



Report and Recommendation of the President to the Board of Directors

Project Number: 43309
November 2011

Proposed Loan, Technical Assistance, and
Administration of Loan and Grant
Kingdom of Cambodia: Provincial Roads
Improvement Project

CURRENCY EQUIVALENTS

(as of 15 November 2011)

Currency Unit	–	riel/s (KR)
KR1.00	=	\$0.00024
\$1.00	=	KR4,065

ABBREVIATIONS

ADB	–	Asian Development Bank
CBF	–	cross-border facility
DDIS	–	detailed design and implementation supervision
GGF	–	good governance framework
HHTPP	–	HIV/AIDS and human trafficking prevention program
km	–	kilometer
MPWT	–	Ministry of Public Works and Transport
NR	–	national road
PAM	–	project administration manual
PAWS	–	Phnom Aural Wildlife Sanctuary
PMU	–	project management unit
TA	–	technical assistance

NOTE

In this report, "\$" refers to US dollars unless otherwise stated.

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CONTENTS

	Page
PROJECT AT A GLANCE	
MAP	
I. THE PROPOSAL	1
II. The Project	1
A. Rationale	1
B. Impact and Outcome	3
C. Outputs	3
D. Investment and Financing Plans	4
E. Implementation Arrangements	5
III. TECHNICAL ASSISTANCE	6
IV. Due diligence	7
A. Economic and Financial	7
B. Governance	7
C. Poverty and Social	7
D. Safeguards	7
E. Risks and Mitigating Measures	9
V. ASSURANCES AND CONDITIONS	9
VI. RECOMMENDATION	10
APPENDIXES	
1. Design and Monitoring Framework	11
2. List of Linked Documents	14

PROJECT AT A GLANCE

1. Project Name: Provincial Roads Improvement Project		2. Project Number: 43309-013	
3. Country: Cambodia		4. Department/Division: Southeast Asia Department/Transport and Communications Division	
5. Sector Classification:			
Sectors		Primary	Subsectors
Transport, and information and communication technology		√	Road transport
6. Thematic Classification:			
Themes		Primary	Subthemes
Economic growth		√	Developing rural areas
Social development			Involuntary resettlement
Regional cooperation and integration			Other regional public goods
Capacity development			Organizational development
6a. Climate Change Impact		6b. Gender Mainstreaming	
Adaptation	High	Gender equity theme (GEN)	
Mitigation	Low	Effective gender mainstreaming (EGM)	
		√	
		Some gender benefits (SGB)	
		No gender elements (NGE)	
7. Targeting Classification:		8. Location Impact:	
General Intervention	Targeted Intervention		
	Geographic dimensions of inclusive growth	Millennium development goals	Income poverty at household level
√			
		National	
		Regional	
		Rural	
		Urban	
		Low	
		Low	
		High	
		Low	
9. Project Risk Categorization: Complex			
10. Safeguards Categorization:			
Environment		B	
Involuntary resettlement		B	
Indigenous peoples		B	
11. ADB Financing:			
Sovereign/Nonsovereign	Modality	Source	Amount (\$ Million)
Sovereign	Project loan	Asian Development Fund	52.0
Sovereign	Capacity development technical assistance	Technical Assistance Special Fund	.5
Total			52.0
12. Cofinancing:			
Financier	Category	Amount (\$ Million)	Administration Type
Strategic Climate Fund - PPCR	Official-Loan	10.0	ADB Administered
Strategic Climate Fund - PPCR	Official-Grant	7.0	ADB Administered
Total		17.0	
13. Counterpart Financing:			
Source	Amount (\$ Million)		
Government	9.8		
Total		9.8	
14. Aid Effectiveness:			
No Aid Effectiveness available.			

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, (ii) the administration of a loan to be provided by the Strategic Climate Fund,¹ and (iii) the administration of a grant to be provided by the Strategic Climate Fund to the Kingdom of Cambodia for the Provincial Roads Improvement Project.² The report also describes proposed technical assistance (TA) for Supporting Strengthening and Institutional Reform for the Department of Land Transport of the Ministry of Public Works and Transport (MPWT), and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, will approve the TA.

2. The project will (i) improve Cambodia's provincial road network in four provinces—Kampong Chhnang, Kampong Speu, Prey Vang, and Svay Rieng; (ii) improve MPWT's road asset management capabilities through an enhanced axle load control program; and (iii) help the MPWT establish a community-based road safety program for the project provinces. The project also supports road design and planning for climate resilience and disaster management, including emergency preparedness, mitigation, and response. The feasibility study for the project was prepared through an Asian Development Bank (ADB) TA to the government.³

II. THE PROJECT

A. Rationale

3. The project will rehabilitate the pavement of about 157 kilometers (km) of roads in Kampong Chhnang, Kampong Speu, Prey Vang, and Svay Rieng provinces. The rehabilitation program will provide a safer, climate-resilient, and cost-effective provincial road network with all-year access to markets and other social services for provincial centers of southeastern and midwestern Cambodia. A new cross-border facility (CBF) will be constructed at Prey Var, Svay Rieng to facilitate efficient cross-border transport and trade between Cambodia and Viet Nam. The project will support a sustainable road maintenance regime, community-based road safety measures, an HIV/AIDS and human trafficking prevention program (HHTPP), climate-resilient measures, and efficient project management in the MPWT.

4. Roads are the principal mode of transportation in Cambodia. The road network of approximately 39,600 km includes (i) about 2,100 km of national roads (primary national highways), (ii) about 9,500 km of provincial roads (secondary national highways), and (iii) about 28,000 km of rural roads. The MPWT manages the national and provincial roads, and the Ministry of Rural Development manages the rural roads.

5. The remote rural economy is becoming increasingly dependent on an improved national road network. However, the provincial road network that connects remote areas—which have a paved road ratio of 11%—is continuing to deteriorate because of the rapid growth in traffic, lack of maintenance financing, and poor road maintenance standards and practices. For example, the National Road (NR) 13 that links NRs 1 and 8 in a north–south direction and NR 314D that links NR 1 with the CBF at Prey Var, Svay Rieng are both deteriorating.⁴ Although vital for transport within the Prey Vang and Svay Rieng provinces, and to cross-border transport and trade, these roads are unpaved and do not provide all-year accessibility.

¹ Under the Pilot Program for Climate Resilience.

² The design and monitoring framework is in Appendix 1.

³ ADB. 2010. *Technical Assistance to the Kingdom of Cambodia for the Provincial Roads Improvement Project*. Manila (TA 7665-CAM).

⁴ As noted in para. 4, provincial roads (secondary national highways) in Cambodia are labeled as national roads with a 2- and 3-digit numbering system; the primary national highways are labeled using a single digit system.

6. To enhance regional transport and trade activities in the Greater Mekong Subregion corridors, Cambodia acceded to the Greater Mekong Subregion Cross-Border Transport Agreement in November 2001. One of the initiatives to implement the agreement in Cambodia was the pilot implementation of a CBF at Bavet through a bilateral agreement between Cambodia and Viet Nam in 2003. On 17 March 2009, the two governments agreed to expand the quota of vehicles for cross-border transport from 40 to 150. Since the current CBF at Prey Var, Svay Rieng has insufficient capacity, the planned CBF will supplement cross-border transport and trade with Viet Nam in southeastern Cambodia. The project will also benefit from the ongoing transport and trade facilitation regional TA⁵ through workshops for improving CBF operations.

7. Because of relatively rapid economic development, overloading of cargo vehicles has become a severe cause of road damage in Cambodia since 2005. This is a major issue for provincial roads because of overloaded trucks that haul agricultural products and carry quarry materials. ADB is currently supporting an axle load control program for national roads; this project will expand that support to provincial roads, enhance current weigh station facilities, and provide new facilities.

8. Cambodia has one of the highest incidences of road accidents in the world with 10 fatalities per 10,000 vehicles in 2010. This is a 44% decrease from 2007 but still represents one of the highest accident rates in Southeast Asia. Thus, road safety continues to be a major concern, especially with the growth of traffic in provincial and rural areas. In line with the national programs for road safety and ADB's ongoing road safety support through the MPWT, the project will assist the MPWT in designing and managing a community-based road safety program for the project provinces.

9. Given the natural disasters that Cambodia has faced since 2000 (particularly frequent flooding during wet seasons), it is essential to address climate change. Recognizing this, the project will rehabilitate, to paved condition, a provincial road section of 69.6 km in Kampong Chhnang and Kampong Speu provinces to improve its climate resilience.⁶ The road section is a priority in terms of rural access, and flooding has been a persistent problem. The climate resilience measures include climate-resilient road designs, hazard mapping, tree planting, and plans for water capture and storage, disaster preparedness, mitigation, and response.

10. The government's poverty reduction strategy for 2009–2013 (the Rectangular Strategy for Growth, Employment, Equity and Efficiency, Phase II) emphasizes generating economic growth through the private sector, with rehabilitation and development of the country's physical infrastructure as a necessary precondition.⁷ The project supports this strategy, particularly as it enhances connectivity, balanced economic development, access to social services and cross-border transport, and trade in remote areas of southeastern and midwestern Cambodia.

11. The overarching objective of ADB's country partnership strategy (CPS), 2011–2013⁸ for Cambodia is poverty reduction in line with the government's socioeconomic development priorities. Project design has incorporated lessons learned in the areas of procurement, governance, resettlement, policy formulation, loan covenants, and axle load control. In procurement, post-qualification of contractors will contribute to greater efficiency of civil works. Good governance will

⁵ ADB. 2010. *Technical Assistance for Support for Implementing the Action Plan for Transport and Trade Facilitation in the Greater Mekong Subregion*. Manila. (TA 7851-REG).

⁶ This road section comprises: (i) NR 150B starting from Tonle Sap River running west across NR 5 joining NR 53, (ii) NR 53 from Khlong Popok to Kampong Speu border, and (iii) NR 151B to Amleang. NRs 150B and 53 serve Kampong Chhnang while NR 151B serves Kampong Speu.

⁷ Samdech Akka Moha Sena Padei Techo Hun Sen, Prime Minister of the Kingdom of Cambodia. 2008. *Rectangular Strategy for Growth, Employment, Equity and Efficiency, Phase II*. Phnom Penh.

⁸ ADB. 2011. *Country Partnership Strategy: Cambodia, 2011–2013*. Manila.

be promoted through rigorous project reviews, detailed due diligence, and close consultation with the Ministry of Economy and Finance. For resettlement, ADB will conduct frequent reviews and due diligence, affected people will be consulted at all stages to ensure timely provision of information on the process and entitlements. This approach increases the awareness of affected people and reduces disagreements and disputes regarding compensation. Policy formulation and related loan covenants are designed to be realistic and within the jurisdiction of the executing agency. Regarding axle load control, frequent reviews, detailed due diligence, and close monitoring are essential to support transparent, effective, and sustainable operations. ADB's operational priorities on climate change include sustainable transport initiatives and promoting climate resilient development. The proposed project is in line with these priorities and is aligned with the climate change implementation plan developed for Southeast Asia.⁹ Also, the project's climate resilience measures will bring significant benefits to the rural communities.

12. The CPS includes four road sector projects in the program, all of which are consistent with the sector assistance program evaluation¹⁰ recommendation to shift focus towards rehabilitating provincial and rural roads, rather than national roads. ADB approved the first provincial road project in 2009.¹¹ This project, which has incorporated lessons learned from past interventions in its design, would be the second.¹² ADB approved the first rural road project in 2010, which will improve the rural poor's access to services. A second rural road project is programmed for 2013.¹³

13. The geographic focus of ADB's rural livelihood efforts has been the Tonle Sap Basin—home to a large proportion of Cambodia's rural poor—in the midwest. This project's geographical focus is on Kampong Chhnang and Kampong Speu in the Tonle Sap Basin and Prey Vang and Svay Rieng in the southeast. Although outside ADB's traditional geographic focus, Prey Vang has a poverty level of 37% and Svay Rieng has a poverty level of 36% (the national poverty level is 35%). The southeastern project provinces fit well geographically with the southern economic corridor of the Greater Mekong Subregion as feeder routes. The roads and the CBF also align well with the government's rice and rubber production and export strategy for this area.

B. Impact and Outcome

14. The impact of the project is improved access to markets, jobs, and social services in four project provinces. This impact is consistent with the sector results framework of the Cambodia Transport Sector Assessment, Strategy, and Roadmap.¹⁴ The outcome of the project is a safe, climate-resilient, and cost-effective road network that provides all-year access in the agricultural areas of the project provinces.

C. Outputs

15. The project includes five outputs:
- (i) **Civil works.** The project will improve civil works by (a) rehabilitating 88 km of roads—NR 13 connecting NR 8 and NR1 between Komchay Mear, and NR 314D from Prosot to the border of Viet Nam at Prey Var, Svay Rieng; (b) constructing a

⁹ ADB. 2010. *Climate Change in Southeast Asia. Focused Actions on the Frontlines of Climate Change*. Manila.

¹⁰ ADB. 2009. *Transport Sector in Cambodia-Focusing on Results*. Manila (SAP: CAM2009-34).

¹¹ ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Greater Mekong Subregion: Cambodia Northwest Provincial Road Improvement Project*. Manila (Loan 2539-CAM).

¹² Sector Assessment (Summary): Road Transport (accessible from the list of linked document in Appendix 2).

¹³ The first project is ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Rural Roads Improvement Project*. Manila (Loan 2670-CAM). It will be supplemented by a proposed *Second Rural Roads Improvement Projects* for approval in 2013.

¹⁴ ADB. 2011. *Cambodia Transport Sector Assessment, Strategy, and Road Map*. Manila

new CBF at Prey Var, Svay Rieng; and (c) rehabilitating 69.6 km of roads—NR 150B from Ta Ches to Tek Phos, NR 53 from Khlong Popok to Kampong Speu border, and from there to Amleang (NR 151B). This output includes detailed design and implementation supervision (DDIS) consulting services and land acquisition and resettlement required for the project roads and the CBF.

- (ii) **Road asset management.** The project will improve road asset management by controlling axle load at strategic locations on national and provincial roads, thereby expanding and improving the MPWT’s ongoing axle load control program. Recent interventions by ADB to install and operate permanent weighbridges at seven key locations in the country, as well as the establishment of a permanent axle overload control committee in the MPWT, have reduced overloading. The continued interventions, through the expansion of existing weigh stations and the provision of new weigh stations, will contribute to further reduction in overloading.
- (iii) **Road safety and safeguards.** Road safety will be increased and social safeguards will be implemented through (a) a community-based road safety awareness program in line with the national program, (b) an HHTPP, and (c) a sex-disaggregated baseline socioeconomic survey of beneficiaries.
- (iv) **Climate resilient roads.**¹⁵ The project will result in a more climate resilient road network by assessing the vulnerability of the MPWT road network to climate change impacts with a view to improving adaptation planning and introducing ecosystem-based adaptation strategies. The output will also develop emergency management planning for project roads and plan water capture and storage systems. Climate change impacts will be reduced by a mixture of (a) design adjustments to civil works, (b) hazard mapping, (c) bioengineering and other ecosystem-based measures, and (d) infrastructure policy and planning activities. In addition, a community-based emergency management intervention will be piloted in Kampong Chhnang province, with the participation of Red Cross to sustain the emergency medical facilities.
- (v) **Strengthened internal capacity.** The project will strengthen the capacity of the MPWT to provide efficient project management support for project construction as well as maintenance and asset management.

16. The project will promote substantial positive employment and gender impacts in the rural communities. The Labor and Gender Action Plan (LGAP)¹⁶ describes the labor and gender-mainstreaming aspects of the project outputs.

D. Investment and Financing Plans

17. The project is estimated to cost \$79.08 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).¹⁷

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Civil Works	57.34
i. Improvements of provincial roads and cross-border facility	48.08
ii. Land acquisition and resettlement	1.84
iii. Detailed design and implementation supervision consulting services	7.42

¹⁵ Output: Increased Climate Resilience (accessible from the list of linked documents in Appendix 2).

¹⁶ Labor and Gender Action Plan (accessible from the list of linked documents in Appendix 2).

¹⁷ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Item	Amount ^a
2. Improved road asset management through axle load control	1.44
3. Increased road safety and safeguards ^c	0.32
4. Improved climate resilience	5.81
5. Efficient project management	2.30
Subtotal (A)	67.21
B. Contingencies^d	
1. Physical contingencies	5.99
2. Price contingencies	4.48
Subtotal (B)	10.47
C. Financing Charges During Implementation^e	1.12
Total (A+B+C)	78.80

^a Includes taxes and duties of \$7.59 million to be financed from government resources.

^b In mid-2011 prices.

^c Cost of road safety program is included in the Detailed design and implementation supervision consulting services.

^d Physical contingencies computed at 10% for civil works, field research and development, training, surveys, and studies. Price contingencies computed for foreign exchange costs and local currency costs based on the annual rates in the table below; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Annual Rate	2011	2012	2013	2014	2015	2016	2017
Foreign Currency	4.9%	-3.2%	0.3%	0.5%	0.5%	0.5%	0.5%
Local Currency	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

^e Includes interest charges and service charges. Interest for the Asian Development Bank loan has been computed at 1.0% per annum during the grace period and the service charge for the Strategic Climate Fund loan during construction at 0.1% per annum.

Source: Asian Development Bank.

18. **Financing plan.** The borrower—the Kingdom of Cambodia—has requested a loan in various currencies equivalent to \$52.0 million from ADB's Special Funds resources to help finance the project. For the ADB loan, the repayment period of the proposed loan will be 32 years, including a grace period of 8 years, with an interest charge of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the draft loan agreement. The interest during construction will be financed by the ADB loan. The proceeds of the loan will be made available by the borrower to the MPWT through budgetary allocations. The ADB loan will finance civil works, equipment, related consulting services, project management, the interest charge, and contingency totaling \$52.0 million equivalent. The Strategic Climate Fund—under the Pilot Program for Climate Resilience—will finance civil works and related consulting services, the service charge, and contingency through a \$10.0 million loan and a \$7.0 million grant. The repayment period of the Pilot Program for Climate Resilience loan will be 40 years, including a grace period of 10 years, with a service charge of 0.1% per annum. ADB will administer the loan and the grant. The government will finance the local taxes, duties, land acquisition and resettlement cost, and contingency amounting to \$9.80 million. The financing plan is in Table 2.

Table 2: Financing Plan

Source	Amount (\$ millions)	Share of Total (%)
Asian Development Bank	52.00	65.99
Strategic Climate Fund (Loan)	10.00	12.69
Strategic Climate Fund (Grant)	7.00	8.88
Government	9.80	12.44
Total	78.80	100.00

Source: Asian Development Bank.

E. Implementation Arrangements

19. The MPWT will be the executing agency for the project. The project management unit

(PMU) 3, as part of the MPWT's General Department of Public Works, will be the implementing agency of the project. All civil works contracts for road and CBF rehabilitation will follow International Competitive Bidding as the mode of procurement. As for consulting services, firms will be recruited for activities related to DDIS, road asset management, climate resilience, and HHTPP. The advanced recruitment of DDIS and TA consultants will be considered. The project will be implemented over 5 years, from 2012 to 2017. The implementation arrangements are summarized in Table 3 and described in detail in the PAM.

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	April 2012–March 2017		
Estimated completion date	31 March 2017		
Loan closing date	30 September 2017		
Project Management			
(i) Oversight body	Ministry of Economy and Finance	Interministerial Resettlement Committee	
(ii) Executing agency	Ministry of Public Works and Transport		
(iii) Key implementing agencies	Project Management Unit 3		
(iv) Project management unit 3	Phnom Penh	12 staff	
Procurement	International competitive bidding	4 contracts	\$58.59 million
	International competitive bidding	1 contract	\$0.80 million
Consulting services	Quality- and cost-based selection	1,305 person- months	\$12.60 million
Retroactive financing and advance contracting	Advance action for consulting services for detailed design and implementation supervision	1 contract	\$8.45 million
Disbursement	The ADB loan, SCF loan, and SCF grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2007, as amended from time to time) and the detailed arrangement agreed upon between the government and ADB.		

ADB = Asian Development Bank, SCF = strategic climate fund.

Source: Asian Development Bank

III. TECHNICAL ASSISTANCE

20. The Land Transport Department of the MPWT plans, regulates, and administers road traffic to ensure efficient and safe road transport. The department is not equipped to undertake these tasks effectively and needs to strengthen its human resource base and reform its organizational structure and procedures. An associated capacity development TA¹⁸ is proposed to assist strengthening the department in the first of a three-stage process. The first stage is diagnostics of the department's need to restructure, develop staff capabilities, and modernize internal processes to increase efficiency. The diagnostic assessment will be followed by a separate TA for detailed planning of interventions that address issues of road safety, traffic regulation, vehicle registration, legislation, and long-term planning. These interventions will be designed to enable various development partners to provide assistance for implementation. The early reform stage will include assistance to restructure the department, develop in-house staff capacities, support recruitment of staff with new skills, and implement priority interventions as identified in the second stage.

¹⁸ Technical Assistance: Supporting Strengthening and Institutional Reform for the Department of Land Transport of the Ministry of Public Works and Transport (accessible from the list of linked documents in Appendix 2).

21. The TA, to be implemented over a 12-month period, is estimated at \$550,000 equivalent. It will be financed by ADB's TA funding resources for \$500,000 (from TA Special Funds-IV). The government will fund \$50,000 equivalent to cover office accommodation and communications, counterpart staff support, and other administrative expenses. ADB will recruit an international firm in cooperation with national consultants using quality- and cost-based selection (80:20 ratio and simplified technical proposal) to provide approximately 15 international and 20 national person-months of consulting inputs.

IV. DUE DILIGENCE

A. Economic and Financial

22. The improvement of provincial roads under the project will serve about 700,000 project beneficiaries, the vast majority of whom are the rural poor. The approach used to evaluate the project follows the standard practice of comparing the life-cycle costs of the road agency and road users, with and without the project. The economic internal rate of return of the proposed project is 15.5%, and the economic internal rates of return for individual road sections are above 12%.

B. Governance

23. ADB's Anticorruption Policy (1998, as amended to date) was explained and discussed with the Government of Cambodia and the MPWT. This policy will be applied throughout project implementation. Apart from this, a good governance framework (GGF) was developed in coordination with the government.¹⁹ The specific policy requirements and supplementary measures to ensure good governance are described in the PAM. The GGF will be posted on the MPWT and ADB websites. The review missions will monitor compliance with their provisions and requirements closely. The financial management assessment that was carried out confirms that the executing agency, including the implementing agency, has adequate financial management capacity to implement the project.

C. Poverty and Social

24. The project—categorized as effective gender mainstreaming—will significantly benefit the rural poor, including women and children, living in the project provinces. Local economic development depends on improved connectivity, and paved provincial roads will reduce travel times, increase convenience, and make it safer for women and girls to travel farther from home. Better accessibility will improve rural health and educational attainment. Girls will have a better chance of attending secondary school, markets will be easier to reach, and “buy and sell” job opportunities for women will increase. Road construction and maintenance will generate jobs for local men and women, and provide much-needed cash income. The project's labor and gender mainstreaming action plan will ensure that contractors give priority to local residents for construction and road maintenance jobs, and ensure that men and women benefit equally, with equal pay for equal work. From a health perspective, rural villages will benefit from a significant reduction in dust, which is linked to respiratory disease—a major cause of child mortality in Cambodia. Potentially negative social impacts of increased connectivity will be monitored and mitigated through HHTPP. The project includes a community-based road safety program to increase the safety of road users and local residents.

D. Safeguards

25. The project has been classified as category B for involuntary resettlement. The project will

¹⁹ Good Governance Framework (accessible from the list of linked documents in Appendix 2).

require approximately 24.4 hectares of land within the existing right-of-way of the various roads and 2.5 hectares of privately owned land for the Prey Var CBF. The land that will be used in the road right-of-way will affect non-land assets of an estimated 936 households. Of the 566 households that experience impacts on structures (houses and/or shops), all will be partially affected or will otherwise be able to move back on remaining unaffected land beyond the corridor of impact. No households are expected to require relocation. The privately owned land to be acquired at the site of the CBF is farming land. A resettlement plan and a combined resettlement and ethnic minority development plan have been prepared in compliance with ADB's Safeguard Policy Statement (2009) to mitigate of all involuntary resettlement impacts.

26. The project has been classified as category B for indigenous peoples. Potential project activity impacts on indigenous peoples in the project areas have been screened. There are approximately 3,000 ethnic Cham households in the project areas. Consultations during project preparation reveal their unanimous support for the project with the typical expected benefits to include improved access to services as well as livelihood opportunities. An estimated 49 ethnic Cham and 5 ethnic Vietnamese households will be affected by land acquisition within the road right-of-way. Most of the resettlement impacts will be temporary and require relocation to remaining unaffected land outside the corridor of impact. Other negative impacts are the generalized increased risks of HIV/AIDS transmission, human trafficking, and road accidents associated with the construction and operation of the project. The specific interests of the indigenous peoples affected by involuntary resettlement as well as indigenous peoples communities in the project areas are addressed in the combined resettlement and ethnic minority development plan, the HIV/AIDS and human trafficking prevention strategy, and the LGAP to ensure their equitable participation in project benefits and decision making and that adverse impacts are effectively mitigated.

27. The project has been classified as category B for environment. Results of the initial environmental examination showed that only minor adverse environmental impacts are anticipated for the improvement of project roads and implementation of small-scale climate change adaptation measures²⁰ for surrounding communities. Such impacts, which are considered short-term and temporary, will be experienced during construction mainly because of elevated levels of dust and noise, traffic disruption, and potential occupational and community health and safety risks, but they can be mitigated. None of the project roads are located near culturally protected areas. No rare, threatened, or endangered species of flora and fauna have been found in or close to the project area.

28. Except for NR 53, none of the project roads are in close proximity to any protected areas of ecological significance. NR 53 runs alongside part of the eastern boundary of the Phnom Aural Wildlife Sanctuary (PAWS) for approximately 6.5 km. The Provincial Department of Environment confirmed that NR 53 does not intrude into the PAWS. As with the other project roads, there are no forested areas in the vicinity of NR 53. The PAWS' zones close to NR 53 are the community and sustainable zones that are predominantly agricultural areas, while its conservation and core zones, at the nearest points, are approximately 2 km and 5 km, respectively, from NR 53. As such, no adverse environmental impacts are anticipated for all project roads on ecologically protected areas. To avoid or mitigate negative impacts arising from the project, an environmental management plan detailing mitigation measures, monitoring activities, and implementation responsibilities has been

²⁰ As part of the climate resilience of the project, the MPWT has been requested by commune officials and residents to finance improvements to the following community resources and facilities: (i) water capture component through extension of water supply distribution pipes to houses and rehabilitation of water storage tanks; (ii) rehabilitation of irrigation dams, spillways, and canals; and (iii) dredging certain shallow areas of Boeung Skeat Lake in Chao Maong commune to enhance irrigation water supply source. Dredged materials, if suitable, will be used to widen the existing unpaved local road along the lake.

prepared as part of the initial environmental examination. Public consultations involving affected people and local officials were conducted during the initial environmental examination preparation in compliance with ADB information disclosure and consultation requirements through focus group discussions and individual interviews along all project roads. Environment was not seen as a major issue by those interviewed. To ensure that the project is carried out in accordance with the environmental management plan requirements, the MPWT will specify details of the implementation of the plan in the bid and contract documents for consulting services and civil works. The DDIS consultant will assist the MPWT in monitoring the environmental performance of contractors. The DDIS consultant will also provide on-the-job training to the field personnel of the MPWT's Environment Safeguards Office to build their capacity in environmental management and monitoring.

E. Risks and Mitigating Measures

29. Given the procurement management problems that other development partners have had with the MPWT in the past, there is a need to establish risk mitigation measures. The preliminary assessment during the project feasibility TA identified the three major risks during project implementation to be related to procurement, corruption, and due diligence. ADB will conduct intensive project reviews to mitigate all three risks effectively. The GGF is also expected to reduce procurement and corruption risks while close coordination with the Ministry of Economy and Finance is expected to reduce corruption and due diligence risks. Risks and mitigating measures are described in the risk assessment and risk management plan.²¹

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
Procurement	For procurement, intensive project reviews, closely coordinate with the MEF and implement actions required under the GGF
Corruption	For corruption, implement the GGF to strengthen internal controls, conduct intensive project reviews and coordinate closely with the MEF
Due diligence	For due diligence, conduct intensive project reviews and closely coordinate with the MEF

GGF = good governance framework, MEF = Ministry of Economy and Finance.

Source: Asian Development Bank.

V. ASSURANCES AND CONDITIONS

30. Implementation of the project will conform to ADB's mandatory policies on anticorruption, procurement, consulting services, due diligence, safeguards, and disbursement as described in detail in the PAM. The government and the MPWT have given the following assurances, in addition to the standard assurances that are incorporated in the legal documents:

- (i) Within 1 year of the loan effectiveness, the government will approve the updates of the National Comprehensive Axle Load Control Program in a form acceptable to ADB. The program will provide systematic policy, strategy, and planning for the MPWT's nation-wide axle control and complaint handling for axle load control activities.
- (ii) Unless otherwise agreed by ADB, within 2 years of the loan effectiveness, the government will have reorganized the existing National Axle Overload Control Committee to ensure a more inclusive environment for Cambodia's axle load control, provided, however, that the Road Law will have been promulgated in a timely manner.

²¹ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

- (iii) The government ensures that within 1 year of the loan effectiveness, appropriate procedures for axle load control, that are acceptable to ADB, will be in place and that all axle control activities within the country, including those using portable weigh scales, will be carried out in accordance with these procedures. Such procedures will comprise (a) the existing technical procedures acceptable to ADB, (b) a good governance system applicable to axle load control activities, and (c) technical guidance of such activities by PMU3 within the MPWT.
- (iv) Agreement among ADB, the Ministry of Economy and Finance, and the MPWT will be reached on the final GGF prepared during project processing. The MPWT will implement this effectively during the entire project period.

31. In addition to the standard requirements of ADB's public disclosure policy, the MPWT will publicly disclose on its website activities, such as local procurement information, in order to increase public awareness on its good governance practices.

32. The effectiveness of the loan is conditional upon (i) the agreement reached between the Ministry of Economy and Finance and the MPWT regarding arrangements to finance the operational cost of axle load control stations, and (ii) the redefined and expanded functions of PMU3 to provide technical guidance and internal audits that are acceptable to ADB.

VI. RECOMMENDATION

33. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve

- (i) the loan in various currencies equivalent to SDR33,008,000 to the Kingdom of Cambodia for the Provincial Roads Improvement Project, from ADB's Special Funds resources, with an interest charge at the rate of 1.0% per annum during the grace period and 1.5% per annum thereafter; for a term of 32 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board;
- (ii) the administration by ADB of a loan not exceeding the equivalent of \$10,000,000 to the Kingdom of Cambodia for the Provincial Roads Improvement Project to be provided by the Strategic Climate Fund; and
- (iii) the administration by ADB of a grant not exceeding the equivalent of \$7,000,000 to the Kingdom of Cambodia for the Provincial Roads Improvement Project to be provided by the Strategic Climate Fund.

Haruhiko Kuroda
President

25 November 2011

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Improved access to markets, jobs, and social services in four project provinces (Kampong Chhnang, Kampong Speu, Prey Veng, and Svay Rieng)</p>	<p>Volume of motorcycle and passenger car traffic on project roads increases by 50% from 2012 to 2019.</p> <p>By 2019, in Kampong Chhnang, Kampong Speu, Prey Vang, and Svay Rieng provinces:</p> <p>(i) economic activity rate of 80% (ages 15–64, both sexes) increases to 83%;</p> <p>(ii) enrolment in primary school increases from 90% to 95% in project districts of Kampong Chhnang, from 94% to 98% in project districts of Svay Rieng, from 89% to 94% in the Thpong district of Kampong Speu, and from 91% to 96% in the Kamchay Mear district of Prey Veng; and</p> <p>(iii) maternal mortality rate (deaths within 1 month per 100,000 live births) decreases from 350 to 225 in project districts of Svay Rieng, from 500 to 375 in project districts of Kampong Chhnang, from 179 to 54 in the Thpong district of Kampong Speu, and from 305 to 180 in the Kamchay Mear district of Prey Veng.</p>	<p>The MPWT's annual reports baseline traffic data</p> <p>Cambodia's demographic and health survey</p> <p>The MOE's education management information systems</p> <p>Cambodia's demographic and health survey</p>	<p>Assumptions Increased availability and quality of transport services following the rehabilitation of project roads and the CBF. Agriculture-related and other industries increase in the project area. The improved CBF operates efficiently in line with bilateral agreements.</p> <p>Risks Unexpected long-term new epidemic hits Cambodia. The project roads deteriorate because of insufficient funds for road maintenance programs and low quality of road works.</p>
<p>Outcome Safe, climate-resilient, and cost-effective road network that provides all-year access in the agricultural areas of the project provinces</p>	<p>Average travel times on project roads decrease by 25% from 2012 to 2017</p> <p>Share of the paved provincial road network increases from 11% in 2010 to 12% in 2017</p>	<p>The MPWT's field traffic surveys</p> <p>The MPWT's provincial and national trade statistics and annual reports</p>	<p>Assumptions The government sustains its commitment to provincial infrastructure development. The governments of Cambodia and Viet Nam agree to develop Prey Var, Svay Rieng as a supplementary gateway for Bavet.</p> <p>Risk Project roads suffer severe damage from unexpectedly severe natural disasters.</p>
<p>Outputs 1. Project roads and the CBF at Prey</p>	<p>157 km of provincial roads and the CBF rehabilitated and about 117 km road sections improved according to climate-resilient codes</p>	<p>The MPWT's monthly and quarterly project progress reports; the</p>	<p>Assumptions Continued government commitment to</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Var, Svay Rieng rehabilitated	and standards by 2017 Average roughness of project roads in 2012 decreases from 6–14 to 2–3 in 2017	MPWT's monitoring reports The MPWT road roughness test results; ADB's PCR and project review missions	overloading control and cross-border transport and trade Targeted communities apply road safety principles.
2. Improved MPWT road asset management	Violations of overloaded trucks in southeastern Cambodia reduce by 60% from 2012 to 2017 The annual operation and maintenance budget for project roads increases from \$350 per km in 2010 to \$400 per km in 2017	The MPWT's annual reports; JICA's Axle Load Control Program reports The MPWT's annual reports and ADB's PCR	Targeted communities apply HIV awareness and prevention education.
3. Increased road safety, institutional efficiency, and awareness of potential social problems	40% of project beneficiaries in project districts in Svay Rieng, Kampong Chhnang, Kampong Speu (Thpong district), and Prey Veng (Kamchay Chay) and all contractor personnel participate in an HIV awareness and human trafficking prevention program before and during civil works construction by 2017 Sex-disaggregated baseline socioeconomic data established by 2013 At least 2 female facilitators conduct road safety awareness program in communes At least 50% of female households participate in community-based road safety awareness workshops Women workers provide at least 30% of local unskilled labor for road upgrading and maintenance	The MPWT quarterly progress reports and ADB's PCR The MPWT's quarterly progress reports and ADB's PCR The MPWT's quarterly progress reports and ADB's PCR The MPWT's quarterly progress reports and ADB's PCR The MPWT quarterly progress reports and ADB's PCR	Risks Recruitment of consultants and contractors is delayed by external factors such as procurement and corruption issues. Increased construction costs reduce the scope of works. The number of natural disasters exceeds predictions. Trained personnel in the PMU3 leave the MPWT or are replaced.
4. Increased resilience of project roads to climate change	All residents at risk are evacuated within 72 hours after a typhoon occurs in the pilot province for emergency management from 2017 onwards Capacity of at least 20 MPWT staff in mainstreaming adaptation into road infrastructure planning and maintenance will be strengthened Vulnerability mapping and ecosystem-based adaptation measures integrate gender issues At least 40% of the workers engaged in climate resilient measures, including planting and green maintenance, are women Emergency management plans include women as agents and beneficiaries.	The MPWT's quarterly progress reports and ADB's PCR; the PPCR reports The MPWT's quarterly progress reports and ADB's PCR; the PPCR reports The MPWT's quarterly progress reports and ADB's PCR; the PPCR reports The MPWT quarterly progress reports and ADB's PCR; the PPCR reports The MPWT's quarterly progress reports and ADB's PCR; the PPCR reports	Implementation of project outputs is delayed due to insufficient public financial management and due diligence actions of PMU3.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
5. Efficient project management	PMU3 personnel increases from 12 (7 male, 5 female) in 2010 to 22 (14 male, 8 female) in 2017 All PMU3 staff (currently 7 male, 5 female) participates in training on social and gender issues by 2017 (likely 22 with 14 male, 8 female)	The MPWT's quarterly progress reports and ADB's PCR The MPWT's quarterly progress reports and ADB's PCR	

Activities with Milestones	Inputs
<p>1. Civil works</p> <p>1.1 The MPWT selects detailed design and construction supervision consultants: by March 2012</p> <p>1.2 The MPWT prepares tender documents and selects contractors: by October 2012</p> <p>1.3 The MPWT completes the land acquisition and resettlement: by 2013</p> <p>1.4 The MPWT completes 157 km of road and CBF rehabilitation: by 2017</p> <p>2. Road asset management</p> <p>2.1 The MPWT completes weigh station construction: by 2014</p> <p>2.2 The MPWT completes procurement of weigh station equipment and installation: by 2014</p> <p>2.3 The MPWT implements new weigh stations: by 2015</p> <p>3. Road safety and safeguards</p> <p>3.1. The MPWT implements the community-based road safety program: by 2015</p> <p>3.2 The MPWT implements the HIV/AIDS awareness and human trafficking prevention program: by 2015</p> <p>3.3 The MPWT completes the baseline socioeconomic survey with sex-disaggregated data: by 2013</p> <p>4. Climate resilience</p> <p>4.1 The MPWT completes the detailed vulnerability map for climate change for project provinces: by 2017</p> <p>4.2 The MPWT completes the ecosystem based climate change adaptation strategies: by 2017</p> <p>4.3 The MPWT completes a pilot climate monitoring system-based road maintenance and management program: by 2017</p> <p>4.4 The MPWT establishes a pilot emergency management system for Kampong Chhnang and operates it: by 2017</p> <p>4.5 The MPWT installs the pilot early warning system the project province (of 4.4): by 2017</p> <p>4.6 Completion of the plan for water capture and storage systems for the project provinces: by 2017</p> <p>5. Efficient project management</p> <p>5.1 The MPWT completes training on social and gender issues for all PMU3 staff: by 2014</p> <p>5.2 PMU3 recruits 10 new staff to increase its efficiency: by 2017</p> <p>5.3 The MPWT manages the project efficiently: by 2017</p>	<p>1. Civil works:</p> <p>1.1 Improving 157 km of provincial roads and the CBF – \$48.08 million</p> <p>1.2 Land acquisition and resettlement – \$1.84 million</p> <p>1.3 Consulting services for design and implementation supervision – \$7.42 million</p> <p>2. Road asset management – \$1.44 million</p> <p>3. Road safety and safeguards – \$0.32 million</p> <p>4. Climate resilience – \$5.81 million</p> <p>5. Contingencies – \$10.47 million</p> <p>6. Incremental administration cost – \$2.30 million</p> <p>7. Financial charges during implementation – \$1.12 million</p> <p>ADB (ADF): \$52.0 million Government: \$9.80 million PPCR loan: \$10.0 million grant: \$7.0 million Beneficiaries: 700,000 persons</p>

ADB = Asian Development Bank, ADF = Asian Development Fund, CBF = cross-border facility, JICA = Japan International Cooperation Agency, km = kilometer, MOE = Ministry of Education, MPWT = Ministry of Public Works and Transport, PMU = project management unit, PCR = project completion report, PPCR = pilot program for climate resilience.
Sources: ADB and Cambodia Demographic and Health Survey.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=43309-013-3>

1. Loan Agreement
2. Loan Agreement: Strategic Climate Fund
3. Grant Agreement: Strategic Climate Fund
4. Sector Assessment (Summary): Road Transport
5. Project Administration Manual
6. Contribution to the ADB Results Framework
7. Development Coordination
8. Economic and Financial Analyses
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Labor and Gender Action Plan
12. Initial Environmental Examination
13. Resettlement Plan (314D, CBF, NR13)
14. Resettlement Plan (150B, NR53, 151B)
15. Risk Assessment and Risk Management Plan

Supplementary Documents

16. Good Governance Framework
17. Output: Increased Climate Resilience
18. Technical Assistance: Supporting Strengthening and Institutional Reform for the Department of Land Transport of the Ministry of Public Works and Transport