

Ex-ante Evaluation

1. Name of the Project

Country: The Socialist Republic of Vietnam

Project: North-South Expressway Construction Project (Ho Chi Minh City – Dau Giay Section) (II)

L/A signed on: June 15, 2011

L/A Amount: ¥25,034,000,000

Borrower: The Government of the Socialist Republic of Vietnam

2. Background and Necessity of the Project

(1) Current state and Issues of the Transport and Road Sector in Vietnam

As to the transport sector in Vietnam, the passengers and freight transport volume has been rapidly increasing proportionately with its recent economic growth particularly in urban districts in big cities, arterial roads connecting big cities with local cities, and major regional corridors. It is surmised that it will continue to grow further in the future. In addition to the rapid increase in traffic, the features of transport have seen drastic change: privately owned cars and large trucks have been on the increase. The mixed traffic is observed in nationwide national roads, which is one of the factors that cause traffic congestion, traffic accidents, and deterioration in roads. Under such circumstances, it is an important issue towards further economic growth to provide competitive as well as efficient, safe and comfortable transport services.

(2) Development Policy for the Transport/Road Sector in Vietnam and the Priority of the Project

The government of Vietnam has set one of its goals in the Eighth Five-year Socioeconomic Development Plan (2006-2010) at “its industrialization (by 2020) after having broken away from the category of low-income countries (by 2010).” In order to achieve the goal, the government gives overriding priority on the development of transport and traffic infrastructure. Based on this, the government has been formulating and implementing plans to construct large-scale transport infrastructure including airports, harbors, expressways, and urban railroads. In particular, it is stipulated that highways extending over a length of 5,873km will be constructed in the Expressway Network Development Master Plan by 2020 and Vision after 2020 (Prime Minister’s decision No. 1734) which was approved in December 2008. The government aims for constructing highways covering 2,235 km by 2020. Institution-wise, Vietnam Expressway Corporation (hereinafter referred to as VEC) was founded in 2004 that would assume responsibility of development and investments in expressways. Thus, Vietnamese government has been working on establishment of systems towards introduction of commercial based transportation systems.

As stated above, the Vietnamese government has been reinforcing its measures for the

construction of expressways. Particularly, its emphasis has been placed on constructing the North-South expressway that runs through the country from north to south. The North-South expressway stretching over the total length of 3,262 km will connect Hanoi with Can Tho along the National Highway No. 1. There are 44 industrial zones in Ho Chi Minh City and the Dong Nai Province that produces 56% of GDP as an economic center of Vietnam. Currently, the area is faced with the problem of heavy traffic congestion caused by the distribution of goods which are shipped in and out of the industrial zones to harbors and airports in large trucks. In the neighborhoods, there are plans to remodel the existing international airport, to construct a new international airport, and to build a new harbor. Thus, it is projected that traffic demands will increase in the future. Under such circumstances, it is recognized that there is a profound need of constructing an expressway in the Project site to raise efficiency in the distribution of goods by relieving traffic congestion and connecting the industrial zones with airports and harbors. The North-South Expressway Construction Project is one of the projects that Prime Minister Dung requested cooperation from Japan when he visited Japan in October 2006, for which the Japanese government made an explicit commitment to provide its cooperation in the Japan-Vietnam Joint Statement.

(3) Japan and JICA's Policy and Achievements in the Transport/Road Sector

The JICA's country assistance program for Vietnam formulated in July 2009 maintains that "as to inter-city arterial networks, JICA will examine the priorities of and roadmap for developing arterial roads (including the North-South expressway), railways, harbors, and airports, while taking into account efficiency in the distribution of goods as well, and provides its assistance with due consideration for selection and concentration." The Project is expected to contribute to raising efficiency in the distribution of goods in the southern region as a project to develop the highest priority section of the North-South expressway. Thus, it is consistent with the JICA's policy. Concurrently with this program, JICA made plans to develop an arterial network as part of assistance to "urban development and improvements in transport/traffic and communications network" out of its four aid priority areas, and in fiscal 2007 provided its first loan (in amount of 16,643 million yen). Furthermore, as technical cooperation, JICA carried out the Study on the ITS Technical Standards Operational Planning Support Project (March 2010 ~ January 2011), dispatched an advisor for expressway management, operation and maintenance (May 2010~) and assisted the formulation of the North-South Expressway Master Plan for the Comprehensive Study on the Sustainable Development of Transport System in Vietnam (VITRANSS2) (Nov. 2007 ~ May 2010). When this Project is implemented, the outcome of such technical cooperation will be effectively used.

(4) Assistance by Other Aid Organizations

The World Bank has been extending its assistance to the fields of development of national and municipal roads, inland waterway transport, and infrastructure development of urban

transport. On the other hand, the Asian Development Bank (ADB) is now implementing the Greater Mekong Subregion Economic Cooperation Program including Kunming - Hai Phong Multi-modal Transport Corridor Development Plan to enhance logistics.

(5) Necessity of the Project

This Project is highly consistent with Japan and JICA's country assistance program for Vietnam. In addition, in light of the above-stated necessity, the Vietnamese government's Expressway Network Development Master Plan also assigns highest priority to the Project's section for raising efficiency in the distribution of goods and eventually contributing to economic growth in the southern region. Hence, the necessity and relevance of this Project are high.

3. Project Description

(1) Project Objectives

The objective of the Project is to meet increasing traffic demand and ease traffic jam of the existing National Highway No. 1 and No. 51 to Vung Tau which already run out its capacity by constructing an expressway from Ho Chi Minh City to Dau Giay – top priority section of the North-South Expressway - thereby contributing to economic growth and international competitiveness of Ho Chi Minh City and the Southern Vietnam.

(2) Project Site/Target Region

Ho Chi Minh City and Dong Nai Province in the Socialist Republic of Vietnam

(3) Project Outline

- ① Construction of roads by the standards for expressways {four-lane expressway for a length of 55km: including one long bridge, An Phu intersection, and an interchange with the Ring Road No. 2 (international competitive bidding)}
- ② Detailed design, construction and installation of the operation and maintenance (O&M)-related equipment (international competitive bidding)
- ③ Consulting service (support for bidding and construction supervision) (shortlist method)

(4) Total Project Cost

69,310 million yen (Japanese ODA loan amount for this fiscal year: ¥25,034 million)

(5) Schedule

March 2008 ~ October 2016 (104 months in total): The time to start the service (October 2014) shall be the time of the project's completion.

(6) Implementation Structure

- 1) Borrower: The Government of the Socialist Republic of Vietnam
- 2) Executing agency: Vietnam Expressway Corporation
- 3) Operation and maintenance system: Same as above

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

1) Environmental and social consideration

- ① Category: A

② Reasons for categorization:

This 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 on this project was approved by the Ministry of Natural Resources and Environment in October 2007.

④ Anti-pollution measures

It is surmised that air pollution and noise level after the start of service will partially exceed the Vietnamese domestic standards. However, it is planned that some measures such as growing vegetation along the road and regular maintenance of the road will be taken.

⑤ Natural environment

The Project site and its surrounding area are not situated in sensitive areas such as national park, and it is assumed that an adverse effect on natural environment will be kept to minimum.

⑥ Social environment

The Project will involve land acquisition of approximately 189ha and the resettlement of 514 households and land acquisition and resettlement are underway in compliance with the Vietnamese laws.

⑦ Other/monitoring

Air quality, noise level, and water quality will be monitored by the contractor employed by VEC under the supervision of the environmental consultant during the time when the Project is in progress. After the start of the service, VEC will carry out the monitoring.

2) Poverty reduction: None in particular

3) Promotion of social development: (e.g. gender perspective, measure for infectious diseases including AIDS, participatory development, considerations for persons with disabilities, etc.): The project is a large-scale infrastructure development project to be implemented in the areas with high HIV/AIDS prevalence rates. Hence, AIDS control measures will be taken for construction workers as a sub-component of ADB loan for the entire section including the section financed with Japanese ODA loan.

(8) Partnership with other donors:

co-financing with ADB: (ADB has already granted a loan of 410.2 million US\$.)

(9) Other important issues:

None in particular

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| 4. Project's Effects |
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(1) Quantitative Effect

1) Operation and Effect Indicators

| Indicator | | Baseline (2007 Actual) | Target (2016) 【2 years after the project completion】 |
|--|---------------------------------|---------------------------|--|
| Traveling Time by the existing roads (minutes) | Section of Japanese ODA loan | 80 | 65 |
| | Entire section | 110 | 70 |
| Traveling Time by the expressway (minutes) | Section of Japanese ODA loan | — | 20 |
| | Entire section | — | 40 |
| Annual average daily traffic (No. of cars/day) | Section of Japanese ODA loan | — | 53,655 |
| Saving in vehicle operating cost (million US\$) | Entire section | — | 130.117 |

2) Internal Rate of Return

Based on the following premises, the economic internal rate of return (EIRR) of this project is 20.1%, and the financial internal rate of return (FIRR) is 3.29%.

【EIRR】

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

Benefit: Saving in vehicle operating cost and shortened traveling time, etc.

Project life: 25 years

【FIRR】

Cost: Project cost and operation and maintenance expenses

Benefit: Toll revenues

Project life: 25 years

(2) Qualitative Effect

Higher efficiency in passenger and freight transport through alleviating traffic congestion on the existing National Highways; enhancement of economic growth in the southern region of Vietnam including Ho Chi Minh City

5. External Risk Factors and Control

None in particular

6. Lessons Learned from Findings of Similar Projects Undertaken in the Past

A lesson learned from the ex-post evaluation of the past expressway construction projects is that it is important to provide assistance based on the national highway development plan instead of fragmented and inconsistent construction of each expressway section for producing for producing project's good results. Another lesson is that it is essential to plan and build an operation and maintenance system including operation and management expenses and carefully design a toll collection plan from an initial stage of the project in order to ensure

sustainability after the Project's completion.

Based on the above lessons, under this Project it is planned to construct a section that is defined as the foremost priority section by the Expressway Network Development Master Plan so that it gives a good start to the development of national expressway networks in Vietnam. At the same time, the Project activities will be reinforced by collaboration with technical cooperation projects in terms of the establishment of an operation and maintenance system and the formulation of a toll collection plan.

7. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- 1) Traveling Time by the existing roads (minutes)
- 2) Traveling Time by the expressway (minutes)
- 3) Annual average daily traffic (number of cards/day)
- 4) Saving in vehicle operating cost (million US\$)
- 5) Economic internal rate of return (EIRR) (%)
- 6) Financial internal rate of return (FIRR) (%)

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