

# Terminal Evaluation

## Asia

### 1. Outline of the Project

**Country:**

Vietnam

**Project title:**

The Project for Reconstruction of Bridges in the Northern District

**Issue/Sector:**

Bridgework

**Cooperation scheme:**

Grant Aid

**Division in charge:**

Grant Aid Management Department, Project Monitoring and Coordination Division

**Total cost:**

3,760 Million Yen (E/N amount)

**Period of Cooperation**

1995 - 98

**Partner Country's Implementing Organization:**

Ministry of Transports

**Supporting Organization in Japan:****Related Cooperation:**

Development Survey "The Study on the Transport Development in the Northern Part of Vietnam"

### 1-1 Background of the Project

In the Northern Vietnam, reconstruction of trunk roads and local roads has been delayed, and the bridges, either old or destroyed in the war, have not been repaired. Due to the poor condition of the bridges, regional development and the daily life of the people in the region have been seriously handicapped. The bridges in service have been makeshift ones or that limit the number of cars. The reconstruction and maintenance of a road traffic network is an urgent issue in the socioeconomic development of the country. Recognizing this, the development of the Northern District has become an important national policy. Additionally, the district is an important agricultural zone close to the Chinese border, and its development will help to improve the welfare of the ethnic minority.

Against this background, the Government of Vietnam drew up "The Project for the Reconstruction of Bridges in the Northern District", and requested Grant Aid from the Government of Japan for the procurement of steel girders for bridge construction in the northern states.

### 1-2 Project Overview

In order to reconstruct the road traffic network in the Northern part of Vietnam, old and war-damaged bridges are reconstructed.

#### (1) Overall Goal

To improve the socioeconomic condition of the Northern District by maintaining the road network of Northern Vietnam and to promote a policy of improved welfare for the ethnic minority of the region.

#### (2) Project Purpose

To carry out rehabilitation of local trunk roads and reconstruction or new construction of small and medium sized bridges in 16 northern states in the agrarian communities and mountain ranges.

#### (3) Outputs

1) Twenty-one (21) bridges: Construction of 17 concrete bridges and 4 steel bridges (total length of approx. 1300m) and construction of service roads (total length of approx. 2800m).

2) Eight (8) bridges: Procurement of steel girders (total length of approx. 290m).

#### (4) Inputs

Japanese side:

3,760 Million Yen (E/N amount)

Vietnamese side:

Construction of 8 Bridges, the object of steel girders supply

## 2. Evaluation Team

### Members of Evaluation Team

Team Leader: Naoto TANIGUCHI, Ministry of Foreign Affairs  
Facility Condition Survey: Torao OZUMI, Japan International Cooperation System  
Interpreter: Izumi TAKAHASHI, Japan International Cooperation Center

### Period of Evaluation

15 April 2001 - 24  
April 2001

### Type of Evaluation:

Terminal Evaluation

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

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#### (1) Relevance

"Construction of infrastructure in the rural area" and "development of the northern economy with consideration to reduce north-south disparities" are considered important issues of "The Fifth Five-year Plan" (1991-95) and "Plan for 2000" (1999) of Vietnam. The Project aimed at reconstruction of small and medium sized bridges too old or too damaged for service in the agrarian communities and mountain range in Northern Vietnam. The Project eased the inconvenience of transport and activated economic activities most of which are in the field of agriculture, thus the relevance of the Project is high.

In addition, the improvement and restoration of bridges built on the national and local roads were pointed as the urgent issues in the traffic division by "the Study on the Transport Development in the Northern Part of Vietnam" implemented between 1993 and 1994 by the JICA development survey.

#### (2) Effectiveness

The 21 bridges constructed by the Japanese side and the eight bridges constructed by the Vietnam side were completed as scheduled. They are now used by the people of the area as daily service roads and for commercial transport agricultural and other products.

#### (3) Efficiency

The construction of the bridges was completed one month before the contract period terminated. This was due to the functional organizations at the Project sites and their working conditions. The effective procurement and supply of equipment to the construction sites also helped to complete the work earlier than expected. The tax exemption and clearance on steel girders and equipment and machinery supplied from Japan or other countries were managed smoothly with the cooperation of the Vietnam Government.

#### (4) Impact

The Project improved access to schools, hospitals, etc, as well as the distribution of agricultural products and commodities and communication among the people.

#### (5) Sustainability

The maintenance system for the bridges, established in the Project, is to be carried out at both the state and county level. The county offices are carrying out daily maintenance and managing cleaning, mowing, etc, while the state oversees repair work on the pavement and coating. The maintenance and management cost per bridge in each state increased from four million dollars

in 2000 to 8 million dollars in 2001. This is sufficient for carrying out periodic inspections and small-scale repair works. The policy and the manual for maintenance and management are still in the process of being formulated by the present Ministry of Transports. The maintenance and management framework for securing sustainability as a whole is in the process of being established.

In technical aspects, the basic techniques of planning, designing and application on bridge construction in Vietnam were recognized to be sufficient through the Project. Also, the techniques on setting steel girders were transferred and improved. In addition, it was highly evaluated that the Vietnam side was willing to reestablish the transport network, as seen in the fact that the country has repaired part of the access road network after the Project on its own.

Hence, no particular factors obstructive to the sustainability of the development were found.

### **3-2 Factors that promoted realization of effects**

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#### (1) Factors concerning Planning

In designing the bridges, the construction ability and experience were considered equal to Vietnam's domestic standard and specifications. The equipment needed for the smooth implementation of the construction was procured locally.

#### (2) Factors concerning the Implementation Process

- 1) The techniques of Vietnamese contractors were improved by technical advice from the Japanese side on construction methods using steel girders, which were, financed by the Vietnamese side.
- 2) With the cooperation from the related offices of Vietnam, the custom clearance went smoothly, and the active participation of the Vietnamese side to the Project was achieved with the assignment of one manager and three technicians, who kept the Project on schedule.

### **3-3 Factors that impeded realization of effects**

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#### (1) Factors concerning Planning

N/A

#### (2) Factors concerning the Implementation Process

There was a three to four month delay in construction due to the issue of compensation at the construction site and a delay in obtaining necessary permission, of which were under the jurisdiction of other ministries. However, it was possible to make up for the delay, and the construction was completed within the given time thanks to cooperation by the Vietnamese side.

### **3-4 Conclusion**

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The Project improved the access to schools, hospitals, trunk roads, etc. The distribution of agricultural products and commodities and communication between the local communities has also improved. These had a significant effect on the daily life of the people. The budget for maintenance and management of the county offices and state offices was increased, and the Project effects are expected to continue even after Project termination.

### **3-5 Recommendations**

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N/A

### **3-6 Lessons Learned**

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- (1) When a target area for road reconstruction is huge, the system applied to this Project is considered to be effective: in concrete terms, a system that provides support mainly for the construction of major bridges widely scattered across an area, which leaves the construction of connecting roads and bridges to the self-help of the recipient country.
- (2) When constructing a bridge on a natural river that has not undergone river improvement, the bridge needs to be made longer with consideration to the vertical Alignment and geological condition of the bridge site, and the possibility of scouring vertical alignment of the bridge construction site, geological condition and possibility of scouring. This will reduce the size of the base of the bridge, and there are times when the cost of construction is also reduced as a result of the size reduction.

### **3-7 Follow-up Situation**

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N/A