Ex-Ante Evaluation

1. Name of the project

Country: Socialist Republic of Vietnam

Project: Third National Highway No.1 Bridge Rehabilitation Project (II)

Loan Agreement: March 18, 2010

Loan Amount: 1,038 million yen

Borrower: The Government of the Socialist Republic of Vietnam

2. Background and Necessity of the Project

(1) Current State and Issues of the Private Sector in Vietnam

National Highway No. 1 is an important arterial road in Vietnam, as well as its longest, but many of the bridges along this highway were damaged in bombardments during the Vietnamese War, and although stopgap measures have been taken frequently, most of these bridges have exceeded their expected lifetime. These obsolete and weak bridges are a serious bottleneck for safe and smooth highway traffic on National Highway No. 1. The Mekong Delta region, where this project is located, is Vietnam's largest farm belt, and over 50% of Vietnam's rice crop is grown here, as well as 70% of farm-raised shrimp, a major export product for the country. It is essential that the regional road network be upgraded to ensure a smooth, high-volume transport method and improve the efficiency of highway traffic.

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

The Vietnamese government's Eighth Five-Year Social and Economic Development Strategy (2006-2010) prioritizes road repair and new road construction. Moreover, the Master Plan for National Transport Development, which JICA helped to prepare, includes a transport sector investment plan in which the road sector accounts for 65% overall. As such the road sector is given high priority.

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

Japan's Country Assistance Program for Vietnam (July 2009) specifies aid for the development of an arterial road network as one of the pillars of Japan's aid for "urban development and the establishment of a transport/traffic and communications network", which are all important issues. This project to construct part of the National Highway No. 1 running across the country is part of the program to build an arterial road network, and Loan Agreement for Phase 1 was signed in fiscal year 2002 (March 30, 2003, authorized amount of 5,013 million yen).

(4) Other Donors' Activities

① The World Bank is implementing a broad range of cooperation in national roads, local roads, inland transport by water, urban transport, and other.

② The Asia Development Bank (ADB) is working on upgrading the National Highway No. 1, similar to the World Bank, and also supports projects in the Greater Mekong Economic Cooperation Program, such as the Saigon Port Repair Project, the Northern Province Road Improvement Project, the Kunming-Haiphong Transport Corridor Project and the Noi Bai-Lao Cai Highway Project.

(5) Necessity of the Project

Phase 1 of this project targeted 16 bridges[1], but in 2006 the number of bridges covered by Japanese ODA loans was reduced to nine due to higher costs attributable to (1) design changes during the detailed design stage, and (2) a sharp rise in the price of construction

[1] When the loan agreement was initially signed, the aid covered 17 bridges, but subsequently funding from the World Bank covered one of these bridges, and the detailed design was carried out for 16 bridges.

materials. (The remaining seven bridges were upgraded by Vietnam using its own funds.) However, a global spike in prices for construction materials such as steel and soil and sand even after the construction work had started in 2007 resulted in further fund shortages, and additional aid is required to realize this project's outcome quickly and sustainably. This project is consistent with Japan and JICA's aid priorities, and the necessity and relevance of this project implementation is very high.

3. Project Description

(1) Project Objectives

This project is intended to improve the efficiency of road transport in the Mekong Delta region by repairing and rebuilding bridges along the National Highway No. 1 (Can Tho to Ca Mau) in southern Vietnam. This will contribute to the economic growth of this region and help strengthen international competitiveness.

(2) Project Site/Target Area

One city and three provinces (Can Tho City, Hau Giang Province, Soc Trang Province and Bac Lieu Province) in the Mekong Delta in southern Vietnam

(3) Project Components

1) The repair and rebuilding of 16 bridges (nine with Japanese ODA loans and seven with Vietnam's own funds)

2) Consulting services (detailed design, bidding assistance, construction management and supervision, assistance in review and implementation of resident relocation plan, traffic safety measures, etc. for 16 bridges)

(4) Estimated Project Cost (Loan Amount)

13,695 million yen (Loan Amount: 1,038 million yen)

(5) Schedule

March 2003 – September 2012 (total of 115 months); the project will be completed when the 16 bridges begin operating (February 2011).

(6) Project Implementation Structure

1) Borrower: The Government of the Socialist Republic of Vietnam

2) Executing Agency: Ministry of Transport (MOT)

3) Operation and Maintenance System: No. 7 Road Management Unit, Vietnam Road Administration

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

1) Environmental and Social Considerations

① Category: B (Category A)

② Reason for Categorization: Judging from the sector attributes, project characteristics or regional characteristics specified in the JICA Guidelines for Environmental Considerations in ODA Loans (established in October 1999), this project would not have a significant harmful impact on the environment and thus corresponds to Category B. (Under the current guidelines, the JICA Guidelines for Confirmation of Environmental and Social Considerations [established in April 2002], this project would correspond to the road sector, which has characteristics that tend to affect the environment, so it would correspond to Category A, but since there were no major changes in the scope of the project, the 1999 guidelines, which were applied in the initial screening, will be applied to this project now as well.)

③ Environmental Permit: The Ministry of Science and Technology (at that time) has already approved the EIA for the National Highway No. 1 overall (July 1999). The executing agency prepared the EIA specifically for the bridges and this was approved by the

Ministry of Natural Resources and the Environment in November 2002.
④ Anti-Pollution Measures: As for the waste disposal and water contamination prevention during construction and operation, countermeasures have been taken by the Executing Agency so as to meet Vietnam's environmental standards under the supervision by the consultant.
⑤ Natural Environment: No major impact.
⑥ Social Environment: This project will result in the acquisition of the land of 1,958 households, of which approximately 210 households will be relocated. The process of site acquisition and resident relocation will be carried out in accordance with the basic resident relocation plan prepared by the executing agency in line with Vietnam's domestic laws. Compensation payments for the land acquisition had been made and 197 of the 210 households had been relocated by December 2009. The remaining 13 households are expected to be relocated by March 2010.
⑦ Other/Monitoring: The executing agency will monitor environmental issues such as air quality and water quality.

2) Promotion of Poverty Reduction: Upgrading arterial roads is expected to benefit the impoverished population in the Mekong Delta, which is home to a large number of poor people.

3) Promotion of Social Development: None in particular

(8) Coordination with other donors: This project was carried out with close information sharing with the World Bank's Mekong Transport and Flood Protection Project, which was conducted on the same leg of the highway. The World Bank's project was completed in 2008.
(9) Other Important Issues: None in particular

4. Targeted Outcomes

(1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (Phase 1) (Actual Value in 2002)	Baseline (Phase 2) (Actual Value in 2008)	Target (2013) (Expected value 2 years after project completion)
(a) Average annual daily traffic volume (units/day)			
Can Tho	7,722	10,295	13,787
Soc Trang	7,791	10,235	13,567
Bac Lieu	7,192	9,353	12,288
Ca Mau	7,967	13,568	17,965
(b) Reduction in travel time (hours)			
Can Tho - Soc Trang	1 hour, 45 min.	1 hour, 10 min.	50 minutes
Soc Trang - Bac Lieu	1 hour, 45 min.	1 hour, 10 min.	50 minutes
Bac Lieu - Ca Mau	1 hour, 55 min.	1 hour, 20 min.	1 hour

(1) Internal Rate of Return:
Based on the conditions indicated below, the Economic Internal Rate of Return (EIRR) for

this project is 17.7%. (The World Bank's road project is included in making this calculation since this project had synergistic effects with the World Bank project, which was carried out in the same leg of the highway at the same time.) The Financial Internal Rate of Return (FIRR) was not calculated because this project is not required to maintain and secure financial profitability for the targeted bridges alone.

【EIRR】

Costs: Project costs (excluding taxes), operating and maintenance costs

Benefits: Effect in reducing travel costs, effect in reducing travel time

Project life: 25 years

5. External Factors and Risk Control

None in particular

6. Lessons Learned from Past Projects

The ex-ante evaluation for the first and second Projects (December 2007) pointed out several factors as causing delays in the project: (1) delays in land acquisitions, (2) delays in procedures to obtain government authorization, (3) contractors' financial problems, and (4) bad weather and natural disasters. When carrying out this project (Phase 2), a system will be developed so that VRA, PMU consultants and contractors prepare a monitoring format and regularly report to JICA.

7. Plan for Future Evaluations

(1) Indicators to be used

1） Average annual daily traffic volume (units/day)

2） Reduction in travel time (hours)

3） Economic Internal Rate of Return (EIRR) (%)

(2) Timing: Two years after project completion