

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country: Socialist Republic of Viet Nam

Program: Hanoi City Ring Road No.3 Construction Project (Mai Dich - South Thang Long Section)

Loan Agreement: December 24, 2013

Loan Amount: 20,591 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 Transport and Road Sector in Viet Nam**

Dependency on roads is very high in the domestic transportation of Viet Nam with road traffic accounting for 74.3% of freight transport and 92.1% of passenger transport in 2011. In recent years, traffic volume has rapidly increased especially on highways connecting large cities and local cities. The situation is particularly serious in Hanoi where rapid economic development, population increase and motorization continue. From 2008 to 2010, the city experienced 9.2% economic growth and a 2.1% population increase on average with its population reaching to 6.60 million in 2010. The numbers of registered motorcycles and cars rapidly increased from over 0.19 million and 2.15 million in 2006 to over 0.41 million and 3.98 million in 2011, respectively. The resulting sharp rise in road traffic volume in the city has led to serious traffic jams and is interfering with efficient economic and social activities. Therefore, it is essential to develop a ring road network in Hanoi in order to curb the inflow traffic from the surrounding areas to Hanoi and facilitate traffic between the surrounding areas, for example.

Taking a path around the central area of the city, Hanoi City Ring Road No.3 fulfills the in-city and intercity functions at the same time. The road is an artery forming a part of the network connecting the north part of Hanoi that has Noi Bai International Airport and a number of industrial parks to the central area of the city and Route 5 that runs to the city of Hai Phong. The traffic volume of the section of the Road No.3 covered by this program (53,983 passenger-car equivalent/day in 2011) exceeds the traffic capacity (44,000 passenger-car equivalent/day in 2011). As a result, traffic of heavy vehicles is controlled and efficient economic and social activities are hindered.

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

In the Ninth Five-Year Socio-Economic Development Plan (2011-2015), the government of Viet Nam positions as the top priority the further development of infrastructure systems including the transportation infrastructure towards achievement of the goal of sustainable development with a high rate of growth. The development of Hanoi City Ring Road No.3 including the program, in particular, is included in the priority projects of the master plan on transport development in the northern key economic region with focus on Hanoi through 2020, with orientations toward 2030 (Decision No. 5 of the Prime Minister in January 2011) and the strategy of socioeconomic development of Hanoi City in 2030 with a vision toward 2050 (Decision No.1081 of the Prime Minister in July 2011).

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

The Country Assistance Program for Vietnam formulated in December 2012 sets "Promotion of economic growth and strengthening of international competitiveness" as one of the priority areas and states that Japan will focus on supports involving

“arterial traffic and urban transportation system development to meet the demand for economic infrastructure that has been rising as a result of economic growth.” The program that is aimed at improvement of the urban loop line is consistent with the policy. Meanwhile, JICA has supported the phased construction of the Hanoi City Ring Road No.3 through Japanese ODA loan programs such as the Red River Bridge and Hanoi City Ring Road No.3 Construction Projects.

(4) Other Donor’s Activity

- 1) The World Bank has been supporting infrastructure development including national and local roads, transportation on inland waterways and urban transportation. For the transportation sector of Hanoi City, the bank is involved in development of a bus rapid transit system and Ring Road No.2.
- 2) The Asian Development Bank has been supporting the Greater Mekong Subregion Economic Cooperation Programs, etc. including the Kunming-Haiphong Transport Corridor - Noi Bai-Lao Cai Highway Project. For the transportation sector of Hanoi City, ADB promotes the use of public transportation through the Urban Railway Line 3.

(5) Necessity of the Project

The project improving traffic congestion and physical distribution in Hanoi City is consistent with the issues and the development policy of the Government of Viet Nam as well as the assistance policy of Japan and JICA. Therefore, JICA’s assistance for implementation of the Project is highly necessary and reasonable.

3. Project Description

(1) Project Objective

The objective of the Project is to accommodate increasing traffic demand and alleviate congestion in Hanoi City by developing a highway in the Mai Dich - South Thang Long Section of Hanoi City Ring Road No.3, thereby contributing to economic development in the region.

(2) Project Site/Target Area:

Hanoi City, the Socialist Republic of Viet Nam

(3) Project Components

- 1) Civil engineering work
Development, etc of a highway (about 5km long including an elevated road) through international competitive bidding
- 2) Consulting services (detailed design, bidding assistance, construction supervision, etc.)(short-list method)

(4) Estimated Project Cost (Loan Amount)

24,269 Million Yen (Yen Loan Amount: 20,591 Million Yen)

(5) Schedule

December 2013 to May 2020 (78 months). The project shall be completed upon commencement of the service (in May 2018).

(6) Project Implementation Structure

- 1) Borrower: The Government of Socialist Republic of Viet Nam
- 2) Guarantor: None
- 3) Executing Agency: Ministry of Transport (MOT)
- 4) Operation and Maintenance Structure: Department of Transport of Hanoi People's Committee will handle its operation and maintenance.

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

- 1) Environmental and Social Consideration
 - (1) Category: A
 - (2) Reason for Categorization: The project falls under the Road Sector defined by the "Japan International Cooperation Agency Environmental and Social Consideration Guideline" issued in April 2010.
 - (3) Environmental Permit: the Environmental Impact Assessment Report concerning the project was approved by MOT on April 25, 2013.
 - (4) Anti-Pollution Measures: Mitigation measures will be taken for air quality, water quality, noise and vibration during the construction work to meet the domestic emission and environmental standards by regular watering, installation of dust-control fences, soil water inflow prevention by raising the ground around piling works, installation of wastewater treatment facilities and use of low-noise machines. Air quality after starting service is expected to meet the domestic environmental standard. Measures to reduce noise will be taken to meet the relevant environmental standard by constructing soundproof walls and using low-noise paving. Opinions opposing the implementation of the project were not identified in the stakeholder consultations held for residents living in the vicinity.
 - (5) Natural Environment: the project site is not located in or around sensitive areas such as a national park, and so any adverse impact on the natural environment is assumed to be minimal.
 - (6) Social Environment: Because this is a project to construct an elevated road over an existing road, it requires the acquisition of some nationally-owned land but not that of privately-owned land or non-voluntary resettlement of residents.
 - (7) Other / Monitoring: Based on the environmental monitoring plan and forms agreed upon at the time of examination, the contractor under the supervision of MOT will monitor air and water quality, noise, vibration, etc. during the construction, and the Hanoi People's Committee will monitor air/water quality, noise, etc. after the start of service provision. An appropriate scheme of execution will be formulated in order to minimize congestion during the construction.
- 2) Promotion of Poverty Reduction: None in particular
- 3) Promotion of Social Development (e.g. Gender Perspective, Measures for Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for the Persons with Disabilities, etc.): Because this is a large infrastructure development project in an area with concern of HIV/AIDS infection, the consulting service contract will include HIV/AIDS countermeasures to be implemented for civil engineering workers.

(8) Collaboration with Other Donors: None in particular

(9) Other Important Issues:

None in particular

4. Targeted Outcomes

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicators)

Indicator	Baseline (2012)	Target (2021) [2 years after project completion]
Annual average daily traffic volume(PCU/day)	Ordinary road: 53,983	Highway: 29,077 Ordinary road: 45,992
Time required (minute)	Ordinary road: 15	Highway: 5.5 Ordinary road: 8.0

2) Internal rate of return

The Economic Internal Rate of Return (EIRR) of the project is 22.1% based on the following premises. The Financial Internal Rate of Return (FIRR) is not calculated because the project will not involve toll revenue.

[EIRR]

Cost: Project cost (excluding tax) and operation and maintenance costs

Benefit: Reduced time required, reduced traveling costs, reduced traffic accidents, etc.

Project life: 30 years

(2) Qualitative Effects: Facilitating local economy development by securing smooth road traffic.

5. External Factors and Risk Control

None in particular

6. Lessons Learned from Past Programs

1) Evaluation results from similar programs

The ex-post evaluations of "Route 18 Improvement Project" in Viet Nam have given a lesson that it is important to take measures such as setting up of checkpoints because truck overloading, etc are causing deterioration of the road.

2) Lessons for this Program

Because there is concern of deterioration of the road due to traffic of a large number of trucks, we will continue to consider measures at the time of detailed design survey including the setting up of checkpoints to monitor overloading of trucks and the use of paving that is less flowable and likely to become rutted.

7. Plan for Future Evaluation

(1) Indicators to be Used

- 1) Annual average daily traffic volume (PCU/day)
- 2) Time required (minute)
- 3) Economic Internal Rate of Return (EIRR)(%)

(2) Timing

2 years after the completion of the Program

END