Ex-ante Project Evaluation

1. Name of project

Country: Socialist Republic of Vietnam

Name of project: Transport Sector Loan for National Road Network Improvement (II)

L/A signing date: March 31, 2009

Loan amount: 17,918 million yen

Borrower: The Government of the Socialist Republic of Viet Nam

2. Background and need for project

(1) Issues in Vietnam's road (bridge) sector and development achievements (current)

Vietnam has approximately 7,900 bridges (total length of about 225km) on its national roads and provincial roads, with about 4,250 bridges (about 145km) on its national roads and about 3,650 bridges (about 80km) on its provincial roads. However, the strength of many of these bridges has been severely impaired due to damage suffered in wars and inadequate maintenance and repairs due to budget constraints. In addition, there are many makeshift bridges, as well as bridges with weight limitations necessitated by the bridge's obsolescence and bridges that are much narrower than road regulations stipulate. This situation has resulted in problems with safety and transportation efficiency. Degraded bridges must be repaired and replaced to accommodate the anticipated increases in traffic volume, ensure road safety and create an efficient road network. Approximately 750 bridges (about 22km in length) on national roads and about 600 bridges on provincial roads (about 13km in length) have been identified as urgently needing to be replaced (as of 2006).

At the same time, while demand for road and bridge maintenance and management rises, Vietnam faces severe constraints in terms of both its budget and skills. The budget for maintenance and management must be increased, and a system for bridge maintenance and management that would ensure efficient utilization of the limited budget must be strengthened (establishment of long-term maintenance and management plan, updating of maintenance and management data base, preparation of bridge inspection manual, employee training, etc.). It is essential that an exhaustive long-term maintenance and management plan, including maintenance and management of bridges, be established.

(2) Development policies and role of this project for Vietnam's road sector

The National Master Plan for Transport Development (to 2010), prepared in 2000, aims to build an efficient transportation network and develop a public transportation network for urban transportation in Hanoi, Ho Chi Minh and other cities, by 2010. The Five-Yea Socio-Economic Development Plan (2006-2010) aspires to develop a comprehensive road network. However, it has been pointed out that the road sector has never been allocated an adequate budget for maintenance and management.

(3) Japan and JICA's aid policy and achievements in the road sector

The aid policy in the aid plan for Vietnam prepared in April 2004 states that in the

transportation sector, aid for financial resources and system building, improving the capacity of implementing organizations and improving the capacity to establish measures and plans will be treated as a priority. This project confirms with this policy.

(4) Response by other aid organizations

a) World Bank

The World Bank cooperates extensively in building national and local roads and establishing infrastructure for inland transportation by water and urban transportation.

b) Asian Development Bank (ADB)

The ADB supports the GMS Economic Cooperation Program, in addition to the National Highway One Improvement Project, the Saigon Port Project and the Northern Province Improvement Project.

(5) Need for project

This project addresses the issues described in (1) above faced by Vietnam's road sector, and is consistent with Vietnam's development policies and JICA's aid policies. Accordingly JICA support is extremely necessary and relevant.

3. Project Summary

(1) Project purpose

By repairing and rebuilding weak bridges on Vietnam's national and provincial roads, this project aims to develop a safe, smooth and reliable road network and contribute to the socio-economic development of Vietnam's urban and agricultural regions.

(2) Name of project site and targeted regions

Vietnam in its entirety

(3) Project summary

1) Repair and reconstruction of existing bridges on national and provincial roads

2) Consulting services (detailed design, bidding aid, support in developing efficient maintenance and management system for roads and bridges, study of precedents to examine validity of bridge design)

(4) Total project cost

49,930 million yen (of which amount from Japanese ODA loan: 17,918 million yen)

(5) Project implementation schedule

November 2003 – January 2012 (99 months); project will be deemed complete when construction work is completed

(6) Project implementation system

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

2) Organization implementing project: Ministry of Transport

3) System for operations, administration, maintenance and management: VRA：Vietnam Road Administration）

(7) Environmental and social considerations, poverty reduction, social development

1) Environmental and social considerations

a) Category classification: FI

b) Rationale for category classification

A sub-project had not been designated before JICA approved the Japanese ODA loan, and such a sub-project would not be expected to affect the environment. Accordingly, this project corresponds to category FI in the JBIC Guidelines for Confirmation of Environmental and Social Considerations (established April 2002).

c) Other, monitoring

The implementing organization will consider the environmental and social issues in accordance with the aforementioned guidelines, and will take the actions necessary for each corresponding category for sub-projects. In the event of sub-projects corresponding to category A, the implementing organization would carry out an Environmental Impact Assessment (EIA) before bidding on the procurement package, including the relevant bridge, and prepare a resident relocation plan. JICA would review the results after the EIA had been approved by the organization responsible for confirming the EIA.

2) Promotion of poverty reduction: None

3) Promotion of social development (gender perspective, measures addressing infectious diseases such as AIDS, participatory development, consideration of handicapped people, etc.): None

(8) Coordination with other donors: None

(9) Other notes: None

4. Project Outcome

(1) Indicators for Operations and Outcome

Name of indicator	Name of bridge	Standard value (2007 actual value)	Target value (2014 [two years after project is completed])
(a) Operation indicator Annual average daily travel volume (vehicles/day for each bridge)	Song Liem	2,160	3,337
	Dap Ong Choi	3,564	5,498
	Phu An 1	2,160	3,337
	Than Loc (4)	4,420	6,859
(b) Outcome indicator Reduction in travel time compared to detour when bridge was damaged (time for each bridge)	Song Liem	-	14.4
	Dap Ong Choi	-	2.1
	Phu An 1	-	2.1
	Than Loc (4)	-	9.6

(2) Internal rate of return

Based on the assumptions below, the economic internal rate of return (EIRR) for this project would be 9%.

EIRR

Costs: Construction costs, maintenance and management costs

Benefits: Effect in reducing travel costs, savings in maintenance and management costs

Project life: 25 years

5. External conditions and risk control

(1) Economic stagnation and deterioration in Vietnam and regions surrounding the project's target area

(2) Natural disasters (the Mekong Delta region suffers from flood damage every year, and progress in civil engineering work tends to be dependent on the amount of rainfall)

6. Evaluation results for similar projects in the past and lessons for this project

This project is funded by a sector loan and the initial plan (project scope) would tend to be revised and changed during implementation. Accordingly, revising and changing the scope should be done rapidly and flexibly, for example by fixing the scope at a certain level and simplifying procedures for revisions and changes.

7. Future evaluation plans

(1) Indicators to be used in future evaluations

1) Annual average daily travel volume (vehicles/day for each bridge)

2) Reduction in travel time compared to detour when bridge was damaged (time for each bridge)

3) EIRR (%)

(2) Timing of future evaluation

Two years after project completion