to-understand way; they are also useful for considering measures to improve development projects. However, because the ratings do not reflect everything there is to know about a project, they should not be overemphasized. The rating should be considered as one indicator (the same applies for ODA Loans as well).

Overview of evaluation findings

A list of projects for which the ex-post evaluation findings were published in FY2009 and their rating results are on the next page. For outlines of the ex-post evaluations of 11 of the 31 projects, refer to page 35 and onwards.

As to the overall rating, 26 projects (84%) were given a score of 3 (the "medium" level : B) or above, and can be judged that the expected effects had generally been realized. For projects that were judged to have satisfactory effectiveness, impact, and sustainability, it was revealed that, despite undergoing structural and organizational changes after the project's termination, e.g., the merger and abolition of executing agencies and relocations of personnel, those personnel who received technical transfer are continuing to take actions to achieve the policy objectives and satisfy societal needs. Meanwhile, it is pointed out that, for projects that received an unsatisfactory evaluation, they had the following points in common: objectives and activities that are outside the executing agency's authority were planned, and involvement of necessary relevant agencies were insufficient to achieve the objectives.

As to the problems observed in conducting the evaluations, it was noted that, because the format of the expert's report and project completion notification were not defined properly, there was bias in the volume of information and it was difficult to obtain sufficient information for conducting the evaluations.

Other problems were also cited. In some cases, the project objective in the basic project document, the Project Design Matrix (PDM), had been reworded to the project outcome. In addition, for the project for which appropriate indicators and their target values were not established, the criteria for judging whether the objective was achieved relied on the evaluator's sense of values. Furthermore, when an unrealistically high overall goal was set, it was difficult to analogize the cause and effect relationship, i.e., whether the project led to the achievement of its objective.

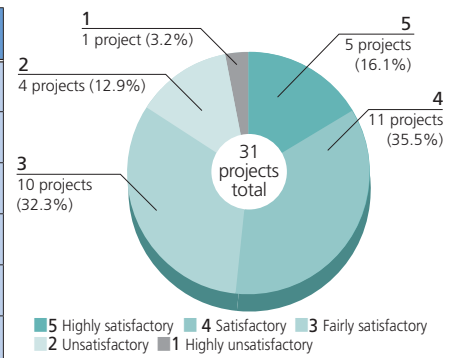
Based on these lessons learned, JICA aims to further improve project formulation and project implementation.

* Conversion method: 5, 4→A (highly satisfactory) / 3→B (satisfactory) / 2→C (fairly satisfactory) / 1→D (unsatisfactory)

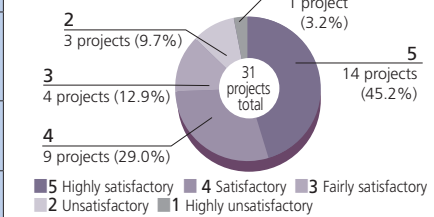
The Results of Ex-post Evaluation Rating for Technical Cooperation Projects (on trial basis)

Country	No.	Project name	page	Relevance	Effectiveness	Efficiency	Impact	Sustainability	Overall rating	A-D
Cambodia	1	Phase II of the Maternal and Child Health Project		4	3	3	3	4	3	B
Kazakhstan	2	Project for the Improvement of Health Care Services in Semipalatinsk Region	35	5	4	4	5	5	5	A
Thailand	3	Modernization Water Management System Project		2	2	2	2	2	2	C
China	4	Anhui Primary Health Care Technical Training Center Project		4	3	2	3	4	3	B
	5	China-Japan Friendship Project on the National Center for Safety Evaluation of Drugs	36	4	2	2	3	5	3	B
Nepal	6	Community Tuberculosis and Lung Health Project		5	4	3	4	4	4	A
	7	Community Development and Forest/Watershed Conservation Phase II		5	4	4	4	5	5	A
Viet Nam	8	Project for Strengthening Training Capabilities for Road Construction Workers in Transport Technical and Professional School No.1	37	4	4	5	4	5	5	A
	9	Project for Strengthening Training Capability for Technical Workers in Hanoi Industrial College		5	5	4	4	5	5	A
Malaysia	10	Project for the Capacity Building of the National Institute of Occupational Safety and Health (NIOSH) in the Field of Occupational Safety and Health (OSH)	38	5	5	5	3	4	4	A
Myanmar	11	Leprosy Control and Basic Health Service Project		5	4	4	4	4	4	A
Mongolia	12	Project for Improvement of Technology on Diagnosis of Animal Infectious Diseases	39	3	4	4	4	4	4	A
Egypt	13	Project on Improvement of Science and Mathematics Education in Primary Schools*	56	3	2	3	2	2	2	C
Tunisia	14	Project for the Establishment of the Vocational Training Center for the Electric and Electronics Industry		5	4	4	4	4	4	A
Morocco	15	Training Center Project for Agricultural Mechanization		4	4	4	4	2	3	B
Ethiopia	16	Project for Capacity Building of the Alemgena Training and Testing Center of ERA	57	5	3	2	4	4	4	A
Zambia	17	HIV/AIDS and Tuberculosis Control Project*		5	3	3	3	2	4	A
Senegal	18	Project on the Safe Water and the Support on Community Activity*		4	2	2	2	3	3	B
Tanzania	19	Project on Sokoine University of Agriculture Center for Sustainable Rural Development	58	4	3	3	3	3	3	B
Argentina	20	Project of Research and Development of Pejerrey Aquaculture and Propagation		3	4	4	2	4	4	A
Costa Rica	21	Project on Productivity Improvement for Enterprises		5	4	4	3	3	4	A
Dominican Republic	22	Technology Improvement Project for Irrigated Agriculture	59	5	4	3	4	4	4	A
Panama	23	Panama Canal Watershed Conservation Project		5	4	4	2	3	3	B
Paraguay	24	Improvement of Small and Medium Scale Dairy Farm Management Project*		1	2	3	1	1	1	D
Barbados	25	Caribbean Disaster Management		4	4	2	2	3	3	B
Brazil	26	Cerrado Ecosystem Conservation Project*	60	3	2	1	2	2	2	C
	27	Strengthening of the Agricultural Technical Support System to Small-Scale Farmers in Tocantins State*		2	1	1	2	2	2	C
Bolivia	28	Project for the Dissemination of High-Quality Rice Seeds for Small-Scale Farmers		5	4	4	4	4	4	A
Fiji	29	Project of the Information and Communication Technologies (ICTs) Capacity Building at the University of the South Pacific	63	4	3	3	2	4	3	B
Micronesia	30	Fisheries Training Project		2	3	3	2	4	3	B
Turkey	31	Project on Energy Conservation		5	5	4	4	5	5	A

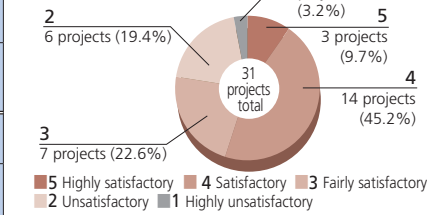
Overall rating



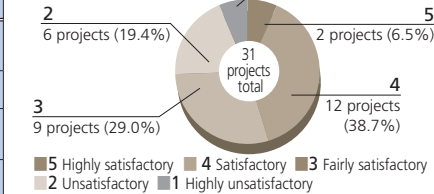
Relevance



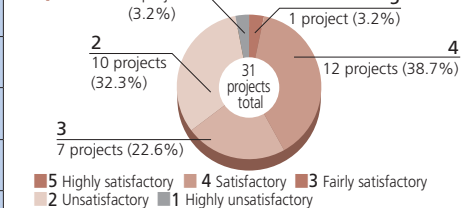
Effectiveness



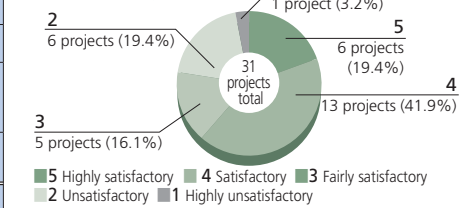
Efficiency



Impact



Sustainability



* For projects with an asterisk(★), the division in charge of the project has some interpretations that vary from the evaluation findings, considering judgments at present based on the ex-post evaluation situation. For details, contact the evaluation department of JICA.

* Outlines for ex-post evaluations of [yellow box] projects are found on page 35 and onwards.

Projects Cited as Having Issues in Ex-post Evaluation

An overall rating is given for technical cooperation on a scale of A to D (replacing the scale of 5 to 1), and for ODA Loans, also on a scale of A to D. Of the projects for which the evaluation findings were released in FY2009, one project from each scheme was given D (unsatisfactory).

JICA will conduct follow-up studies and ex-post monitoring in response to the challenges, lessons learned, and recommendations presented in the ex-post evaluation, and take stock of them for future similar projects.

Tiwi Geothermal Power Plant Complex Rehabilitation Project in Philippines (ODA Loan project)

● Problems

The project was highly relevant, and power output recovered to a certain extent as an outcome of the repair of the generating units. However, due to insufficient amount of steam necessary for geothermal power generation, two of the units in the scope of work (six generating units) were not repaired. Even with regards to the generating units (four) that were partially repaired, their use ratio stayed at around 50% of the initial target value.

There was also an issue of efficiency. The project's implementation procedures were put on hold, coupled with the trial over the steam supply service contract and considerations being made about privatizing the power plant complex. In addition, because it took a long time to deliberate the changes that would be made to the scope in response to the aging of the generating units caused by the project's delay, as well as to obtain approval for the changes, an extended period of time was required from the investigation to the actual repair work. Additionally, there was an issue of sustainability, as concerns over ensuring the future supply of steam grew.

● Lessons learned and recommendations

Ensuring a sufficient supply of steam is essential for the operation of the geothermal power plant complex. It was pointed out that the project's implementation should have been promoted, only after studies and risk analyses were undertaken and measures were appropriately taken vis-à-vis the steam supply contract and geothermal reservoir, based on the strong commitment of the Filipino Government.

Improvement of Small and Medium Scale Dairy Farm Management Project in Paraguay (technical cooperation project)*

● Problems

Although the capacity development of executing agency staff was confirmed, it cannot be said that the desired objective was achieved. The national dairy farming promotion plan that was initially to be created, was formulated independently by high-ranking authorities; the project was relegated to the formulation of its implementation plan. It is believed that the problem lies with the fact that, even after the cooperation policy shifted at the ex-ante study phase, from the initial request of technical assistance to policy assistance for the development of measures that will serve as the basis for the dissemination of dairy farming techniques, JICA's main counterpart continued to be the Technology Bureau. Also, no experts were brought in to promote system reform. Additionally, the situation of the small and medium scale dairy farmers—the project's target group—was not fully understood in the ex-ante study. Their situation was studied and understood as part of the project activities, but the project's short timeframe of two years did not provide sufficient time to revise the plan and carry it out.

● Lessons learned and recommendations

It was pointed out that it is essential to collect and analyze detailed information from before the project's start on the situation of the target group, the policies and system pertaining to the target sector, and relevant organizations, and pursue an appropriate approach based on this information.

Review of Suspended ODA Loan Projects

Some ODA Loan-financed projects are suspended without ever completing. In such cases, it is important to ascertain the factors and processes that led to the project's incompletion and derive lessons for the improvement of future project management. However, it is difficult to conduct an ex-post evaluation of suspended projects using DAC's five criteria and rating system. It was also pointed out by the Japanese ODA Loan Evaluation Expert Committee in FY2007 that the evaluation method should be reconsidered for such suspended projects.

In response, JICA has decided not to rate suspended ODA Loan projects but to focus on deriving lessons learned from the review of the appropriateness of the judgments made at the project appraisal phase and project supervision phase, as well as of the follow-up situation afterwards.

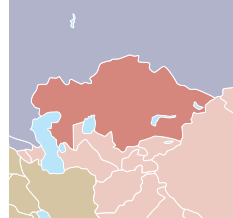
In FY2008, three projects were reviewed on a trial basis: 1)

Telecommunication Network Expansion Project in Colombo Metro Area (II) in Sri Lanka; 2) Pattimura University Development Project in Indonesia; and 3) Ciliwung-Cisadane River Flood Control Project in Indonesia. The findings indicated that although all the projects were highly relevant, their incompletion may be attributed to: "policy changes of the counterpart government due to the privatization of the executing agency"; "decline in technical relevance"; "worsening security"; and "policy changes of the counterpart government vis-à-vis project modification proposal". The review concluded that the suspension of JICA's assistance to project implementation was unavoidable for all three projects. The lessons learned were that it is important to ensure that the executing agency is qualified in formulating an ODA Loan project in the deregulated sector, and that the project scope is relevant.

*For this project, the division in charge of the project has some interpretations that vary from the evaluation findings, considering judgments at present based on the ex-post evaluation situation. For details, contact the evaluation department of JICA.



Asia Kazakhstan



Project for the Improvement of Health Care Services in the Semipalatinsk Region

Assisting the residents of the region of nuclear bombs testing area through improvement of regional health care services

[External Evaluator]

Akira Maekawa, INTEM Consulting, Inc.

Rating

Effectiveness	4	Overall Rating A
Impact	5	
Relevance	5	
Efficiency	4	
Sustainability	5	

Project Objectives

To improve accessibility of the residents of the targeted region in receiving diagnosis services by promoting understanding of the damage caused by radiation, developing health examination systems by phases, and utilizing examination data, and thereby improve the regional health care service system.

Outline of the Project

- Total Cost (Japanese Side): 373 million yen
- Period of cooperation: March 20, 2000 to June 30, 2005
- Partner country's implementing organization: Ministry of Health(MOH), Department of Health and Management of East Kazakhstan Oblast (EKS)
- The number of experts dispatched: 83 experts (short-term)
- The number of technical training participants: 13 participants
- Main equipment provided: diagnostic equipment, laboratory equipment, specialized books, etc.

《 Cooperation Framework 》

Overall Goal:

- Health care services around Semipalatinsk Region are improved.

Project Purpose:

- Systems for screenings, detailed health examination and diagnoses for the population in the project site are improved.

Outputs:

- Understanding by the public and the government in effects of radiation on health is promoted.
- Primary screening, detailed health examinations and conclusive diagnosis is conducted effectively and systematically, utilizing existing health care facilities and mobile examination by vehicles.
- Data gathered through primary screening, detailed health examinations and conclusive diagnosis are accumulated to be utilized by the administration.



Microscopes for cytological diagnosis to the State Medical Academy Hospital

Effects of Project Implementation (Effectiveness, Impact)

The project established a system for a series of health examinations from primary screening to conclusive diagnosis for the residents of the targeted region. 25,186 persons have gone through primary screening and 98 have been diagnosed as patients with targeted diseases including those who came after completion of the project. The "Papanicolaou" method, a highly accurate cytological diagnosis method which was introduced through this project, has been standardized through decree of the ministry in 2005. The improvements of detection rate of targeted diseases induced by radiation, after completion of the project, indicate that the method had contributed to the improvement of accuracy in diagnosis. Improvement in the speed of diagnosis has also led to improvement in treatment timeliness, producing effects such as a decrease in the average days of confinement. Rate of surgical operations have increased whereas the rate of aggravation after operations, mortality rate, mortality rate of pregnant women are decreasing respectively, indicating an improving trend in the general health care level of the region. In light of the above, the implementation of the project is evaluated to be improving the regional medical care. On the other hand, though health examination data are revised and added according to diagnosis results, utilization of such data is limited within the diagnosis center. This is due to the fact that other institutions have accumulated a database of nuclear bomb victims with a wider coverage of items.

Relevance

The Kazakhstan government has placed the promotion of health of its people to be one of its prior targets. In the "International Conference on Semipalatinsk Region" held in 1999, Japan, having suffered nuclear bomb attacks, has committed to assist this region concerned. Therefore, this project is consistent with the policies of both countries.

Efficiency

The provided equipment were adequate in item and in quantity and are utilized, operated and maintained in good condition. Adequate dispatch approach was taken, such as to dispatch the same short-term expert repeatedly, as an alternative to dispatching long-term experts. Also, several personnel were appointed from the Kazakhstan side, as the counterpart to one Japanese expert, which improved the speed of transfer of technology.

Sustainability

The Kazakhstan government has decided to provide government guarantee for all medical services. Therefore, sustainability of this project is high in terms of policy. The Kazakhstan personnel working on the project have not changed, and the budget for primary screening has been increasing every year, therefore, sustainability of this project is high in terms of technological and organizational aspect as well.

Conclusion, Lessons Learned and Recommendations

The project has achieved its plan, and sustainability of this project is also high. Progressions in the unification of the examination data shall promise further improvement in the regional medical system. Lessons learned are that in aligning with other projects, flexible altering of plans is needed in accordance with the progress of the project concerned, etc.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (Technical Cooperation)" ([URL:http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex-post/](http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex-post/))



Asia China



China-Japan Friendship Project on the National Center for Safety Evaluation of Drugs

Improving safety evaluation standard of drugs and contributing to the health of the people

[External Evaluator]

Naomi Okada and Rie Fusamae, Foundation for Advanced Studies on International Development (FASID)

Rating

Effectiveness	2	Overall Rating B
Impact	3	
Relevance	4	
Efficiency	2	
Sustainability	5	

Project Objectives

To capacitate the National Center for Safety Evaluation of Drugs, by complying with experimental standards within the Center, improving the level of experimental techniques, and facilitating equipment appropriately, and thereby strengthen the capability of the Center, so as to improve the safety of drugs in China.

Outline of the Project

- Total Cost (Japanese Side): 901 million yen
- Period of cooperation: July 1, 2000 to June 30, 2005
- Partner country's implementing organization: State Food and Drug Administration, National Institute for the Control of Pharmaceutical and Biological Products
- The number of experts dispatched: 8 experts (long-term), 92 experts (short-term)
- The number of technical training participants: 22 participants
- Main equipment provided: biochemical analyzer, blood coagulation analyzer, vehicles, etc.

《 Cooperation Framework 》

Overall Goal:

- To ensure the safety of drugs in China.

Project Purpose:

- The National Center of Safety Evaluation of Drugs to meet the international standards of "Guideline on performing non-clinical experiments regarding the safety of medicinal safety - Good Laboratory Practice (GLP standards)" is maintained and operated.

Output:

- The GLP standard in management and operation is complied with.
- The level of experimental techniques through staff training is improved.
- Experimental equipment and materials are prepared and utilized appropriately.

Effects of Project Implementation (Effectiveness, Impact)

Since the commencement of GLP testing in 2003, the number of cases of GLP tests has increased. 79 tests were performed in 2008. Presently, through internal audit, audit by the State Food and Drug Administration, and external inspections, efforts are being made to assure the accuracy of the testing. Therefore, the Center is evaluated as an institution giving approval for authorized GLP study institutions. Furthermore, the Center, even after completion of the project, has been promoting the GLP concept and techniques through trainings, seminars, etc., resulting in the approval of 31 institutions as GLP complying institutions. Therefore the project is evaluated as to be contributing to the assurance of safety of drugs, which is the overall goal. However, effectiveness, and impact of the project is fair, due to the fact that the Center had not yet fulfilled GLPs international standard during the period of cooperation, and that the setting of the overall goal lacked to be specific enough to evaluate whether or not the goal had been achieved.

Relevance

China's pharmaceutical industry is growing at a significant pace, and it now exports drugs overseas. Thus, there is a high demand both domestically and abroad for the manufacturing and provision of safe drugs. The Chinese government developed drug-related regulations, placing the improvement of pharmaceutical drug safety as their policy target. The project has been in line with such government's policy directions. As for Japan's Economic Cooperation Program for China, the adoption of the international standard is being promoted as an assistance of market liberalization. Therefore, the project is also in line with the prioritized issues of both countries.

Efficiency

On the Japan side, the number of experts dispatched was less than planned, and their expertise was adequate. Regarding the equipment provided, all but two were utilized in good condition. Therefore, the contents and utilizing conditions of the inputs were adequate. On the other hand, because the outputs and objectives had been set too high, these goals were not sufficiently achieved within the duration of the project. For that reason, efficiency is somewhat low.

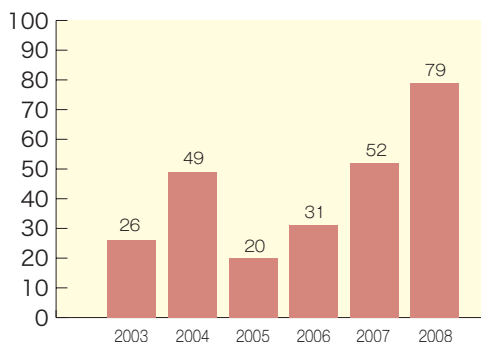
Sustainability

The importance of the project is increasing at policy level, as governmental guidelines regarding development of new drugs or safety assurance has been set forth, even after the completion of the project. The budget of the Center is being increased, and the payroll structure has improved as well, therefore staffs have taken root, and have increased. In light of the above the project is anticipated to maintain high sustainability.

Conclusion, Lessons Learned and Recommendations

Though the setting of the overall goals during the period of cooperation was too high, at the present, the targeted goals and the ripple effect is gradually being produced, such as the Center playing the center role in pharmaceutical drug safety evaluation and these effects are anticipated to be sustained. The lesson learned from this project is that adequate setting and modification of goals are necessary to improve project management.

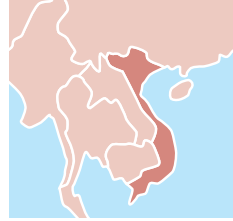
Trend of GLP testing records



*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations" → "Ex-post Evaluation (Technical Cooperation)" ([URL:http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex-post/](http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex-post/))



Asia Viet Nam



Project for Strengthening training capabilities for Road Construction Workers in Transport Technical and Professional School No.1

Assisting domestic road network maintenance through the strengthening of training capabilities of mechanics



[External Evaluator]

Takayuki Kojima, INTEM Consulting, Inc.

Rating

Effectiveness	4	Overall Rating A
Impact	4	
Relevance	4	
Efficiency	5	
Sustainability	5	

Project Objectives

To improve the training capability of the Central Vocational College of Transport by improving the training environment, strengthening the teacher's quality, and improving management capabilities, and thereby contribute to foster road construction workers within Viet Nam.

Outline of the Project

- Total Cost (Japanese Side): 1,266 million yen
- Period of cooperation: Jan. 22, 2001 to Jan. 21, 2006
- Partner country's implementing organization: Ministry of Transport, Central Vocational College of Transport No.1 (CVCT1)*
- The number of experts dispatched: 8 experts (long-term), 11 experts (short-term)
- The number of technical training participants: 28 participants
- Main equipment provided: road construction equipment, etc.

《Cooperation Framework》

Overall Goal:

- CVCT1 becomes the model school in Viet Nam for training for road construction workers.
- The skills of road construction workers in Viet Nam are improved.

Project Purpose:

- Training capabilities of CVCT1 are improved.

Output:

- Facilities and equipment for retraining courses are improved and modernized.
- The quality of teachers is improved.
- Retraining course is established.
- The quality of general training course is improved.
- The management of CVCT1 or its ability to plan trainings is improved.



Construction Equipment Maintenance Workshop

*Upon initiation of the project, the school was called the Central Transport High School No.1, but was later promoted to a college. The school is expressed as CVCT1 throughout this summary.

Effects of Project Implementation (Effectiveness, Impact)

The training course delivered in the project is continuously being delivered with a few moderations. In the 4 years after completion of the project, 370 persons have taken retraining courses. There is no data indicating the employment rate of the graduates of the general training courses, but the reputation of the courses among the relative institutions concerned are high. CVCT1 can be evaluated as having established a reputation of a model school, especially in note of the standard curriculum, which was developed by the General Department of Vocational Training based on the curriculum proposed by the project, being presently utilized in other colleges under supervision of the Ministry of Transport, etc. CVCT1 was initially a vocational high school and was promoted to a technical college, an educational institution of higher level, which the project also had contributed to. In light of the above, the effectiveness, and impact of this project is high.

Relevance

The Viet Nam Development Plan recognizes the importance of strengthening the school system with the objective of providing training opportunities to the technical workers in the educational and training sector, simultaneous with the development and improvement of infrastructure. In the policies of the Government of Japan "Country Assistance Plan for Vietnam", development of human resources and systems, and development of infrastructure for electricity, transportation are the prioritized fields. Therefore, the project is consistent with both country's policies.

Efficiency

Through the provision of used equipment in the country, as training equipment, trainees were able to experience same repairs for malfunctions seen there. This resulted in higher efficiency because the training had become more practical. There were no material delays in dispatch of experts or provision of equipment in terms of achieving outputs.

Sustainability

The recognition of the importance of vocational training within a development policy is still standing. CVCT1 has also spontaneously realigned and is operating its own training course. Thus the capability to deliver training has set root. In terms of finance, though the tuition income is decreasing, government subsidy is increasing. Therefore, the sustainability of the project is high financially also.

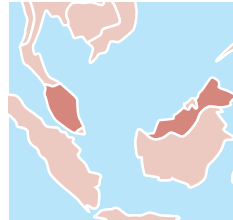
• Conclusion, Lessons Learned and Recommendations •

The project is producing effect and there are no specific problems to be observed on sustainability. The lesson learned from this project is the importance of adequate administration of documents prepared in the project, and establishment of a survey and monitoring system that is sustainable both in terms of technique and budget.

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Asia **Malaysia**



Project for the Capacity building of the National Institute of Occupational Safety and Health (NIOSH) in the Field of Occupational Safety Health (OSH)

Contributing to the decrease of occupational accidents by improving enforcement capacity of Occupational Safety and Health Law



[External Evaluator]

Takehiro Iwaki, IC Net Asia Co., Ltd

Rating

Effectiveness	5	Overall Rating A
Impact	3	
Relevance	5	
Efficiency	5	
Sustainability	4	

Project Objectives

To improve capacity of technical support, human resource development, and collection and dissemination of information of the National Institute of Occupational Safety and Health, and thereby decrease domestic occupational accidents and work related diseases.

Outline of the Project

- Total Cost (Japanese Side): 640 million yen
- Period of cooperation: Nov. 15, 2000 to Nov. 14, 2005
- Partner country's related organization: Department of Occupational Safety and Health (DOSH) Ministry of Human Resource, National Institute of Occupational Safety and Health (NIOSH)
- The number of experts dispatched: 9 experts (long-term), 37 experts (short-term)
- The number of technical training participants: 30 participants
- Main equipment provided: laboratory examination equipment, movable measuring equipment, etc.

《 Cooperation Framework 》

Overall Goal:

- Occupational accidents and diseases are decreased in Malaysia.

Project Purpose:

- Capacity of NIOSH is upgraded.

Output:

- Methods on working environment control are acquired, and preventive measures on occupational and work related diseases are developed.
- The system for work control from an ergonomic viewpoint is improved.
- OSH training programs and research and development activities are improved.
- Function of collection and dissemination of information for raising awareness on occupational safety and health are improved, and functions for providing necessary information for policy development is strengthened.

Effects of Project Implementation (Effectiveness, Impact)

Preparation and revision of guidelines and handbooks, provision of health check services at the NIOSH Occupational Health Center, and technical training regarding the improvement of working environment, are all continuously being performed after completion of the project respectively. Awareness creating activities regarding occupational health are continuously expanding, through training and website forums. Especially in 2008, 71,941 persons went through training. The occupational accidents in Malaysia show a significant decline both in number and incidence ratio in total. The actual outsets of work related diseases are also improving. Knowledge, skills and awareness of occupational safety is improving through the NIOSH training. Thus, it is presumed that the NIOSH activities are contributing to the improvement of the occupational accident situation. In light of the above, the project purpose and overall goal are evaluated high as both having been achieved.

Relevance

The National Development Plan of Malaysia, places priority on the curtailment of an increase in occupational accidents and diseases that accompany economic development. Therefore, this project is consistent with the policies of Malaysia.

Efficiency

The selection of themes for technical transfer and the order of transfer, which corresponded the dispatch of experts, was appropriate to a great extent. The equipment provided was evaluated highly from the Malaysian side and is being utilized appropriately. Therefore the efficiency of the project is very high.

Sustainability

The importance of NIOSH's role in promoting occupational safety and health is recognized, and therefore sustainability is high in terms of policies. Number of staff and annual income of the NIOSH are both increasing, resulting in the stabilization of both organization and finance. On the other hand, consultants in the private sector are beginning to grow. NIOSH's future challenge will be the preparation of a specific strategy as well as the improvement of competitiveness by further understanding of the cost structure.

Conclusion, Lessons Learned and Recommendations

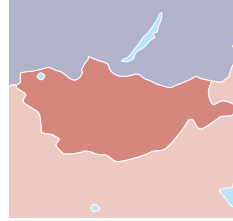
As a result of the project, the capabilities of the NIOSH have been strengthened and the social impact was significant as well. Lessons learned for other similar projects are that the need to consider, as much as possible, ways to keep the trained human resources in place through personnel systems such as human resource development systems and career paths.

Trend of Occupational Accident Occurrence

	2002	2003	2004	2005	2006	2007	2008
Number of Registered Workers (persons)	4,088,757	4,426,569	4,567,365	4,882,953	5,454,792	5,450,943	6,034,756
Number of Occupational Accidents (cases)	63,423	57,589	52,304	43,885	40,617	38,657	36,405
Number of Accidents per 10,000 persons	156	126	115	90	74	71	60

[Source]Malaysia Social Security Organization (SOCSO)

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Asia **Mongolia**

Project for Improvement of Technology on Diagnosis of Animal Infectious Diseases

Supporting development of livestock industry through improvement of technology on diagnosis of animal infectious diseases

[External Evaluator]

Miho Ito, INTEM Consulting, Inc.

Rating

Effectiveness	4	Overall Rating A
Impact	4	
Relevance	3	
Efficiency	4	
Sustainability	4	

Project Objectives

To introduce technology on animal infectious diseases, develop environment for sustainable research, and thereby improve the technology of diagnosis of animal infectious diseases.

Outline of the Project

- Total Cost (Japanese Side): 781 million yen
- Period of cooperation: July 1, 1997 to June 30, 2002
- Partner country's implementing agency: Institute of Veterinary Medicine (IVM) of Mongolian State University of Agriculture – Immunological Research Center (IRC)
- The number of experts dispatched: 10 experts (long-term), 38 experts (short-term)
- The number of technical training participants: 22 participants
- Main equipment provided: laboratory equipment, vehicles, etc.

《 Cooperation Framework 》**Overall Goal:**

- The diagnostic techniques for animal diseases are improved in Mongolia.

Project Purpose:

- The immunological and immunopathological research for the diagnosis techniques of infectious diseases is reinforced through basic and applied research activities.

Output:

- The researchers of the Institute of Veterinary Medicine and the faculty of Veterinary Medicine acquire basic and applied research techniques for immunological diagnosis of animal infectious diseases.
- The research techniques for immunological diagnosis of targeted infectious diseases are introduced and established.
- Laboratory management and research environments are improved.
- Methodology of field application trial of immunological diagnosis is improved.



Laboratory of Veterinary Medicine in Ulaanbaatar City

Effects of Project Implementation (Effectiveness, Impact)

The techniques such as the isolation and incubation of the disease agent introduced to the IRC are being applied in treatment and diagnosis, as of ex-post evaluation. The technique was assessed highly, and has been approved to meet the national diagnosis criteria since 2006. IVM has been continuously presenting scientific literature even after completion of the project, indicating that the research capacity has been reinforced. IVM has also published a manual on diagnosis techniques, which is now introduced and used widely from Department of Veterinary and Animal Breeding to other related institution, and also utilized in university lectures, etc. Furthermore, upon the outset of an infectious disease, a reporting system from municipalities to the government is functioning and the Department of Veterinary and Animal Breeding is instructing countermeasures. Therefore, the effect of the project is contributing to the improvement of diagnosis techniques within Mongolia.

Relevance

The Mongolian people's everyday lives depend on livestock industry. Thus, from an economical development standpoint, the improvement of diagnosis techniques for livestock and reinforcement of a disease control system is important. As for JICA's assistance strategy for Mongolia places priority in the advancement of agriculture and livestock industry. In this context, the project is highly relevant to the policies of both countries. However, it is considered that some aspects of the framework lacked relevance, such as lack of involvement of the authority to actually perform diagnosis of infectious diseases of livestock, insufficient consideration on the organizational and management aspects of IRC, etc.

Efficiency

No delay in input or process that gave serious impact to the project's effect was to be seen. Equipment provided contributed to the progress of the activity and is presently still being utilized in good condition. The human resources on the Mongolian side were also allocated appropriately, and have taken root after the completion of the project.

Sustainability

The importance of the policy to control diseases of the livestock still stands. Functions, staff, and equipment, newly established by this project to IRC has all been succeeded to IVM, which is stable as an organization. As for financial aspects, the government subsidy is to be allocated until 2015. Therefore the sustainability is high.

Conclusion, Lessons Learned and Recommendations

The project has achieved the initially planned purpose and its sustainability is also high. Preparation of equipment of machinery for diagnosis of diseases of livestock in some local municipalities, and reinforcement in support to local veterinary medicine laboratories by the IVM on diagnosis techniques is recommended. Setting indicators of the overall goals expressed with detailed numerical value, etc, which all related persons can share and recognize the present situation, would be the lesson learned for future projects.

Introduction

Japanese ODA and JICA

Part 1. Project Evaluation in JICA

What is JICA's Evaluation System?

Efforts to Improve its Evaluation

Topics

Part 2. Project-level Evaluation

External Evaluation by the Third Party

Asia Middle East Africa Latin America/Oceania Europe

Ex-post Evaluation of Technical Cooperation and ODA Loans

Part 3. Program-level Evaluation

Program Evaluation

Thematic Evaluation

Reference

List of Evaluations and Glossary

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (Technical Cooperation)" ([URL:http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex-post/](http://www.jica.go.jp/english/operations/evaluation/tech_and_grant/project/ex-post/))



Multipurpose Dam Hydroelectric Power Plant Project

Contributing to easing the tight supply-demand balance of electricity and alleviating dependency on oil by efficiently utilizing water resources for hydroelectric power generation

[External Evaluator]

Masami Sugimoto, SHINKO Overseas Management Consulting, Inc.

Rating

Effectiveness, Impact	a	Overall Rating A
Relevance	a	
Efficiency	b	
Sustainability	a	

Project Objectives

To meet rapidly growing electricity demand in each service area, by constructing hydroelectric power plants of 6.2MW, 28MW and 17.2MW at PLN Java Bali System, Wilayah IV service area (Lampung Province), and Wilayah VIII service area (South Sulawesi Province) respectively, thereby contributing to the target areas' economic development and improvement of the peoples' standard of living.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 6,291 million yen / 4,044 million yen
- Loan agreement: December 1996
- Terms and conditions: 2.7% interest rate (2.3% for consulting services); 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: March 2007
- Executing agency: Electricity Company owned by the Indonesian State (PT. PLN (Persero))
- Website URL: <http://www.pln.co.id/>

Effects of Project Implementation (Effectiveness, Impact)

This project constructed hydroelectric power plants attached to the three multipurpose dams, namely Wonorejo (in East Java Province), Batutegei (in Lampung Province), and Bili-Bili (in South Sulawesi Province). Though electricity generation is subordinate, and priority is placed on other uses including irrigation and water supply, the plants are generating electricity almost as planned and are contributing to ease the lack of electricity in each service area. Results of the beneficiary survey conducted on the Wonorejo hydroelectric power plant supplying electricity to East Java Province show that only 15% of households and 7% of business entities had evaluated the quality of power supply "Excellent" before the project; however, both ratios increased to 89% and 85% respectively after the project. In addition, the ratio answering that power failure "scarcely happened" were 28% and 57% respectively before the project, but those rates also increased after the project to 83% and 100% respectively. Therefore, the project has largely achieved its objectives, and its effectiveness is high.

Relevance

This project has been highly relevant with Indonesia's national policies and development needs at the times of both appraisal and ex-post evaluation. Development plans at the times of appraisal and ex-post evaluation placed emphasis on the improvement of power supply reliability and hydroelectric power development aiming for alleviating the oil dependency, and development of alternative energy including hydropower is progressing throughout Indonesia.

Efficiency

Though project cost was lower than planned, project period was much longer than planned (153% against the plan), therefore, the evaluation for efficiency is moderate. The main reasons for delay in project implementation included the economic turmoil due to the Asian Currency Crisis in 1997, subsequent delay in procedures due to reforms in the administrative structure, laws and regulations, and additional procurement of spare parts to cope with water pollution.

Sustainability

No major problem has been observed in the technical capacity of 3 hydroelectric power plants nor their operation and maintenance system, taking account of allocation of engineers who are mostly well educated or experienced in other existing hydroelectric power plants and systematic trainings for staff at PLN's training center specialized in hydroelectric power generation in Padang, West Sumatra Province. There is no problem observed in terms of financial capacity, either. Therefore, sustainability of this project is high.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory. Recommendations would be to improve inter-agency management arrangement between the Ministry of Public Works (the executing agency of the respective multi-purpose dam projects), and PLN (the executing agency of the hydroelectric power plants), and also internal management practices among the different institutions within PLN.



Bili-Bili Power Plant

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia **Indonesia**



Upland Plantation and Land Development Project at Citarik Sub-watershed

Contributing to the conservation and economic development of a river basin through participatory farm/forest land conservation

[External Evaluator]

Koichiro Ishimori, Value Frontier Co., Ltd.

Rating

Effectiveness, Impact	a	Overall Rating B
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To alleviate sediment runoff and enhance farm productivity by conserving farm / forest land and stabilizing torrents and their banks in the catchment basin (33,388 ha) of the Citarik River that flows through Bandung and Sumedang Prefectures in West Java Province, thereby contributing to river basin conservation and economic development.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 4,128 million yen / 3,960 million yen
- Loan agreement: December 1995
- Terms and conditions: 2.3% interest rate; 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: December 2006
- Executing agency: Directorate General of Regional Development, Ministry of Home Affairs

Effects of Project Implementation (Effectiveness, Impact)

The planned volume of annual sediment runoff and control rate of sediment runoff for twelve tributaries of the Citarik River were approximately 1.2 million tons and 81% respectively, whereas the actual volume and control rate were approximately 1.97 million tons and 69% respectively in 2007. Both indicators achieved more than 85% of the plan.

A flood caused by 60 mm of rainfall in 2005 during project implementation inflicted damage on an area of 2,800 ha. In 2007, a similar flood due to the same amount of rainfall inflicted only an area of approximately 15 ha; the flooded area was dramatically reduced. According to an economic survey on 120 out of about 300,000 households residing in the area of the Citarik River basin, the average agricultural income per household after the project was nearly twice as the income prior to the project, that is, from about Rp. 0.77 million to Rp. 1.50 million (inflation-adjusted income).

This project has largely achieved its objectives, and its effectiveness is high.

Relevance

In the West Java Province, high priority is assigned to river basin control measures to alleviate sediment runoff and floods with aims of stabilizing people's livelihood and promoting agriculture. This project has been highly relevant with Indonesia's national policies and development needs at the times of both appraisal and ex-post evaluation.

Efficiency

Although project period was much longer than planned (170% of the plan), project cost was lower than planned (82% of the plan), therefore the evaluation for efficiency is moderate.

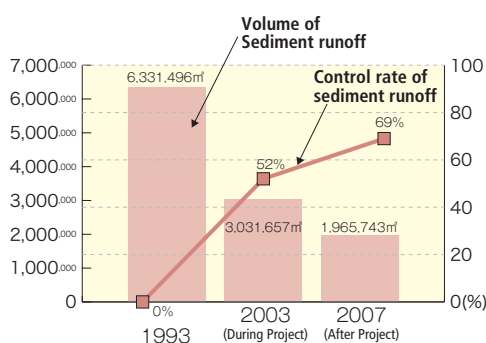
Sustainability

Though some problems have been observed in terms of operation and maintenance of torrent and bank facilities and water level recorders provided under this project, sustainability of the project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. Recommendations include developing the capacity of the Village Maintenance Committee (KKLD) in terms of the maintenance of torrent and bank facilities, allocating an adequate budget to the operations and maintenance of roads and irrigation facilities in Bandung and Sumedang, repairing the broken automatic water level recorders, and transferring the recorders to the Citarum Forest Conservation Sub-center.

Volume and control rate of sediment runoff



[Source] F/S and Executing Agency

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations" → "Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))

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Asia **Indonesia**



Small Ports Development Project in Eastern Indonesia

Supporting job creation and vitalizing the regional economy by improving ports in regions where road transportation is not available

[External Evaluator]

Nobuyuki Kobayashi, OPMAC Corporation

Rating

Effectiveness, Impact	b	Overall Rating C
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To enhance the efficiency of maritime transportation and improve safety by improving facilities such as mooring facilities in 12 non-commercial ports in East Nusa Tenggara, Maluku, West Papua and Papua, thereby contributing to the promotion of economic and social development in the targeted provinces.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 3,111 million yen / 2,509 million yen
- Loan agreement: January 1998
- Terms and conditions: 2.7% interest rate; (2.3% for consulting services); 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: September 2005
- Executing agency: Directorate General of Sea Communication, Ministry of Transportation (DGST)
- Website URL: <http://www.dephub.go.id/id/>

Effects of Project Implementation (Effectiveness, Impact)

The number of regular sea route services on the Pioneer Route (sea routes supported by the Indonesian government) has increased by approximately 70% from 19 services (2003) before the project to 32 (2007) after the project. The cargo load and number of passengers of the Pioneer Route also recorded a significant increase from 2003 to 2007. Increase in the cargo load was especially large, and shipment of goods to other regions has become more lively. Results from the questionnaire survey to business offices located near the target ports show that over 90% of the respondents had the opinion that the passenger and freight services had either "improved" or "slightly improved". The "improvement in safety" was quoted as the major reason for the improvement, indicating that the project is highly evaluated for its contribution to safety. More than half of the respondents noted that the number of new businesses and employment opportunities increased after the project. Although, some pointed out that only certain storekeepers, etc, were able to enjoy the benefits of the port, and port management data attained on site was limited to only two ports due to reasons of safety, this project has produced certain effects, and its effectiveness is moderate.

Relevance

The project has been highly relevant with Indonesia's national policies and development needs at the times of both appraisal and ex-post evaluation. All ports targeted under the project were on the Pioneer Route and had inadequate facilities before the project. As the Pioneer Route ensures the minimum mode of transportation for the local people and commodities, the development need for the ports is extremely high.

Efficiency

Although project cost was lower than planned, project period was much longer than planned (210% of the plan); therefore the evaluation for efficiency is moderate. No change was made in the selection of target ports, and development of the mooring facilities was implemented almost as planned. The reason for the delay was the prolonged time required for the conclusion of contracts for consultant and main contractor. As a result of competitive bidding, the project cost was 84% of the plan.

Sustainability

Though some problems have been observed in terms of the operation and maintenance system and the financial status of DGST, sustainability of this project is fair. Confusion was observed in managerial responsibility of the port of Elat, where the provincial government substantively took over port administration. In addition, collection and management of port operation data at the targeted ports are not adequate. The DGST has not been able to adequately manage budgets, such as allocation based on actual port conditions, and there is a persistent issue in the monitoring system of port administration.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be fairly satisfactory. Given that the monitoring system of the port operation is not established and allocation of budget and personnel is not based on actual operational conditions, recommendations to the executing agency are to gather and manage basic port operation data and have it fed-back to port administration, and to clarify the responsibility of maintenance and administration.

Pioneer Route Service Data at Targeted Ports

	Cargo Volume (tons)			Number of Passengers		
	LOADING	UNLOADING	TOTAL	EMBARKATION	DISEMBARKATION	TOTAL
2003	202	1593	1795	4538	4315	8853
2007	4753	5901	10654	10490	14233	24753
INCREASE RATIO	2253%	270%	494%	131%	230%	180%

[Source]DGST

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))

Asia **Indonesia**

Bajoe-Kolaka & Palembang-Muntok Ferry Terminal Development

Contributing to the improvement of reliability, safety, and convenience of ferry transport services by developing the facilities of ferry terminals

[External Evaluator]

Tomoo Mochida, OPMAC Corporation

Rating

Effectiveness, Impact	b	Overall Rating C
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To enhance the reliability, safety and convenience of ferry transport services and to expand inter-regional network functions by developing basic facilities such as mooring facilities and terminals for two ferry routes among the "central trunk routes" in the Indonesian National Ferry Transportation Network (Bajoe in South Sulawesi Province ~ Kolaka in Southeast Sulawesi Province, and Palembang in South Sumatra Province ~ Muntok in Bangka Island in Bangka-Belitung Province), for which demand is expected to increase, thereby contributing to the development of the regional economy and the narrowing of regional disparities.

Outline of the Loan Agreement

- Loan amount / Disbursed amount:
3,129 million yen / 2,789 million yen
- Loan agreement: December 1995
- Terms and conditions: 2.5% interest rate (consulting services: 2.3%); 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: June 2005
- Executing agency: Directorate General of Land Transportation (DGLT), Ministry of Transportation
- Website URL: <http://www.dephub.go.id/>

Location of the project site

Ferry terminal constructed under this project (Muntok)

Effects of Project Implementation (Effectiveness, Impact)

The actual numbers of passengers and vehicles in 2007 for the route between Bajoe and Kolaka remained at 10% and 44%, respectively, of the 2010 plan. The reasons are an introduction of an alternative route and change in numeration method of passengers. The actual number of passengers and vehicles in 2007 for the route between Palembang and Muntok also remained at 17% and 70%, respectively, of the 2010 plan. The reasons are the operation of high-speed boats along a similar route, change in numeration method of passengers, restriction of boarding capacity, and erratic operation of the ferryboats. Furthermore, it is assumed that an opening of an air route between Pangkal Pinang and Palembang in Bangka Island and the drop in the production of tin ores also affected the volume of transport. On the other hand, positive impacts are noted such as the ferry terminals' contribution to economic development in the related regions, the installation of a movable bridge enabling vehicles to board or alight from the boat more smoothly, and decrease in waiting time for ferries. This project has produced certain effects, and its effectiveness is moderate.

Relevance

This project was planned in accordance with Indonesia's development policies. Importance of the "central trunk route" connecting Sumatra, Kalimantan and Sulawesi within the national transportation networks of Indonesia can be confirmed at the time of ex-post evaluation. It is evaluated that the project is relevant with the policies, particularly taking note of its contribution to smoother distribution of commodities. This project has been highly relevant with Indonesia's national policies and development needs at the times of both appraisal and ex-post evaluation.

Efficiency

Although project cost was lower than planned (79%), project period was much longer than planned (180%); therefore the evaluation for efficiency is moderate.

Sustainability

To varying degrees, overall ferry terminals have been taking proactive measures in order to improve their services. However, improvements in personnel shortage and technical capacity in terms of operation and maintenance still need to be addressed, therefore sustainability of the project is fair.

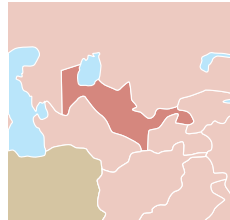
Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be fairly satisfactory. A lesson learned is that it is necessary to look into the possibility of alternative routes or modes of transportation in broader areas at the feasibility study stage; some of the ferry terminals had already been covered by an ODA Loan project in the past. Recommendations include transferring the project smoothly from the executing agency to the O&M organization, implementing environmental monitoring in the O&M of the terminals in the future, and coordinating with the local government in implementation and the O&M.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia **Uzbekistan**



Senior Secondary Education Project

Contributing to human resource development of the young population in Uzbekistan by expanding Secondary Specialized Professional Education system through teachers' trainings, etc.

[External Evaluator]

Hajime Onishi and Kazuyoshi Inokuchi, Mitsubishi UFJ Research and Consulting Co., Ltd.

Rating

Effectiveness, Impact	b	Overall Rating C
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To develop human resources necessary for the transition toward a market-oriented economy by providing overseas training for teachers and instructors and educational equipment at 50 model agricultural Professional Colleges (PCs), central to the ongoing educational reform in Uzbekistan, and thereby contributing to the development of the market-oriented economy.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 6,347 million yen / 5,973 million yen
- Loan agreement: January 2001
- Terms and conditions: 0.75% interest rate; 40-year repayment period (including a 10-year grace period); bilateral tied
- Final disbursement date: September 2005
- Executing agency: Ministry of Higher and Secondary Specialized Education (MHSSE), The Center of Secondary Specialized Professional (Vocational) Education (CSSVE)

Effects of Project Implementation (Effectiveness, Impact)

The indicator of "actual number of students per number of students at full capacity" in 2008 was 170% on average in 50 target PCs, which was drastically worse than 80% at the time of project appraisal in 2001 and is below the target value of 120%. Also, the indicator of "increase rate of the number of PCs" in 2008 is reported as 355%, which has not achieved the target value of 464%. Moreover, it is pointed out that some of the procured equipment (especially food processing equipment) is not properly used and the curriculum of many PCs has not yet been made in a manner that effectively utilizes the procured equipment.

On the other hand, according to a beneficiary survey, positive effects were recognized, such as enhancement in the quality of course content, improvement in the performance of teachers and students, improvement in the management of PCs, and positive impacts on businesses of private companies that hired graduates of PCs. Therefore, this project has produced certain effects, and its effectiveness is moderate.

Relevance

This project has been highly relevant with Uzbekistan's national policies and development needs at the times of both appraisal and ex-post evaluation. There has been no significant change in the educational policy of Uzbekistan and the development of industrial human resources, meeting the changes in the market economy is still regarded as one of the most urgent issues to tackle.

Efficiency

The actual period was slightly longer than planned and the project cost exceeded the plan; therefore the evaluation for efficiency is moderate. The background to the increase in the total cost was extra civil works at some PCs. In addition, the cost to construct new PCs exceeded the originally expected cost.

Sustainability

In the short run, there are some issues in i) continuous transfer of operation skills regarding educational equipment among instructors, ii) difficulties of securing spare parts for some equipment, and iii) low level of operation and maintenance (O&M) of food processing equipment. On the other hand, it can be noted in the medium and long term that i) there is an adequate O&M budget from the central government, ii) the training system for teachers and instructors is well established, and iii) the positive effects arising from the additional assistance by JICA in 2007 are anticipated. Though some problems remain in the short run, sustainability of this project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be fairly satisfactory. A major lesson learned is to allow a wide margin for risks in advance, especially in the former socialist countries such as the former Soviet Union where law enforcement and governmental administrative procedures are likely to require a long time.

Comparison of Operation and Effect Indicators

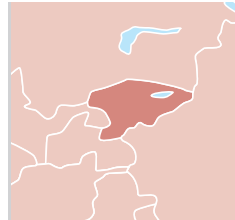
Operation & Effect Indicators (Unit)	Baseline (2001)		Target (Year: unknown)		Actual (October 2008)	
	National	Target PCs	National	Target PCs	National	Target PCs
Actual Number of Students per Number of Students at Full Capacity (%)	80	80	120	120	150	170
Increase rate in the Number of Students (%)	N.A.	N.A.	53	44	198	202
Increase in the Number of PCs	N.A.	N.A.	464	N.A.	355	N.A.

[Source] Answers to the questionnaire to CSSVE (Data on the increase in the Number of PCs is extracted from JICA internal documents)

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia Kyrgyz Republic



Bishkek-Osh Road Rehabilitation Project (I) (II)

Contribution to the revitalization of local economics and year-round transportation safety assurance through rehabilitation of an arterial road connecting two major cities

[External Evaluator]

Nobuko Shimomura, Koei Research Institute International Corp.

Rating

Effectiveness, Impact	a	Overall Rating B
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To enhance the efficiency and safety of road transportation by partially rehabilitating an artery road connecting Bishkek and Osh and procuring necessary equipment for maintenance, thereby contributing to economic development in the Kyrgyz Republic. The targeted section of the road is the 166 kilometers out of approximately 619 total kilometers that required immediate rehabilitation.

Outline of the Loan Agreement

- Loan amount / Disbursed amount:
 - (I) 3,016 million yen/ 2,533 million yen,
 - (II) 5,250 million yen / 5,050 million yen
- Loan agreement:
 - (I) March 1997, (II) October 1998
- Terms and conditions:
 - (I) 2.3% interest rate; 30-year repayment period (including a 10-year grace period); general untied
 - (II) 1.8% interest rate; 30-year repayment period (including a 10-year grace period); general untied, [consulting service: 0.75% interest rate; 40-year repayment period (including a 10-year grace period); bilateral tied]
- Final disbursement date: (I) June 2002, (II) December 2006
- Executing agency: Ministry of Transport and Communications (MOTC)
- Website URL: <http://www.mtk.kg/>



Improved road (the Kok Bel Pass)

Effects of Project Implementation (Effectiveness, Impact)

Although it was highly difficult for passenger vehicles to pass through the nation's mountainous path due to challenging road conditions before the project, the number of passenger vehicles surged drastically after the project completion. The project reduced the travel time (e.g. Toktogul – Karakul: 96km) by nearly 50% from more than 4 hours to 1 to 2 hours. Further, the project reached the expected outcomes for reduction in travel cost and average annual daily traffic volume that increased from less than 700 vehicles/day to approximately 2,000 vehicles/day. Particularly, conditions in winter months prominently improved as the project enhanced the accuracy of avalanche forecasts as well as reduced the time required for disaster rehabilitation by installing a satellite communication system in the capital Bishkek and at four other road maintenance offices.

Given increases in both the volume of international cargo and traffic, including construction materials from Russia and Kazakhstan and agricultural products from the south to Bishkek, the rehabilitated road is gaining international significance.

A beneficiary survey demonstrates the project's impact, suggesting that 70 to 80% of the respondents were satisfied in terms of employment opportunities and income increases. The project also contributed to improving access to the nation's social services such as hospitals. Although an increase in traffic accidents is a concern of residents along the road, this project has largely achieved its objectives and its effectiveness is high.

Relevance

Due to the Kyrgyz alpine topography, steep mountains of 3,000 meters in altitude lie between the two principal cities located in north and south of the country. The Bishkek-Osh Road is a major artery road, linking the northern and southern regions without passing through the neighboring country of Uzbekistan. Since hydropower resources, a major export of Kyrgyz Republic, are concentrated in an area along the Bishkek–Osh Road and some hydroelectric power plants are planned to be constructed in the vicinity of this area, the project was highly prioritized.

In addition to the need for foreign technology, the Asian Development Bank and Islamic Development Bank provided financial aid for zones other than those covered by the Japanese ODA Loan. This project has been highly relevant with Kyrgyz Republic's national policies and development needs at the times of both appraisal and ex-post evaluation.

Efficiency

Although project cost was mostly as planned, project period was significantly longer than planned, therefore the evaluation for efficiency is moderate. Factors causing the delay include design changes to enhance safety, natural disaster, economic crisis, and procurement delay due to border closure.

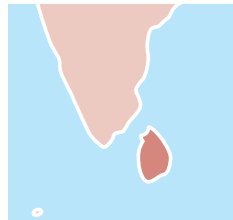
Sustainability

Although capacity development by the project on the engineers of executing agency was recognized, some problems have been observed in terms of operation and management capacity, such as difficulty to identify the actual conditions accurately as various data (e.g. traffic volume and equipment control) were not consistent, therefore sustainability of the project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. However, as the number of traffic accidents has doubled from 49 cases in 2002 to 98 cases in 2007, further cooperation between the executing agency, transport police, and related parties must take place in the future to strengthen countermeasures and prevent traffic accidents.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Greater Colombo Flood Control and Environment Improvement Project (II)(III)

Contributing to flood control by improving old or underdeveloped drainage systems

[External Evaluator]

Tomoko Tamura, Kaihatsu Management Consulting Inc.

Rating

Effectiveness, Impact	b	Overall Rating C
Relevance	a	
Efficiency	a	
Sustainability	c	

Project Objectives

To mitigate flood damage by improving underdeveloped or old drainage systems in the most flood-affected areas of Greater Colombo, namely the five areas within the Colombo Municipal Council area and two areas in the Dehiwala Mount Lavinia Municipal council, thereby contributing to the improvement of living conditions in the area. Additionally, phase II aimed at improving the living conditions in the project area through provision of water-supply, sewerage systems, and electricity.

Outline of the Loan Agreement

- Loan amount / Disbursed amount:
(Phase II): 4,367 million yen / 3,548 million yen
(Phase III): 6,180 million yen / 5,874 million yen
- Loan agreement :
(Phase II): July 1994; (Phase III): October 1996
- Terms and Conditions:
(Phase II): 2.6% interest rate; 20-year repayment period (including 10-year grace period); general untied
- (Phase III): 2.1% interest rate; 20-year repayment period (including 10-year grace period); general untied
- Final disbursement date:
(Phase II): October 2001; (Phase III): December 2005
- Executing agency: Sri Lanka Land Reclamation and Development Corporation (SLLRDC)
- Website URL: <http://www.landreclamation.lk/>



Side drains with slab lids requiring easy operation and maintenance (Attidiya)

Effects of Project Implementation (Effectiveness, Impact)

Inundation damage has been mitigated in all targeted areas of the project. However, a considerable degree of inundation damages still remain in some target areas of phase II. This mainly resulted from the following two reasons; a) development of secondary drainage and side drains was not carried out by the responsible authorities, namely Colombo Municipal Council and Road Development Authority respectively, while population density grew in the low income residential area and b) lack of adequate maintenance of the drainage facilities developed in the phase II. Therefore, this project has produced certain effects, and its effectiveness is moderate.

Relevance

Flood control of Greater Colombo, constituted by Sri Lanka's largest city and its surroundings was identified to be the most prioritized area in the national policies of the urban environmental and flood control sector. Inundation damage in all project target areas was serious, and the urgency and need for implementation of flood control measures at the time of appraisal was extremely high. The necessity for flood control in the target areas at the time of the ex-post evaluation is still high, as the area has become more urbanized and more populated. This project has been highly relevant with Sri Lanka's national policies and development needs at the times of both appraisal and ex-post evaluation.

Efficiency

Project period for phase II was longer than planned while that of phase III was carried out almost as planned. The total period of these projects combined was slightly longer than planned. As for project cost, both phases were lower than planned. When taking only these factors into consideration, the rating for efficiency could have been moderate. However, taking into consideration the additional construction and water quality and environmental improvement programs in phase III, which were identified as necessary during the course of project implementation, the efficiency of the project is high.

Sustainability

The current operation and maintenance (O&M) conditions and implementation system of the drainages developed by phase III is fairly good. However, it is not clear whether the responsibility of O&M of the drainage developed in the phase II lies with SLLRDC or Colombo Municipal Council, and the fact that O&M of such drainage is not being conducted is a problem. Therefore, the sustainability of this project is low.

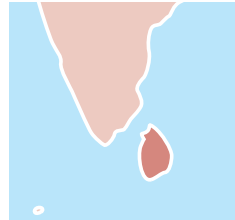
Conclusion, Lessons Learned and Recommendations

In light of the above, the project is evaluated to be fairly satisfactory. Lessons learned are that for drainage development projects in Sri Lanka, it is necessary to duly study roles of the local authorities regarding O&M upon appraisal, and if needed, to assist organizational and technical capacity building of such local authorities in order to establish an appropriate system of O&M. In addition, it is essential to adopt a comprehensive approach which includes activities not only for main drainages but also for secondary drainages and side drains, etc. Recommendations to the SLLRDC and the Colombo Municipal Council are to resume discussions about the transfer of O&M responsibility of the drainages developed in phase II and to clarify where the responsibility of O&M lies.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations" → "Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia Sri Lanka



Medium Voltage Distribution Network Reinforcement Project

Providing stable supply of electricity through the construction of express lines and the installation of switchyards

[External Evaluator]

Ryujiro Sasao, IC Net Limited

Rating

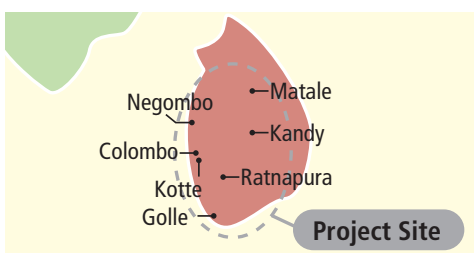
Effectiveness, Impact	a	Overall Rating B
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To ensure a stable supply of electricity through the reinforcement of system capacity, the reduction of loss and the improvement of the quality of electricity distribution (voltage) by constructing express lines and switchyards within the medium-voltage (33kV) distribution network in Sri Lanka, thereby contributing to the economic development of Sri Lanka and the improvement of the living environment of residents.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 5,973 million yen / 3,411 million yen
- Loan agreement: September 1998
- Terms and conditions: 1.8% interest rate (0.75% for consulting services) ; 30-year repayment period (including a 10-year grace period) ; general united
- Final disbursement date: June 2005
- Executing agency: Ceylon Electricity Board, CEB
- Website URL: <http://www.ceb.lk/>



Standard Operation/Effectiveness Indicators of Distribution Business

	2003 (completion of facilities)	2004	2005	2006	2007
Maximum electric power (kW)	1,516	1,563	1,748	1,893	1,842
Household electrification rate (%)	67.9	73.4	76.7	78.1	80.1
Amount of electricity sold (Gwh)	6,208	6,667	7,255	7,832	8,276
Distribution loss rate (%)*	13.7	13.1	13.3	12.6	11.7

[Source] CEB

*Note: Figures for 2003 and 2004 are based on the CEB loss reduction program report (2003-4), and figures for 2005-2007 are estimated from the figures of system loss.

Effects of Project Implementation (Effectiveness, Impact)

The voltage level indicators for the target regions show that the voltage levels at major points at peak times have improved and generally fit into the scope of 95%-105%, which is the internal target of the CEB. In addition, through the field survey, decrease in the number of power outages at a sewing plant near the switchyard (gantry) compared with before the implementation of the project, and resolution of voltage reduction problems were confirmed. As for impacts on the surrounding environment, it was confirmed that there were no adverse effects on humans, the natural nor residential environment. While protests by landowners occurred during the land acquisition process for the construction of gantries, there are currently no unsolved problems. This project has largely achieved its objectives and its effectiveness is high.

Relevance

The continued expansion of Sri Lanka's medium-voltage distribution resulted in problems such as capacity shortage, voltage reduction and high rates of distribution loss. In order to improve this situation and meet increasing electricity demand, it was regarded that the construction of express lines and the installation of switchyards (gantries) were necessary. The Medium Voltage Distribution Development Plan 1995-2005 by the government of Sri Lanka included the need to tackle this issue. This project has been highly relevant with Sri Lanka's national policies and development needs at the times of both appraisal and ex-post evaluation.

Efficiency

The construction of facilities was carried out generally as planned. However, the original plan was modified slightly due to the development of the distribution network that had already been started and due to changes in priorities. Although project cost was lower than planned, project period was significantly longer than planned; therefore the evaluation for efficiency is moderate.

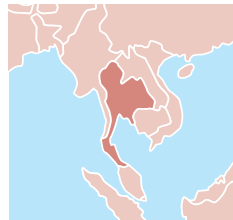
Sustainability

Although there are no serious problems regarding the operation and maintenance system of the facilities, problems are recognized in the shortage of engineers and financial status of CEB; therefore sustainability of this project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. A recommendation to CEB is to introduce an electricity pricing system that reflects the costs and to clarify the cost structure of the distribution system, thereby implementing an efficient management system.

*All ex-post evaluation reports including this can be referred to in JICA's website. "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Regional Road Improvement Project (III)

Assisting regional economic development and promotion of economic relations with neighboring countries by widening regional main trunk roads

[External Evaluator]

Keishi Miyazaki, OPMAC Corporation

Rating

Effectiveness, Impact	b	Overall Rating A
Relevance	a	
Efficiency	a	
Sustainability	a	

Project Objectives

The objectives of this project are to meet the increasing traffic volume, improve velocity and reduce traffic accidents by widening two-lane main trunk national highways connecting Thailand's North-South Corridor and East-West Corridor to four-laned national highways for approximately 343km, thereby contributing to regional economic development and the promotion of economic relations with neighboring countries.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 19,544 million yen / 17,068 million yen
- Loan agreement: September 2000
- Terms and conditions: 2.2% interest rate; 25-year repayment period (including a 7-year grace period); general untied [Consulting Service: 0.75% interest rate; 40-year repayment period (including a 10-year grace period); bilateral tied]
- Final disbursement date: January 2007
- Executing agency: Department of Highways (DOH), Ministry of Transport



Widened National Highway 403 (Junction with Nakhon Si Thammarat- National Highway 41)

Effects of Project Implementation (Effectiveness, Impact)

The achievement rate for the seven target sections in 2008 regarding the actual traffic volumes against the planned volume is as follows; 37% for the Phitsanulok-Uttaradit section (national highway (NH) 11) , 61% for the Khon Kaen-Nong Ruea section (NH12) , 31% for the BanPhai-Borabue section (NH23), 44% for the Khon Kaen-Chiang Yuen section (NH209), 85% for the Chian Yuen-Yuang Talat section (NH209), 56% for the Mukdahan-Nikhom Kham Soi section (NH212), 54% for the Don Sak-Sichon section (NH401), and 63% for the Nakhon Si Thammarat-NH41 Junction section (NH403).

The above figures indicate that the project has not achieved the targets; however, in all target sections the travel time after implementation was reduced to between 1/4 to 1/2, and average velocity also improved by approximately three times compared to the time before the project implementation. In addition, smoother and more efficient commodity distribution, the promotion of the local economy and regional development, and the promotion of economic relations with neighboring countries have been recognized as positive impacts. This project has produced certain effects, and its effectiveness is moderate.

Relevance

This project has been highly relevant with Thailand's National Plans for Economic and Social Development, development plan of the road sector, the Mekong Region's development policy. Its high priority and consistency with development needs is recognized at the times of both appraisal and ex-post evaluation.

Efficiency

The original outputs of the project were implemented almost as planned with an addition of the widening of two sections. Though project period was slightly longer than planned, considering the additional construction, it can be evaluated that project period was within its initial schedule, therefore efficiency of the project is high.

Sustainability

No major problem has been observed in the capacity of the executing agency nor its operation and maintenance system; therefore, the sustainability of the project is high. DOH is the operation and maintenance (O&M) agency for this project, and the Bureau of Highways and its district offices carry out O&M of the target sections.

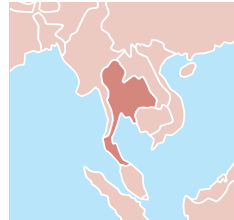
Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory. As for recommendations to further improve the sustainability of the project, it is proposed that DOH utilize their own Pavement Management System (PMS), to be introduced within 2009, and promote the establishment of an effective O&M system that includes the efficient distribution of O&M budget.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia **Thailand**



Thailand-Japan Technology Transfer Project

Support of academic exchange between leading universities of Thailand and Japan by development of human resources and research facilities

[External Evaluator]

Takako Haraguchi, International Development Associates Ltd.

Rating

Effectiveness, Impact	a	Overall Rating A
Relevance	a	
Efficiency	a	
Sustainability	b	

Project Objectives

To improve the level of science and technology (S&T) education and research and development (R&D) activities at the Faculty of Science and Faculty of Engineering of Chulalongkorn University situated in the capital city of Bangkok by improving the academic standard of instructors as well as enhancing educational and research facilities, thereby contributing to the industrial development of Thailand.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 7,308 million yen / 6,444 million yen
- Loan agreement: September 1995
- Terms and conditions: 2.7% interest rate (consulting services: 2.3%); 25-year repayment period (including a 7-year grace period); general untied
- Final disbursement date: October 2006
- Executing agency: Chulalongkorn University
- Website URL: <http://www.chula.ac.th/cuen/index.htm>

Effects of Project Implementation (Effectiveness, Impact)

The number of instructors holding PhD degrees largely increased at both the Faculty of Science and Faculty of Engineering from 44% prior to implementation of the project to 70% after the project. The 37 instructors who received degrees from this project have all remained at Chulalongkorn University and are included in the above increase in PhD holders.

As a result of this project, more than 30 new courses were established and coursework improved in total 93 existing courses. The numbers of research publications in 2008 were 231 and 136 from Faculties of Science and Engineering, respectively. The rates of increase of publications issued from those Faculties are higher than that of the entire University. Many of the research outputs, based on new methods acquired by instructors through the project's academic exchanges, and from equipment purchased through this project, have already been published. 80% of the equipment purchased under this project were used at the time of the ex-post evaluation. As external evaluation related to this project, the THES-QS World University Rankings, a leading international ranking for universities, ranked Chulalongkorn University in 30th place in natural sciences and 24th in technologies among Asian universities in 2009. Also, the target faculties and their members involved in this project have received a number of awards.

Regarding the impact on industries, the contribution by academic services from Faculties of Science and Engineering to companies' R&D activities were observed. Meanwhile, concrete R&D outputs such as patents and licensing agreements with companies, are expected in the future.

At the time of the ex-post evaluation, a satisfaction survey to instructors of the Faculties of Science and Engineering found that 82% of total 92 respondents are either "highly satisfied" or "satisfied" with both the implementation process and the outcomes of the project. The survey also showed high satisfaction with the creation of opportunities to collaborate with Japan.

Therefore, this project has largely achieved its objectives, and its effectiveness is high.

Relevance

This project has been highly relevant with Thailand's national policies and development needs at the times of both appraisal and ex-post evaluation. The national development plan has included human resource development and promotion of high-level education and research activities through expansion of S&T at the times of both appraisal and ex-post evaluation.

Efficiency

Both project period and costs were almost as planned; therefore, efficiency of the project is high.

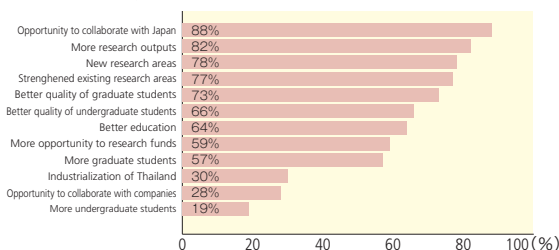
Sustainability

There is some concern as to whether the education and research equipment improved under this project will be properly operated, updated, and maintained until such time the long-term impact (particularly transfer of technology to the industrial sector) of the project occurs; therefore, sustainability of this project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory. One of the lessons learned from this project is that it effectively combined human resource development ("soft" aspects) and facility development ("hard" aspects), which should serve as a good reference for other projects. It is recommended that Chulalongkorn University utilize unused equipment, execute effective and sustainable operation and maintenance, and promote technology transfer to industries.

Satisfaction of instructors (beneficiaries) with project effects



[Source] Beneficiary survey

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations" → "Ex-post Evaluation (ODA Loan)" ([URL: http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))

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Asia China



Tangshan Water Supply Development Project

Contributing to the improvement of the living environment through the supply of safe water 24 hours a day by developing water supply facilities

[External Evaluator]

Yasuhiro Kawabata and Junko Miura, Sanshu Engineering Consultant

Rating

Effectiveness, Impact	b	Overall Rating B
Relevance	a	
Efficiency	b	
Sustainability	a	

Project Objectives

To meet the increasing water demand in Tangshan City due to economic development and urbanization, and to provide safe and stable water supply, by constructing water supply plants with a total supply capacity of 210,000 m³/day in the six districts / counties (Guye District, Luannan County, Qian'an City, Qianxi County, Tanghai County, Fengnan District) in Tangshan City, thereby contributing to the improvement of the living environment.

Outline of the Loan Agreement

- Loan amount / Disbursed Amount: 2,841million yen / 2,835 million yen
- Loan agreement :March 2001
- Terms and conditions: 1.3% interest Rate; 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: July 2006
- Executing agency: Tangshan Municipal People's Government

Effects of Project Implementation (Effectiveness, Impact)

The implementation of the project increased water supply capacity as planned (210,000 m³/day). Before the project, water supply was conducted only at morning, day and night for a total of 6-8 hours. After the project, the water supply system runs 24 hours a day. In addition, before the project, many households were using self-drilled wells with sanitary problems, but after the project, safe water, 100% of which passes water quality tests, is now being supplied to each household. The beneficiary survey indicated that, beneficiaries recognize that water pressure (94% of respondents), color, taste, and smell (86% respectively) improved due to the project. The same survey reported the improvement of living environment and contribution to economic activities, such as decrease of water fetching labor, decrease in the need to store water in basins, and improvement of sanitary conditions, as effects of the project. However, many households and companies are still using self-drilled wells, which have problems on safety, and the utilization rate of the facilities has not reached 80% in any one of the districts/counties. Therefore, this project has produced certain effects, and its effectiveness is moderate.

Relevance

This project has been highly relevant with China's national policies and development needs at the times of both appraisal and ex-post evaluation. The Tangshan City's 9th Five-Year Plan aimed to achieve coverage of 95% (year 2000) of water supply system in counties other than the urban areas at appraisal. At the ex-post evaluation, the Tangshan City's Long term Plan 2010 aimed at increasing the coverage of water supply system to 100% (year 2010).

Efficiency

Though project cost was lower than planned (85% of the plan), project period took much longer than planned (204% - 377% of the plan); therefore the evaluation for efficiency is moderate. The causes for delay included: 1) the initial planned construction period (22months) was not realistic, 2) the Project Office was responsible for the procurement of major equipment for all six districts/counties with different commencement dates and construction periods and thus coordination required substantial time.

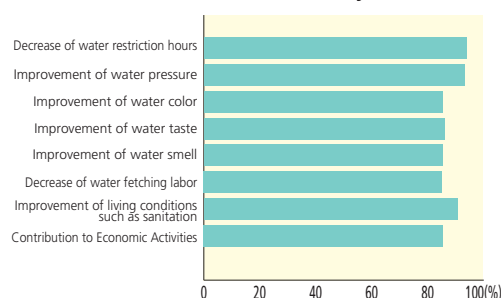
Sustainability

The current financial status of the water supply companies responsible for operation and management (O&M) of this project is not at a desired level, but improvement is anticipated. No major problems have been observed in the O&M system and techniques of any one of the water supply companies in the respective six district / counties. They have the required number of well skilled personnel as well as an organized O&M manual and training system, and the operation and management status is fair. Therefore, sustainability of this project is high.

Conclusion, Lessons Learned and Recommendations

In light of the above, the project is evaluated to be satisfactory. Lessons learned are that in a project involving a number of water supply companies across administrative regions, it is desirable to conduct procurement capacity assessment for each and to entrust the construction and the procurement of equipment if their capacity is judged to be sufficient. As for recommendations, stricter enforcement of regulations to close down self-drilled wells and maintaining a steady supply of safe water from the system or wells developed by the project is proposed.

Beneficiaries' Satisfaction on Project Effects

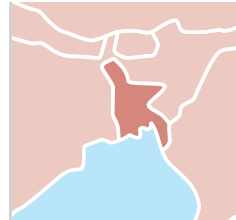


[Source] Beneficiary Survey

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia Bangladesh



Power Distribution and Efficiency Enhancement Project

Contributing to improvements in the living conditions of residents and development of regional economies through rural electrification and rehabilitation of urban power distribution systems

[External Evaluator]

Kenji Momota, IC Net Limited

Rating

Effectiveness, Impact	a	Overall Rating B
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

Objectives of the 2 subprojects that constitute this project are as below:

(1) Rural Electrification Project

To promote electrification and enhance the efficiency of facilities in Munshiganj and Sunamganj by establishing Palli Bidyut Samity (PBS, i.e., electrification cooperative) and constructing and/or rehabilitating power distribution systems in the target regions, thereby contributing to improving socioeconomic conditions and developing regional economies in the target regions.

(2) System Loss Reduction Pilot Scheme

To reduce system loss and develop designing and O&M capacity of executing agencies in six feeders selected in four areas (Chittagong, Mymensingh, Rajshahi, and Khulna) under the jurisdiction of the Bangladesh Power Development Board (BPDB) and the two areas (Dhanmondi and Jurain) under the jurisdiction of the Dhaka Electricity Supply Authority (DESA), by the rehabilitation of power distribution networks and installation of watt-hour meters for measurement, and, based on the result, to formulate a nationwide implementation plan, thereby contributing to a stable supply of electricity and the development of regional economies.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 4,376 million yen / 4,003 million yen
- Loan agreement: July 1999
- Terms and conditions: 1% interest rate; 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: September 2007
- Executing agencies: Rural Electrification Board (REB), Bangladesh Power Development Board (BPDB), Dhaka Electricity Supply Authority (currently reorganized as Dhaka Power Distribution Company Limited)
- Website URL: <http://www.reb.gov.bd/>

Map of Project Sites



Effects of Project Implementation (Effectiveness, Impact)

This project has largely achieved its objectives, and its effectiveness is high. The condition of the facilities developed under the project are good, and the system loss rate has greatly improved from 46% to roughly 11-13%. The number of electrified households has grown to approximately 200,000 in total in Munshiganj and Sunamganj, and the electrification rate has reached 60-70%. The rate is expected to grow further when the transfer of control over the power distribution facilities currently owned by the Bangladesh Power Development Board (BPDB) is carried out.

The findings of the beneficiary survey indicate that some 80-90% of the respondents appreciate improvements in their living environment due to electrification, such as shortened cooking time and increased study time. At the same time, the growth of agriculture and industries has been seen in the target regions. Electrification has enhanced regional economic activities, as seen by the construction of cold storage facilities for agricultural products.

On the other hand, the improvement of power distribution systems in six districts in urban areas has greatly reduced the rate of power loss from about 30-70% before the implementation of the project to some 5-15%. The significant growth of Dhanmondi, one of the target districts, as a commercial district, shows the project's contribution through stabilized power supply.

Relevance

The project has been highly relevant with Bangladesh's national policies and development needs at the times of both appraisal and ex-post evaluation. Under the current administration, issues of rural electrification and the enhancement of efficient power distribution are priority policies in the power sector, hence the project's importance remains high.

Efficiency

Although project cost is lower than planned, project period is slightly longer than planned (104% of the plan); therefore the evaluation for efficiency is moderate. The major cause of the delay was the need to amend the design for the urban power distribution system to meet the increased demand in the target districts.

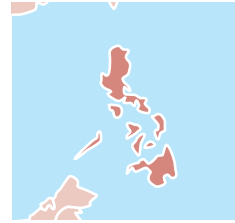
Sustainability

Though no problem has been observed in the capacity of the present executing agency nor its operation and maintenance (O&M) system, both the Palli Bidyut Samity (electrification cooperative) and the Bangladesh Power Development Board in charge of the urban district have incurred deficits; due mainly to a hike in the power procurement price. There is concern that the financial problem may inflict an adverse effect on the O&M system in the future. Therefore, sustainability of this project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. Recommendations are: to shorten the time of load shedding, review the power procurement cost (or electric power selling price), expand the number of connections by transferring control over the power facilities owned by the BPDB, and improving profitability by securing large (e.g. industrial and commercial) consumers. Also, it is recommended that similar projects be implemented in other areas, as the effectiveness of the project in urban districts is high.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations" → "Ex-post Evaluation (ODA Loan)" ([URL: http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Arterial Road Links Development Project, Phase III

Contributing to promotion and enhancement of local economies through the improvement of major arterial roads

[External Evaluator]

Yasuhiro Kawabata and Hiroshi Aoki, Sanshu Engineering Consultant

Rating

Effectiveness, Impact	a	Overall Rating B
Relevance	a	
Efficiency	b	
Sustainability	b	

Project Objectives

To promote human and material exchange, efficient transportation and cost reduction by improving the north-south arterial roads, east-west arterial roads and circular roads of major islands, which comprise the National Arterial Road Network, thereby contributing to development & vitalization of regional economies.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 13,564 million yen / 11,772 million yen
- Loan agreement: September 1998
- Terms and conditions: 2.2% interest rate (consulting services: 0.75%); 30-year repayment period (consulting services: 40-year) (including a 10-year grace period); general untied (consulting services: partially untied)
- Final disbursed date: January 2006
- Executing agency: Department of Public Works and Highways (DPWH), Project Management Office (Each Region and DPWH)
- Website URL: <http://www.dpwh.gov.ph/>

Annual average daily traffic volume (AADT) of the Project Roads

(unit: vehicle/day)

Road Name	Sections	2006	2007	2008
Mindoro West Coast Road	San Jose-Rizal	503 (258)	711 (271)	832 (286)
	Sablayan-Sta. Cruz	1,029 (301)	1,649 (316)	1,119 (332)
	Mamburao-Abra de Ilog	747 (264)	881 (278)	1,128 (292)
Bongabon-Baler Road	San Luis-Ma. Aurora-Basal	1,620 (898)	1,327 (947)	1,730 (999)
Cebu South Coast Road	Talisay-Naga	15,460 (9,355)	17,532 (9,862)	18,814 (10,397)
	Naga-Carcar	—	8,079 (6,575)	8,252 (6,932)
P-J FRIENDSHIP ROAD	San Juanico Bridge	2,867	4,679	8,181
	San Juanico-Calbiga	1,565 (987)	2,309 (1,026)	3,393 (1,066)

Note: Figures with () are estimated volume.
[Source] DPWH

Effects of Project Implementation (Effectiveness, Impact)

The annual average daily traffic volume of all the sections exceeds the planned volume. Along the Mindoro West Coast Road, the traffic volume increased by 26 to 33% per year on the average in the last two years, particularly in the north Mamburao-Abra de Ilog and the south San Jose-Rizal. The traffic volume of the Bongabon-Baler Road has increased by 7% in the last two years. Along the Cebu South Coast Road, the traffic volume has increased by 22% in the last two years in the coastal Talisay-Naga section, close to Cebu. The traffic growth in the Visayas section along the Philippines –Japan Friendship Road was 185% in the last two years. According to a beneficiary survey to 300 residents along the roads, the following effects were confirmed: reduction of traffic congestion and thus reduction of travel time; increase of employment opportunities in neighboring towns; increase in income. Moreover, the freight movement has increased, and thus the project contributes to increase of transport of agricultural and industrial products and reduction of transport costs. Therefore, the project has largely achieved its objectives and its effectiveness is high.

Relevance

The project has been highly relevant with the Philippines' national policies and development needs at the times of both appraisal and ex-post evaluation. The paved ratio of the Philippines' highways is low, and the road sections covered under this project have been unpaved, though they are located in the agricultural products supplying areas to Metro Manila. The deteriorated road sections hampered smooth and efficient transport, and thus the subject sections were high priority sections to be improved.

Efficiency

Although project cost was lower than planned (about 89% of the planned), project period was slightly longer than planned (125% of the planned). Therefore, the evaluation for efficiency is moderate. The main reasons for delay of implementation are: i) substantial delay in selection of a consultant; ii) delay of commencement of detailed designs; and iii) delay in procurement of contractors.

Sustainability

As of 2008, the roads covered under this project have been properly maintained, and the quality of the roads is good. On the other hand, under the current practice for budget allocation at the national level, there is some concern about the proper allocation of budget for road maintenance, which is expected to increase. Therefore, sustainability of this project is fair.

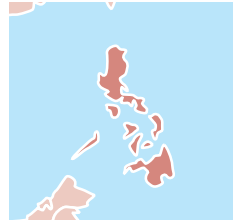
Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be satisfactory. Given the delay in the project period due to the delay in procurement, the lesson learned is that a detailed and practical procurement implementation plan should be developed with the executing agency at the project appraisal stage. Moreover, since a number of design changes arose for the project, efforts should be made to increase the accuracy of the feasibility studies.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations" → "Ex-post Evaluation (ODA Loan)" ([URL: http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Asia Philippines



Third Elementary Education Project

Contributing to the improvement of school management through community participation in the poorest provinces

[External Evaluator]

Akihiro Nakagome and Hisae Takahashi, Ernst & Young SN Global Solution Co., Ltd.

Rating

Effectiveness, Impact	a	Overall Rating A
Relevance	a	
Efficiency	a	
Sustainability	b	

Project Objectives

To improve academic performance, completion rates, and access to elementary education, as well as to strengthen institutional capacity of the Department of Education and promotion of participation of local governments and communities by constructing and rehabilitating school buildings, procuring textbooks and instructional materials, delivering in-service training and promoting School-Based Management (SBM) in 23 of the Philippines' poorest provinces, thereby contributing to the overall improvement of the quality of elementary education.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 11,122million yen / 9,561 million yen
- Loan agreement: March 1997
- Terms and conditions: 2.7% interest rate (2.3% for consulting services); 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: June 2006
- Executing agency: Department of Education
- Website URL: <http://www.deped.gov.ph/>



School building constructed by the project

Effects of Project Implementation (Effectiveness, Impact)

The project constructed and rehabilitated school buildings, procured textbooks / instructional materials, delivered training to principals and teachers, and implemented SBM. As a result, the target to reduce the gap in academic performance in the National Achievement Tests (NAT), between the national average and that of the targeted provinces was achieved. Of special note is that the NAT average score in the targeted provinces (45.8 points) surpassed the national average (39.9 points) in 2005. Although the completion rate, enrollment number, and net enrollment rate did not reach the target as planned (planned target being 76%, 2 million students, 91-95% respectively), the actual record for '07-'08 reached more than 80% of the plan (actual record being 92.8%, 1.75 million students, 76.0%).

Comparing 1996 and 2007, before and after the project, the number of students per classroom and the enrollment rate of junior high school in the targeted provinces have both improved, and the gap between the national average has declined as well. Additionally, the project conducted local procurement for the building and rehabilitation of the school facilities, and equipment and necessities etc., thereby contributing to the re-energizing of the local economy by approximately 6 billion Pesos for school building construction and 350 million Pesos for procurement of equipment.

This project has largely achieved its objectives, and its effectiveness is high.

Relevance

The project has been in line with Education for All (EFA) at the times of both appraisal and ex-post evaluation and priority was placed on the improvement of the education environment for high-quality basic education. This project has been highly relevant with the Philippines' national policies and development needs at the times of both appraisal and ex-post evaluation.

Efficiency

The project period was almost as planned and project cost, though affected by the change in foreign exchange rate, was within the planned value. An increase in output was achieved by reducing unit cost through joint procurement with other donors. Therefore, efficiency of the project is high.

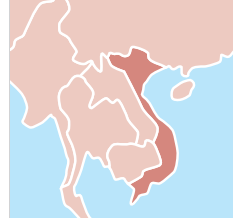
Sustainability

Though some problems have been observed in terms of the allocation of budget to the school sites and the implementation status of teacher's training, etc., because identification of such issues and counter-measures are already being considered, sustainability of this project is fair.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory. Lessons learned were that the holistic approach with a good balance between hard and soft components brings substantial results. As for recommendations, appropriate allocation of budget to the school sites, effective utilization of experiences by sharing experiences with other regions, and support for a continuous implementation of training programs that meet the needs of the beneficiaries are proposed.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))



Coastal Communication System Project in Southern Part of Viet Nam

Ensuring the safety of ship navigation and enabling prompt response to maritime accidents by modernizing the coastal communication system

[External Evaluator]

Viet Nam-Japan joint evaluation team 2008¹

Rating

Effectiveness, Impact	a	Overall Rating A
Relevance	a	
Efficiency	b	
Sustainability	a	

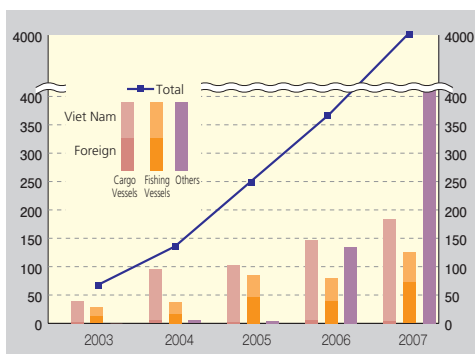
Project Objectives

To ensure the safety of ship navigation on international and domestic sea routes and to enable prompt response to maritime accidents by the establishment of the Global Maritime Distress and Safety System (GMDSS: stipulated by the 1988 amendments to the 1976 SOLAS Convention) in the southern part of Viet Nam, thereby contributing to the promotion of the shipping and fishing industries.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 1,866 million yen / 1,490 million yen (total)
- Loan agreement: March 2000
- Terms and conditions: 1.8% interest rate; 30-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: January 2007
- Executing agency: Ministry of Transport (MOT), Viet Nam National Maritime Bureau (VINAMARINE)

Number of Maritime Facilities Assisted by Coastal Radio Communication System (2003-2007)



1. The ex-post evaluation of this project was conducted jointly with the Vietnamese government. The joint evaluation team for this project has 10 members, including 9 Vietnamese evaluators (from MPI, MOT, the executing agency, other organizations concerned, and the evaluation consulting firm) and Keishi Miyazaki, a Japanese external evaluator from OPMAC Corporation.
 2. SOLAS (Safety of Life at Sea) Convention: International Convention for the Safety of Life at Sea
 3. SAR (Search and Rescue) Convention: International Convention on Maritime Search and Rescue
 4. Automatic Identification System (AIS) is an information and communications system that utilizes maritime VHF frequencies to send and receive data including the ship's identity, type, position, course, speed, navigational status and other safety-related information both between suitably equipped vessels and between suitable equipped vessels and shore stations. The SOLAS Convention requires AIS to be fitted aboard all ships of 300 gross tonnage and upwards engaged on international voyages, cargo ships of 500 gross tonnage and upwards not engaged on international voyages and all passenger ships irrespective of size.

Effects of Project Implementation (Effectiveness, Impact)

With the introduction of GMDSS, Viet Nam became able to observe the provisions of the SOLAS Convention² and the regulations of SAR Convention³. Expansion of the coverage area also enabled communication with large ships in the open sea in almost all ocean areas and with small ships in inshore areas.

The number of communications transmitted through the Viet Nam Coastal Communication System has grown annually, and the amount of information such as navigational warnings, search and rescue information, meteorological forecasts and weather forecasts provided by VISHIPEL (the operator of the coastal radio communication system) has nearly doubled between 2003 and 2007. The number of maritime facilities assisted by the coastal radio system has increased near 10 times from 362 in 2006 to 3,454 in 2007. According to the beneficiary survey, improved communications between ships to shore and ships to ships, expansion of the coverage area, improved accessibility and quality of information were recognized as project effects.

There are still many constraints in the existing implementation capacity in SAR activities in Viet Nam and strengthening of its capacity is required. However, this project has a positive impact on strengthening SAR activities in Viet Nam and has supported the establishment of favorable conditions for investment in and development of the maritime sector in Viet Nam.

Therefore, this project has largely achieved its objectives, and its effectiveness is high.

Relevance

This project has been highly relevant with Viet Nam's national policies both at the times of appraisal and ex-post evaluation. This project was carried out as the second phase of the "Coastal Communication System Project (L/A signed: 1996)" which was implemented through a Japanese ODA Loan project to assist the coastal communications system in the northern part of Vietnam, from Da Nang northward.

Efficiency

Although project cost was lower than planned, project period was longer than planned; therefore the evaluation for efficiency is moderate. The following factors were pointed out as the reasons for the delays: a prolonged period for surveying the locations of the coastal radio stations and preparing bidding documents; a prolonged period for approving the technical design, bidding documents and evaluation results; and an additional period spent on procurement of the Automatic Identification System (AIS)⁴ equipment.

Sustainability

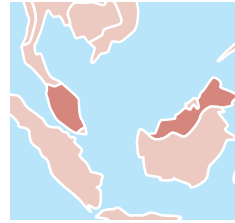
No major problem has been observed in the capacity of the executing agency, nor its operation and maintenance system; therefore, sustainability of this project is high. Technical cooperation by JICA experts dispatched to Viet Nam Maritime Communication and Electronics Company (VISHIPEL) also contributed to such high sustainability of the project. The O&M agency is VISHIPEL, which is a state-owned enterprise under VINAMARINE and MOT.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory. Major lessons learned from this project are the effective combination of construction and O&M training for infrastructure projects and the necessity for strengthening the close coordination among related authorities during the preparation stage.

A major recommendation to the Vietnamese Government is to establish detailed and practical guidelines to improve SAR coordination. Recommendations to Ministry of Agriculture and Rural Development (MARD) and Provincial People's Committees are the promotion of maritime safety education for fishermen and the improvement of the coastal communication equipment of fishing boats.

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))

Asia **Malaysia**

Port Dickson Power Station Rehabilitation Project

Contributing to the stabilization of the power system, improvement of atmospheric environment, and diversification of energy source by shifting to highly efficient combined cycle gas turbine power station

[External Evaluator]

Mitsue Mishima, OPMAC Corporation

Rating

Effectiveness, Impact	a	Overall Rating A
Relevance	a	
Efficiency	b	
Sustainability	a	

Project Objectives

To provide stable power supply and reduce the amount of hazardous gas emission by demolishing seriously deteriorated and inefficient oil-fired power plant facilities (240MW out of 600MW in the project) and replacing them with highly efficient combined cycle gas turbine power generation facilities with low emission of hazardous gas in Port Dickson Power Station located in Negeri Sembilan state, thereby contributing to the stabilization of the power system and diversification of energy sources in Peninsular Malaysia.

Outline of the Loan Agreement

- Loan amount / Disbursed amount: 49,087million yen / 48,607million yen
- Loan agreement: March 1999
- Terms and conditions: 0.75% interest rate; 40-year repayment period (including a 10-year grace period); general untied
- Final disbursement date: June 2006
- Executing agency: Tenaga Nasional Berhad (TNB)
- Website URL: <http://www.tnb.com.my/tnb/index.php>

Effects of Project Implementation (Effectiveness, Impact)

Since FY2005-06, actual output of the combined cycle gas turbine power generation facilities renewed in the project exceeded the planned values, recording approximately 5,500GWh per year. Capacity factor and availability factor are high. The project is estimated to be effective in reducing emissions of NO_x, SO_x and CO₂ in comparison to oil-fired power station, and the results of atmospheric environment monitoring satisfied the standard set by the Environment Bureau. In Peninsular Malaysia, the project makes up 6% of total capacity and 14.5% of output. The project can be evaluated for its contribution to stabilizing power supply with highly reliable power generation facilities suitable to providing base load electricity. In terms of diversification of energy sources, the project contributed to reducing oil based power generation share and increasing gas based power generation. Simultaneously the highly efficient gas-fired power generation is considered economically effective in reducing fuel cost. Moreover, in terms of technical impact, the lessons learned by TNB in terms of project management impacted the operation of other power plants. The power station, which is known as a model case in Malaysia, accepts over 1,000 visitors from inside and outside the country. In light of the above, the project has largely achieved its objectives and, its effectiveness is high.

Relevance

This project has been highly relevant with Malaysia's national policies and development needs at the times of both appraisal and ex-post evaluation. The project, with its achievements in high-efficiency energy shift and alleviation of environmental impact, was consistent with the 7th and 8th Five Year Plan (1996-2005), which upheld the diversification of energy sources to reduce heavy dependency on oil. In addition, according to forecast and analysis on the reserve margin in the Peninsula, strengthening of power generation facilities was urgently needed.

Efficiency

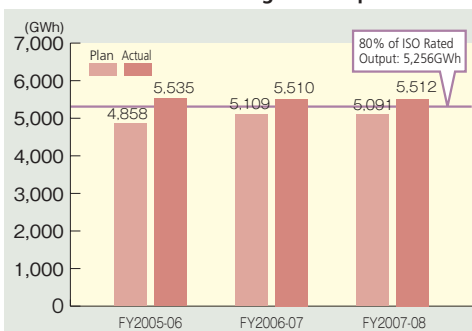
Project cost was less than planned (81% of the plan), while the project took slightly longer than planned; therefore, the evaluation for efficiency is moderate. Delay was caused due to demolition work of the existing power station.

Sustainability

No major problem has been observed in the capacity of the executing agency nor its operation and maintenance system; therefore, sustainability of this project is high. There are sufficient employees to implement daily operation and maintenance and periodic operation and maintenance are outsourced to REMACO (TNB Repair and Maintenance Sdn. Bhd), a subsidiary of TNB. Training is periodically conducted for TNB employees, and rank and skills of REMACO are deemed sufficient. Regarding finance for operation and maintenance, there is also no major negative factor that may influence the project in the short-run.

Conclusion, Lessons Learned and Recommendations

In light of the above, this project is evaluated to be highly satisfactory. As a lesson learned, sufficient preparation time should be incorporated in the work schedule in advance, since detailed planning is required in case of constructing a new facility within the site of an existing power plant.

Plan and actual of receiving-end output

[Source] TNB

*All ex-post evaluation reports including this can be referred to in JICA's website, "Evaluations"→"Ex-post Evaluation (ODA Loan)" ([URL:http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/](http://www.jica.go.jp/english/operations/evaluation/oda_loan/post/))

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