

Ex-ante Evaluation

1. Name of the Project

Country: The Socialist Republic of Viet Nam

Project: Lach Huyen Port Infrastructure Construction Project (I) (II) (III)

L/A signed: November 2, 2011 (I), March 18, 2014 (II), March 31, 2016 (III)

L/A Amount: (I) 20,995 million Yen

(Port: 11,924 million Yen, Road and Bridge: 9,071 million Yen)

(II) 37,958 million Yen

(Port: 21,051 million Yen, Road and Bridge: 16,907 million Yen)

(III) 55,167 million Yen

(Port: 32,287 million Yen, Road and Bridge: 22,880 million Yen)

Borrower: The Government of the Socialist Republic of Viet Nam

2. Background and Necessity of the Project

(1) Current state and Issues of the Port Sector in Viet Nam

A significant number of foreign firms are settled in an area stretching from Hai Phong and Ha Long, which lies along the northern coast of Viet Nam, contributing to economic growth in the northern part of the country. The two major ports are Hai Phong and Cai Lan, which were rehabilitated and extended through ODA loan projects to support these foreign-affiliated companies. Even taking into account their expansion plans in the future, the container throughput at these ports combined will remain at 40 million tons. On the other hand, it is estimated that cargo throughput of the containerized cargo in the northern region of Vietnam has already reached 40 million tons in 2014, which will further increase with economic growth. Thus, it is difficult for these two ports to handle ever-increasing cargo volumes.

Reflecting recent trends in the international maritime transportation market, shipping companies have been increasing their orders for large-container vessels as their measure to meet customers' needs and also from the viewpoint of cost reductions. To enhance the functionality of the ports as international logistics bases in northern Viet Nam, it is necessary to construct ports with sufficient water depth to accept these large containerships. However, the expansion of Hai Phong and Cai Lan Ports to meet the rising demand for cargo and large containerships is considered to be difficult from technical and social point of view. Since expanding these ports to secure sufficient water depth is thought to be technically and socially difficult, Viet Nam is awaiting the construction of new ports with sufficient water depth to meet international standards.

(2) Development Policy for the Port Sector in Viet Nam and the Priority of the Project

The Master Plan on Development of Viet Nam's Seaport System through 2020, with

Orientations toward 2030 (Decision No. 2190/QD-TTg/2009) states that Lach Huyen port shall be developed as a major wharf area of the port in northern Vietnam, mainly for handling general, containerized cargo imported and exported along long-distance shipping routes by ships of between 50,000 and 80,000 DWT.

(3) Japan's and JICA's Policy and Operations in the Port Sector

Japan's "Country Assistance Policy for Viet Nam" (December 2012), encourages "promotion of economic growth and strengthening international competitiveness", and port improvement as well as the other arterial transportation infrastructure is defined as one of the priority areas.

Besides, JICA's Country Analysis Paper also emphasizes that development of international seaport as an international logistic gateway is urgently needed.

JICA's past assistance in the port sector includes a number of projects, such as: (1) D/S Hai Phong Port Emergency Improvement Plan" (1993), L/A Hai Phong Port Rehabilitation Project (I), (II) (approved in 1993 and 1999 respectively), L/A Cai Mep - Thi Vai International Port Construction Project (approved in 2004 and 2012), and T/C Improvement of Port Management System (2005-2008).

(4) Other Donor's Activity

In recent years, no direct assistance related to port improvement has been provided from other donors.

(5) Necessity of the Project

This project contributes to economic growth and strengthening of international competitiveness in Viet Nam, as well as to enhanced cargo-handling capacity through newly constructing an international port with sufficient water depth and the surrounding basic infrastructure. Since this project is highly relevant to the priority areas of development assistance of Japan and JICA, there is high significance for JICA to provide support for the implementation of this project.

3. Project Description

(1) Project Objective

The objective of the project is to respond to the growth of demand in cargo volume as well as the increase of larger vessels in the maritime transportation market by building a new international deep-sea port and related basic infrastructure in Lach Huyen area, Cat Hai district, located in the eastern part of Hai Phong city, thereby contributing to economic development and greater competitiveness of Viet Nam in the international market.

(2) Project Site / Target Area: Hai Phong City, the Socialist Republic of Viet Nam

(3) Project Components

1) Construction Work (Port)

- ① Soil improvement and reclamation for the terminal area (water depth: 14.0 m, berth length: 750 m, two berths)
- ② Dredging of channel and turning basin (water depth: 14.0m, diameter 160m, length 18km)
- ③ Construction of outer revetment, sand protection dyke, etc.
(Construction of container yards, pier-type berths, and installation of cargo-handling equipment is planned to be arranged by a joint venture company between Japanese companies and a Vietnamese company (“Investment Projects by the Private Sector”))

2) Construction Work (Road and Bridge)

Construction of Tan Vu-Lach Huyen Highway (total length: about 15.63 km)

3) Consulting Service

Tender assistance and construction supervision

(4) Estimated Project Cost (Loan Amount)

147,619 million Yen (Accumulated Loan Amount : 114,120 million Yen)

1) Port: 90,183 million Yen

(Accumulated Loan Amount: 65,262 million Yen)

2) Road and Bridge: 57,436 million Yen

(Accumulated Loan Amount: 48,858 million Yen)

(5) Schedule

November 2011 - October 2021 (120 months in total)

Completion of project: May 2018 - when two berths are put into operation

(6) Project Implementation Structure

1) Borrower: The Government of the Socialist Republic of Viet Nam

2) Executing Agency: Port, Road and Bridge: Ministry of Transport (MOT)

3) Operation and Maintenance System

- ① Port: Safety Navigation Section and Berth Maintenance Section of Maritime Administration of Hai Phong (a subordinate department of VINAMARINE) will take charge of maintenance of facilities (e.g. channel, turning basin, and training dyke) to be constructed under the project invested by the Government. Terminal to be constructed through Investment Projects by the Private Sector will be operated and maintained by the joint venture company of Japanese companies and a Vietnamese company to execute the project.
- ② Road and Bridge: Road Management Bureau No.1 (RMB1), a subordinate

organization of DRVN will be responsible for operation and maintenance

(7) Environmental and Social Consideration / Poverty Reduction / Social Development

1) Environmental and Social Consideration:

① Category: A

② Reasons for Categorization:

The Project is classified as category A, because it comes under the road and bridge sector and also has features that are likely to have significant impact (large-scale involuntary resettlement) as defined by the Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations (stipulated in April 2002).

③ Environmental Permit:

The Environmental Impact Assessment (EIA) report for the port portion was approved by Viet Nam's Ministry of Natural Resources and Environment (MONRE) in October 2008. The EIA was revised due to the change of dumping site of dredged soils. The revised EIA was approved by MONRE in February 2013. Regarding the road and bridge portion, the EIA was approved by MOT in May 2010, and the supplement EIA for the dredging of Nam Trieu River was approved by MOT in January 2013.

④ Anti-Pollution Measures:

Drainage water, waste, and the like from vessels have been disposed of according to Viet Nam's domestic laws for ports. Dredged soil will also be disposed of in an appropriate manner, while avoiding impact to the surrounding waters. For air pollution, noise, and other environmental factors in the vicinity of the access road, measures to mitigate impact have been taken, such as planted zones, speed limit, and installing soundproof walls according to the country's baseline.

⑤ Natural Environment:

Although the target area of the Project is not thought to be sensitive areas (e.g. national parks and their peripheral areas), making adverse impacts on the natural environment minimal, more detailed investigation at the stage of detailed design and measures according to investigation results will be implemented to mitigate impact to natural environment.

⑥ Social Environment:

The port construction requires the acquisition of about 19.4 ha of land, while construction of the bridge requires about 81.0 ha (including 23 ha of revocation of the rights) of land and resettlement for 101 households. Temporary resettlement of these households was completed as of December 2015, and resettlement to the site, construction of which was completed in August 2015, shall be done sequentially. Related processes are implemented

according to the country's domestic rules.

⑦ Other/monitoring:

Under the Project, the executing agent will take charge of monitoring air/water quality during construction. Once operation is started, the executing agency and private operators will be in charge of the monitoring air/water quality for the port portion, while Road Management Unit No.1, a subordinate organization of the executing agency, will do the same for the road and bridge.

2) Promotion of Poverty Reduction: None in particular

3) Promotion of Social Development (e.g. Gender Perspective, Measure for Infectious Diseases Including HIV / AIDS, Participatory Development, Considerations for Persons with Disabilities, etc.): This is a massive project for improving the country's infrastructure, involving recruitment of a large number of labors. The construction workers are expected to work at a limited place for a longer period, Hai Phong People's Committee plans to take steps to prevent the spread of HIV among workers as a part of health control. The work supervision consultant carries out monitoring during the project execution. Also, from a perspective of gender equality, the Project is organizing a road safety campaign for users including female workers.

(8) Collaboration with Other Donors: None in particular

(9) Other Important Issues

The Project is designed to be executed through joint initiatives between the public and private sectors. As described above, the joint venture company between Japanese companies and a Vietnamese company will construct pier-type berths, container yards, and install cargo-handling equipment in line with the progress of the project. After completion of construction, the company will operate the terminal. Also, the Project contributes to adaptation to climate change.

4. Target Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicators)

① Port

Indicator	Baseline (2010 Actual)	Target (2020) 【Two years after the completion of the project】
Berth Occupy Rate (%)	—	30
Container Dwell Time (day)	—	6
Container Cargo Throughput (TEU*)	—	500,000

Maximum load of vessels docked at Berth one and two (DWT**)	—	50,000
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*Twenty feet equivalent units

**Dead weight tonnage

② Road and Bridge

Indicator	Baseline (2011 Actual)	Target (2020) 【Two years after the completion of the project】
Annual average daily traffic (unit /day)	150 vehicles/day at Ninh Tiep Ferry Port 412 vehicles/day on the existing Cat Hai road	6,998 vehicles / day on Tan Vu IC-Dinh Vu section 4,481 vehicles / day on Dinh Vu-Lach Huyen Port section
Travel time between Tan Vu and Lach Huyen (min.)	155	12

* Passenger Car Units

2) Internal Rate of Return

Based on the conditions indicated below, Economic Internal Rate of Return (EIRR) of the Project is 21.9% for Port portion, and 29.9% for Road and Bridge portion. In the project, FIRR is not calculated, since it is not estimated that the project cost shall be covered by profit by operation of the wastewater treatment plant.

Cost: Project cost (excluding tax) and operation and maintenance expenses

Benefit: Saving costs for alternative transportation and cargo transport cost

Project life: 30 years (Port), 19 years (Road and Bridge)

(2) Qualitative Effects: Promotion of economic growth in throughout the country (particularly northern part) and strengthening of international competitiveness

5. External Risk Factors and Control

Completion of Investment Projects by the Private Sector to be implemented at the same time as this project is a premise for securing the benefits of this project.

6. Lessons Learned from Past Projects

In an ex- ante evaluation of a similar project, it was found out that poor condition of an access road to the port would disturb utilization of the port. Given this lesson, the access road and the bridge are included in the project scope under this project.

7. Plans for Future Evaluation

(1) Indicators to be Used

- 1) Berth Occupy Rate (%)
- 2) Container Dwell Time (day)
- 3) Container Cargo Throughput (TEU)
- 4) Maximum load of vessels docked at Berth one and two (DWT)
- 5) Travel time between Tan Vu and Lach Huyen (min.)
- 6) Economic internal rate of return (EIRR) (%)

(2) Timing: Two years after the completion of the project