

Evaluation Report

2014-6

Ex-post Evaluation on Power Distribution Improvement Project, Myanmar

The Export-Import Bank of Korea

(Government Agency for EDCF)

EDCF Evaluation Team

(Evaluated by Korean Development Policy Study Association)

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Korean Development Policy Study Association by EDCF
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The opinion, findings and conclusion or recommendations
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Executive Summary

I. Introduction

1. Project Overview

- Myanmar's economy has been isolated from the rest of the world due to the long sanctions imposed against the Myanmar Government by the international community. As a result, Myanmar's socioeconomic status was low compared to other ASEAN countries. Myanmar appeared to have insufficient and inadequate infrastructure to support its socioeconomic development needs.
- In particular, access to electricity was very limited and existing power infrastructure met only about half of the current demand, resulting in frequent blackouts and electricity rationing.
- To stabilize power supply, the Myanmar government placed priority on enhancing capacity and efficiency of its power sector in its national development agenda. As part of its power sector development activities, the Myanmar government requested EDCF to extend a loan for power transmission and distribution improvement. EDCF approved USD 16.80 million in loans in 1995 to finance the Power Distribution Improvement Project in the Yangon area.
- The project aimed to deliver electricity to the newly built satellite towns (Daw Bone, North Dagon, Shwe Pauk Kan, Shwe Pyi Thar) around Yangon City where existing power transmission and distribution facilities could not meet the growing demand from rapid economic development.
- The project aimed to install 500 km of 33/11 kV power cable (4 sections in total) and construct four substations. Myanmar Electronic Power Enterprise (MEPE) was the implementing agency, and Korea Power Engineering Co., Ltd. (KEPCO E&C) provided consultation to MEPE.

<Table 1> Project Details

Project Title		Myanmar Power Distribution Project
Project Goal		Installation of power distribution cable and construction of substations to provide sufficient power supply as part of the plan to overcome serious power shortages in the Yangon area and develop new satellite towns.
Budget	Korea	USD 16,800,000
Project Site		Four new satellite towns around Yangon City: i) Daw Bone, ii) North Dagon, iii) Shwe Pauk Kan, iv) Shwe Pyi Thar
Intended Output		- Total of 100 km of 33 kV power cable - Total of 400 km of 11 kV power cable - A substation in each town
Duration		Oct, 1995 - Mar, 2000 (54 months)
Implementing Agency	Korea	EDCF
	Myanmar	Myanmar Electronic Power Enterprise (MEPE) → Yangon Electricity Supply Board (YESB) (Current)

2. Evaluation Outline

Evaluation Goal

- This evaluation aimed to assess the performance of the Power Distribution Improvement Project in Myanmar and provide EDCF with lessons and recommendations for future references.

Evaluation Principles and Criteria

- The evaluation applied the Evaluation Principles (Impartiality, Independence, Credibility, Usefulness, and Partnership) and the OECD DAC's five evaluation criteria (Relevance, Efficiency, Effectiveness, Impact, and Sustainability). DAC Evaluation Quality Standards (2010) were used for quality assurance.

External Evaluation Team

- KDPSA (Korea Development Policy Study Association)

Duration of Evaluation

- 12nd June 2014 - 31st October 2014

II. Evaluation Results

1. Summary of results

- The project was evaluated based on all five evaluation criteria of the OECD DAC. The performance of the project was rated against each criterion. The rating scale was 1-4, with 1 being the lowest and 4 being the highest.
- Overall, the project was deemed successful (3.2/4). Due to its effectiveness, the project was also evaluated as being a contributor to the development of Myanmar.

<Table 2> Project Evaluation Results

Criteria		Sub-criteria	Score
Relevance	Policy & Strategic Relevance	Consistency with development policies of the partner country	4
		Consistency with EDCF's assistance strategies	3
	Relevance of Project Plan	Adequacy of project goal setting	2
		Adequacy of project design	4
	Ownership of Partner Country	Partner country's level of participation and contribution to the project design	4
Overall Relevance			3.4
Efficiency	Execution	Efficiency of project duration	2
		Efficiency of project cost	4
	Performance Efficiency	Partner country's performance efficiency	2
		EDCF's performance efficiency	4
Overall Efficiency			3.0
Effectiveness	Output	Utilization of service (output)	4
	Short-term	Amount of outcome	4
	Overall Effectiveness		
Impact	Long-term Outcome	Impact on electricity/power sector	3
		Impact of socio-economic changes	4
		Others	4
Overall Impact			3.7
Sustainability	Sustainability		2
	Overall Sustainability		
Project Rating			3.2

2. Relevance

Policy and Strategic Relevance

- The project appeared to be highly relevant to the development needs and policies of Myanmar, which suffered from chronic shortages of power supply due to underdeveloped existing transmission and distribution facilities (4 points).

- There was no overarching EDCF strategy relevant to the power sector at the time of project appraisal. By the time of ex-post evaluation, however, EDCF medium-term operation strategy had been established. The policy emphasizes investment in energy sector infrastructure to support developing countries' economic development and prosperity. Based on the policy, the project's goal was deemed relevant (3 points).

Relevance of Project Planning

- In terms of project planning, this project was evaluated as partly relevant (2 points). However, with respect to its technical aspect, the project was found to have been carefully designed. The project area was selected appropriately regarding the development needs in the project site (4 points).

Overall Relevance

- The project was evaluated as being relevant (3.4 points).

3. Efficiency

Implementation

- The construction was postponed for about 40 months after loan approval was made because of the partner government's insufficient capacity in dealing with loan procurement activities (2 points). However, the project was completed within the planned budget, being rated as efficient in terms of the cost (4 points).

Performance Efficiency

- The Myanmar government had limited experiences in public procurement and competitive bidding. MEPE, the implementing agency of the project, was not fully familiarized with procurement procedures or with preparing for project evaluation reports. It was a critical drawback on the performance efficiency of the project (2 points).
- EDCF's performance was deemed efficient since EDCF effectively assisted the project implementation by hiring appropriate consultants (4 points).

Overall Efficiency

- Overall, this project was evaluated as being efficient (3 points).

4. Effectiveness

Output

- The power cable and transformers were installed and all outputs in four substations were constructed as planned. At the time of evaluation, these outputs were functioning as intended. Therefore, the effectiveness on output achievement of the project was rated very high (4 points).

Short-term Outcomes

- The project output is the provision of stable power supply. Power capacity and supply have increased. In addition, there has been a drastic decrease in the distribution loss rate in the project areas. The project was evaluated as being highly effective (4 points).

Overall Effectiveness

- The project was evaluated as highly effective (4 points).

5. Impact

Long-term Outcomes and Impact

- Compared to 2000 when the project was completed, power production/sales, loss rate of power system, and power supply rate were clearly improved. However, considering the scope of this project, which only provided distribution systems in a small targeted area, these improvements could not be entirely attributable to the project outcome, being evaluated as influential (3 points).
- This project contributed to the increase in the number of small businesses, residential areas, and schools (4 points).

Overall Impact

- The project was evaluated as influential (3 points).

6. Sustainability

Maintenance System

- Each substation's management was under the supervision of YESB. However, YESB did not have a formal inspection process. Therefore, at the time of the ex-post evaluation, facilities were inadequately being managed.
- Although the project contained a training program for MEPE technicians, the techniques learned from the training were not shared because the implementing agencies, MEPE and YESB, did not have an official training program to apply what they learned to the current working system. Therefore, the sustainability of this project was evaluated as less likely (2 points).

III. Lessons learned and Recommendations

1. Lessons learned

Success Factors

- High relevance of the project resulted in the high impact of the project, especially in improving socioeconomic development in the project sites.
- The power distribution cables and other power facilities were installed and operated to meet the power demand in the project areas.

Limitations

- Key performance indicators should have been clearly established from the beginning of project implementation. In addition, since the government of Myanmar has not been aware of the importance of monitoring and

evaluation, the monitoring capacity of MEPE and YESB was relatively limited, which made result-based management difficult.

- There was significant delay in project implementation due to the lack of administrative capacity of the partner country, especially in dealing with procurement.
- A proper maintenance strategy is essential. However, due to budget constraints and lack of capacity, coherent and effective maintenance strategies have not been established.

2. Recommendations

Building Stronger Monitoring System

- It was clear that lack of consistent monitoring imposed challenges not only for the evaluation but also the overall management of the electricity power facilities. Therefore, it is highly recommended that Myanmar set up a monitoring system which enables consistent data collection and management.

Strengthening Overseas EDCF Network

- In Myanmar, power sector officials had limited experiences in public procurement. Therefore, it would be helpful for EDCF to provide consultation and instruction with the help of EDCF's overseas offices in partner countries.

Achieving Greater Synergies through Loan and Grant Aid Combination

- Loan and grant aid combination should be more encouraged in order to increase project sustainability. Infrastructure projects such as those in the power sector require long-term commitments for maintenance to ensure

effective and sustainable utilization. Therefore, coordination between loan and grant aid is desirable in the areas such as capacity building and grant aid utilization. Experts may be dispatched and remain in the partner country in the long-term to provide necessary training to relevant staff and more effectively help them adapt to the equipment.

- Furthermore, developing training curriculum and maintenance manual in the local language can also be helpful in enhancing the sustainability of the project.