



Report and Recommendation of the President to the Board of Directors

Project Number: 42334
July 2014

Proposed Loan and Administration of Grants Kingdom of Cambodia: Rural Roads Improvement Project II

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 July 2014)

Currency unit	–	riel/s (KR)
KR1.00	=	\$0.00024
\$1.00	=	KR4,040

ABBREVIATIONS

ADB	–	Asian Development Bank
EIRR	–	economic internal rate of return
GAP	–	gender action plan
GRARMP	–	governance risk assessment and risk management plan
HHTPP	–	HIV/AIDS and human trafficking awareness and prevention program
km	–	kilometer
MEF	–	Ministry of Economy and Finance
MRD	–	Ministry of Rural Development
NIS	–	National Institute of Statistics
NDF	–	Nordic Development Fund
PAM	–	project administration manual
PMU	–	project management unit
SPS	–	Safeguards Policy Statement

NOTE

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

Vice-President	S. Groff, Operations 2
Director General	J. Nugent, Southeast Asia Department (SERD)
Director	H. Iwasaki, Transport and Communications Division, SERD
Team leader	S. Date, Senior Transport Specialist, SERD
Team members	C. Clark, Safeguards Specialist (Resettlement), SERD S. Kawazu, Senior Counsel, Office of the General Counsel K. Leung, Finance Specialist, SERD T. Miyao, Procurement Specialist, Operations Services and Financial Management Department M. Ortega, Project Analyst, SERD N. Ouk, Senior Project Implementation Officer, SERD S. Ouk, Safeguards Officer, SERD K. Schelzig, Senior Social Sector Specialist, SERD S. Sok, Senior Procurement Officer, SERD A. Srinivasan, Principal Climate Change Specialist, SERD A. Velasquez, Safeguards Specialist (Environment), SERD A. Veron-Okamoto, Transport Specialist, SERD F. Villanueva, Senior Operations Assistant, SERD
Peer reviewer	S. Khan, Senior Transport Specialist, Pacific Department

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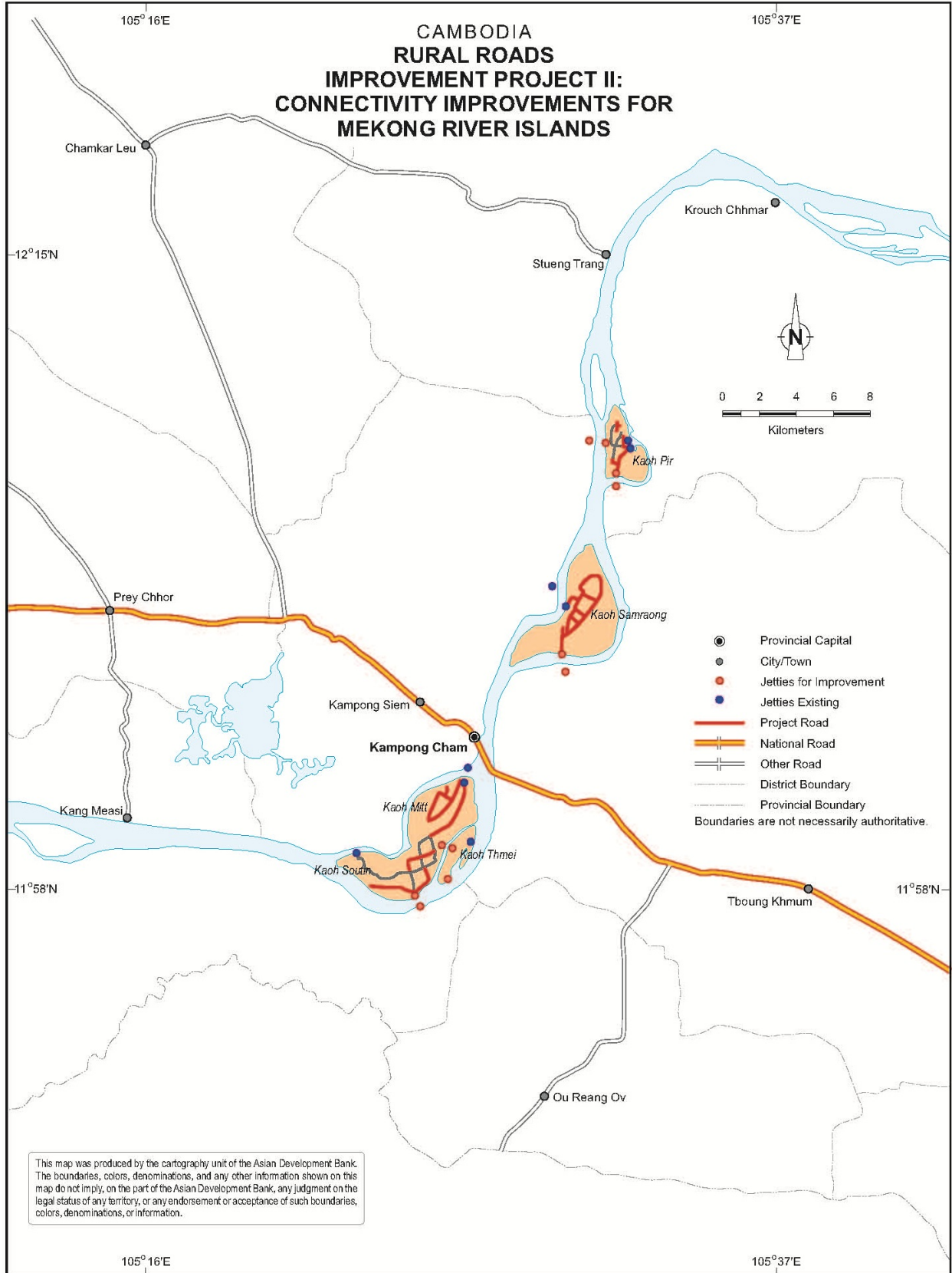
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PROJECT AT A GLANCE

1. Basic Data		Project Number: 42334-014	
Project Name	Rural Roads Improvement Project II	Department /Division	SERD/SETC
Country	Cambodia	Executing Agency	Ministry of Rural Development
Borrower	Ministry of Economy and Finance		
2. Sector		ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		54.00
		Total	54.00
3. Strategic Agenda		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Adaptation (\$ million)	25.00
Environmentally sustainable growth (ESG)	Disaster risk management Eco-efficiency	Climate Change impact on the Project	Low
4. Drivers of Change		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Anticorruption Institutional development Organizational development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas Knowledge sharing activities		
Partnerships (PAR)	Pilot-testing innovation and learning International finance institutions (IFI) Official cofinancing Regional organizations		
Private sector development (PSD)	Conducive policy and institutional environment Public sector goods and services essential for private sector development		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Rural	High
		Urban	Low
6. Risk Categorization:		Low	
7. Safeguard Categorization		Environment: B Involuntary Resettlement: C Indigenous Peoples: C	
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		54.00	
Sovereign Project loan: Asian Development Fund		54.00	
Cofinancing		53.07	
Export-Import Bank of Korea		41.00	
Nordic Development Fund		5.40	
Australian Grant		6.67	
Counterpart		11.16	
Government		11.16	
Total		118.23	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		No	

CAMBODIA RURAL ROADS IMPROVEMENT PROJECT II: CONNECTIVITY IMPROVEMENTS FOR MEKONG RIVER ISLANDS



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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, (ii) proposed administration by the Asian Development Bank (ADB) of a grant to be provided by the Government of Australia, and (iii) proposed administration by ADB of a grant to be provided by the Nordic Development Fund (NDF) to the Kingdom of Cambodia for the Rural Roads Improvement Project II.¹

2. The project will rehabilitate about 729 kilometers (km) of rural roads in nine provinces (Banteay Meanchey, Battambang, Kampong Cham, Kampong Chhnang, Kampong Speu, Kampong Thom, Pursat, Siem Reap, and Takeo) to paved condition. The rehabilitated roads will provide poor rural provinces with a safer, cost-effective rural road network with all-year access to markets and other social services. The project will also support a sustainable road maintenance regime in the Ministry of Rural Development (MRD), a community-based road safety program, an HIV/AIDS and human trafficking awareness and prevention program (HHTPP), and climate change adaptation measures. The feasibility study for the project was completed through the Rural Roads Improvement Project² and project preparatory technical assistance.³

II. THE PROJECT

A. Rationale

3. Roads are the principal mode of transport in Cambodia. The country's road network of 51,764 km includes (i) about 5,623 km of national roads (primary national highways); (ii) about 6,641 km of provincial roads (secondary national highways); and (iii) about 39,500 km of rural roads. The Ministry of Public Works and Transport (MPWT) is responsible for the national and provincial roads; MRD is responsible for rural roads.

4. By the early 1990s, after years of civil war, the country's road network had deteriorated severely. Since 1992, with assistance from ADB and other multilateral and bilateral development partners, the government has focused on rehabilitating core national infrastructure required for the economy to develop in a sustainable manner. Development efforts have brought the paved national road network to about 2,700 km, slightly less than 25% of the total national and provincial road network.

5. As the rural economy is becoming increasingly dependent on the improved national road network, the rural road network continues to deteriorate. This is due to rapidly growing traffic, lack of maintenance financing, poor road maintenance standards, inadequate institutional capacity for road maintenance and management. In addition, lack of private contractor capacity, and shortcomings in design and construction methods do contribute to the situation.

6. In 2010, ADB approved the first Rural Roads Improvement Project (footnote 2) to improve more than 505 km of rural roads to paved condition. This project aimed to provide reliable all-year access from provincial towns and agricultural rural areas to markets,

¹ The design and monitoring framework is in Appendix 1.

² 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.

³ Four outputs of the proposed project were designed under Rural Roads Improvement Project (footnote 2). For the remaining output, ADB provided project preparatory technical assistance: ADB. 2013. *Technical Assistance to the Kingdom of Cambodia for Preparing the Mekong River Island Connectivity Output*. Manila (TA 8322-CAM).

employment centers, and social services in seven provinces, serving about 0.6 million beneficiaries. The provinces are Battambang, Kampong Cham, Kampong Chhnang, Kampong Speu, Kampong Thom, Pursat, and Siem Reap—most are located around the Tonle Sap Basin, where a large proportion of Cambodia's rural poor live. These rural gravel roads are typically 5–6 meters wide; some are vulnerable to flooding in the rainy season. The roads had low to moderate traffic; average daily traffic volume ranges from 200 to 2,000 passenger car units, depending on the road section. Motorcycles made up nearly 80% of the traffic. The current annual growth rate of traffic is 3.6%–6.0%, based on vehicle type. These growth rates were forecast to increase by 7.2%–12.0% per annum, thus a more sustainable and paved rural road network is required to accommodate future traffic, along with properly maintained national and provincial road network.

7. The proposed project aims to continue and expand the initiatives of the Rural Roads Improvement Project by rehabilitating about 729 km of rural roads in the seven original project provinces and two additional provinces (Banteay Meanchey and Takeo). The implementation supervision consulting services of the Rural Roads Improvement Project made provisions to (i) design the project to enhance ownership and build MRD capacity,⁴ (ii) build upon lessons, and (iii) ensure a seamless continuation of initiatives.⁵ This is a successful example of the use of lessons from previous initiatives.

8. As a consequence of relatively rapid economic development and activity, overloading of cargo vehicles has been the major cause of road damage in Cambodia since 2007. This is also a serious issue for rural roads due to overloaded trucks that haul agricultural products and those that carry quarry materials for construction. While ADB is currently supporting axle-load control programs for national and provincial road networks, the project aims to extend the ongoing overloading control program to rural roads.

9. Deteriorating road safety is also a major concern, especially with increasing growth of traffic in rural areas. In 2012, Cambodia's road crash rate was 13.4 fatalities per 100,000 inhabitants, a threefold increase since 2002. Increased traffic speeds resulting from improved paved road surfaces can also impose tremendous safety risks to rural communities. In line with the national umbrella programs for road safety and ADB's ongoing support, the Rural Roads Improvement Project has been assisting MRD to design and manage a community-based rural road safety program. These activities will continue under the project in all nine project provinces.

10. Additionally, given recent natural disasters in Cambodia, particularly frequent flooding during the wet season, climate change considerations must be incorporated in the project design. The Rural Roads Improvement Project supported initial climate change adaptation interventions in climate-resilient road design; hazard mapping; maintenance planning; green planting; and planning for emergency preparedness, response, and recovery. The outcomes of these initiatives are being applied in other ongoing road projects in the country, and the project will (i) implement green planting in all nine project provinces; and (ii) design and implement a community-based emergency management system for an island cluster in the Mekong River, Kampong Cham province (footnote 5).

11. This island cluster in the Mekong River comprises five remote islands, which are highly vulnerable to flooding. The islands lack organized all-year access to the mainland or between

⁴ Output: Rural Roads Improvements—Road Selection Criteria and Climate-Resilient Road Design (accessible from the list of linked documents in Appendix 2).

⁵ Lessons Learned (accessible from the list of linked documents in Appendix 2).

the islands. Due to recent climate change impacts, this lack of access to emergency facilities has resulted in about 10 fatalities of island residents per year. Improving access and connectivity will increase the climate resilience of the island cluster.

12. The overarching objective of ADB's country partnership strategy, 2011–2013 for Cambodia is poverty reduction, in line with the government's socioeconomic development priorities.⁶ The strategy focuses on two strategic objectives: (i) inclusive economic growth through provision of physical infrastructure, as well as interventions in other development activities such as vocational training, agriculture, and finance sector development; and (ii) social development and equity. Rehabilitating and enhancing the climate resilience of rural roads under the project will improve the access of the rural poor to markets and social services, and is a core means of promoting inclusive economic growth and reducing poverty, as well as enhancing social development and equity. The strategy includes four road projects; all are consistent with the sector assistance program evaluation recommendation to shift the focus to rehabilitating provincial and rural roads, rather than national roads.⁷ ADB approved the first provincial road project in 2009⁸ and the second in 2011.⁹ In 2010, ADB approved the Rural Roads Improvement Project, the first rural road project to improve the access of the rural poor to services. The proposed project incorporates lessons from the Rural Roads Improvement Project (footnote 5). No other major development partner is assisting with rural roads; they are currently working on national and provincial roads.¹⁰

13. The government's national strategy for growth for 2013–2018 (Rectangular Strategy for Growth, Employment, Equity, and Efficiency, Phase III) emphasizes the need to develop physical infrastructure with three core areas (agriculture sector promotion, private sector development and employment, and capacity building and human resource development).¹¹ The project supports this strategy, particularly as it enhances connectivity, balanced economic development, and access to social services in the nine remote rural provinces.

B. Impact and Outcome

14. The impact of the project will be improved access to markets, jobs, and social services in nine project provinces. This is consistent with the sector results framework of the Cambodia Transport Sector Assessment, Strategy, and Road Map.¹² The outcome of the project is a safe, climate-resilient, and cost-effective rural road network that provides all-year access in agricultural areas of the nine project provinces. The populations of the nine provinces comprise a large proportion of Cambodia's rural poor.

C. Outputs

15. The project has five key outputs: (i) rural road improvements, (ii) rural road asset management, (iii) rural road safety and community awareness program, (iv) project

⁶ ADB. 2011. *Country Partnership Strategy: Cambodia, 2011–2013*. Manila.

⁷ ADB. 2009. *Transport Sector in Cambodia—Focusing on Results*. Manila (SAP: CAM 2009-34).

⁸ 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).

⁹ ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Provincial Roads Improvement Project*. Manila (Loan 2839-CAM).

¹⁰ Development Coordination (accessible from the list of linked documents in Appendix 2).

¹¹ Samdech Akka Moha Sena Padei Techo Hun Sen, Prime Minister of the Kingdom of Cambodia. 2013. *Rectangular Strategy for Growth, Employment, Equity, and Efficiency, Phase III*. Phnom Penh.

¹² ADB. 2011. *Cambodia Transport Sector Assessment, Strategy, and Road Map*. Manila.

management support, and (v) connectivity improvements for the Mekong River islands.

16. **Rural road improvements.** About 729 km of rural roads will be improved to climate-resilient paved condition. Of the 11 civil works contracts, one will be a pilot performance-based contract with a 5.5-year duration.¹³ This output includes green planting and design, and implementation supervision consulting services.

17. **Rural road asset management.** A strong capacity-building program will be provided to improve sustainable rural road asset management for improving the overall institutional arrangements and practices for rural road maintenance. The program will continue interventions initiated in the Rural Roads Improvement Project, including the overloading prevention program for rural roads to efficiently manage road assets.¹⁴ The output continues the focus of the Rural Roads Improvement Project on improving the overall construction industry for rural road maintenance, including capacity development of Provincial Departments of Rural Development (PDRD), which implement road maintenance works. Capacity-building approaches will be introduced to gradually reduce the use of force account by PDRDs, using lessons from similar ongoing interventions in MPWT.¹⁵

18. **Rural road safety and community awareness program.** The awareness and application of road safety and safeguards will be increased by (i) expanding the pilot community-based road safety awareness program initiated in the Rural Roads Improvement Project, including the education program for schools, drivers, road users, and the community; and incorporating road safety provisions in road design; (ii) strengthening the capacity of MRD's Social and Environment Office (SEO, established in 2012); (iii) implementing an HHTPP; and (iv) conducting a sex-disaggregated socioeconomic baseline survey of project beneficiaries.¹⁶

19. **Project management support.** The capacity of MRD will be strengthened to provide efficient project management support for project implementation. The project will promote substantial positive employment and gender impacts in rural communities under all outputs. The gender action plan (GAP) will incorporate all employment and gender-mainstreaming activities in all five project outputs (para. 28).¹⁷ Using lessons from the ongoing Rural Roads Improvement Project (footnote 5), the proposed project will strengthen MRD's focus on all outputs equally, as the tendency has been somewhat inclined toward road improvement activities. This will be achieved through increased MRD staff resources in social, gender, and safeguard areas.

20. **Connectivity improvements for Mekong River islands.** The output has two sub-outputs: (i) rehabilitation of roads and jetties within a five-island cluster in the Mekong River (Koh Mitt, Koh Pir, Koh Samrong, Koh Soutin, and Koh Thmei) to improve climate-resilient access and connectivity (the civil works contract for rehabilitating roads and jetties includes provisions for small-scale levees and water management interventions to minimize flooding); and (ii) development of a climate change adaptation framework and associated investments for minor multisector activities (e.g., agriculture, renewable energy, tourism, water supply) that will

¹³ The project plans include 12 civil works contracts (including one financed by the Export-Import Bank of Korea). Two contracts are planned under the Connectivity Improvement for Mekong River Islands output.

¹⁴ Output: Rural Road Asset Management (accessible from the list of linked documents in Appendix 2).

¹⁵ ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Road Asset Management Project*. Manila (Loan 2406-CAM).

¹⁶ Output: Rural Road Safety and Community Awareness Program (accessible from the list of linked documents in Appendix 2).

¹⁷ Gender Action Plan (accessible from the list of linked documents in Appendix 2).

be designed and implemented during the project, including a community-based emergency management system. Although this output will be piloted for the Mekong River island cluster, it may be replicated in other similar areas with remote access.¹⁸

D. Investment and Financing Plans

21. The project is estimated to cost \$118.23 million, including taxes and duties of \$8.66 million. The total cost includes physical and price contingencies, and interest and other charges during implementation. The investment and financing plan is summarized in Table 1. ADB financing is firm and all other cofinanciers have confirmed their financing.

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Rural road improvements	75.99
2. Rural road asset management	1.10
3. Rural road safety and community awareness program	2.26
4. Project management support	2.11
5. Connectivity improvements for Mekong River islands	13.71
Subtotal (A)	95.17
B. Contingencies^c	20.13
C. Financing Charges During Implementation^d	2.93
Total (A+B+C)	118.23

^a Includes taxes and duties of \$8.66 million (through exemption) and \$2.49 million contribution of the Government of Cambodia for the project management cost, in kind, excluding \$0.71 million for allowances.

^b In March 2014 prices.

^c Physical contingencies computed at 10% of base costs. Price contingencies computed for foreign exchange costs and local currency costs based on the annual rates shown below; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Annual Rate	2014	2015	2016	2017	2018	2019	2020
Foreign currency	1.9%	2.2%	1.9%	1.8%	1.8%	1.8%	1.8%
Local currency	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%

^d Includes interest and commitment charges. Interest during construction for ADB loan is computed at 1.0% per annum during the grace period. Service charge for the Government of Australia grant is \$0.34 million, and \$0.25 million for the Nordic Development Fund grant.

Source: Asian Development Bank estimates.

22. The government has requested a loan in various currencies equivalent to SDR34,918,000 (\$54.0 million equivalent) from ADB's Special Funds resources to help finance the project.¹⁹ The loan will have a 32-year term, including a grace period of 8 years, an interest rate 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. ADB will finance rural road improvements, including detailed design and implementation supervision consulting services, rural road asset management, road safety and community awareness program, and project management support and interest during construction.²⁰

23. The financing plan is in Table 2. The Government of Australia will provide grant cofinancing of A\$7,600,000. ADB will administer the grant, equivalent to \$6.67 million at the exchange rate prevailing at the time of fact-finding. The grant will jointly finance rural road

¹⁸ Output: Connectivity Improvements for Mekong River Islands (accessible from the list of linked documents in Appendix 2).

¹⁹ ADB (and any ADB-administered financing) may finance transportation and insurance costs under the project.

²⁰ Design of the future project is included under ADB financing.

improvements, rural road asset management, rural road safety, and community awareness program, based on different ratios for each cost category and/or subcategory. The Government of the Republic of Korea, through the Export-Import Bank of Korea will provide a tied parallel loan of \$41 million equivalent for rural road improvements. It will finance civil works, and design and implementation supervision consulting services. The NDF will provide grant cofinancing of €4,000,000 to finance, based on different ratios, the civil works for green planting and climate change adaptation and consulting services for climate change adaptation. ADB will administer the grant, equivalent to \$5.4 million at the exchange rate prevailing at the time of fact-finding. Both grants will be denominated in dollars pursuant to ADB's standard accounting practices.²¹ ADB and the NDF will cofinance connectivity improvements for Mekong River islands, with green planting under rural roads improvements. The Government of Cambodia will finance taxes and duties (through exemptions) for all outputs and supplementary allowances (in kind) under project management support. These are estimated at \$11.16 million.

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank: Special Funds resources (loan)	54.00	45.67
Cofinanciers ^a		
Government of Australia (grant)	6.67	5.64
Export-Import Bank of Korea (loan)	41.00	34.68
Nordic Development Fund (grant)	5.40	4.57
Government of Cambodia	11.16	9.44
Total	118.23	100.00

^a Cofinancing is calculated at the exchange rate prevailing on 31 January 2014.

Source: Asian Development Bank estimates.

E. Implementation Arrangements

24. MRD will be the executing agency for the project. The project management unit, which is implementing the Rural Roads Improvement Project, will be the implementing agency of this proposed project. The project will be implemented from 2014 to 2020. The implementation arrangements are summarized in Table 3.²² All goods and civil works will be procured in accordance with ADB's Procurement Guidelines (2013, as amended from time to time) and all consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time), subject to eligibility requirements waiver.²³

Table 3: Implementation Arrangements

Aspects	Arrangements
Implementation period	August 2014–June 2020
Estimated completion date	June 2020
Management	
(i) Oversight body	Ministry of Economy and Finance
(ii) Executing agency	Ministry of Rural Development (MRD)
(iii) Key implementing agencies	Project management unit (PMU)
(iv) Implementation unit	PMU under MRD, Phnom Penh; 66 staff
Procurement	ICB 8 contracts \$53.39 million NCB 3 contracts \$1.61 million

²¹ This amount may be adjusted for currency fluctuations to match the grant amount received by ADB.

²² Details are in the Project Administration Manual (accessible from the list of linked documents in Appendix 2).

²³ ADB. 2013. *Blanket Waiver of Member Country Procurement Eligibility Restrictions in Cases of Cofinancing for Operations Financed from Asian Development Fund Resources*. Manila.

Aspects	Arrangements
	Shopping 4 contracts \$0.26 million
Consulting services	QCBS 1,441 person-months \$11.62 million QBS 228 person-months \$1.07 million
Advance contracting	Detailed design and implementation supervision consultant recruitment Procurement of project management vehicles and equipment
Disbursement	The ADB loan, and grants from the Government of Australia and the Nordic Development Fund will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2012, as amended from time to time) and detailed arrangements agreed between the Government of Cambodia and ADB.

ADB = Asian Development Bank, ICB = international competitive bidding, NCB = national competitive bidding, QBS = quality-based selection, QCBS = quality- and cost-based selection.

Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

25. The project is technically viable, as the design considers local design standards with construction materials and equipment compatible with local conditions. All 729 km will be paved for all-year climate-resilient access, of which Mekong River island roads will be concrete, while the remaining roads will be paved with double bituminous surface treatment. The connectivity improvements for Mekong River islands output is designed to mitigate annual climate change risks for the island cluster. While under the rural road asset management output, MRD will utilize mobile weigh pads that may be maintained through locally available technology, all other outputs will also ensure the use of similar technology for prolonged sustainability.

B. Economic and Financial

26. The improvement of rural roads under the project will serve about 620,000 project beneficiaries; the vast majority are poor rural residents. The approach used to evaluate the project follows the standard practice of comparing the lifecycle costs of the road agency and road users, with and without the project. The economic internal rate of return (EIRR) of the project is 32.4%; the EIRRs for individual road sections are above 12%. The sensitivity analysis shows that the EIRR is most sensitive to variations in traffic from the base year or the traffic growth rate. If either of these decrease by 70%, which is unlikely, the project will not be viable. The risk analysis shows that the likelihood of the project not reaching an EIRR of 12% is less than 1%. Since the project is not revenue generating, the financial analysis focuses on its financial sustainability. The assessment of MRD's financial capacity finds it to be sufficient to meet the recurrent expenditures of operating and maintaining the project in a sustainable manner.²⁴

C. Governance

27. ADB's Anticorruption Policy (1998, as amended to date) was explained and discussed with the Government of Cambodia and MRD. The policy will be applied throughout project implementation. In addition, a governance risk assessment and risk management plan

²⁴ Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

(GRARMP) was developed in coordination with the government.²⁵ The specific policy requirements and supplementary measures to ensure good governance are described in the project administration manual (PAM). The GRARMP will be posted on the MRD and ADB websites. Review missions will closely monitor compliance with the GRARMP's provisions and requirements. The financial management assessment confirms that the executing and implementing agencies have, in general, an acceptable financial management arrangement to implement the project. Nonetheless, financial management risks are high in some areas. Implementation of mitigation measures described in the GRARMP will reduce the risk to low.

D. Poverty and Social

28. Paved rural roads will significantly benefit poor and physically isolated rural residents in the project provinces, including women and children. Local economic development depends on improved connectivity, and paved roads reduce travel time, increase convenience, and make it safer for women and girls to travel farther from home. Better access to services will improve rural residents' health and educational attainment. Girls will have a better chance of attending secondary school, markets will be easier to reach, and micro and small enterprise opportunities for women will increase. 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. Road construction and maintenance also generate jobs and income for rural men and women. The project's GAP will ensure that contractors give priority to local residents for construction and road maintenance jobs, with specific targets for women's participation. MRD's SEO will continue to use the Ready for Roads training materials and tools developed under the Rural Roads Improvement Project to promote women's access to these jobs. Men and women will receive equal pay for equal work. Potentially negative social impacts of increased connectivity will be monitored and mitigated through the HHTPP. A rural road safety community awareness program will promote the safety of road users and local residents. The project is categorized as having effective gender mainstreaming with specific targets included in the design and monitoring framework and GAP in the PAM, section VIII.

E. Safeguards

29. Since none of the project roads will be widened, resettlement impacts are expected to be minimal. Therefore, the project is classified category C for resettlement under ADB's Safeguard Policy Statement (SPS, 2009). Nevertheless, a resettlement framework was prepared in compliance with the SPS to mitigate involuntary resettlement impacts in case they arise due to road widening during project implementation.²⁶ Similarly, since the social assessments in the project areas during project design did not indicate the presence of indigenous peoples, the project is category C for indigenous peoples under the SPS.

30. The environment category for the project is B given the nature of the project (i.e., improvement of existing roads, no widening of roads). Some project roads in Battambang and Pursat are located in the transition zone of Tonle Sap Biosphere Reserve. In addition, some activities under the connectivity improvements for Mekong River islands output, including the construction of 11 jetties, will take place near the Mekong River. Although none of the project activities are expected to have serious impacts on nearby areas (Tonle Sap Biosphere Reserve and Mekong River), MRD has obtained a no objection on project implementation from relevant

²⁵ Governance Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2); with a specific loan covenant in the Loan Agreement (accessible from the list of linked documents in Appendix 2).

²⁶ Resettlement Framework (accessible from the list of linked documents in Appendix 2).

authorities (Ministry of Environment, Ministry of Water Resources and Meteorology, and Cambodian Mekong River Commission). The initial environmental examination, including Mekong River island connectivity output and its environmental assessment and review framework, was prepared in compliance with the SPS.

F. Risks and Mitigating Measures

31. Given the procurement management problems that other development partners have had with MRD, risk mitigation measures need to be established. The overall risk assessment is medium, and the integrated benefits and impacts are expected to outweigh the costs. The preliminary assessment during project design identified three major risks during project implementation related to procurement, corruption, and technical due diligence. ADB will conduct intensive project reviews to mitigate all the risks effectively. The GRARMP is 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. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.²⁷

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Misprocurement in selection and award of civil works contracts	Review eight ICB and three NCB contracts thoroughly with intensive project reviews, closely coordinate with MEF and implement actions required under the GRARMP.
Corruption that may happen during financial management	Implement the GRARMP to strengthen internal controls, conduct intensive project reviews, and coordinate closely with MEF.
Technical due diligence weaknesses in design and supervision of construction	Conduct due diligence on all technical aspects through intensive project reviews and closely coordinate with MEF.

GRARMP = governance risk assessment and risk management plan; ICB = international competitive bidding; MEF = Ministry of Economy and Finance; NCB = national competitive bidding.

Source: Asian Development Bank.

IV. ASSURANCES AND CONDITIONS

32. The government and MRD have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

33. The government and MRD have agreed with ADB on specific assurances and certain covenants for the project, which are set forth in the loan agreement.

34. **Loan effectiveness condition.** Axle-load control prakas, acceptable to ADB, shall have been approved by the minister of MRD.²⁸

²⁷ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

²⁸ Prakas: a proclamation; a ministerial or interministerial decision signed by the relevant minister(s). A proclamation must conform to the Constitution and the law or subdecree to which it refers.

V. RECOMMENDATION

35. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve:

- (i) the loan in various currencies equivalent to SDR34,918,000 to the Kingdom of Cambodia for the Rural Roads Improvement Project II, 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 the grant not exceeding the equivalent of A\$7,600,000, as provided in para. 23 of this report, to the Kingdom of Cambodia for the Rural Roads Improvement Project II, to be provided by the Government of Australia; and
- (iii) the administration by ADB of the grant not exceeding the equivalent of €4,000,000, as provided in para. 23 of this report, to the Kingdom of Cambodia for the Rural Roads Improvement Project II, to be provided by the Nordic Development Fund.

Bindu N. Lohani
Vice-President

11 July 2014

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 nine project provinces</p>	<p>Volume of agricultural products transported on project roads increased by 100% from 2013 to 2022.</p> <p>By 2022, in the project provinces:</p> <ul style="list-style-type: none"> (i) economic activity rate (ages 15–64, both sexes) increases to 85% (baseline 2010: 80%) (ii) the under-5 mortality rate per 1,000 live births decreased to 30 (baseline 2010: 54) (iii) the maternal mortality ratio per 100,000 live births decreased to 150 (baseline 2010: 206) (iv) the grade 9 completion rate for girls increased by 12% (baseline 2010–2011: 44.3%) <p>620,000 beneficiaries will have improved access to markets, jobs, and social services by 2022 (baseline 2013: zero)</p>	<p>National and regional statistics: NIS</p> <p>Field surveys: MRD</p> <p>Population census: NIS (adjusted to target years)</p> <p>Health information system and Cambodia demographic and health survey: NIS</p> <p>Education management information system: Ministry of Education, Youth and Sports</p> <p>Field surveys: MRD</p>	<p>Assumptions Rehabilitation of project roads increases availability and quality of transport services.</p> <p>Agriculture-related and other industries increase in the project area.</p> <p>Risks An externality directly or indirectly impacts the access, like an epidemic.</p> <p>The project roads deteriorate because of insufficient funds for road maintenance programs due to prolonged extreme events.</p>
<p>Outcome Safe, climate-resilient, and cost-effective rural road network that provides all-year access in agricultural areas of the nine project provinces</p>	<p>Road crash rate in the project area decreased by 20% by 2020 (baseline 2012: 8.1 crashes per 1,000 beneficiaries)</p> <p>Average travel time per trip on project roads decreased to 30 minutes in 2020 (baseline 2015: 0 minutes, to be confirmed by baseline survey)</p> <p>Share of the paved rural road network increased to 3.6% in 2020 (baseline 2015: 1.8%)</p> <p>Average number of days per year that the project roads are accessible increased to 365 days in 2020 (baseline 2015: 200 days)</p>	<p>National road safety action plan annual report: National Road Safety Committee</p> <p>Field traffic surveys: MRD</p> <p>Field traffic surveys: MRD</p> <p>Annual reports: MRD</p> <p>Annual reports: MRD</p>	<p>Assumption The government sustains its commitment to rural infrastructure development and also commitment to maintain national and provincial road network.</p> <p>Risks MRD does not receive the planned maintenance budget for already paved roads.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Outputs 1. Rural roads improvements	About 729 km of rural roads rehabilitated with standard provisions for all road users by 2020 Average roughness of project roads decreased to 2–3 in 2020 (baseline 2015: 6–14) By 2020, contractors hire women for 20% of the required unskilled labor days.	Monthly and quarterly project progress reports: MRD Monitoring reports: MRD Quarterly progress reports: MRD PCR: ADB Project review missions: ADB Quarterly progress reports: MRD PCR: ADB	Assumption The government sustains its commitment to rural infrastructure development and also commitment to maintain national and provincial road network.
2. Rural road asset management	Overloading control mobile teams increased to 5 in 2020 (baseline 2014: 1) Annual operation and maintenance budget for project roads increased to \$310/km in 2020 (baseline 2013: \$268/km)	Annual reports: MRD Quarterly progress reports: MRD PCR: ADB Annual reports: MRD	
3. Rural road safety and community awareness program	By 2020, 40% of residents (50% women) in project provinces and all contractors' personnel participate in an HHTPP before and during civil works construction By 2015, sex-disaggregated baseline socioeconomic data established Mothers have a 30% share in community participants in road safety awareness programs by 2020	Quarterly progress reports: MRD PCR: ADB Quarterly progress reports: MRD Quarterly progress reports: MRD PCR: ADB	
4. Project management support	PMU personnel increased to 22 (14 males, 8 females) in 2020 (baseline 2013: 12 [7 males, 5 females]) By 2020, all PMU staff participate in training on social and gender issues, by 2020 (likely 22 with 14 male, 8 female) (baseline 2013: 7 male, 5 female).	Quarterly progress reports: MRD PCR: ADB Quarterly progress reports: MRD PCR: ADB	
5. Connectivity	Emergency-related deaths	National health	

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Improvements for the Mekong River islands	due to lack of access to health services from islands reduced to 0 in 2020 (baseline 2011: 15) 40% of unskilled workdays created are for women for manual concrete paving of island roads	statistics: NIS Quarterly progress reports: MRD PCR: ADB	
Activities with Milestones		Inputs	
1. Rural road improvements (civil works)		ADB: \$54.00 million	
1.1 MRD selects detailed design and construction supervision consultants: Mar–Sep 2014		Government: \$11.16 million	
1.2 MRD prepares tender documents and selects contractors: Oct 2014–Jun 2015		Cofinancing: \$53.07million	
1.3 MRD completes 729 km of road rehabilitation: Jun 2015–Jun 2020		Government of Australia 6.67 million	
2. Rural road asset management		Export-Import Bank of Korea 41.00 million	
2.1 MRD completes procurement of mobile weigh pads and enforcement vehicles: Mar–Oct 2015		Nordic Development Fund 5.40 million	
2.2 MRD expands mobile axle-load control: Oct 2014–Dec 2016		Total \$118.23 million	
2.3 MRD awards four road maintenance contracts Aug–Dec 2017			
3. Rural road safety and community awareness program			
3.1 MRD implements the road safety program: Jun 2015–Dec 2019		Item Amount (\$ million)	
3.2 MRD implements the HHTPP: Jun 2015–Jun 2020		1. Rural road improvements	
3.3 MRD completes the baseline socioeconomic survey with sex-disaggregated data: Jun 2015–Jun 2020		a. Improvement of 729 km of rural roads and green planting 67.07	
4. Project management support		b. Consulting services for design and implementation supervision 8.92	
4.1 MRD completes training on social and gender issues for all PMU staff: Jun 2015–Dec 2016		2. Rural road asset management 1.10	
4.2 PMU recruits 10 new staff to increase its efficiency: Jun 2015–Dec 2019		3. Rural road safety and community awareness program 2.26	
4.3 MRD manages the project efficiently: Mar 2014–Jun 2020		4. Project management support 2.11	
5. Connectivity improvements for the Mekong River islands		5. Connectivity improvements for Mekong River islands 13.71	
5.1 MRD completes the concrete roads in Mekong River islands: Jun 2015–Jan 2020		6. Contingencies 20.13	
5.2 MRD completes procurement and construction of jetties in Mekong River islands: Jun 2015–Jan 2020		7. Financial charges during implementation 2.93	

ADB = Asian Development Bank, HHTPP = HIV/AIDS and human trafficking awareness and prevention program; km = kilometer, MRD = Ministry of Rural Development, NIS = National Institute of Statistics, PCR = project completion report, PMU = project management unit.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=42334-014-3>

1. Loan Agreement
2. Sector Assessment (Summary): Transport
3. Project Administration Manual
4. Contribution to the ADB Results Framework
5. Development Coordination
6. Economic and Financial Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Gender Action Plan
10. Initial Environmental Examination
11. Resettlement Framework
12. Risk Assessment and Risk Management Plan

Supplementary Documents

13. Lessons Learned
14. Governance Risk Assessment and Risk Management Plan
15. Output: Rural Road Improvements—Road Selection Criteria and Climate-Resilient Road Design
16. Output: Rural Road Asset Management
17. Output: Rural Road Safety and Community Awareness Program
18. Output: Connectivity Improvements for Mekong River Islands