

Ex-ante Evaluation

1. Name of the Project

Country: The Socialist Republic of Vietnam

Project: The North-South Expressway Construction Project (Ho Chi Minh City – Dau Giay) (I)
(Loan Agreement: March 31, 2008; Loan Amount: 16,643 million yen; Borrower: The Government of the Socialist Republic of Vietnam)

2. Necessity and Relevance of JBIC's Assistance

(1) The actual state of the road sector in Vietnam and the problems it faces

In Vietnam, approximately 84% of passenger transport is conducted on roads, and about 67% of goods are transported on roads. Although roads continue to provide the main mode of transportation in Vietnam, the total length of main roads, including national highways and provincial highways, accounts for only 18% (about 40,000 km) of the country's 220,000 km road network. No expressways are being developed, so an inter-city road network that offers a wide range of choice is far from being in place. Additionally, the damage inflicted by war and lack of maintenance and repair due to budgetary constraints has made the country's transport infrastructure dysfunctional; thus seriously hindering the flow of passenger transport and distribution of goods. Although the pavement ratio of national highways has improved to 84%, the status of road network improvement on the local community level remains insufficient. This is evidenced by the fact that, among other things, 44% of provincial highways, which are the main roads in the region concerned, are still unpaved. In road operation and maintenance, it is said that, because emphasis up to now has been placed on building new roads, both the budget for road administration and its utilization are insufficient. Moreover, there are technical problems at hand and the problem of lack of management skills (managing shortfalls in human resources, budgetary steps, coordinating with other related facilities, etc.) of the organizations placed in charge of operation and maintenance. The removal of inefficiency in the execution of a series of processes ranging from budgetary planning to budgetary preparation, implementation and monitoring is also sought. As the number of registered vehicles increases paralleling Vietnam's economic growth, such insufficiency in the status of the road network improvement is giving rise not only to bottlenecks that hinder the smooth transport but also to the mounting number of traffic accidents. The latter is also becoming a social problem.

The South, which includes Ho Chi Minh City and Dong Nai Province, the two areas targeted by the project, produces 56% of Vietnam's GDP. This high rate of economic growth is paralleled by a surge in traffic volume (especially freight transport). As a result, inefficiency in cargo distribution has become a serious problem. Likewise, given that the demand for transport in the targeted areas in the days ahead is also expected to increase significantly. Thus it is clear that existing roads by themselves are inadequate to meet the increasing transport needs.

(2) Transport sector policy in Vietnam

The National Transport Development Master Plan (-2010), prepared in 2000, calls for the establishment of an efficient transport network and development of a public transport system in Hanoi, Ho Chi Minh and other major cities by 2010. The importance of development of arterial roads in urban areas such as Hanoi and Ho Chi Minh is especially noted in the Road Development Master

Plan in Effect until 2010 and Guidelines in Effect until 2020 and Vietnam's Five-Year Socio-Economic Development Strategy (2006–2010).

In the Vietnam Expressway Network Master Plan (–2020), adopted in August 2005, the Ministry of Transport presented its mid- to long-term domestic expressway network development plan in effect until 2025. The plan calls for opening to traffic of a total of 2,843 km of the expressway network covering 21 sections, construction of a 1,968 km priority section of the expressway by 2015, and construction of the remaining 875 km of the expressway by 2025. Of the number of routes included in the master plan, the one planned by this project is regarded as particularly important. In 2005, the Vietnam Expressway Corporation (VEC) was set up as the organization responsible for the development of the expressway.

(3) Consistency with JBIC's assistance policy

In its Medium-Term Strategy for Overseas Economic Cooperation Operations (FY2005–2007), JBIC sets forth “foundation for sustained growth” as one of its priority areas, and aims to provide assistance to the development of economic infrastructure, including transport facilities as a basis for socio-economic activities. This project aims to construct a part of the Vietnam North-South Expressway running right across the country, which is regarded as priority section in the aforementioned master plan, and so it is consistent with JBIC's assistance policy. Thus it is highly necessary and relevant that JBIC should support the project.

3. Project Objectives

This project aims to ease the congestion on National Highways Nos. 1 and 51, which are already at the limit of their capacity, reduce the time taken for inter-city travel and respond to the increase in traffic demand in the area surrounding Ho Chi Minh City and Dong Nai Province (which are witnessing striking industrial development); thus contributing to Vietnam's economy and society. This will be achieved by cooperating with the Asian Development Bank (ADB) in the construction of the priority section of the Vietnam North-South Expressway network, the Ho Chi Minh – Long Thanh – Dau Giay section (approx. 50 km).

4. Project Description

(1) Target Area

Ho Chi Minh City and Dong Nai Province

(2) Project Outline

- (a) Road construction based on highway codes (including two lanes each way, total length: 50 km, one large bridge)
- (b) Detailed design, bidding assistance, and installation related to the Intelligent Transport System (ITS)
- (c) Consulting services (construction management, etc.)

(3) Total Project Cost / Loan Amount¹

58,659 million yen (Yen Loan Amount: 50,972 million yen)

¹ Only sections targeted for ODA loan (excluding sections targeted by ADB) are targeted in the total project cost and schedule.

(4) Schedule

April 2008–December 2012 (55 months). Project completion is defined as when construction is completed.

(5) Implementation Structure

- (a) Borrower: The Government of the Socialist Republic of Vietnam
- (b) Executing Agency: Vietnam Expressway Corporation (VEC)
- (c) Operation and Maintenance System: VEC

(6) Environmental and Social Consideration

(a) Environmental Effects / Land Acquisition and Resident Relocation

(i) Category: A

(ii) Reason for Categorization

This project is classified as a road sector project which is likely to have significant adverse impact on the environment under the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established in April 2002). Thus this project is classified as Category A.

(iii) Environmental Permit

The Environmental Impact Assessment (EIA) report concerning this project was approved by the Ministry of Natural Resources and Environment in October 2007.

(iv) Anti-Pollution Measures

Atmospheric pollution and noise are expected to meet the domestic standards of Vietnam through measures such as planting trees along the expressway and installing sound insulation walls in the section adjacent to residential areas.

(v) Natural Environment

The area targeted by this project is not located in or around sensitive areas, such as national parks, and so adverse impact on the natural environment is assumed to be minimal.

(vi) Social Environment

The project will involve the acquisition of approximately 106.3 ha of land and resident relocation of 324 households, which will be carried out in accordance with the domestic procedures of Vietnam and the resident relocation plan currently being worked out. As a result of a conference held with local residents, it was confirmed that there was no particular opposition to the implementation of the project.

(vii) Other/Monitoring

In this project, VEC will monitor, among other things, air quality, water quality and noise, as well as land acquisition and resident relocation.

(b) Promotion of Poverty Reduction

The possibility of preferentially hiring residents living in the surrounding area to work at the service stations and the like under consideration for future construction will be studied.

(c) Promotion of Social Development (e.g. Gender Perspective, Measure for Infectious Diseases Including AIDS, Participatory Development, Consideration for the Handicapped, etc.)

HIV/AIDS measures will be implemented on construction workers collectively within the ADB loan framework, including those working in the section that will be financed with ODA loan provided by JBIC.

(7) Other Important Issues

This project is financed jointly with ADB.

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicator)

Indicator	Baseline (2007 actual)	Target (2014, 2 years after completion)
Time required in case of existing roads (minutes)*	80	To be determined in the detailed design
Time required in case of new expressways (minutes)*	NA	25
Annual average daily traffic (vehicles/day)*	0	30,000
Increase in frequency of traffic accidents	NA	Lower than the standard in neighboring areas

* Only the section between An Phu and Long Thanh financed with ODA loan

(2) Internal Rate of Return (Financial and Economic Internal Rate of Return)

Based on the conditions indicated below, the economic internal rate of return (EIRR) is 14.0% and the financial internal rate of return (FIRR) is 9.8%. However, the final figures will be determined when the total project cost covered by ADB loans is calculated.

[EIRR]

- (a) Cost: Project cost (excluding tax), operation and maintenance expenses, etc.
- (b) Benefit: Reduction of running cost of vehicles, reduction of travel time, etc.
- (c) Project Life: 25 years

[FIRR]

- (a) Cost: Project cost, operation and maintenance expenses, etc.
- (b) Benefit: Toll revenue from the expressway
- (c) Project life: 25 years

6. External Risk Factors

This project is financed jointly with ADB, and its execution may be impacted by the resident relocation, land acquisition, bidding assistance, contents and timing of the main construction that will be carried with the financial assistance provided by ADB. Thus close cooperation among ADB, JBIC and VEC is needed to alleviate the risk involved.

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

From the ex-post evaluation of the operations undertaken in similar projects in the transport sector, especially projects for construction of expressways, the lesson learned is that, in order to ensure the effectiveness of a project, it is important to extend assistance based on a national expressway plan rather than supporting construction of specific expressways in a fragmentary manner. Another lesson

learned is that, from the perspective of ensuring sustainability after project completion, it is necessary to establish, from the early stages of planning, an operation and maintenance system that includes operation and maintenance expenses, as well as to conduct careful examination of traffic volume estimates and toll collection plans. On the basis of these lessons, as the first step towards the development of a national expressway network of Vietnam, this project undertakes the construction of the top priority section of a highway master plan.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

- (a) Time required in case of existing roads (minutes)
- (b) Time required in case of new expressways (minutes)
- (c) Annual average daily traffic (vehicles/day)
- (d) Increase in frequency of traffic accidents
- (e) Internal rate of return: EIRR, FIRR (%)

The ex-post evaluation of this project will target all sections, including those supported by ADB. However, since the index criteria and target values of all sections, including the ADB supported sections, cannot be sampled at the time of appraisal, JBIC will examine them jointly with ADB and VEC on the basis of the detailed design.

(2) Timing of Next Evaluation

Two years after project completion