### Ex-Ante Evaluation (for Japanese ODA Loan)

#### 1. Name of the Project

Country: Socialist Republic of Viet Nam  
Project: National Highway No.1 Bypass Road Construction Project (II)  
Loan Agreement: November 10, 2009  
Loan Amount: 4,141 million Yen  
Borrower: The Government of the Socialist Republic of Viet Nam

#### 2. Background and Necessity of the Project

1. **Current State and Issues of the Transportation / Road Sector in Socialist Republic of Viet Nam**

   The road traffic is still the main mode of transport in Viet Nam and carries approximately 90% of all passengers and approximately 69% of all freight. However, within 240,000km total roadway, only about 20,000 km are national roads which play a vital role as main thoroughfares connecting major cities, so a high-selective interurban road network is inadequately developed. Moreover, the qualitative maintenance condition is inadequate due to damage by war and years of poor maintenance and repair, and deterioration of the roads is severe. While the pavement ratio of national roads has reached approximately 98%, the overall ratio of paved roads is only approximately 57% and road maintenance standards at the local community level is low (all the statistics are as of 2007). As the number of registered vehicles rapidly increases in step with economic development, the poor road maintenance condition of the insufficient road network has become a hindrance to transportation.

   Furthermore, the maintenance of highways in Viet Nam is in the starting phase, National Highway No. 1, runs the length of the country from the northern border with China to Nam Can in the south, is a critical artery, but still depends on ferry transportation to cross the Mekong River between Can Tho city and Vinh Long Province, which caused traffic problems and is unreliable when weather conditions are freak.

2. **Development Policies for the Transportation / Road Sector in Viet Nam and the Priority of the Project**

   In the Five Year Socio-Economic Development Plan of the Vietnamese government (SEDP, 2006–2010), focus has been placed on the repair and new construction of roads, with high importance placed on the maintenance of National Highway No.1, Vietnamese main artery.

3. **Japan and JICA's Policy and Operations in the Transportation / Road Sector**

   Japan’s Country Assistance Program for Viet Nam (July 2009), mainly endeavors to offer related support to “network maintenance of urban beltways, inner-city and its surrounding bypass roads, etc.,” and “arteries between cities” and this project is in line with the plans for the construction of bypass roads to National Highway No. 1 which goes through the country. Furthermore, JICA has raised “Urban Development, Transportation, and Communication Network Maintenance” as one of the pillars of support, and strives to work for network maintenance such as bypass roads around the city. This project has been positioned within the “Arterial / Traffic Program,” and Yen Loan for the first phase was approved in 2000 (signed on March 30, 2001, approved amount 8,393 million yen).
(4) Other Donors’ Activity

① The World Bank; Wide-ranged cooperation has been carried out on national and regional roads, inland water transportation, urban transportation, etc.

② The Asian Development Bank (ADB); Supporting the Greater Mekong Subregion Economic Cooperation Program, etc., such as Kunming-Haiphong Transport Corridor Project -Noibai-Lao Cai Road Maintenance Project.

(5) Necessity of the Project

As described above, the necessity and relevance of the support by JICA for this project is high.

### 3. Project Description

(1) Project Objectives: The objective of this project is to meet the transport demand and develop efficient distribution system in Cuu Long (Mekong) Delta through construction of bypass roads of Can Tho bridge which crosses the Hau Tributary of the Mekong River in southern Viet Nam, thereby contributing to the promotion of socio-economic development and the competitiveness of Viet Nam, in the global economy.

(2) Project Site/Target Area: Vinh Long Province and Can Tho City

(3) Project Components(including the procurement methods): Construction of bypass road (approximately 13km) that branches from the existing National Highway No.1 and will connect to both sides of Cuu Long (Can Tho) Bridge.

① Construction, procurement and installation of equipment etc, (bypass roads, approach bridges, interchange, service area, toll booth)

② Consultation services (review of detailed design, assistance in tender and contract, construction supervision, technical guidance, and environmental measures)

(4) Estimated Project Cost (Loan Amount)

14,846 million yen (Loan Amount: 4,141 million yen)

(5) Schedule

From March 2001 to March 2012 (total 133 months). Project completion is determined to be at the start of facility operations (March 2010).

(6) Project Implementation Structure

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

2) Executing Agency: Ministry of Transport, Viet Nam

3) Operation and Maintenance System: Viet Nam Road Administration

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

1) Environmental and Social Consideration

a) Category: A

b) Reasons for Categorization: This project is a new construction of large-scale road, and is classified as Category A according the “JBIC Environmental Guidelines for ODA Loans” (October 1999).

c) Environmental Permit: An Environment Impact Assessment (EIA) report for this project was approved in July 1998, by Ministry of Science, Technology and Environment.

d) Anti-Pollution Measures: Anti-pollution measures regard to air, water, soil erosion, noise, and vibration during construction and service, are in compliance with the environmental standards of Viet Nam.

e) Natural Environment: The project's targeted site does not include areas which will easily affect national parks or their surrounding areas and is assumed to have minimal negative impact on the natural environment.
f) Social Environment: For land acquisition of approximately 210ha and the related resettlement of 1,574 households for this project, procedures of land acquisition and compensation were carried out in compliance with Vietnamese law and completed in 2007.

g) Other/Monitoring: The executing agency will monitor air quality and water quality.

2) Promotion of Poverty Reduction: None.

3) Promotion of Social Development (e.g. Gender Perspective, Measures for Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for the Handicapped, etc.): None.

(8) Collaboration with Other Donors: None.

(9) Other Important Issues: None.

### 4. Targeted Outcomes

(1) Performance Indicators (Operation and Effect Indicator)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Definition</th>
<th>Baseline (Actual Value in 2008)</th>
<th>Target (2014) (Expected value 2 years after project completion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Average Traffic Volume</td>
<td>Veh./day</td>
<td>The number of vehicles passing through a specified point in the unit period</td>
<td>27,452</td>
<td>72,089</td>
</tr>
<tr>
<td>Saving of Transport Time(^{\text{note}})</td>
<td>Million yen/year</td>
<td>Total time benefit due to saving of transport time in comparison with driving on the current National Highway No.1 (ferry river crossing)</td>
<td>-</td>
<td>7,125</td>
</tr>
<tr>
<td>Passenger Car Unit: PCU</td>
<td>PCU/day</td>
<td>Unit of traffic upon converting the number of operating vehicles of various types to the number of passenger cars</td>
<td>20,797</td>
<td>52,892</td>
</tr>
<tr>
<td>Decrease of Ferry Operation Cost</td>
<td>million yen/year</td>
<td>Economization cost (in Management, Operation and Maintenance) when the Ferry is replaced by the Bridge</td>
<td>-</td>
<td>1,090</td>
</tr>
<tr>
<td>Increase of land price in surrounding area</td>
<td>%</td>
<td>Rise in surrounding land prices (year 2006 as base=100)</td>
<td>165</td>
<td>237</td>
</tr>
</tbody>
</table>

(Note) The transportation time is assumed to be reduced 25 minutes by carrying out both this
(2) Internal Rate of Return

Based on the conditions indicated below, the economic internal rate of return (EIRR) of this project is 15.7%.

Cost: Construction costs (not include TAX), maintenance costs
Benefits: Increase in time and travel benefit, reduction in ferry operation costs, increase of land price in surrounding area

Project Life: 50 years

5. External Factors and Risk Control

None.

6. Lessons Learned from Past Projects

None.

7. Plan for Future Evaluation

(1) Indicators to be Used

1) Annual Average Traffic Volume (vehicles./day)
2) Saving of Transport Time (million yen /year)
3) Passenger Car Unit (PCU/day)
4) Decrease of Ferry Operation Cost (million yen/year)
5) Increase of land price in surrounding area (%)

(2) Timing: 2 years after project completion