

## Ex-ante Evaluation

### **1. Name of the Project**

Country: The Democratic Socialist Republic of Sri Lanka

Project: Greater Colombo Urban Transport Development Project (Phase 2( ))

Loan Agreement: July 29, 2008

Loan Amount: 5,718 million yen

Borrower: The Government of the Democratic Socialist Republic of Sri Lanka

### **2. Necessity and Relevance of JBIC Assistance**

#### **1. Situation and issues of the road sector in Sri Lanka**

In Sri Lanka, road transportation comprises 95% of overland passenger transportation, and 98% of freight distribution, and thus plays an extremely important role in the country's socio-economic activities.

However, while the number of registered vehicles in Sri Lanka as a whole is growing by an average of 8.2% a year (2001-2005), the average annual increase in the extent of the country's road network remains at only 1.7% (in the same period). Sri Lanka's road infrastructure is thus unable to keep up with the increasing traffic volume, which is a major factor behind the chronic traffic congestion on the main trunk roads. Furthermore, in addition to this problem, inadequate operation and maintenance of the existing roads, outdated structural criteria including excessively narrow roads, aging roads and lack of road networks connecting major cities are acting as obstacles to efficient distribution in the country.

Furthermore, while much of Sri Lanka's economic activity is concentrated in Greater Colombo area, the importance of development which is balanced over the entire country and regional development is recognized; a new network of expressways which aims to strengthen transportation capacity between Greater Colombo area and other regions, and between the major cities of the regions, is also essential.

#### **2. Sri Lanka's policies relating to the road sector and the position of this project**

In the Road Sector Master Plan created in 2005, the establishment of a new network of expressways between major cities was considered as a high priority issue for the promotion of economic growth and the correction of regional disparities.

From the perspectives of promoting the economy and correcting regional disparities (on which the government puts a particularly strong emphasis), the construction of a number of new expressways is planned in order to increase the connectivity between Greater Colombo area and the major cities of the regions, and to vitalize regional economies, as the existing road network does not meet the standards adequate for a road network. Currently, two cases of construction are being promoted through yen loans: the Southern Highway Construction Project and the Colombo outer circular highway southern section. In addition to these, the Colombo-Katunayake Expressway, Colombo-Kandy Expressway and Colombo-Jaffna Expressway are being planned.

### **3. Direction of Japan's and JBIC's assistance policies for Sri Lanka and its road sector**

In Japan's Country Assistance Program for Sri Lanka (April 2004), "Assistance for systematic reforms and the improvement of economic infrastructure" is stated as the direction for assistance during the next five years. This project is consistent with this direction. Moreover, in JBIC's Medium-Term Strategy for Overseas Economic Cooperation Operations, areas such as "economic infrastructure with the objective of achieving private sector-led sustainable economic development" are positioned as priority areas for assistance to Sri Lanka. Thus, JBIC's support of this project is highly necessary and relevant.

### **3. Project Objectives**

The project aims to alleviate road traffic congestion in Greater Colombo area and improve connectivity between the regions through the construction of expressways linking the main national roads in the surrounds of Colombo and the Southern Highway, and thus contributing to the strengthening of the economic foundations of Sri Lanka and the correction of regional disparities.

### **4. Project Description**

#### (1) Target Area

Area surrounding Colombo (Kaduwela and Kadawata, Colombo District)

The agreement for the southern section project (approximately 12km between Kottawa and Kaduwela) was signed in FY2006.

#### (2) Project Outline

- (a) Construction of Colombo outer circular highway northern section (four-lane expressway) (approximately 7.9km between Kaduwela and Kadawata)
- (b) Construction of interchanges (at two locations)
- (c) Installation of equipment related to construction of toll facilities
- (d) Consulting services (review of expressway construction design/structure design etc.)

As STEP applies to this project, the use of countermeasures for constructing on soft ground and of new technologies for improved speed and space-saving when undertaking construction in cities and small spaces is expected.

#### (3) Total Project Cost/Loan Amount

37,253 million yen (Yen Loan Amount: 26,063 million yen. Yen Loan Amount for phase 2( ) : 5,718 million yen)

#### (4) Schedule (as envisaged at time of appraisal)

June 2008 to April 2012 (47 months). The project will be considered completed when the construction work is completed.

#### (5) Implementation Structure

- (a) Borrower: The Government of the Democratic Socialist Republic of Sri Lanka
- (b) Executing Agency: Ministry of Highways and Road Development (MOHRD). The Road

Development Authority (under the direction of the above ministry) will be responsible for the construction of expressways, construction of interchanges, and installation of toll facilities.

(c) Operation and Maintenance System: Responsibility will lie with the Expressway Authority, which is planned to be set up in July 2009, while facility installation/consulting services relating to maintenance and management systems for the section handled in this project (including the southern section) are planned to be carried out in an integrated fashion by the Southern Highway Construction Project Phase II (STDP).

(6) Environmental and Social Consideration

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category: A

(ii) Reason for Categorization

This project is classified as Category A according to the “JBIC Environmental Guidelines for ODA Loans” (established October 1999) because it is the new construction of a large-scale road. (In addition, in the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established in April 2002), it is also classified as Category A because it falls under the road sector, and has the characteristic of being liable to cause impacts).

(iii) Environmental Permit

The Environmental Impact Assessment (EIA) for this project was approved by the Central Environmental Authority in May 2001, and the extension of the time period too was approved in November 2007. In addition, the supplementary EIA relating to the region where road changes have been made due to a change in the formation of the A1 Interchange (on the Colombo-Kandy road) was approved in November 2007.

(iv) Anti-Pollution Measures

It is envisaged that the project will meet the national standards for air pollution during use of the roads. The adoption of measures against noise such as the installation of a sound insulation wall and planting of trees.

(v) Natural Environment

This project will not take place in or near any national parks, and any adverse environmental impact stemming from this project is expected to be minimal.

(vi) Social Environment

This project will result in the relocation of 143 households, in line with the acquisition of approximately 71.4ha of land. The Road Development Authority is carrying out discussions with the persons subject to land acquisition/resident relocation, and the procedures for land acquisition and resident relocation are being carried out based on Sri Lankan laws on land acquisition and on the plan for resident relocation created by the executing agency.

(vii) Other/Monitoring

For this project, the Road Development Authority will monitor air quality, noise, vibrations, water quality, land acquisition and resident relocation during the construction period, while the Expressway Authority will monitor air quality, noise, vibrations and water quality after the service.

(b) Promotion of Poverty Reduction

None.

(c) Promotion of Social Development (e.g. Gender Perspective, Countermeasures for Infectious Diseases Such as HIV/AIDS, Participatory Development, Consideration of the Disabled etc.)

It is planned to include the implementation of HIV/AIDS countermeasures for construction workers in the tendering documents in the project, and thus have contractors implement HIV/AIDS countermeasures in cooperation with NGOs.

(7) Other Important Issues

None.

## 5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicators)

Indicators	Target (2014, 2 years after project completion)
Average traffic volume per day over one year (vehicles/day)	42,186
Reduction of travel time (million rupees/year)	2,519
Saving of transportation costs (million rupees/year)	2,797
Reduction of traffic accidents (million rupees/year)	131

Targets are set assuming the construction of the southern section (Kaduwela-Kottawa).

(2) Number of Beneficiaries

433,080 people

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

Based on the following assumptions, this project's Economic Internal Rate of Return (EIRR) is set at 13.0%.

Economic Internal Rate of Return (EIRR)

Costs: Project costs (excluding costs of land acquisition, tax), operation and maintenance costs

Benefits: Saving of travel costs, saving of travel time, reduction in traffic accidents

Project Life: 15 years

## 6. External Risk Factors

Possibility of project being delayed due to climatic conditions, particularly flooding.

## 7. Lessons Learned from Findings of Similar Projects Undertaken in the Past

The lesson has been learned from ex-post evaluations of similar projects conducted previously in the road sector that it is essential to pay attention to the establishment of frameworks for operation and maintenance after project completion. Support frameworks for developing capabilities and creating operation and maintenance plans have been created when establishing and starting up the Expressway

Authority; in addition to carrying out monitoring appropriately, the Authority will carry out consultations at the Implementation Council held by the Deputy Minister of Highways and Road Development whenever problems arise, and respond promptly.

### **8. Plans for Future Evaluation**

#### (1) Indicators for Future Evaluation

- (a) Average traffic volume per day over one year (vehicles/day)
- (b) Reduction of required travel time (million rupees/year)
- (c) Saving of transportation costs (million rupees/year)
- (d) Reduction in traffic accidents (million rupees/year)
- (e) Economic Internal Rate of Return (EIRR) (%)

#### (2) Timing of Next Evaluation

Two years after project completion