Ex-post Evaluation Report
2017-07

Ex-post Evaluation of Salvage Vessel Procurement Project in Bangladesh

The Export-Import Bank of Korea

(Government Agency for EDCF)

EDCF Evaluation Team

(Evaluated by KR Engineering)

This Evaluation was entrusted to KR Engineering by EDCF for the purpose of independent evaluation research. The opinion, findings and conclusion or recommendations expressed in this report are those of the external evaluator and do not necessarily reflect the view of KEXIM BANK and EDCF

I. Project Overview

1. Project Details

□ Name of Project: Salvage Vessel Procurement Project

□ Name of Borrower: Ministry of Finance, Bangladesh

□ Project Executing Agency: Bangladesh Inland Waterway Transportation Association

□ Amount of Loan

◦ USD 26,000 thousand was the EDCF budget in the original plan. But as specifications were modified in the course of preparing the bidding for the project, the supplementary loan of USD 6,532 thousand was provided. Therefore, the total amount to be borne by EDCF for this project was USD 32,532 thousand.

□ Terms of Loan

◦ Original Loan

- Interest rate: 0.5% per annum
- Repayment period: 30 years including a grace period of 10 years

◦ Supplementary Loan

- Interest rate: 0.01% per annum
- Repayment period: 40 years including a grace period of 15 years

< Details of Loan >

Loan Number	Type of Loan	Amount of Loan	Date of Approval	Repayment Period (Grace Period)	Interest Rate
BGD-007-2006	Equipment Loan	USD 26,000 thousand	March 15, 2006	30 years (10 years)	0.5%
BGD-013-2011	Equipment Loan	USD 6,532 thousand	May 2, 2011	40 years (15 years)	0.01%
Total	-	USD 32,532 thousand	-	-	-

2. Project Purpose

□ The purpose of the project is to contribute to smooth logistics distribution and economic development by ensuring stable inland waterways, through the salvage of sunken ships on the open seas and inland watercourses as well as the strengthening of emergency rescue activities for natural disasters.

3. Project Scope

□ The project was initially planned to provide equipment items, including 2 crane barges (lifting capacity: 250 tons/ship), 2 tug boats (2,000HP[1]/ship) and 1 set of exploration and diving equipment. However, during the implementation of the project, it was found that the main engine output of the tug boats was insufficient to tow the crane barges at an adequate velocity due to the flow rate. As such, the main engine output was up to 3,200HP in order to faithfully achieve the purpose of the project.

[1] Horsepower (HP) is a unit of power used for measuring engine power.

< Project Scope>

Item	Quantity	Description	Original Plan	Supplementary Loan
Crane Barge	2 ships	Ship with a crane on the float (barge) to lift the sunken vessel on the waterway (Not capable of self-propulsion)	Gross tonnage: 2,000Ton Lifting capacity: 250Ton	Same as left
Tug Boat	2 ships	Ship to move the crane barge to the salvage operation area (Capable of strong propulsion)	Main engine: 2,000HP	Main engine: 3,200HP
Exploration and Diving Equipment	1 set	Equipment for searching and confirming the location and size of the sunken vessels, and necessary equipment for underwater operation	Side scan sonar, monitor, computer, oxygen tank, diving suit, etc.	Same as left
Training		Training required for the use of the salvage vessel and auxiliary equipment		

Source: Project Completion Report of Salvage Vessel Procurement Project (May 2015, Korea Export-Import Bank)

II. Introduction

☐ The Bangladesh Inland Water Transport Authority, i.e. the project executing agency of this project, salvaged small-sized sunken vessels of less than 60 tons by using its salvage vessels acquired in the 1960s and the 1980s, respectively. However, as it was difficult to lift sunken vessels of 150 to 200-ton class due to facility deterioration and poor salvage ability, supplying new salvage vessel was essential.

☐ (Project Target Area) The main working area of EDCF salvage vessels is Narayanganj, the outskirts of the capital Dhaka, and Barisal in the southern region, where many ships went down.

<Project Area>

III. Summary of Ex-post Evaluation

1. Purpose of Evaluation

□ The purpose of this evaluation was to analyze the performance of the project and evaluate project sustainability accordingly, in order to draw lessons and recommendations for similar prospective projects.

2. Methods of Evaluation

□ The ex-post evaluation was performed based on the five OECD DAC criteria (i.e. relevance, efficiency, effectiveness, impact and sustainability) and cross-cutting issues.

- ◦ However, since the “Salvage Vessel Procurement Project in Bangladesh” is an equipment loan, it was difficult to achieve meaningful evaluation results in “impact” and “cross-cutting issues.” Therefore, this project was evaluated only on four OECD DAC criteria (i.e. relevance, efficiency, effectiveness and sustainability).

□ Evaluation items reflected the characteristics of the project based on the evaluation criteria, and in order to verify this, various research methods, such as literature review, interview and survey, were utilized to achieve reasonable results.

3. Result of Evaluation

□ (Overall) The overall evaluation result was 2.8 out of 4 points and this project was evaluated as “successful.”

<Evaluation Result Overview>

Criteria	Evaluation Factor	Detailed Factor	Score
Relevance	Policy and Strategy Relevance	Compatibility with National Development Policy of Bangladesh Government	4
		Compatibility with EDCF Assistance Strategy	3
	Appropriateness of Project Plan	Feasibility of Project Goals	3
		Feasibility of Project Design	3
	Recipient Country Initiative	Participation and Cooperation of Bangladesh Government	3
	Overall Relevance Score		**3.2**
Efficiency	Degree of Implementation Compared to Plan	Actual Project Duration Compared to Plan	1
		Actual Project Expenditure Compared to Plan	4
	Overall Efficiency Score		**2.5**
Effectiveness	Output	Achievement of Outputs	4
	Short-term Outcome	Good Operation of Equipment	3
		Improving Stability of Inland Waterways by Salvaging Sunken Vessels and Strengthening Disaster Relief Activities	3
	Overall Effectiveness Score		**3.3**
Sustainability	Sustainability	Institutional Sustainability	2
		Technical Sustainability	2
		Financial Sustainability	2
	Overall Sustainability Score		**2.0**
Overall Average Score			**2.8**

□ **(Relevance)** For relevance evaluation, except for “Compatibility with National Development Policy of Bangladesh Government,” all factors scored 3.0 and the final cumulative score was 3.2/4.0.

◦ As the Bangladesh government set an objective to form inland water transportation system by preparing comprehensive guidelines of Bangladesh’s inland waterway development, this project may be considered

the national development plan of the Bangladesh government.

- The original purpose was to achieve the smooth distribution of logistics and to contribute to Bangladesh's economic development by securing stable inland waterways through the salvage of sunken vessels in the inland waterway and the strengthening of emergency rescue activities for natural disasters. In this regard, the original purpose was deemed too broad to achieve this project with an equipment loan. As such, the feasibility of project goals was evaluated to be rather insufficient.

□ **(Efficiency)** The project scored 2.5/4.0 in efficiency, indicating the project was partially efficient.

- Even though the efficiency of project costs was evaluated to be successful as expenses were spent within the budget, the actual implementation period (i.e. 69 months) was extremely delayed compared to the original project implementation period (i.e. 18 months). Therefore, the efficiency of the project period was evaluated to be insufficient.

□ **(Effectiveness)** The project scored 3.3/4.0 in effectiveness. This evaluation was conducted based on the actual progress of the project as to the short-term outcome and whether outputs were achieved compared with the original plan.

- Although the specifications of outputs were adjusted after receiving the support of supplementary loan, the final outputs in accordance with adjusted specifications were evaluated to be accomplished as the plan.

- Despite the breakdown of the load meter and the side scan sonar in the salvage vessel, no disruption was found in the activities of the salvage vessel. Accordingly, it is evaluated that most outputs operate normally.

- The ex-post evaluation of the short-term outcome of the project, i.e.

“ensuring stable inland waterways through the salvage of sunken ships,” used the salvage performance of sunken vessels as the criteria for effectiveness. Since the number of vessels salvaged by BIWTA has increased from 2013 when the salvage vessel was introduced by EDCF, the project is deemed to have fulfilled the short-term outcome that can be confirmed immediately after completion of the project.

- This project has attracted attention from the international organizations, such as the World Bank and the International Maritime Rescue, as to security and disaster prevention, although this was not an expected outcome.

□ **(Sustainability)** The evaluation of sustainability scored 2.0/4.0.

- BIWTA, the project executing agency, manages the output of the project systematically by dividing the operation management department and the maintenance department for salvage vessels.

- However, due to lack of experience on new equipment, technical skills are insufficient for maintenance. Also, the project has limited ability to raise extra budget for expensive maintenance work and additional equipment.

IV. Lessons and Recommendations

1. Lessons

□ Success Factor

◦ This project was able to proceed smoothly since the Bangladesh government actively cooperated with the project as follows:

- The Bangladesh government included this salvage vessel procurement project into its national development policy when the project was planned; and

- The Bangladesh government requested EDCF's supplementary loan for modified specifications as the International Convention for the Safety of Life at Sea (SOLAS) was amended in 2006 and the delivery method had to be changed accordingly.

◦ BIWTA, the project executing agency, already has abundant experience in lifting sunken ships in the inland waterway, and conducts periodic internal trainings and inspections as to maintenance based on the well-organized departments and systematic operating systems. PEA efficiently operates the salvage vessels with limited budget.

□ Limitation

◦ As this project type was an equipment loan, the plan to support procurement of parts for a certain period is necessary to improve sustainability. Since most of the shipyards and suppliers which participated in this project closed down or disappeared, sustainability could deteriorate.

◦ During the project implementation period, the project period was prolonged because the regime change in Bangladesh postponed the government decision

related to the project. In addition, the specifications of the project were changed due to the amendment of the International Convention for the Safety of Life at Sea and the project needed additional cost for implementing the project.

- There were some barriers to obtaining the most successful result from the training programs due to lack of basic knowledge as to salvage activities and replacement of trainees at each training session.

- Despite the abundant experience in salvage activities, the project executing agency has some troubles in operation and maintenance due to the differences between using existing salvage vessels and newly introduced ones.

2. Recommendation

□ Need Specific and Realistic Purposes for Project

- Since the purpose of the project is generally results which the primary beneficiary is expected to obtain, it should be set up at the achievable level considering the scope, duration and other inputs of the project. “Salvage Vessel Procurement Project” seems to have established its purpose in an excessive scope, such as national economic development, in addition to the expected effectiveness of actual work.

- In order to create an environment of performance-oriented project management, future projects need to set up the purpose of achieving specific measurable results that can be obtained within the completion of such future projects.

□ Strengthen Trainee Selection Standards and Training Continuity

- In order to improve the sustainability and effectiveness of the project in the future, it is necessary to select qualified trainees and to find a way to acquire a high level of training results by ensuring training continuity.

◦ If salvage vessel procurement and disaster relief training are carried out by different institutions and the latter is provided by a specialized agency under a separate contract, it is considered that sustainability and effectiveness could be enhanced.

□ Provide English or Local Language Manual

◦ As a result of the field survey, it was confirmed that the instructions to use some equipment were stated in Korean language and operation was inconvenient. Sustainability would be enhanced by providing local language manuals for major equipment.