

1. Name of the Project

Country: Kingdom of Cambodia

Project : National Road No.5 Improvement Project (Battambang – Sri Sophorn Section)

Loan Agreement: May 16, 2013

Loan Amount: 8,852 million yen

Borrower: The Royal Government of Cambodia

2. Background and Necessity of the Project**(1) Current State and issues of transportation sector in Cambodia**

In Cambodia, roadways are playing the central role in domestic transportation, accounting for approximately 65 percent in passenger transport and 70 percent in freight transportation (2006, Ministry of Public Works and Transport: MPWT). Since Cambodia is located between Thailand and Vietnam, and in the center of the Southern Economic Corridor in the Greater Mekong Subregion (GMS) development program led by the Asian Development Bank (ADB), the country is expected to serve as transit point for regional distribution. The transportation infrastructure in Cambodia has been restored since the end of civil war in 1991 with the support from international societies such as Japan, the World Bank (WB), and ADB. The core components of the road/bridge infrastructure have almost been completed with the first round of repair/renovation. However, problems are seen in locations which were temporarily repaired after the civil war, as well as roads with smaller width or inadequate specification. The existing roads need renovation in order to accommodate the domestic/international distribution that is expected to increase along with the future economic growth in Cambodia. Among other things, the National Road No. 5 serves as trunk line in Cambodia, and is also expected to function as an industrial artery in the Mekong Region as part of the Asian Highway 1 and the Southern Economic Corridor. Although the roads targeted by this project underwent temporary repairs, the road quality is still low while traffic is increasing. In order to meet the needs associated with the future economic growth in Cambodia and the increase in domestic and international logistics, it is an urgent task to enhance the transportation capacity and to improve the transportation efficiency.

(2) Development policy on transportation sector in Cambodia and the Priority of the Project

The Cambodian government designates the repair and renovation of infrastructure as a pillar in its “National Strategic Development Plan 2009-2013”, and considers the expansion of transportation network and establishment of a complex, seamless transportation network as a priority issue. The National Road Network Master Plan, prepared in 2006 with aid from JICA, positions the renovation of the National Road No. 5, part of the Southern Economic Corridor, as priority project that contributes to national and regional integration.

(3) Japan and JICA’s Assistance Policy for and experience in transportation sector

The assistance for transportation sector is positioned as “renovation of economic infrastructure” in “renovation of economic infrastructure”, the priority area of Japan’s assistance policy for Cambodia. JICA conducted a development survey, “Cambodia National Road Network Survey” (2006), and implemented “The Project for the Improvement of the National Road No. 1 (phases 1 - 3)” (2005-2010), and “The Project for Construction of Neak Loeung Bridge” (2010-2015) as grant aid program, and “The Strengthening of Construction Quality Control” (2009-2012) and “The Project on Capacity Enhancement of Environmental and Social Considerations for Resettlement” (2010-2012) as technical cooperation, striving to renovate the infrastructure and enhance the capacity of its maintenance/management. The Japanese government is also proactively addressing the infrastructure development in the Mekong region to strengthen the regional connectivity. Thus, the project, renovation of the zone that forms part of the Southern Economic Corridor, contributes to enhancing the connectivity.

(4) Other Donors' Activity

JICA as well as ADB and WB have provided various forms of cooperation for the road sector so far. While aid from China is expanding recently, the Cambodian government expects aid from Japan regarding the trunk line that serves as an industrial artery (ADB mainly supports for local roads, and China mainly supports for two-digit national roads along the border with neighboring countries).

- ADB : “Road Asset Management Project” (2008-2013), “Northwestern Rural Development Project” (2011-2013)
- WB : “Provincial and Rural Infrastructure Project” (2004-2010), “Road Asset Management Project” (2008-2013)
- China : “Prek Kdam Bridge Construction Project” (2007-2010), “National Road No.8 Construction Project” (2007-2012)

(5) Necessity of the Project

This project is consistent with the priority area of Japan and JICA's Aid Policy. Also, in the National Road Network Master Plan of the Cambodian government, the roads targeted by this project are positioned as the most important area that contributes to economic development of Cambodia, and is consistent with the developmental task and policy of the country. The necessity and relevance for JICA to aid this project is high.

3. Project Description

(1) Project Objectives

This Project aims to renovate the existing main road from Battambang to Sri Sophorn of the National Road No.5 that connects the capital Phnom Penh and Thailand border, and improve the bypass road that detours urban Battambang and urban Sri Sophorn so as to boost transportation capacity of the target area, improve transportation efficiency, and help facilitate Cambodian economic growth.

(2) Project Site/Target Area:

Battambang province, Banteay Meanchey province

(3) Project Components (including the method of procurement)

- 1) Road renovation (including the expansion of the bridge width)
(Battambang – Sri Sophorn: 47.0km) (international competitive bidding)
- 2) Bypass construction (Battambang: 23.1km, Sri Sophorn: 13.4km) (international competitive bidding)
- 3) Consulting service (e.g. detailed designing, bidding assistance, construction management, human resource development/enhancement of the organization)(short list method)

(4) Estimated Project Cost

10,885 million yen (including the yen loan of 8,852 million yen)

(5) Schedule

Scheduled from May 2013 to May 2020 (total of 85 months). Project completion is defined as the initiation of the use of facility (scheduled in May 2018).

(6) Project Implementation Structure

- 1) Borrower: The Royal Government of Cambodia
- 2) Guarantor : None
- 3) Executing agency: Ministry of Public Works and Transport (MPWT)
- 4) Operation/maintenance/ management system: MPWT (maintained and directly managed directly by the Road Infrastructure Bureau, and financed by the budget allocated to MPWT. The budget allocation tends to increase, and there is no financial problem. Since AC concrete pavement, to be adopted in this project, is not so common in Cambodia, the yen loan consultant is to provide the technical training necessary.)

- (7) Environmental and Social Consideration/Poverty Reduction/Social Development
- 1) Environmental and Social Consideration
 - i) Category: A
 - ii) Reason for categorization: This project falls under the road sector and with vulnerable characteristics presented in “Guidelines for environmental and social considerations” (promulgated in April 2010).
 - iii) Environmental permission and authorization: The environmental impact assessment (EIA) report on this project was prepared in July 2012 since the project falls under Category A although preparation of the report was not mandatory according to the Cambodian law because the length of construction zone was less than 100 km.
 - iv) Measures against pollution: Air pollution, noise, and oscillation during construction may temporarily have negative impact due to noises, dusts and exhaust gas caused by construction machinery. Such impact will be minimized by tight speed limit imposed on construction-related vehicles, regulation on working hours for construction, and thorough regular maintenance on the machinery. After the start of the use, the impact will be minimized by the speed limit as a measure against noise, oscillation and air pollution. No significant impact is expected if the measures above are implemented.
 - v) Natural environment : The target of the project is not vulnerable areas such as national parks and their vicinity. Thus, undesirable impact on natural environment is expected to be minimum.
 - vi) Social environment : This project includes the acquisition of approximately 156 ha of land and involuntary relocation of 704 households (including setbacks. Of 704, 74 households are considered to be forced to move to relocation sites.). Relocation is scheduled to proceed based on the domestic procedures and the resettlement plan. To prepare the resettlement plan, discussions with residents were conducted before and after the census, where an outline of the project, census, resettlement policy, and positive and negative influence of the project were explained. Question and answer session was also included. Throughout the discussions, no negative opinions to the project were confirmed.
 - vii) Monitoring : Ministry of Public Works and Transport, implementation organization of this project: MPWT monitors the acquisition of construction sites, involuntary resettlement, air quality, amount of waste, ecosystem, water quality of surrounding rivers depending on situations, and noise/oscillation etc., as well as air quality, noise/oscillation, amount of waste, and ecosystem after the start of service. An external consultant monitors the acquisition of construction sites, involuntary resettlement, and living situation after resettlement.
 - 2) Promotion of poverty reduction: This project is expected to contribute to generating new employment for local residents, economic growth and poverty reduction of target areas. Residents affected by this project are to be preferentially given job opportunities.
 - 3) Promotion of social development (e.g. gender perspective, measures for infectious diseases including HIV/AIDs, participatory development, considerations for persons with disabilities):
 - i) Gender perspective : Among residents affected by this project, households led by widows or single women, and other vulnerable households are to be given special consideration.
 - ii) Measures for infectious diseases including HIV/AIDs: During construction periods, many laborers are expected to concentrate in specific places for a long period. As part of health management of laborers, MPWT schedules to conduct awareness campaign on HIV/AIDs for laborers (The standard bidding document requires the contractor to conduct awareness campaign).
- (8) Collaboration with Other Schemes and Other Donors: The result of the “Project on Capacity Enhancement of Environmental and Social Considerations for Resettlement” (2010 - 2012) is to be utilized (The result of this technical project has been presented at the meeting with the Cambodian government and other donors). Since September 2012, a survey to prepare cooperation for National Road No.5 Improvement Project (Prek Kdam - Thlea Ma'Am) has

been underway.

(9) Other Important Issues: None

4. Targeted Outcomes

(1) Quantitative Effects:

1) Indicators of operation/effect

Indicator	Target road	Reference value (value in 2011)	Target value (2020) [2 years after completion of the project]
Passenger car unit per day (PCU/day)	No. 5 main road	8,491	16,575
	Battambang bypass	-	7,077
	Sri Sophorn bypass	-	7,164
Time required (minutes)		(Existing National Road No. 5) 103	(Bypass+ renovated National Road No. 5) 86

2) Economic internal rate of return

Based on the following premises, the economic internal rate of return (EIRR) of this project is 23.2%. Since this project aims to construct toll free road, FIRR is not to be calculated.

Cost : cost of project (tax excluded), cost of operation/maintenance

Benefit : it shortens the time required, and saves the driving expenses.

Project life : 30 years

(2) Qualitative Effects: It promotes Cambodia’s economic growth. It also improves commodity distribution between Thailand and Cambodia and facilitates establishing an investment environment. It benefits Japanese companies in Cambodia, strengthens connectivity, and promotes regional integration. (Based on the result of opinion sharing with local Japanese companies engaged in commodity distribution, four-lane roads were realized.)

5. External Factors and Risk Control

N/A

6. Evaluation of Similar Projects and Lessons Learned from Past Projects

(1) Evaluation of Similar Projects: From the ex-post evaluation on previous road projects, the implementation organization learned that in order to mitigate the delay in the project process due to acquisition of construction sites and involuntary resettlement, it is necessary to establish a collaborative framework with residents so as to facilitate dialogue and contact with the residents.

(2) Lessons Learned from Past Projects: This project also requires acquisition of construction sites and involuntary resettlement. In consideration of the lesson learned above, the Cambodian government is to formulate a resettlement plan, hold an explanatory meeting for residents, and secure complaint handling system based on the Standard Resettlement Procedure prepared in the technical cooperation, the “Project on Capacity Enhancement of Environmental and Social Considerations for Resettlement” (2010-2012).

7. Plan for Future Evaluation

(1) Indicators to be Used in Future Evaluations:

1) Passenger car unit per day (PCU/day)

2) Time required (minutes)

3) Economic internal rate of return (EIRR) (%)

(2) Timing for Next Evaluation:

Two years after completion of the Project