

Internal Ex-Post Evaluation for Grant Aid Project

conducted by Cambodia Office: October, 2011

Country	The Project for Rehabilitation of Bridges along the Main Trunk Roads
Cambodia	

I. Project Outline

Project Cost	E/N Grant Limit: 1 st Phase 152 million yen 2 nd Phase 844 million yen	Contract Amount: 1 st Phase 150 million yen 2 nd Phase 829 million yen
E/N Date	1 st Phase: November 2004 2 nd Phase: June 2005	
Completion Date	June 4, 2007	
Implementing Agency	The Ministry of Public Works and Transport (MPWT)	
Related Studies	Basic Design Study: February 2004 to December 2004 Detailed Design Study: June 2004 to August 2004 (October for draft explanation)	
Contracted Agencies	Consultant(s)	Katahira & Engineers International
	Contractor(s)	Obayashi Corporation (1 st Phase) , Maeda Corporation (2 nd Phase)
	Supplier(s)	N/A
Related Projects (if any)	Japanese cooperations: Grant Aid: The Project for Improvement of Bridges on National Highway Route 6A(2000-2001) Other donors' cooperations: Counter Part Fund: National Road No.2 Rehabilitation Project(2003-2005)	
Background	As of 2003, with the support from foreign donors, many roads renovation had been progressed (60% of main trunk roads for 1,200km were renovated until then). However, there was still a great demand for renovation, especially bridges along those main trunk roads which connect regional centers to Phnom Penh City. Therefore, the government of Cambodia requested the government of Japan for grant aid to rehabilitate and replace bridges to secure and facilitate the safe and sustainable transportation.	
Project Objectives	Outcome To secure and facilitate the safe and sustainable transportation of goods and population by rehabilitation and replacement of the bridges along the main trunk roads located in the Municipality of Phnom Penh, and the Kandal and Takeo Provinces.	
	Outputs Japanese Side - Replacement of the Ta Khmau II Bridge, the Prek Ho Bridge, and the Slakou Bridge, and the rehabilitation of the Chruoy Changwar Bridge. Cambodia Side - Relocation of electric power lines, telephone cables, communication wires, water pipes, removal of landmines and unexploded bombs and dismantlement of the existing three bridges.	

II. Result of the Evaluation

Summary of the Evaluation
<p>Despite the efforts of the government of Cambodia to rehabilitate roads and bridges, there was still a great demand for renovation, especially those main trunk roads which connects regional centers to Phnom Penh City. In this regard, a number of bridges including Ta Khmau II Bridge, Prek Ho Bridge, Slakou Bridge, and Chruoy Changwar Bridge needed to be rehabilitated for the improvement of traffic condition of such main trunk roads.</p> <p>This project has largely achieved its objective: the safe and sustainable transportation of goods and population along the main trunk roads located in the Municipality of Phnom Penh, the Kandal and Takeo Provinces have been secured and facilitated. Average actual velocity for transit of the three of the four bridges and traffic regulation for large vehicles have been achieved their target values. As for sustainability, there are some problems observed in the technical aspects due to lack of qualified engineers and operation and maintenance (O&M) manuals especially in the local authorities.</p> <p>For relevance, the project has been highly relevant with Cambodia's development policy, development needs as well as Japan's ODA policy at the time of both ex-ante and ex-post evaluation. For efficiency, both the project cost and project period was within the plan.</p> <p>In the light of above, this project is evaluated to be highly satisfactory.</p>

1 Relevance

The project has been highly relevant with Cambodian development plan (National Strategic Development Plan (2006-2010)), development needs in strengthening transport network along the main trunk road in order to connect all corners of the country to integrate the economy, as well as Japan's ODA policy at the time of both ex-ante and ex-post evaluation. Therefore, its relevance is high.

2 Effectiveness/Impact

This project has largely achieved its objectives of securing and facilitating the safe and sustainable transportation of goods and population by rehabilitation and replacement of the bridges along the main trunk roads located in the Municipality of Phnom Penh, and the Kandal and Takeo Provinces. As shown in the table below, the average actual velocity for transit of the three of the four bridges and traffic regulation for large vehicles have been achieved their target values. Lower average velocity of transit for the Churuoy Changwar Bridge is due to the traffic congestion for entering the capital of Phnom Penh.

Based on the interviews of MPWT and the Department of Public Work and Transport (DPWT), it is considered that the bridge rehabilitation has contributed to the improved convenience of transportation for surrounded communities as well as their safety awareness: neither traffic impassability days nor traffic accident on the bridges has been recorded in 2010 and 2011.

It is difficult to judge if the project has contributed to decrease in traffic vibration, noise and emission because data was not available; however, there are no complaints from the public relating to vibration and noise.

Therefore its effectiveness/impact is high.

Quantitative Effects

Indicator(unit)	Baseline value (2004: Basic Design year)	Target value (2007: Target year)	Actual value (2007: Target year)	Actual value (2011: Ex-post evaluation year)
1) Average velocity for transit				
The Ta Khmau II Bridge	26 km/h	35 km/h	40km/h	40km/h
The Prek Ho Bridge	15 km/h	40 km/h	40km/h	40km/h
The Slakou Bridge	14 km/h	50 km/h	60km/h	60km/h
The Churuoy Changwar Bridge	42km/h	60 km/h	35km/h	35km/h
2)Traffic regulation for large vehicles	Vehicles weighted less than 10 tons	Vehicles weighted up to 20 tons	Vehicles weighted up to 20 tons	Vehicles weighted up to 20 tons

(Data Source: Actual measurement by the survey team)



Ta Khmau II Bridge



Prek Ho Bridge



Slakou Bridge



Chruoy Changwar Bridge

3 Efficiency

Both project period and project cost was within the plan (ratios against the plan 97% and 98% respectively). Therefore, efficiency of this project is high.

4 Sustainability

At the time of the post-evaluation, no problem has been observed in institutional and operation, and financial aspects, as well as current status of operation, maintenance and management. However, MPWT should take necessary steps to solve issues in technical aspects due to the insufficient number of qualified engineers and lack of O&M manuals for bridges. The structure of implementing agency has been improved by creating the maintenance team. O&M is currently carried out through bimonthly meeting between MPWT and Ministry of Economic and Finance (MEF) based on the annual plan of road maintenance and management, and it is planned to establish the monitoring team to conduct regular inspection. As for the financial aspect, MPWT assured that the implementing agency would secure the necessary budget for O&M; although, detailed information on the amount of the budget is not available. Therefore, sustainability of the project is fair.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

- It is recommended that the MPWT should officially form monitoring team as soon as possible to conduct the regular inspection and monitoring of road condition properly.
- It is recommended that the capacity of current maintenance staff of MPWT should be strengthened to become the qualified engineer through additional trainings.