

## Ex-ante Evaluation

### 1. Name of the Project

Country: The Socialist Republic of Viet Nam

Project: North-South Expressway Construction Project (Ben Luc – Long Thanh Section)(I)

L/A signed on: November 2, 2011

L/A Amount: ¥14,093,000,000

Borrower: The Government of the Socialist Republic of Viet Nam

### 2. Background and Necessity of the Project

#### (1) Current state and Issues of the Transport and Road Sector in Viet Nam

The volume of cargo and passenger transport in Viet Nam, particularly along urban streets in large cities and major thoroughfares, has risen dramatically in recent years along with rapid economic growth—and is expected to continue rising. Traffic characteristics are also changing markedly, and Viet Nam is seeing more and more family vehicles and large trucks on the road. Mixed types of road traffic are being seen across the country, creating traffic jams, causing accidents, and contributing to logistics bottlenecks. Given this situation, providing Viet Nam with efficient, safe, and competitive transport services is an urgent priority in terms of promoting further economic growth.

The area in and around Ho Chi Minh City, where this project is scheduled, is the heart of economic activity in Viet Nam—home to forty-four industrial areas representing 56% of the country's total GDP output. However, large trucks traveling to and from these areas to ports and airports are creating problems, clogging cargo transport logistics in the region. At the same time, there are upgrades at Tan Son Nhat International Airport (expanded through a Japanese ODA loan), construction of the Long Thanh International Airport (stated in Japan-Viet Nam Joint Statement on the Strategic Partnership for Peace and Prosperity in Asia in October 2010), and construction of Cai Mep-Thi Vai Port (financed by Japanese ODA loan) and other new harbors taking place. All of these changes, coupled with further development of industrial area around Ho Chi Minh City, are expected to further increase the demands placed on Viet Nam's transportation network.

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

The government of Viet Nam formulated its Socio-Economic Development Plan 2011-2015. The plan places a high priority on resolving critical development-related issues, including the continued expansion of Viet Nam's transportation networks and other forms of infrastructure as it aims to achieve sustainable development targets under the pressure of skyrocketing economic growth. For expressways specifically, the Vietnam Expressway Network Developing and Planning until 2020 and the view for post-2020 (Decision No.1734/QD-TTg) approved in December 2008 stipulates planning a total of 5,873 km of roadways, and has designated more efficient logistics and measures to alleviate congestion in the southern part of Viet Nam a priority area—goals which are achieved by this project, as it links the industrial

areas with airports and seaports without passing through Ho Chi Minh City. Further, the construction of North-South expressway (which this project addresses) was mentioned in Japan-Viet Nam Joint Statement in October 2006 when Prime Minister Dung visited Japan. In terms of implementation, the Vietnam Expressway Corporation (VEC) was established in 2004 to take charge of developing and investing in the expressway, and the company is now working to strengthen its operation and maintenance framework.

(3) Japan's and JICA's country assistance program and achievements in the transport/road sector

The JICA's country assistance program for Vietnam formulated in July 2009 states, "With regard to intercity arterial transport networks, assistance will be extended to arterial roads (including the North-South expressway), railways, ports, and airports from the perspective of achieving more effective logistics, and based on roadmaps, with attention to selection and concentration." This project therefore fits perfectly with the above policy, since the North-South expressway is expected to contribute to more efficient logistics in the southern region of Viet Nam (a priority area). Efforts to build intercity arterial transport networks are also part of "Urban development, network development for transportation and communications"—one of the four pillars of priority areas set forth in the Rolling Plan, which calls for 57,589,000,000 yen to be allocated for projects to construct a north-south expressway Ho Chi Minh - Dau Giay section (phases I and II) and Da Nang - Quang Ngai section. In addition, JICA carried out the Study on ITS Technical Standards Operational Planning Support Project in Vietnam (March 2010 ~ January 2011), dispatched an advisor as to 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). This project makes use of these outcomes.

(4) Assistance by Other Aid Organizations

The World Bank is providing support for the construction of the North-South expressway (Da Nang - Quang Ngai section) and forms of infrastructure in Viet Nam. The Asian Development Bank (ADB) is supporting the Greater Mekong Subregion Regional Cooperation Program, which includes the construction of the North-South expressway (Noi Bai - Lao Cai section and Ho Chi Minh – Dau Giay section) with co-financing of JICA. This project is also co-financed by ADB.

(5) Necessity of the Project

This project is in line with Japan and JICA's priority support areas, and takes into account the above necessity in light of the Viet Nam government's Expressway Master Plan, which designates more efficient logistics and contribution to economic growth in Viet Nam's southern regions as priority areas. This project is therefore considered highly necessary and relevant.

<b>3. Project Description</b>
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(1) Project Objectives

The objective of the Project is to improve logistic of Southern Vietnam and to strengthen the capacity to keep up the future demand in traffic volume of Ho Chi Minh City area by constructing a new expressway from Ben Luc to Long Thanh, which is a part of the North-South Expressway, thereby contributing to the promotion of economic growth and international competitiveness of the region.

(2) Project Site/Target Region

Ho Chi Minh City, Long An Province and Dong Nai Province, the Socialist Republic of Viet Nam

(3) Project Outline

- 1) Construction of expressways (total length of 57.8 km (with Japanese ODA loans targeting 10.7 km of the total)) and related facilities
- 2) Consulting services: Supervision of the construction works

(4) Total Project Cost

149,058 million yen (Japanese ODA loan amount for this fiscal year: ¥14,093 million)

(5) Schedule

November 2011 ~ April 2018 (78 months in total): The time to start the service (April 2016) shall be the time of the project's completion.

(6) Implementation Structure

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

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

- 1) Environmental and social consideration: As shown in the attachment
- 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.): This is a large-scale infrastructure project in a region that has a high rate of HIV/AIDS infection. Measures to prevent the spread of the AIDS among construction workers will be taken.

(8) Partnership with other donors: Co-financing with ADB (parallel financing).

(9) Other important issues: None

**4. Project's Effects**

(1) Quantitative Effect

1) Operation and Effect Indicators

Indicator	Baseline (2011 Actual)	Target (2018) 【2 years after the project completion】
Travel Time (min.)	132	58
Vehicle Operation Cost Saving by using the Project (\$ mil./year)	—	14.94
Annual Average Daily Traffic (AADT)(PCU/day)	N.A	41,136

## 2) Internal Rate of Return

Based on the following premises, the economic internal rate of return (EIRR) of this project is 25.52%, and the financial internal rate of return (FIRR) is 2.72%.

### **【EIRR】**

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

Benefit: Saving in vehicle operating cost and shortened traveling time

Project life: 25 years

### **【FIRR】**

Cost: Project cost and operation and maintenance expenses

Benefit: Toll revenues

Project life: 34 years

## (2) Qualitative Effect

The construction of the North-South Expressway will improve the efficiency of transporting passengers and cargo, contributing to economic development in the southern part of Viet Nam and boosting international competitiveness.

## **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 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 Viet Nam. 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) Travel Time (min.)
- 2) Vehicle Operation Cost Saving by using the Project (\$ mil./year)
- 3) Annual Average Daily Traffic (AADT)(PCU/day)
- 4) Economic internal rate of return (EIRR) (%)
- 5) Financial internal rate of return (FIRR) (%)

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

**The Socialist Republic of Viet Nam**  
**North-South Expressway Construction Project (Ben Luc-Long Thanh Section) (I)**  
**Environmental Review Results**

1. **Category: A**
2. **Justification:** This project falls into a category of “roads” and “sensitive sectors” as per the JBIC Guidelines for Confirmation of Environmental and Social Considerations (issued April 2002).
3. **Environmental approval:** The Executing Agency for this project (Vietnam Expressway Corporation) prepared an Environmental Impact Assessment (EIA) report for this project, which was approved by Ministry of Natural Resources and Environment (MONRE) in September of 2010.
4. **Pollution control:** Once the expressway is in service, several steps are planned to mitigate the expected impact of road noise, including periodic renovations, regular vehicle inspections by traffic police, and the erection of noise barriers in areas such as schools and hospitals that are sensitive to noise. During construction, measures based on the Environmental Management Plan are in place to control water discharge and other waste as well as atmospheric pollution, noise and vibration, and traffic congestion. Because concerns over noise and air pollution were expressed during public consultation related to the EIA report for this project, the VEC made a firm promise to carry out environmental management, including monitoring activities. The residents around the project area have expressed no particular opposition to the project.
5. **Natural environment:** This project will be carried out about 12 km to the north of the core area of the Can Gio Mangrove Forest Biosphere Reserve recognized by UNESCO. Though the project will pass through the transition area of Can Gio, urbanization is allowed within this area, the project has been approved by both the Dinh Quan's People's Committee and the Can Gio Management Board. Furthermore, no rare species exist within or near the project site.
6. **Social environment:** This project will require the acquisition of approximately 362 ha of land and the resettlement of 736 households (the portion covered by Japanese ODA loans will require 84 ha of land and resettlement of 87 households). These efforts will be carried out in line with the Resettlement Plan (RP) prepared in accordance with Vietnamese law. In response to the requests in Public Consultation meeting, which include compensation equal to fair market value and favorable relocation area, the resettlement and compensation plan in line with those requests was explained. Residents have expressed no particular opposition to the project.
7. **Monitoring/other:** Noise, vibration, air quality, water quality, and other environmental factors will be monitored by Supervision consultants and/or environmental consultants hired by VEC in line with the environmental management plan.
8. **Conclusions:** As indicated above, this project is not expected to produce any major

adverse social or environmental effects, as it will be implemented in full consideration of these factors. The following items must be considered when progress reports and other information on implementation status is issued in the future.

- (1) Status of land acquisition/reallocation of residents
- (2) Environmental monitoring (during and after construction)