

# Project Administration Manual

Project Number: 41123-015

Loan Number: Lxxxx

September 2017

## Kingdom of Cambodia: Road Network Improvement Project

## ABBREVIATIONS

ADB	–	Asian Development Bank
DBST	–	double bituminous surface treatment
DMF	–	design and monitoring framework
EMP	–	environmental management plan
GAP	–	gender action plan
GMAG	–	gender mainstreaming action group
GMAP	–	gender mainstreaming action plan
HTAP	–	HIV/AIDS and human trafficking awareness and prevention program
ICB	–	international competitive bidding
IEE	–	initial environmental examination
ICS	–	implementation and construction supervision consultants
km	–	kilometer
MEF	–	Ministry of Economy and Finance
MPWT	–	Ministry of Public Works and Transport
NCB	–	national competitive bidding
NGO	–	non-government organization
NR	–	national road
NRSC	–	National Road Safety Council
PAM	–	project administration manual
PMU	–	project management unit
PPMS	–	project performance and management system
SOE	–	statement of expenditure
TOR	–	terms of reference

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### **Project Administration Manual Purpose and Process**

1. The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.
2. The Ministry of Public Works and Transport (MPWT) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by MPWT of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.
3. At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan agreement. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan agreement, the provisions of the loan agreement shall prevail.
4. After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

## I. PROJECT DESCRIPTION

1. The project aims to provide efficient transportation on the Greater Mekong Subregion (GMS) Southern Economic Corridors (SECs) passing through Cambodia and connecting feeder roads to extend the benefits of GMS SECs to northwestern and southeastern provinces through the improvement of the national roads that are unsafe and prone to flooding. The project will (i) improve safety and climate resilience of national roads in Prey Veng, Siem Reap, and Svay Rieng provinces; (ii) support Ministry of Public Works and Transport (MPWT) in road asset management by (a) strengthening axle load control operation; (b) introducing quality assurance system for civil works; and (c) piloting a performance-based maintenance contract in undertaking civil works for national roads; and (iii) help project communities improve their safety and health through a gender responsive community-based road safety program, and HIV/AIDS and human trafficking awareness and prevention program (HTAP).

2. The project national road (NR) 1 with double bituminous surface treatment (DBST) is a part of SEC-1: Dawei–Bangkok-Phnom Penh-Ho Chi Minh City-Vung Tau Corridor while NR6 with asphalt concrete is a part of SEC-2: Bangkok-Siem Reap-Stung Treng-Pleiku-Quy Nhon Corridor. They have been completed in different technical standards, now needs improvement to meet the growing traffic volume and axle loads.

3. All project roads, with a total length of about 147 km, are prone to climate change effects such as frequent flooding when the water level in Tonle Sap and Mekong rises. Thus, the project will provide the climate resiliency measures, such as reinforced embankment slope protection, increased drainage capacity, and additional urban drains and outlets. For the civil works, the project will use a hybrid performance-based contract (PBC), which includes major civil works and routine maintenance. The project will provide a technical audit to conduct due diligence on execution of hybrid PBCs and recommend corrective actions for implementation.

4. In addition to improving the priority roads, the project will reoperationalize six weigh stations, introduce a quality assurance system in MPWT and improve road safety in the communes along the project roads. The planned road safety measures are estimated to cost of \$0.650 million, including the black spot improvement, school safety zones, and campaigns to increase the villagers' understanding on road traffic regulation and rules.

5. The project aligns with the country partnership strategy, 2014–2018 priorities to reduce poverty and vulnerability in Cambodia and the government's national strategy for growth for 2013–2018 emphasizes the need for development of physical infrastructure with other three core areas (agriculture sector promotion, private sector development and employment, and capacity building and human resource development) by (i) improving national and regional connectivity and (ii) building institutional capacity

6. The Project is aligned with the following impact: transport infrastructure to enhance national competitiveness and people's welfare developed. The Project will have the following outcome: transport efficiency increased on the national roads along GMS SEC. The Project will have four outputs.

7. **Output 1: More Safe and climate resilient national roads delivered.** The project will provide periodic maintenance and rehabilitation on about 50 km and 97 km of national roads, respectively, with asphalt-concrete through implementing three civil works contract packages using hybrid PBC over five years. At the completion, the project roads will have  $3.5 \times 2 + 1.5 \times 2 = 10$  meter (m) widths with paved shoulders.

**Table 1: List of Project Roads**

Sub-output	Location	Road No.	From	To	Length (km)
1.1	Prey Veng and Svay Rieng	NR1	km 62.1 (junction with Neak Loeang)	km 159.00 (the western edge of Bavet city)	96.9
1.2	Siem Reap	NR6	km 317.1 (junction with airport road north edge of Siem Reap)	km 367.0 (south end of river bridge)	49.7
<b>Total</b>					<b>146.6</b>

km = kilometer; NR = national road;

8. **Output 2: Axle load control enhanced.** The Project will (i) improve the operation of six weigh stations by (a) purchasing required equipment for three weigh stations at Bavet on NR1, at Puok on NR6, at Thnal Tutoeng on NR7, and (b) providing necessary building structures for another three weigh stations at Kratie and Stung Treng on NR7 and at Kampong Thom on NR6; (ii) operationalize two mobile teams through providing weigh scales and vehicles; and (iii) provide on the job training for staffs in weigh stations and mobile teams. The project will also undertake pilot controlling of axle load at sources and introduce particular conditions to the civil works contract to enforce contractors to obey the load limits.

9. **Output 3: Quality assurance for civil works in MPWT strengthened.** The project will (i) establish laboratory network by providing four regional laboratories in Siem Reap, Kampot, Pursat and Kratie provinces<sup>1</sup> equipping it with good quality test equipment and qualified and trained laboratory personnel, (ii) provide field laboratory test equipment for soils, aggregates and concrete to all 25 provinces to enhance testing services in the provinces plus 5 sets for General Department of Public Works, MPWT, (iii) establish a dedicated Quality Assurance Wing (QAW) within MPWT, (iv) develop a Quality Management System and Standard Operating Procedures for both regional laboratory management and QAW, (v) provide a computerized Laboratory Information Management System by integrating the activities of the regional laboratories, (vi) recruit/redeploy MPWT staff and train them in the operation of the new quality assurance process and procedures (vii) prepare a long term development plan for the effective and continual improvement of the quality assurance system in MPWT, and (viii) provide field survey equipment to assess road pavement condition.

10. **Output 4: Road safety in project communes improved.** This output focuses on a community-based road safety activities through three pillars of: data compilation and analysis, school safety zone, and law enforcement. Since Cambodia has a relatively well established data collection system of Road Crash Victim Information within MPWT's National Road Safety Council (NRSC), road crash data at commune level will be compiled and analyzed for formulating road safety activities effective for communes. These data along with school characteristics are gathered to design the school safety zone under this output. Finally, law enforcement is also supported through engaging traffic police in the project area to focus on enforcing law to minimize the most common offenses for crashes: speeding, drunk-driving behavior, and negligence of helmet wearing. In the absence of police, commune leaders, respected elders, parents, and monks are trained under the output to socially enhance the understanding of offenders and strongly request their compliance with such undesirable behavior for better safety of self and

<sup>1</sup> Due to the autonomous nature of Central Laboratory and due to government regulations, MPWT is incapable of borrowing for the upgrading of facilities at Central Laboratory and to integrate into the regional laboratory network, hence the regional laboratory in Pursat province would function as the national laboratory, until the new national laboratory under the University of Transport is established and becomes functional.

others in the commune.

11. A small works contract for school safety zone hardware provisions, like traffic signs, speed humps, and lane markings estimated about \$0.65 million for schools along all project roads will be implemented. To supplement all above road safety activities, detailed design will include low cost measures for road safety engineering (see link documents for more details).

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 2: Road Network Improvement Project Readiness Activities**

Activities	2016	2017												2018	Responsible Agency/ Government	
	D	J	F	M	A	M	J	J	A	S	O	N	D	J		
Establish project implementation arrangements	✓															PMU3/MPWT
Advance contracting actions								✓								ADB/PMU3
Government budget inclusion									✓							MPWT, MEF
ADB Board approval										✓						ADB
Loan signing													✓			MEF, ADB
Government legal opinion provided														✓		MOJ
Loan effectiveness														✓		ADB

ADB = Asian Development Bank, MEF = Ministry of Economy and Finance, MPWT = Ministry of Public Works and Transport, MOJ = Ministry of Justice, PMU = project management unit.

Source: Asian Development Bank estimates.

### PROJECT READINESS FILTERS

Key Project Preparation Elements	Stage of Project Preparation			
	Identification/ preparation	Appraisal/ Fact-Finding	Negotiations	Effectiveness
<b>STANDARD PRFs</b>				
Identification of Project Director and executing agency and/or implementing agency project management and implementation teams to be responsible for project implementation	Executing agency will be MPWT and PMU3 will implement the project	Definition of their project-related TOR, included in Financial Management Assessment and confirmed by MPWT	Full Project Management and Implementation Teams assigned	Launch workshop done within 3 months: the launch workshop should focus in particular on the training of staff on the detailed implementation arrangements (program manuals)
Risk Management plans / Good Governance Framework	Broad content defined	Drafted and attached to the draft RRP	Completed and agreed. A project staff has been assigned as focal point	
Financial Management Capacity Assessment of executing agency and/or implementing agency		Completed	Start up actions initiated	Start up actions implemented, including FM training within 2 months
PCA of executing agency and/or implementing agency		Completed.	Start up actions initiated	Start up actions implemented
Annual implementation plan and budget		Drafted and included in the draft PAM	Completed and agreed.	Plan and budget obtained no objection by ADB
Program/project manuals		The PAM drafted	Completed and agreed.	
Auditing arrangements including TOR		Agreed and included in the draft PAM	Confirmed	
Environment Impact Assessment, Social Impact Assessment and Indigenous People Action Plan and Indigenous Peoples Development Framework (where applicable)	IEE, GAP	IEE and Social Impact Assessment completed	Action plans initiated	Action plans ongoing.
Budget & funding from development partners and Government of Cambodia for the 1st year of project implementation		Needs defined in the draft PAM; the Government will budget \$2 million for 2018 to finance the resettlement cost and advance payment to be paid to contractors	Confirmed	Available

Key Project Preparation Elements	Stage of Project Preparation			
	Identification/ preparation	Appraisal/ Fact-Finding	Negotiations	Effectiveness
		for civil works NR1/NR6		
<b>ADDITIONAL PRFs</b>				
Advance Actions for 1st year Bidding Documents for goods and works		List of items, timetable and responsibilities for implementation of advance actions have agreed	Bidding Documents No objection obtained by the development partners and issued.	Ready for signing (notably for goods)
Advance Actions for consultants	TORs for project implementation consultants drafted	TORs finalized. PMU3 will send the draft RFP for ADB's review by end May 2017	RFP issued.	1. Technical and financial proposals evaluated. 2. Contract negotiations done. 3. Contracts ready for signing
Implementation of Resettlement Plan (at least for 1st year) with attention to sufficient budget for compensation		The draft Resettlement Plan includes budget estimate	Budget for 1 <sup>st</sup> year compensation is drafted	Start implementation by recruiting an external monitoring agency within 3 months conducting detailed measurement survey within 6 months conducting replacement cost study within 2 months updating the resettlement plan within 2 months

CEMP = Contractor's Environmental Management Plan; IEE = initial environment evaluation; GAP = gender action plan; MPWT = Ministry of Public Works and Transport; NR = national road; PAM = project administration manual; PCA = procurement capacity assessment; PMU = project administration unit; PRF = project readiness filters; RFP = request for proposal; RRP = report and recommendation of the president; TOR = terms of reference.

## B. Overall Project Implementation Plan

**Table 3: Implementation Schedule**

Activities	By When	2017				2018				2019				2020				2021				2022				2023			
		1Q	2Q	3Q	4Q																								
<b>A. Management Activities</b>																													
1. Recruitment of project implementation and supervision consultant and mobilization	Jul 2017																												
2. Annual and/or midterm review	Dec 2018																												
3. Project completion report and project closure	Jun 2023																												
<b>B. Outputs</b>																													
<b>1. Safe and climate-resilient national roads improved</b>																													
1.1 Undertake detailed design under Project Readiness Improvement Trust Fund	Jun 2017																												
1.2 Procurement of civil works	Oct 2017																												
1.3 Road improvement and maintenace	May 2018																												
<b>2. Axle load control enhanced.</b>																													
2.1 Procurement and supply of portable weigh scales for 2 mobile teams	1Q 2018																												
2.2 Procurement, supply and installation of software at 3 weigh stations	1Q 2018																												
2.3 Procurement and implementation of civil works to improve 3 weigh stations	1Q 2018																												
2.4 Training for staff in weigh stations and mobile crews	4Q 2020																												
2.5 Commence controlling axle loads at weigh stations and by mobile team	2Q 2019																												
<b>3. Quality assurance system in MPWT strengthened</b>																													
3.1 Undertake detailed design and prepare bidding documents for laboratory buildings	1Q 2018																												
3.2 Procurement and implementation of civil works contract for laboratory buildings	2Q 2018																												
3.3 Procurement, supply and installation of laboratory equipment	2Q 2018																												
3.4 Recruitment and training for engineers/technicians	2Q 2019																												
3.5 Commence operations of regional laboratories and QAW in MPWT	2Q 2019																												
<b>4. Road safety enforcement along project communes improved</b>																													
4.1 Selection of consulting firm	1Q 2018																												
4.2 Implement community-based road safety program	3Q 2018																												
4.3 Constructuion of school zones	4Q 2019																												

MPWT = Ministry of Public Works and Transport; QAW= quality assurance wing

Source: ADB and MPWT.

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> <li>➤ Ministry of Economy and Finance (borrower)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Allocate and release counterpart funds;</li> <li>➤ Open imprest account for the project and delegate administration authority to MPWT;</li> <li>➤ Approve withdrawal applications for ADB's financing; and</li> <li>➤ Select external financial auditor</li> </ul>
<ul style="list-style-type: none"> <li>➤ Ministry of Public Works and Transport (executing agency)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Provide project direction and guidance;</li> <li>➤ Secure counterpart fund allocation for project activities;</li> <li>➤ Ensure compliance with loan covenants</li> <li>➤ Approve detailed designs and tender documents, bid evaluation reports and contract awards; and</li> <li>➤ Administer the imprest account</li> <li>➤ Hire staff to be served in the laboratories and quality assurance wing in MPWT to be established under the project</li> </ul>
<ul style="list-style-type: none"> <li>➤ Project Management Unit 3 (implementing agency)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Implement project in accordance with the loan agreement;</li> <li>➤ Regularly post on the Project website the procurement and safeguard documents and project activities for public;</li> </ul> <p><b>Project Management</b></p> <ul style="list-style-type: none"> <li>➤ Prepare annual project implementation program and implement such programs</li> <li>➤ Administer the contracts for civil works, goods, and consulting services;</li> <li>➤ Review progress reports prepared by the implementation and construction supervision consultant (ICS consultant) and other consultants; and submit the consolidated reports to ADB at quarterly basis;</li> <li>➤ Develop PPME indicators, and submit PPME reports to ADB;</li> <li>➤ Prepare project completion report and submit to ADB</li> </ul> <p><b>Procurement</b></p> <ul style="list-style-type: none"> <li>➤ Prepare and update project procurement plan as necessary;</li> <li>➤ Review procurement documents and seek MPWT's approval on bidding documents and bid evaluation reports;</li> <li>➤ Carry out selection of consultants</li> </ul> <p><b>Financial</b></p> <ul style="list-style-type: none"> <li>➤ Prepare budgeted work plans for disbursement and use of project funds;</li> <li>➤ Prepare loan reallocation requests and submit to MEF for onward submission to ADB for approval;</li> <li>➤ Prepare withdrawal applications and submit to MEF for onward submission to ADB;</li> <li>➤ Set up and maintain project financial management system and be responsible for project payments through imprest account and statement of expenditures procedures;</li> <li>➤ Maintain disbursement records;</li> <li>➤ Prepare information required for financial audit and implement the comments/recommendations of the auditor; and</li> <li>➤ Submit annual audited project financial statements to ADB.</li> </ul>

Project Implementation Organizations	Management Roles and Responsibilities
	<p><b>Safeguards</b></p> <ul style="list-style-type: none"> <li>➤ Initiate and coordinate effective communication between all stakeholders of the Project;</li> <li>➤ Encourage civil societies participation in all stages of design and implementation of project activities;</li> <li>➤ Ensure compliance with all safeguard policy provisions in accordance with agreed formats and frameworks</li> <li>➤ Submit to MOE the prepared IEE for information</li> <li>➤ Ensure that the project EMP included in the IEE are incorporated in the bidding documents and contract documents for all civil works</li> <li>➤ Oversee monthly environmental monitoring of the Project and submit semi-annual environmental monitoring reports to ADB</li> <li>➤ Oversee Project with relevant national and provincial government agencies on environmental matters as they arise</li> <li>➤ Oversee the preparation of contractor's EMP and ensure that these are consistent with the project EMP, standards are feasible, monitored and maintained</li> <li>➤ Secure approval of the resettlement plan by the IRC</li> <li>➤ Secure prior approval by IRC and ADB of any variations in the approved resettlement plan</li> <li>➤ Oversee implementation of the resettlement plan and submit semi-annual monitoring reports to ADB</li> <li>➤ Oversee implementation of the GAP and HTAP and submit quarterly updated the GAP monitoring tables through quarterly progress reports</li> <li>➤ Implement Communication, Consultation and Participation Plan, and related capacity building activities.</li> </ul>
Project Inter-Ministerial Resettlement Committee/ General Department of Resettlement (MEF)	<ul style="list-style-type: none"> <li>➤ Review and approve Resettlement Framework (RF) and, as required, Resettlement Plans (RP), ensuring consistency with ADB Safeguards Policy Statement and Loan Agreement.</li> <li>➤ Lead the RCS and IOL to prepare final/updated RPs.</li> <li>➤ Provide technical guidance for monitoring RP implementation and post-implementation evaluation.</li> <li>➤ Secure from the MEF the budget for implementing RPs, ensuring that sufficient funds are available in a timely manner;</li> <li>➤ Approve all disbursements connected with the implementation of the RPs, such as payment of compensation and other entitlements, acquisition and preparation of replacement plots, operational expenses of personnel, etc.</li> </ul>
Social and Environmental Office	<ul style="list-style-type: none"> <li>➤ Ensure EMP updated following detailed engineering design</li> <li>➤ Review and validate semi-annual environmental monitoring reports prepared by the ICS;</li> <li>➤ Notify MPWT/PMU3 regarding compliance with Government approvals related to environmental management;</li> <li>➤ Lead follow-up consultation meetings with relevant institutions, stakeholders and affected persons on environmental issues;</li> <li>➤ In coordination with the PMU3 and the ICS undertake regular construction site inspections and oversee implementation of the CEMPs by contractors; and</li> <li>➤ Support PMU3 with preparation of semi-annual environmental monitoring reports for ADB.</li> </ul>

Project Implementation Organizations	Management Roles and Responsibilities
Asian Development Bank	<ul style="list-style-type: none"> <li>➤ Provide financing;</li> <li>➤ Review and approve procurement and disbursements requests, contract variations, and updated procurement plans;</li> <li>➤ Monitor project implementation progress;</li> <li>➤ Undertake project review missions;</li> <li>➤ Review compliance with loan covenants; and</li> <li>➤ Regularly post on ADB web the safeguards monitoring reports, project documents and reports.</li> </ul>

ADB = Asian Development Bank; CEMP = contractor's environmental management plan; EMP = environmental management plan; GAP = gender action plan; HTAP = HIV/AIDS and human trafficking awareness and prevention program; IOL = inventory of loss; IEE = initial environmental examination; IRC = interministerial resettlement committee; MEF = Ministry of Economy and Finance; MOE = Ministry of Environment; MPWT = Ministry of Public Works and Transport; PMU = project administration unit; PPME = project performance management and evaluation; RCS = resettlement cost study.

Sources: ADB and MPWT.

## B. Key Persons Involved in Implementation

### Executing Agency

Ministry of Public Works and Transport

Name: H.E. Pheng Sovicheano  
 Position: Secretary of State and Project Director-PMU3  
 Telephone: +855-2-372-4565  
 Email address: [psovicheano@online.com.kh](mailto:psovicheano@online.com.kh)  
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### Asian Development Bank

Southeast Asia Transport and Communications Division

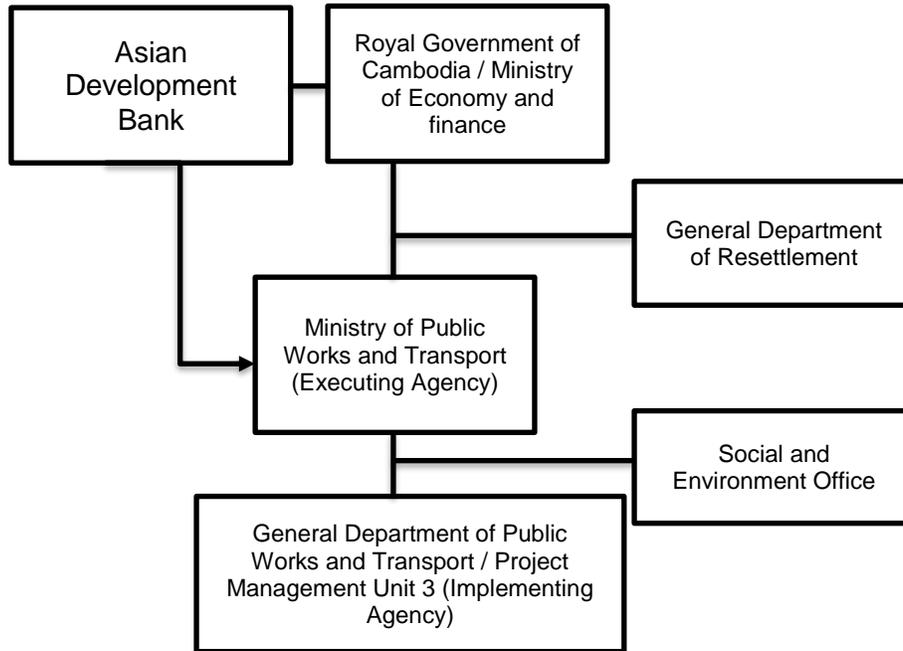
Name: Hiroaki Yamaguchi  
 Position: Director  
 Telephone No.: 63-2-632-6630  
 Email address: [hyamaguchi@adb.org](mailto:hyamaguchi@adb.org)

Mission Leader

Name: Ms. Erdene Oyunchimeg  
 Position: Senior Transport Specialist  
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 Email address: [eoyunchimeg@adb.org](mailto:eoyunchimeg@adb.org)

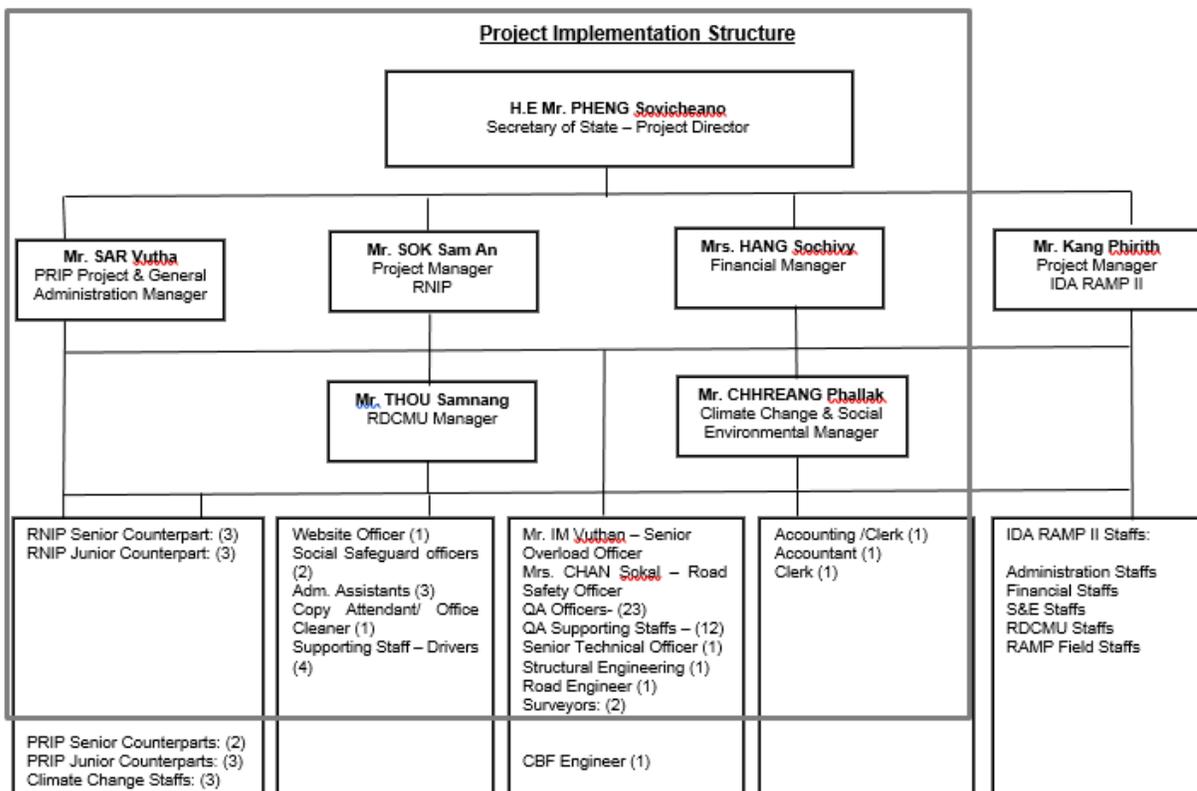
### C. Project Organization Structure

12. The flow chart to show the reporting lines essential internal structures of key organizations involved in project implementation.



**D. Project Management Structure**

13. The flow chart to show the reporting lines within MPWT involved in project implementation.



#### IV. COSTS AND FINANCING

14. The project is estimated to cost \$76.70 million (Table 4). The project will finance civil works, equipment, consulting services, land acquisition and resettlement, project administration, operation and maintenance of the project facilities (weigh stations and regional laboratories), local transport and insurance costs, interest during construction, and taxes and duties.

**Table 4: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Output 1: Safe and climate resilient national roads improved	52.83
2. Output 2: Axle load control enhanced	1.79
3. Output 3: Quality assurance system in MPWT strengthened	8.99
4. Output 4: Road safety enforcement in project communes improved	1.00
<b>Subtotal (A)</b>	<b>64.61</b>
<b>B. Contingencies<sup>c</sup></b>	<b>9.98</b>
<b>C. Financial Charges During Implementation<sup>d</sup></b>	<b>2.11</b>
<b>Total (A+B+C)</b>	<b>76.70</b>

MPWT = Ministry of Public Works and Transport.

<sup>a</sup> Includes taxes and duties of \$6.38 million of which the government will finance \$3.38 million in cash contribution. ADB financed taxes and duties do not represent an excessive share of the project cost.

<sup>b</sup> In mid-2017.

<sup>c</sup> Physical contingencies computed at about 8% for base cost. Price contingencies computed at average of 1.5% on foreign exchange costs and 3.5% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Interest during construction for the concessional loan has been computed at 1% per year during the implementation grace period and 1.5% per year thereafter.

Source: Asian Development Bank estimates.

15. The government has requested a concessional loan in various currencies equivalent to \$70 million from ADB's ordinary capital resources to help finance the project. The loan will have 32-year term, including a grace period of 8 years, with an interest charge of 1.0% per year during the grace period and 1.5% per year thereafter, and such other terms and conditions set forth in the draft loan agreement.

16. The summary financing plan is in Table 5. ADB will finance civil works, equipment, consulting services, project administration, contingencies, financing charges during implementation, and local transport and insurance costs. The government will finance an estimated \$6.7 million to cover external financial audit, PMU3 staff salary supplements, operation and maintenance of the weigh stations and regional laboratories, and part of physical contingencies, and duties and taxes on civil works.

**Table 5: Summary Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Special Fund resources (loan)	70.00	91.27
Government	6.70	8.73
<b>Total</b>	<b>76.70</b>	<b>100.00</b>

Sources: Asian Development Bank estimates.

## A. Cost Estimates Preparation and Revisions

17. The TA consulting firm<sup>2</sup> contracted under the Second Road Asset Management Project<sup>3</sup> prepared the cost estimates. Updating of cost estimates will be done during detailed engineering design and prior to procurement or recruitment.

## B. Key Assumptions

18. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: KHR 4,100 = \$1.00
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 6: Escalation Rates for Price Contingency Calculation**

Annual Rate	2018	2019	2020	2021	2022
Foreign Currency	1.5%	1.5%	1.5%	1.5%	1.5%
Local Currency	3.5%	3.5%	3.5%	3.5%	3.5%

Source: Asian Development Bank

## C. Detailed Cost Estimates by Expenditure Category

(\$ million)<sup>a</sup>

Item	Total Cost <sup>b</sup>	% of Total Cost
<b>A. Investment Cost</b>		
1. Civil Works	50.52	65.50
2. Consultants <sup>c</sup>	3.58	4.70
3. Equipment	6.38	8.40
<b>Subtotal A</b>	<b>60.48</b>	<b>78.60</b>
<b>B. Incremental Administration Cost</b>		
1. Project Administration <sup>d</sup>	1.42	1.80
2. Facilities and equipment operation and maintenance	2.71	3.50
<b>Subtotal (B)</b>	<b>4.13</b>	<b>5.30</b>
<b>Total Base Cost(A+B)</b>	<b>64.61</b>	<b>83.90</b>
<b>C. Contingencies</b>		
1. Physical Contingency	4.92	6.70
2. Price Contingency	5.06	6.60
<b>Subtotal (C)</b>	<b>9.98</b>	<b>13.30</b>
<b>D. Financial Charge During Implementation</b>		
1. Interest During Construction	2.11	2.80
<b>Subtotal (D)</b>	<b>2.11</b>	<b>2.80</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>76.70</b>	<b>100.00</b>

a. In mid-2017 prices.

b. Includes taxes and duties of \$6.38 million, of which government will finance \$3.38 million in cash contribution.

c. includes external financial auditors (\$0.03 million) to be financed by the government in cash.

d. includes the PMU3 staff's salary supplements of \$0.38 million to be financed by government in cash.

Source: Asian Development Bank.

<sup>2</sup> Sheladia under TA8784-CAM.

<sup>3</sup> ADB. 2015. *Technical Assistance to the Kingdom of Cambodia for the Second Road Asset Management Project- Additional Financing*. Manila.

**D. Allocation and Withdrawal of Loan Proceeds**

**Table 7: Allocation and Withdrawal of Loan Proceeds**

<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (\$)</b>	<b>Percentage and Basis for Withdrawal from the Loan Account</b>
1	Works:	47,140,000	
1a	Project roads	44,800,000	93% of total expenditure claimed
1b	Other facilities (weigh stations, regional laboratories, and safe school zone)	2,340,000	100% of total expenditure claimed
2	Consulting Services	3,550,000	
2a	Implementation and Supervision	3,120,000	100% of total expenditure claimed
2b	Road Safety Program	350,000	100% of total expenditure claimed
2c	Procurement support	30,000	100% of total expenditure claimed
2c	Technical Audit for Performance Based Contract	50,000	100% of total expenditure claimed
3	Equipment	6,380,000	100% of total expenditure claimed
4	Incremental administration cost (PMU3 running cost)	1,040,000	100% of total expenditure claimed
5	Interest Charge	2,110,000	100% of amount due
6	Unallocated	9,780,000	
	<b>Total</b>	<b>70,000,000</b>	

## E. Detailed Cost Estimates by Financier

Items	(\$ millions) <sup>a</sup>				
	ADB		Government		Total Cost (D)
	Amount (A)	% of Cost Category (A/D)	Amount (B)	% of Cost Category (B/D)	
<b>A. Investment Costs</b>					
1. Civil Works	47.14		3.38		50.52
1a. Project roads	44.80	93.00	3.38	7.00	48.18
1b. Other facilities (weigh stations, regional labs, and safe school zone)	2.34	100.0	-	-	2.34
2. Consulting Services	3.55	99.16	0.03	0.84	3.58
2a. Implementation and Construction Supervision	3.12	100.00	-	-	3.12
2b. Road Safety Program			-	-	
2c. Technical Audit	0.35	100.00	-	-	0.35
2d. Procurement Support	0.05	100.00	-	-	0.05
2e. External Financial Auditor	0.03	100.00	-	-	0.03
	-	-	0.03	100.00	0.03
3. Equipment	6.38	100.00	-	-	6.38
<b>Subtotal (A)</b>	<b>57.08</b>	94.37	<b>3.41</b>	5.62	<b>60.48</b>
<b>B. Incremental Administration Cost</b>					
4. Project Administration					
4a PMU3 running cost	1.04	100.00	-	-	1.04
4b PMU3 staff salary supplements	-	-	0.38	100.00	0.38
5. Facilities and equipment operation and maintenance	-	-	2.71	100.00	2.71
<b>Subtotal (B)</b>	<b>1.04</b>	25.14	<b>3.09</b>	74.86	<b>4.13</b>
<b>Total Base (A+B)</b>	<b>58.12</b>	89.94	<b>6.50</b>	10.06	<b>64.61</b>
<b>C. Contingencies</b>	9.78	98.00	0.20	2.00	<b>9.98</b>
<b>D. Financial Charges During Implementation</b>	<b>2.11</b>	<b>100.00</b>	-	-	<b>2.11</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>70.00</b>	<b>91.26</b>	<b>6.70</b>	<b>8.74</b>	<b>76.70</b>
<b>% Total Project Cost</b>		<b>90.98</b>		<b>90.03</b>	<b>100.00</b>

<sup>a</sup> In mid-2017 prices.

Note: Number may not sum precisely because of rounding

Source: Asian Development Bank.

## F. Detailed Cost Estimates by Outputs

(\$ millions)<sup>a</sup>

Item	Total Cost	Output 1		Output 2		Output 3		Output 4	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
<b>A. Investment Costs</b>									
1. Civil Works	50.52	48.18	95.38	0.30	0.59	1.39	2.51	0.65	1.28
2. Consulting Services	3.58	3.23	90.22	0.00	0.00	0.00	0.00	0.35	9.78
3. Equipment	6.38	-	-	0.23	3.61	6.15	96.39	-	0.00
<b>Subtotal (A)</b>	<b>60.48</b>	<b>51.41</b>	<b>88.85</b>	<b>0.53</b>	<b>0.62</b>	<b>7.54</b>	<b>8.84</b>	<b>1.00</b>	<b>1.69</b>
<b>B. Incremental Administration Cost</b>									
1. Project Administration	1.42	1.42	100.00	-	0.00	-	0.00	-	0.00
2. Facilities and equipment operation and maintenance	2.71	-	-	1.26	46.53	1.45	53.47	-	0.00
<b>Subtotal (B)</b>	<b>4.13</b>	<b>1.42</b>	<b>34.31</b>	<b>1.26</b>	<b>30.56</b>	<b>1.45</b>	<b>35.12</b>	<b>-</b>	<b>0.00</b>
<b>Total Base Cost</b>	<b>64.61</b>	<b>52.83</b>	<b>86.33</b>	<b>1.79</b>	<b>2.00</b>	<b>8.99</b>	<b>10.05</b>	<b>1.00</b>	<b>1.61</b>
<b>C. Contingencies</b>									
1. Physical	4.92	3.72	76.74	0.18	3.48	0.90	17.44	0.12	2.32
2. Price	5.06	4.01	79.24	0.16	3.16	0.79	15.61	0.10	1.97
<b>Subtotal (C)</b>	<b>9.98</b>	<b>7.73</b>	<b>85.79</b>	<b>0.34</b>	<b>2.08</b>	<b>1.69</b>	<b>10.45</b>	<b>0.22</b>	<b>1.67</b>
<b>D. Financial Charges During Implementation</b>									
1. Interest during construction	2.11	1.70	80.56	0.06	2.84	0.30	14.21	0.05	2.37
<b>Subtotal (D)</b>	<b>2.11</b>	<b>1.70</b>	<b>85.79</b>	<b>0.06</b>	<b>2.08</b>	<b>0.30</b>	<b>10.45</b>	<b>0.05</b>	<b>1.67</b>
<b>Total project Cost (A+B+C+D)</b>	<b>76.70</b>	<b>62.26</b>	<b>81.23</b>	<b>2.19</b>	<b>2.84</b>	<b>10.98</b>	<b>14.27</b>	<b>1.27</b>	<b>1.72</b>

<sup>a</sup> In mid-2017 prices.

Note: Number may not sum precisely because of rounding.

Source: Asian Development Bank

**G. Detailed Cost Estimates by Year**

Item	(\$ million) <sup>a</sup>					
	Total Cost	2018	2019	2020	2021	2022
<b>A. Investment Cost</b>						
1. Civil Works	50.52	8.55	21.39	12.9	5.00	2.68
2. Consulting Services	3.58	0.61	1.51	0.92	0.35	0.19
3. Equipment	6.38	3.83	2.55		-	-
<b>Subtotal (A)</b>	<b>60.48</b>	<b>12.99</b>	<b>25.45</b>	<b>13.82</b>	<b>5.35</b>	<b>2.87</b>
<b>B. Incremental Administration Cost</b>						
1. Project Administration	1.42	0.28	0.28	0.28	0.28	0.28
2. Facilities and equipment operation and maintenance	2.71	-	-	1.09	0.81	0.81
<b>Subtotal (B)</b>	<b>4.13</b>	<b>0.28</b>	<b>0.28</b>	<b>1.37</b>	<b>1.09</b>	<b>1.09</b>
<b>Total Base Cost (A+B)</b>	<b>64.61</b>	<b>13.27</b>	<b>25.73</b>	<b>15.19</b>	<b>6.44</b>	<b>3.97</b>
<b>C. Contingencies</b>	<b>9.98</b>	<b>1.72</b>	<b>4.41</b>	<b>2.54</b>	<b>1.01</b>	<b>0.30</b>
<b>D. Financial Charges During Implementation</b>	<b>2.11</b>	<b>0.06</b>	<b>0.26</b>	<b>0.50</b>	<b>0.62</b>	<b>0.67</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>76.70</b>	<b>15.05</b>	<b>30.41</b>	<b>18.23</b>	<b>8.07</b>	<b>4.94</b>
<b>% Total Project Cost</b>	<b>100.00</b>	<b>19.60</b>	<b>39.50</b>	<b>23.70</b>	<b>10.50</b>	<b>6.70</b>

<sup>a</sup> In mid-2017 prices.

Note: Number may not sum precisely because of rounding.

Sources: Asian Development Bank.

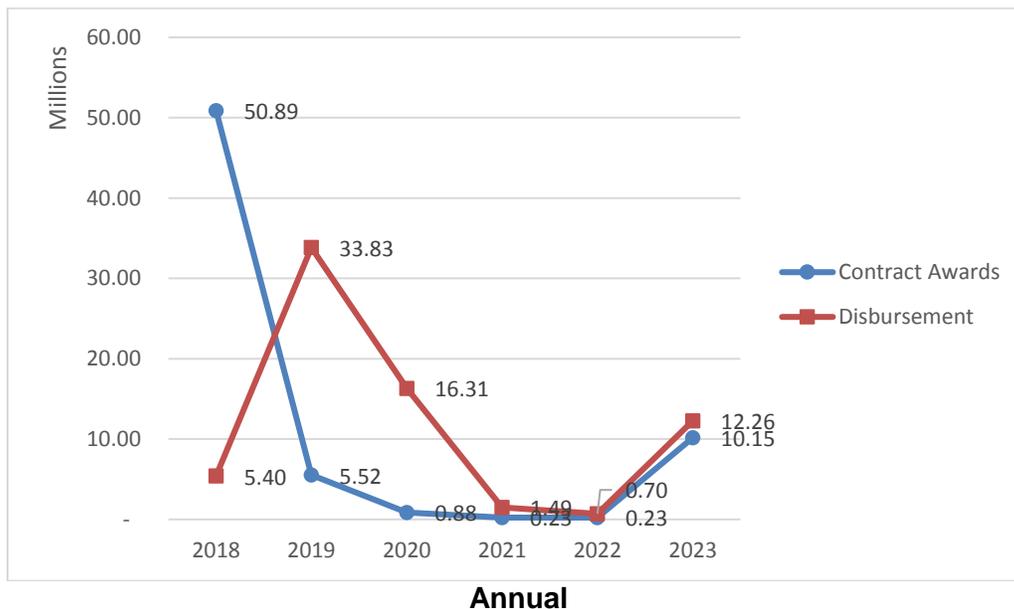
**H. Contract and Disbursement S-Curve**

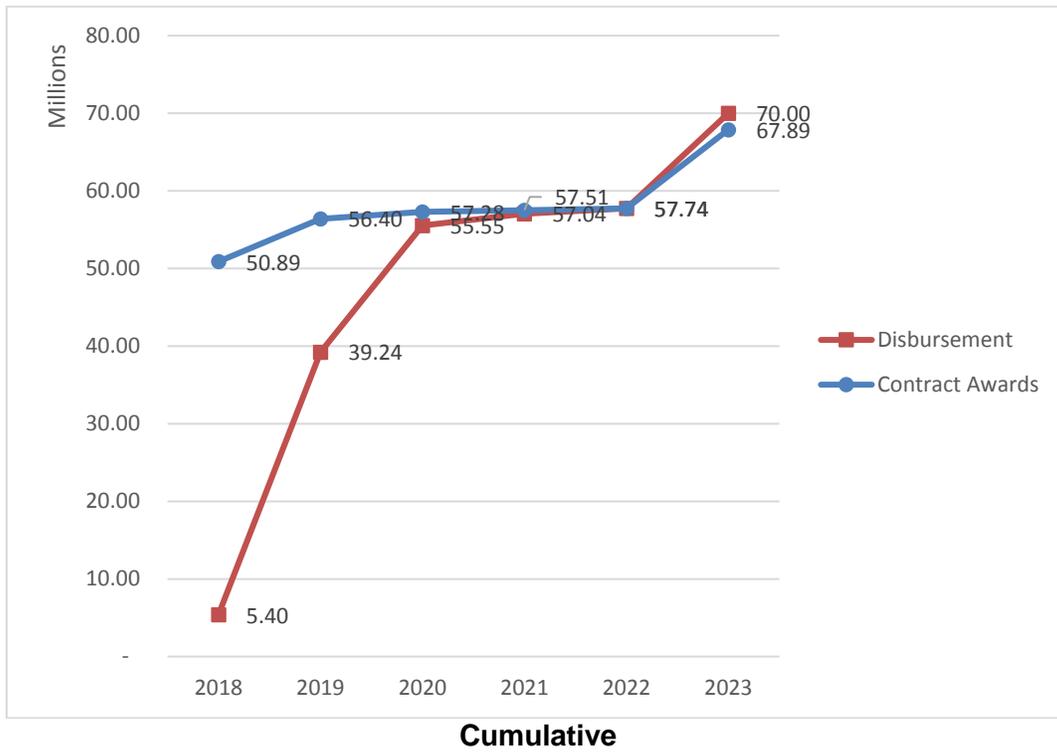
19. The Table 8 and graphs below show contract awards and disbursement projections over the life of the project. The S-curve is only for ADB financing, which will be recorded in ADB's systems and reported through e-Ops. Counterpart funds are excluded. The projection for contract awards includes contingencies and unallocated amounts, but excludes interest during construction.

**Table 8: Contract Awards and Disbursement**

Contract Awards					
	1Q	2Q	3Q	4Q	total
2018	1,120,000.00	2,229,999.98	45,206,864.00	2,330,000.00	50,886,863.98
2019	5,518,014.62	-	-	-	5,518,014.62
2020	228,014.62	650,000.00	-	-	878,014.62
2021	228,014.62	-	-	-	228,014.62
2022	228,014.62	-	-	-	228,014.62
2023	127,941.54	-	-	10,023,136.00	10,151,077.54
					<b>67,890,000.00</b>

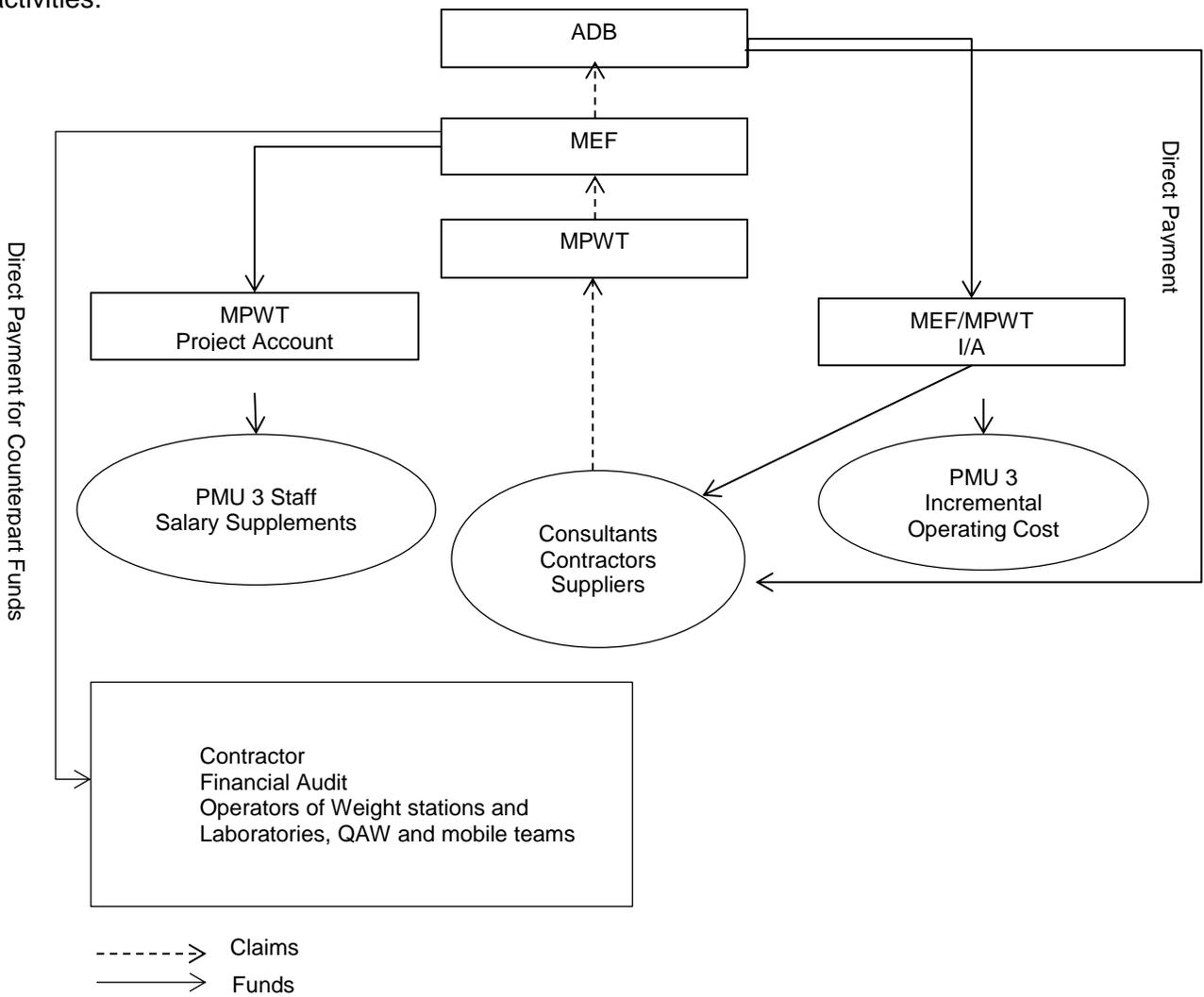
Disbursement					
	1Q	2Q	3Q	4Q	Total
2018	-	312,000.00	193,388.35	4,898,074.75	5,403,463.10
2019	7,172,002.34	9,002,464.28	11,209,464.28	6,448,464.28	33,832,395.18
2020	6,676,478.90	9,063,800.76	267,629.69	302,795.63	16,310,704.98
2021	530,810.24	302,795.63	302,795.63	356,942.62	1,493,344.12
2022	424,639.64	190,196.46	84,178.98		699,015.08
2023	-	-		12,261,077.54	12,261,077.50
					<b>70,000,000.00</b>





**I. Fund Flow Diagram**

20. The diagram show how the funds will flow from ADB and the borrower to implement project activities.



ADB = Asian Development Bank, MEF = Ministry of Economy and Finance, MPWT = Ministry of Public Work and Transports, PMU = Project Management Unit, I/A = Imprest Account; QAW = Quality Assurance Wing.

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

21. The financial management assessment (FMA) was conducted in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. The FMA considered the capacity of the MPWT and the project management unit (PMU) 3, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management risks identified are shortage of staffing, lack of tools to efficiently review and report financial transactions, and lack of experience on internal and external audit. The overall financial management of risk is moderate. The financial management action plan is provided in Table 9 and implementation of this plan will be reviewed and updated during the project implementation.

**Table 9: Action Plan**

<b>Weakness</b>	<b>Mitigation Action</b>	<b>Responsibility</b>	<b>Status</b>
<b>Staffing</b> Shortage of staff in finance unit of PMU3 to implement the ongoing, proposed and future projects.	Two assistant accountants will be recruited	PMU3	Ongoing under World Bank-financed RAMP II
<b>Accounting Policies and Procedures</b> The Finance Manager currently posts and reviews the financial transactions	Mainstream the latest accounting software (Sage 50) to automatically post and review transactions by Accountants and Finance Manager, respectively.	PMU3	Contract to supply Sage 50 will be awarded on 18 August 2017
<b>Internal Audit</b> Limited capacity in undertaking internal audit	Provide trainings on government regulations disbursement guidelines	MPWT/PMU3	Ongoing under World Bank - financed RAMP II
<b>External Audit</b> Lack of analysis in reviewing transactions and interpreting the project financial statements.	Strengthen TOR, engage qualified external auditors, and closely monitor auditor's performance	MEF	Discussions between ADB and MEF are ongoing for concrete actions
<b>Reporting and Monitoring</b> Finance Manager has limited capacity to customize the accounting system to automatically FMRs.  The current project reporting does not have the capacity to link the financial information with the project's physical progress.	Sage-50 software supplier to provide training for finance staff on the use of the software to automatically generate FMRs and to link financial information with the project's physical progress.	PMU3	Training on Sage 50 will be conducted on September 2017.

ADB = Asian Development Bank; FMR = financial management reports; MEF = Ministry of Economy and Finance; PMU = project management unit; RAMP = Road Asset Management Project; TOR = terms of reference.

Source: ADB and MPWT

## B. Disbursement

### 1. Disbursement Arrangements for ADB Funds

22. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2015, as amended from time to time), and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.<sup>4</sup> Project staffs are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

23. MPWT/PMU3 will be responsible for (i) preparing disbursement projections, (ii) collecting and retaining supporting documents, and (iii) preparing and sending withdrawal applications to MEF for onward submission to ADB.

24. **Imprest fund procedure.** Immediately after loan effectiveness, the MEF will open an imprest account at the National Bank of Cambodia and delegate to MPWT for the project loans and maintain it. The currency of the imprest account is the US dollar. The imprest account is to be used exclusively for ADB's share of eligible expenditures. MPWT is accountable and responsible for proper use of advances to the imprest account.

25. The total outstanding advance to the imprest account should not exceed the estimate of ADB's share of expenditure to be paid through the imprest account for the forthcoming 6 months. MPWT may request for initial and additional advances to the imprest account based on an Estimate of Expenditure Sheet<sup>5</sup> setting out the estimated expenditures to be financed through the imprest account for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by MPWT in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time) when liquidating or replenishing the imprest account.

26. **Statement of expenditure procedure.**<sup>6</sup> The Statement of Expenditure (SOE) procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the imprest account. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments more than the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

27. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is set in accordance with the Loan Disbursement Handbook equivalent. Individual payments below this amount should be paid (i) by the MPWT and subsequently claimed to ADB through reimbursement, or (ii) through the imprest fund procedure, unless otherwise accepted by ADB.

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<sup>4</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

<sup>5</sup> ADB. 2015. *Loan Disbursement Handbook*. 10B.

<sup>6</sup> SOE forms are available in Appendix 9B and 9C of ADB's *Loan Disbursement Handbook* (2015, as amended from time to time).

## 2. Disbursement Arrangements for Counterpart Fund

28. MPWT/PMU3 will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and submitting withdrawal applications to MEF. The government will finance a part of local taxes and duties under the project for civil works contracts, and operation and maintenance for weigh stations, QAW and regional laboratories, and PMU3 staff salary supplements through cash contribution.

29. **Disbursement.** Withdrawal of government counterpart funds will be carried out in accordance with the Government Policies and Procedures. The PMU3 will (i) prepare and send the Estimate of Expenditure (EOE) for the initial advance of counterpart funds to MEF; (ii) record the EOE and the funds deposited to project account in the General Ledger and Project Counterpart Funds Withdrawal Application Register; and (iii) maintain the expenditure documentation for MEF review and or project auditing.

### C. Accounting

30. The MPWT will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following modified cash-based accounting system following the government's financial regulations. The MPWT will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

### D. Auditing and Public Disclosure

31. The MPWT will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing or the International Audit by Supreme Audit Institution by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the MPWT.

32. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the loan were used only for the purposes of the project; and (iii) whether the MEF or MPWT was in compliance with the financial covenants contained in the legal agreements.

33. Compliance with financial reporting and auditing requirements will be monitored by ADB project review missions, and followed up regularly with all concerned, including the external auditor.

34. The government, MPWT and PMU3 have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>7</sup> ADB reserves the right to require a change in the auditor (in a manner

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<sup>7</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.

consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

35. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.<sup>8</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.

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(ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.

(iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

<sup>8</sup> Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>.

## VI. PROCUREMENT AND CONSULTING SERVICE

36. The project will procure 6 civil works contracts and 8 goods contract packages. The ongoing PPTA will provide training for MPWT staff and local contractors in cooperation with local contractors' association and/or Cambodia Road Association on the use of hybrid PBC for road civil works.<sup>9</sup> The project will recruit 6 contract packages for consulting services. The ICS consultants will assist the MPWT in implementing outputs 1-3 and undertaking the project performance monitoring and reporting while road safety consulting firm will assist in implementing output 4.

### A. Advance Contracting

37. The Government has requested ADB's approval of advance contracting for the recruitment of project implementation consultants and procurement of civil works for the national roads. All advance contracting will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).<sup>10</sup> The issuance of invitations to bid under advance contracting will be subject to ADB approval. The borrower, MPWT, and PMU3 have been advised that approval of advance contracting does not commit ADB to finance the project.

### B. Procurement of Goods, Works, and Consulting Services

38. All procurement of goods and works will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time). International competitive bidding procedure will be used for civil works contracts estimated to cost \$3 million or more, and supply contracts valued at \$1 million or higher.

39. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

40. All consultants will be recruited per ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The terms of reference for all consulting services are detailed in Section D.

41. PMU3 will engage the ICS consultant, among others, for whom 513 person-months of input will be required, comprising 89 person-months from international experts and 424 person-months of national experts using quality- and cost-based selection with a quality-cost ratio of 80:20 with full technical proposal.

<sup>9</sup> ADB. 2015. *Technical Assistance to the Kingdom of Cambodia for the Second Road Asset Management Project*. Manila. An additional financing of \$1 million grant from the Project Readiness Improvement Trust Fund was approved on 17 February 2017. The preparation of DED is ongoing.

<sup>10</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

## C. Procurement Plan

### Basic Data

<b>Project Name:</b> Road Network Improvement Project	
<b>Project Number:</b> 41123-015	<b>Approval Number:</b> L xxxx
<b>Country:</b> CAMBODIA	<b>Executing Agency:</b> Ministry of Public Works and Transport
<b>Project Procurement Classification:</b> A	<b>Implementing Agency:</b> Project Management Unit - 3
<b>Procurement Risk:</b> High	
<b>Project Financing Amount:</b> \$ 76,700,000 <b>ADB Financing:</b> \$70,000,000.00 <b>Non-ADB Financing:</b> \$6,700,000.00	<b>Project Closing Date:</b> 30 June 2023
<b>Date of First Procurement Plan</b> {loan/grant approval date}:	<b>Date of this Procurement Plan:</b> 18 August 2017

### A. Methods, Thresholds, Review and 18-Month Procurement Plan

#### 1. Procurement and Consulting Methods and Thresholds

42. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

#### Procurement of Goods and Works

Method	Threshold	Comments
ICB for Works	\$3,000,000	Prior review by ADB
ICB for Goods	\$1,000,000	Prior review by ADB
NCB for Works	Beneath that stated for ICB, Works	Post review.
NCB for Goods	Beneath that stated for ICB, Goods	Post review.
Shopping for Works	Below \$100,000	Post review by ADB
Shopping for Goods	Below \$100,000	Post review by ADB

ADB = Asian Development Bank; ICB = international competitive bidding; NCB = national competitive bidding

#### Consulting Services

Method	Comments
Quality and Cost Based Selection	Prior review by ADB.
Individual Consultant Selection (ICS)	Prior review by ADB.

ADB = Asian Development Bank

## 2. Goods and Works Contracts Estimated to Cost \$1 Million or More

43. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months

Package Number	General Description	Estimated Value	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW-1	NR-1 East	13,960,000	ICB	Prior	1s1e	Q4/2017	The bidding document prepared by RGC & WB with modification
CW-2	NR-1 West	14,260,000	ICB	Prior	1s1e	Q4/2017	The bidding document prepared by RGC & WB with modification
CW-3	NR-6	19,960,000	ICB	Prior	1s1e	Q4/2017	The bidding document prepared by RGC & WB with modification
CW-4	Laboratory buildings	1,390,000	NCB	post	1s1e	Q2/2018	Harmonized SBD for NCB for Cambodia
EQ-1	Laboratory equipment	5,290,000	ICB	Prior		Q2/2018	Construction material testing equipment for regional laboratories, provincial laboratories, with domestic preference

CW = civil works; EQ = equipment; ICB = international competitive bidding; NCB = national competitive bidding; NR = national road; Q = quarter; RGC = Royal Government of Cambodia; WB = World Bank.

### 3. Consulting Services Contracts Estimated to Cost \$100,000 or More

44. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments <sup>9</sup>
CS-1	Project implementation and construction supervision consultant	3,120,000	QCBS	Prior	Q3/2017	Full technical proposal	International (80:20)
CS-2	Community-based road safety consulting services	350,000	QCBS	Prior	Q1/2018	Biodata technical proposal	International (80:20)

CS = consulting services; QCBS = quality- and cost-based selection; Q = quarter.

### 4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

45. The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

#### Goods and Works

Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW-5	Safe School Safety Zones	650,000	1	NCB	post	1s1e	Q1/2018	Harmonized SBD for NCB for Cambodia
CW-6	Weigh stations structures	300,000	1	NCB	Post	1s1e	Q1/2018	Harmonized SBD for NCB for Cambodia
EQ2	Software for weigh stations	30,000	1	Shopping	Post		Q1/2018	
EQ3	Portable scales for two mobile team	70,000	1	Shopping	Post		Q1/2018	
EQ4	Two vans for mobile team	130,000	1	NCB	Post		Q1/2018	

EQ5	Five pick ups for laboratories	270,000	1	NCB	Post		Q2/2018	
EQ6	Two vans for road condition survey	130,000	1	NCB	Post		Q2/2018	
EQ-7	Road condition survey equipment	370,000	1	NCB	Post		Q2/2018	
EQ-8	Office furniture for regional laboratories	90,000	1	Shopping	Post		Q2/2018	

EQ = equipment; NCB = national competitive bidding; Q = quarter.

#### Consulting Services

Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CS-3	Technical Audit	40,000	1	ICS	Prior	Q2/2018		International
CS-4	Technical Audit Support	10,000	1	ICS	Prior	Q2/2018		National
CS-5	Procurement Support	30,000	1	ICS	Prior	Q4/2017		National

CS = consulting services; ICS = individual consultant selection; N/A = not applicable; Q = quarter.

## B. Indicative List of Packages Required Under the Project

46. The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

### Goods and Works

Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Comments

### Consulting Services

Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior / Post)	Type of Proposal	Comments

## C. National Competitive Bidding

### 5. Regulation and Reference Documents

47. The procedures to be followed for national competitive bidding shall be those set forth for the “National Competitive Bidding (NCB)” method in the Government’s Procurement Manual issued under Sub-Decree Number 74 ANKR.BK, updated version dated 22 May 2012 with the clarifications and modifications described in the following paragraphs. These clarifications and modifications are required for compliance with the provisions of the Procurement Guidelines.

48. For the procurement of ADB financed contracts under NCB procedures, the use of harmonized national bidding documents (NCB and National Shopping) developed in consultation with development partners including ADB, is mandatory except where the Government and ADB have agreed to amendments to any part of the documents. The Procurement Manual also advises users to check the ADB website from time to time for any update on ADB documents, which form the basis, among others, of the existing harmonized national bidding documents.

### 6. Procurement Procedures

#### i. Application

49. Contract packages subject to NCB procedures will be those identified as such in the project Procurement Plan. Any change to the mode of procurement of any procurement package in the Procurement Plan shall be made through updating of the Procurement Plan, and only with prior approval of ADB.

#### ii. Sanctioning

50. Bidders shall not be declared ineligible or prohibited from bidding on the basis of barring procedures or sanction lists, except individuals and firms sanctioned by ADB, without prior

approval of ADB.

### **iii. Rejection of all Bids and Rebidding**

51. The Borrower shall not reject all bids and solicit new bids without ADB's prior concurrence. Even when only one or a few bids is/are submitted, the bidding process may still be considered valid if the bid was satisfactorily advertised and prices are reasonable in comparison to market values.

### **iv. Advertising**

52. Bidding of NCB contracts shall be advertised on the ADB website via the posting of the Procurement Plan. Borrowers have the option of requesting ADB to post specific notices in the ADB website.

## **D. Bidding Documents**

### **1. Use of Bidding Documents**

53. The standard NCB documents provided with the Government's Procurement Manual shall be used to the extent possible both for the master bidding documents and the contract-specific bidding documents. The English language version of the procurement documents shall be submitted for ADB review and approval in accordance with agreed review procedures (post and prior review) as indicated in the Procurement Plan. The ADB-approved procurement documents will then be used as a model for all procurement financed by ADB for the project.

### **2. Bid Evaluation**

54. Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.

55. A bidder shall not be required, as a condition for award of contract, to undertake obligations not specified in the bidding documents or otherwise to modify the bid as originally submitted.

### **3. Employer's Right to Accept or Reject Any or All Bids**

56. The decision of the Employer to accept or reject any or all bids shall be made in a transparent manner and involve an obligation to inform of the grounds for the decision through the bid evaluation report.

### **4. ADB Policy Clauses**

57. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

58. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt,

fraudulent, collusive, or coercive practices in competing for the contract in question.

59. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

#### **D. Consultant's Terms of Reference**

60. Outline terms of references (TOR) for project implementation and supervision consulting services, community-based road safety consulting services, technical auditor, external resettlement monitor, and external financial audit are in the below. The outline TOR for financial audit will be discussed and confirmed with MEF prior to recruitment of auditor.

### **OUTLINE TOR FOR IMPLEMENTATION AND CONSTRUCTION SUPERVISION CONSULTING SERVICES**

#### **1. Introduction**

61. The Road Network Improvement Project aims to provide efficient transportation on the Greater Mekong Subregion (GMS) Southern Economic Corridor (SEC), passing through Cambodia through the improvement of the national road sections in Prey Veng, Siem Reap, and Svay Rieng provinces of Cambodia that are unsafe and prone to flooding. The project will also support the Ministry of Public Works and Transport in introducing a quality assurance system; improving axle load control; and improving road safety and health in project communes by implementing a gender responsive community-based road safety program and an HIV/AIDS and human trafficking awareness and prevention program (HTAP). It includes the following four outputs:

62. **Output 1: More Safe and climate resilient national roads improved.** The project will improve about 147 km of flood-prone national roads through provision of periodic maintenance and rehabilitation on NR6 (50 km) and NR1 (97 km), respectively, with asphalt-concrete pavement.

63. **Output 2: Axle load control enhanced.** The project will help MPWT control vehicle overloading through (i) refurbishing six weigh stations by (a) installing required equipment at Bavet, Puok, and Thnal Tutoeng weigh stations and (b) constructing office buildings for the Kompong Thom, Kratie, and Steuong Treng weigh stations; (ii) providing portable weigh scales and vehicles for 2 mobile teams; and (iii) providing on the job training for staff in weigh stations and mobile teams. The project will implement pilot axle load control at selected goods origin and introduce conditions to the civil works contract to require contractors to follow the load limit when transporting construction materials.

64. **Output 3: Quality assurance system in MPWT strengthened.** The project will help MPWT to (i) establish a dedicated quality assurance wing (QAW) of MPWT; (ii) operationalize four regional laboratories in Kampot, Kratie, Pursat, and Siem Reap provinces; (iii) create a computerized laboratory information management system to integrate the activities of the regional laboratories; (iv) prepare standard operating procedures for the QAW and laboratory management and train staff in the operation of the new quality assurance process and

procedures; and (v) purchase equipment for material testing and surveying road conditions.

65. **Output 4: Road safety enforcement in project communes improved.** This output focuses on community based road safety activities: data compilation and analysis, safe school zones, and enhanced law enforcement. The community-driven education will focus on community awareness raising for changing behavior that cause fatal crashes.

66. For the road civil works, the periodic maintenance and rehabilitation will be provided on the existing DBST and asphalt-concrete pavement including placement, as necessary, of sub-base and road base, using unbound materials or stabilized materials for the road pavement. The works also involves: (i) maintenance of 17 bridges and existing drains; (ii) installation of some new drains along road; (iii) installation of road signs and marking; and (iv) selected climate change features such as slope protection, increased drainage capacity, and additional urban drains and outlets.

67. The road civil works will be executed through three contract packages using a hybrid performance-based maintenance contract form. The consultant will be responsible for the supervision of all civil works packages. The consultant will also be responsible for resettlement, environmental and social safeguards measures, and for coordination of other consulting services packages. Following the Fédération Internationale des Ingénieurs-Conseil (FIDIC) conditions, the employer will be the MPWT, the employer's representative will be the Director of the PMU3 of the MPWT, the consultant will be the engineer, and the engineer's representative will be the consultant's team leader.

**Table 10: Personnel Inputs of Implementation Consulting Services**

<b>List of Personnel</b>		<b>Person-Months</b>
<b>CS 1: Implementation Consultants</b>		
<b>International</b>	Team Leader (highway engineer) 36+14 intermittent	50
	Resident Engineer (1 x 24 person months)	24
	Materials Engineer (one, intermittent)	10
	Environmental Specialist	3
	Monitoring and Evaluation	2
		<b>89</b>
<b>National</b>	Highway Engineer (deputy team leader)	60
	Materials Engineer (1x18 p-m for QA and 1 x 18 for CWs, intermittent)	36
	Structural Engineer (1 x 20 p-m)	20
	Site Inspector (3 x 36 p-m during maintenance)	108
	Quantity Surveyor (2 x 36 during construction)	72
	Monitoring and Evaluation	6
	Assistant Resident Engineer (3 x 24 p-m)	72
	Environment Specialist	6
	Social Development and Gender Specialist	30
	De-mining/UXO Specialist	2
	Axle Load Control Specialist	5
	Architect for designing lab building	3
	Road Safety specialist	4
		<b>424</b>
<b>CS1: Total</b>		<b>513</b>

CS = consulting services; CW = civil works; NR = national road; QA = quality assurance; UXO = unexploded ordnance.

## 2. International Team

### a. Team Leader (Highway Engineer) – International, 50 person-months

68. As the engineer's representative, the consultant's Team Leader will implement the civil work contracts and ensure that the works are constructed in accordance with its provisions. The consultant will have all the powers defined in the FIDIC Conditions of Contract as the engineer, with the exception the following, which will be retained and exercised by the employer, generally on the advice of the engineer:

- (i) issuing the order to commence the works;
- (ii) approving variation orders that have financial implications;
- (iii) approving significant variations in quantities;
- (iv) approving subletting of any part of the works; and
- (v) approving extensions of time

69. The consultant will assist PMU3 in:

- (i) assessing the exposure of unexploded ordnance (UXO) in project roads before any works starts;
- (ii) approving the contractor's work program, method statements, material sources, etc.;
- (iii) approving and/or issuing working drawings, approving the setting out of the works, and instructing the contractor;
- (iv) taking measurements and keeping measurement records;
- (v) certifying work volume and recommending interim certificates for progress payments;
- (vi) preparing of withdrawal applications for submission to ADB and/or Government;
- (vii) certifying completion of part or all of the works;
- (viii) processing the contractor's possible claims;
- (ix) monitoring the impact of construction works on the environment and local settlements and providing information to MPWT in the monthly progress reports and to ADB in the quarterly progress reports;
- (x) providing advice to MPWT staff in contract administration; and
- (xi) implementing resettlement plan, gender action plan (GAP), and HIV program.

70. The Team Leader, through the effective leadership of the international specialists and national specialists team and effective communication with the PMU3, will be responsible for successful implementation of the project and undertake the following to achieve the objectives of the Project:

- (i) ensure timely completion of civil works and closure of contracts in accordance with the contract provisions;
- (ii) ensure the implementation of the project outputs 2–4 as planned;
- (iii) ensure timely completion of performance monitoring and evaluation at project inception, midterm review, and project completion;
- (iv) Ensure that the Project is implemented consistent with the provisions of the environmental management plan (EMP); and
- (v) Ensure on-the-job training provided to MPWT staff in administration of various contracts.

71. The team leader will be an internationally-qualified highway engineer with a minimum of 20 years' experience as the team leader in leading road rehabilitation projects. He or she needs

extensive work experience in Cambodia or countries within similar geographical areas in the region. The team leader has to be fully aware of the requirements and responsibilities of an ADB-supported Project.

**b. Resident Engineer (1 person) – International, 24 person-months**

72. A resident engineer will be assigned to each civil works package, thus three resident engineers are required. The Engineer will be experienced in his responsibilities and legal aspects of the works. The Resident Engineers will report to the Team Leader.

73. Each resident engineer will be qualified professional engineer with a minimum of 10 years' experience. He/she should have experience, as the resident engineer, in road rehabilitation projects of DBST paving and asphalt-concrete. The engineer will be experienced in the supervision of internationally-qualified contractors.

**c. Materials Engineer (intermittent) – International, 10 person-months**

74. a. For establishing laboratory network:
- (i) assist MPWT in establishing a laboratory network with a central/main laboratory and three regional laboratories and define organization structures and technical services to be provided as well as training and performance monitoring regimens.
  - (ii) Finalize the list of equipment to be procured for each laboratory based on the proposals finalized in PPTA stage and prepare an implementation schedule for establishment of quality assurance (QA) system.
  - (iii) Prepare layouts of laboratories to aid in preparation of CAD drawings and give inputs to the Architect as required in the preparation of construction drawings and estimates for the construction of new laboratory buildings and assist in the procurement of services for the construction of laboratories.
  - (iv) Provide necessary guidance on the commissioning and installation of procured laboratory equipment.
  - (v) Assist MPWT in the procurement of laboratory equipment.
  - (vi) Assist MPWT in the recruitment of laboratory engineers and technicians to be deployed in the proposed laboratories.
  - (vii) Prepare a Material Testing Laboratory Manual depicting simplified test procedures on construction material testing based on relevant ASTM/AASHTO/BS/EN/Cambodian standards.
  - (viii) Prepare a proposal for implementation of computerized Laboratory Information and Management System(LIMS), customized to the requirements of the regional laboratory network covering all aspects necessary for the integrated management of laboratories and its automation.
  - (ix) Propose a workable functional structure for the LIMS to cover all laboratory operations, from collection of sample to testing and delivery of results.
  - (x) Prepare TOR as required to the IT team for developing and implementing application modules for LIMS
  - (xi) Assist MPWT in overseeing the work of the IT Team to ensure effective implementation of LIMS including training of the laboratory staff in its usage
  - (xii) Prepare a Quality Management System Manual depicting laboratory management practices based on ISO 9001/ISO 17025/AASHTO R 18 and other laboratory and quality management standards and propose and document Standard Operating Procedures for laboratory management.

- (xiii) Prepare a training schedule and training curriculum on construction material testing and laboratory management and conduct training sessions on those topics to laboratory engineers and technicians and MPWT/DPWT engineers.
75. b. For introducing Quality Assurance System:
- (i) Assist MPWT in establishing a QA Wing with a central/main QA wing and three regional QA wings and define organization structures and technical services to be provided as well as training and performance monitoring regimens based on the TA stage concept.
  - (ii) Prepare a Quality Management System Manual depicting quality assurance practices to be adopted in the QA wing and propose and document Standard Operating Procedures for QA activities.
  - (iii) Prepare a training schedule and curriculum on construction quality control and quality assurance and conduct training sessions on topics related to QA and/or quality control in civil construction projects to a target audience of MPWT and QA Engineers and technicians.
76. c. **For civil works:** Recommend construction materials and review the contractor' material production process for the use of unbound (aggregate and natural materials) and hydraulically-bound pavement materials
77. Check recycled and hydraulically-stabilized (and other) materials for the construction of road pavements and durability of stabilized materials and construction techniques in the field, the techniques required to successfully achieve consistent blending in the correct proportions to achieve consistent technical requirements.
- (i) Conduct a suitable laboratory program to test materials as necessary for this stage of the project design, especially for stabilized materials;
  - (ii) Establish a testing regime for the construction phase that complies fully with the range of materials that will be used for the project roads;
  - (iii) During the construction (intermittently) oversee the use of materials to ensure they meet quality standards required;
  - (iv) Determine the materials requirements for a cement concrete pavement trial to be located on one of the project roads; and
  - (v) Work closely with the national materials engineer to ensure at all times that a suitably competent and experienced materials engineer is on-hand to work with the resident engineers.
78. Materials Engineer with a minimum of 15 years' experience is required and Masters in Civil/Highway/Geotechnical Engineering or related disciplines. Diploma or Certification in Quality Management System and ISO 9001/17025 standards desirable
79. Experience with hydraulically-stabilized materials, and materials used for paved roads and structures are essential. He/she should have experience, as the materials engineer, in road rehabilitation projects of DBST/asphalt-concrete paving, and with experience in Cambodia or countries within similar geographical areas in the region.
- d. Environment Specialist – International, 3 person-months**
80. With assistance from the national environmental specialist the international consultant will be responsible for the following:

- (i) ensure that an EMP based on the ADB-approved initial environmental examination (IEE) is included in the bid and contract documents for civil works;
- (ii) ensure that environmental design measures specified in the EMP are incorporated in the detailed design;
- (iii) assist and supervise each contractor in preparing a contractor's environmental management plan (CEMP) prior to commencement of civil works; the CEMP will be based on the project EMP but with specific details particular to each contract package, such as the location of associated project facilities (construction camps, material sources, batching plants, sensitive receptors, spoils disposal areas, etc.) and other construction details for each contract package;
- (iv) ensure that all associated project facilities have the required permits prior to commencement of civil works;
- (v) orient resident engineers and resident inspectors on EMP provisions to ensure that they will be able to adequately supervise on a day-to-day basis the contractors and sub-contractors with regard to proper and timely implementation of mitigation measures specified in the EMP;
- (vi) monitor implementation of environmental mitigation measures and environmental performance of contractors based on the EMP schedule, and assist MPWT in the preparation of semi-annual environmental monitoring reports for submission to ADB. The monitoring reports shall describe the progress of implementation of each environmental mitigation measure specified in the EMP, compliance issues, and corrective actions, if any;
- (vii) Support PMU3 to establish a contract with Ministry of Environment for environmental effects monitoring to establish baseline conditions and to undertake field measurements for dust, noise, vibration, and water quality prior to construction, as required in the EMP and to provide corresponding reports. Include interpretation of monitoring results and trends in semi-annual environmental reports to be submitted to ADB;
- (viii) coordinate with the Social Development/Safeguards Specialist (international) in preparing environmental training materials and train social and environment office (SEO) and PMU3 staff in the scope and details of their responsibilities so they can inform and train staff of other offices of MPWT;
- (ix) undertake environmental training for the MPWT/SEO/PMU3 staff to build their capacity on environmental management and monitoring. The training will be implemented through on-the-job training and workshops based on the provisions of the EMP;
- (x) ensure that the affected stakeholders and sensitive receptors (hospitals, schools, temples) are informed about the project by the PMU3 and contractors prior to start of construction; and
- (xi) Ensure that the results of the consultations are documented in the environmental monitoring reports.

81. The environment specialist will have a suitable international environmental qualification with a minimum of 10 years' experience, have experience on ADB-assisted projects, and demonstrate significant experience on environmentally sensitive areas and issues in Cambodia or countries within similar geographical areas in the region.

**e. Monitoring and Evaluation Consultant, (international, 2 person-months)**

82. The tasks will be included; but not limited to the following:

- (i) will implement necessary systems and programs that will enable performance with regard to project implementation to be monitored and the effect of the project relative to those expected to be assessed including:
- (ii) provide and maintain a project management system that will assist PMU1 to implement the project and provide information on project progress for routine reports and review missions;
- (iii) establish project performance and management system to enable the effective recording data and statistics for monitoring;
- (iv) plan surveys and identify the collection of other required data needed for the monitoring and evaluation program, drawing on for example traffic and travel surveys, household socioeconomic sample surveys, participatory rapid appraisals, social and environmental impact assessments and indicators, and secondary data from government sources. Where relevant, indicators shall be disaggregated by gender and socioeconomic status;
- (v) undertake baseline survey and analysis and update or modify the anticipated effect on economic and social development as indicated in the DMF, gender action plan, HIV/AIDS awareness and human trafficking prevention program, road safety situation in project communes along the project road sections; (c) passenger and freight vehicle operating costs on roads improved under the Project and between key locations; (d) tariffs for freight and passenger movement between selected locations that indicate the impact of the project on target groups in the community; (e) the quantity and type of traffic on roads to be improved under the Project, and
- (vi) undertake survey to evaluate the benefits of the project and incorporate findings and supporting data in the project completion report.

83. The monitoring and evaluation specialist shall have university degree plus other training suitable for the areas needed by his assignments; 10 years' professional experience with 3 relevant projects including extensive experience in benefit monitoring evaluation in road projects; and experience in similar geographic areas.

### **3. National Team**

#### **a. Highway Engineer (deputy team leader) – national, 60 person-months**

84. Duties as the highway engineer will be undertaken. A nationally qualified professional engineer with 15 years' experience will be required to be the road engineer and to undertake the role of Deputy Team Leader. The expert should have project experience of road rehabilitation with DBST paving and with experience working with international organizations.

#### **b. Materials Engineer (National, 2 persons, 36 person-months)**

85. For Laboratories

- (i) Assist the international Pavement/Materials Engineer in establishing a laboratory network in Cambodia with a central/main laboratory and three regional laboratories;
- (ii) Assist the international Pavement/Materials Engineer in the preparation of list of equipment to be procured for each laboratory based on the proposals finalized in TA stage;
- (iii) Assist the international Pavement/Materials Engineer in the preparation of lay outs of laboratories and give inputs as required in the preparation of estimates for the

- construction of new laboratory buildings and assist in the procurement of services for the construction of laboratories;
- (iv) Assist in procuring and implementing a computerized Laboratory Information and Management System (LIMS) customised to the requirements of the proposed laboratory network.
  - (v) Assist in the commissioning and installation of procured laboratory equipment.
  - (vi) Assist the international Pavement/Materials Engineer in the preparation of a Material Testing Laboratory Manual and a Quality Management System Manual for the laboratories.
  - (vii) Assist the international Pavement/Materials Engineer and conduct training sessions as required on the topics of construction material testing, to laboratory engineers and technicians and MPWT/DPWT engineers.
  - (viii) Assist the international Materials Engineer in establishing a QA Wing with a central/main QA wing and three QA wings.
  - (ix) Assist the international Materials Engineer in preparing a Quality Management System Manual depicting quality assurance practices to be adopted in the QA wing and propose and document Standard Operating Procedures for QA activities.
  - (x) Assist the international Materials Engineer in conducting training sessions on topics related to QA/QC in civil construction projects to a target audience of MPWT and QA Engineers and technicians.

86. The Materials Engineer with a minimum of 10 years' experience and a Bachelor's degree in Civil Engineering is required. Experience with materials used for paved roads and structures are essential. He/she should have experience, as the materials engineer, in road rehabilitation projects of DBST/asphalt-concrete paving, and with extensive experience in Cambodia or countries within similar geographical areas in the region.

**c. Structural Engineer – National, 20 person-months**

87. The structural engineer will work under the direction of the International Structural Engineer, and is expected to be fully competent to independently undertake all aspects of the work. A nationally qualified professional engineer with a minimum of 15 years' experience will be required to be the national Structural Engineer. The expert should have project experience of road rehabilitation with DBST paving with a capacity building output, and experience working with international organizations.

**d. Site Inspectors – National, 3 persons, 108 person-months**

88. The resident engineer's inspectors will be assigned to each of the five civil works packages to work under the direction of the international Resident Engineer.

**e. Quantity Surveyor – National, 2 persons, 72 person-months**

89. The surveyors' role will be to Support the resident engineers' office at the commencement and completion of civil works at each job site (project road) to determine measurement procedures and accuracies required

90. A nationally qualified professional surveyor with a minimum of 15 years' experience will be engaged under the DDIS team. The experts should have project experience of road rehabilitation with DBST paving with a capacity building output, and experience working with

international organizations.

**f. Monitoring and Evaluation, 6 person-months**

91. The tasks will be included; but not limited to the following:
- (i) will implement necessary systems and programs that will enable performance with regard to project implementation to be monitored and the effect of the project relative to those expected to be assessed including:
  - (ii) provide and maintain a project management system that will assist PMU3 to implement the project and provide information on project progress for routine reports and review missions;
  - (iii) establish project performance and management system to enable the effective recording data and statistics for monitoring;
  - (iv) plan surveys and identify the collection of other required data needed for the monitoring and evaluation program, drawing on for example traffic and travel surveys, household socioeconomic sample surveys, participatory rapid appraisals, social and environmental impact assessments and indicators, and secondary data from government sources. Where relevant, indicators shall be disaggregated by gender and socioeconomic status;
  - (v) undertake baseline survey and analysis and update or modify the anticipated effect on economic and social development as indicated in the DMF, gender action plan, HIV/AIDS awareness and human trafficking prevention program, road safety situation in project communes along the project road sections; passenger and freight vehicle operating costs on roads improved under the Project and between key locations; tariffs for freight and passenger movement between selected locations that indicate the impact of the project on target groups in the community; the quantity and type of traffic on roads to be improved under the Project, and
  - (vi) undertake survey to evaluate the benefits of the project and incorporate findings and supporting data in the project completion report.
92. The monitoring and evaluation specialist shall have university degree plus other training suitable for the areas needed by his assignments; 10 years' professional experience with 3 relevant projects including extensive experience in benefit monitoring evaluation in road projects; and experience in similar geographic areas.

**g. Assistant Resident Engineer – National, 3 persons, 72 person-months**

93. An assistant resident engineer will be engaged to assist each international Resident Engineer. The assistant resident engineer will fully support all aspects of the civil works and work closely with and through the International Resident Engineer.
94. The assistant resident engineer will be a nationally qualified engineer with a minimum of 15 years' experience in the improvement of paved roads. The expert should have project experience of road rehabilitation with DBST paving with a capacity building output, and also experience working with international organizations.

**h. Environment Specialist – National, 6 person-months**

95. The specialist will work under the direction of the International Environment Specialist. The National Environment Specialist shall provide assistance to the international environmental

specialist including acquisition of information new information to update the project EMP at detailed design, and work with the PMU3 with overall environmental management of the implementation of the project. The national consultant will assist with:

- (i) updating environmental management plan (EMP) to ensure that EMP addresses the detailed designs and engineering of each national road (NR1, NR6) and provincial road (NR23, PR312);
- (ii) deliver initial training to PMU3 on the purpose, content, and roles and responsibilities for implementation of updated EMP;
- (iii) ensure relevant safeguards of the EMP are addressed in the bidding documents in accurate local language and in evaluation criteria for awarding contracts;
- (iv) help PMU3 to ensure that contractors prepare their respective site-specific plans based on the updated EMP and the actual site conditions;
- (v) help the international consultant oversee the implementation of all safeguards of the EMP relating to construction phase activities including handling of construction spoil and waste, water and air quality protection, public nuisance impacts (noise, dust, traffic, blocked access, workers, and camps), and public safety;
- (vi) assist coordination with the PMU3 on all relevant environmental regulatory compliance issues (e.g. noise and dust from construction sites, sanitation in workers campsite etc);
- (vii) with PMU3 prepare TORs for the follow-up interviews and consultations with the same affected stakeholder and local residents contacted during the feasibility design stage on issues and concerns arising during project construction;
- (viii) assist PMU3 to address vehicle traffic issues;
- (ix) with the international consultant, advise PMU3 on environment-related concerns arising during construction phase, and recommend corrective measures;
- (x) coordinate with the Ministry of Environment and PMU3 relative to the identification of environmental monitoring stations and the conduct of environmental baseline sampling for air quality, noise, vibration and water quality as required in the EMP; in coordination with PMU3, ensure dissemination to stakeholders the results of environment quality monitoring and implementation of safeguards, especially among households or small businesses near the civil construction works areas; and
- (xi) assist with all reporting for the EMP. The consultant should have a university degree in the environmental sciences and at least 5 years with environmental assessment of infrastructure projects in Cambodia including: (a) understanding of ADB and national environmental safeguard requirements; (b) experience working with international consultants; and (c) delivering training and capacity development programs to subproject implementing units.

96. The environment specialist will have a suitable qualification in environment, science, engineering or management, and will have 10 years' overall experience, including experience on projects assisted by ADB and experience working with other international organizations. The specialist will be fully conversant with the areas and locations of protected and sensitive areas of the country, and will be knowledgeable of the environmental laws of Cambodia and their practical application. The specialist will have experience in the environmental requirements and EMPs and monitoring procedures required during the implementation of civil works.

**i. Social Development Specialist (Labor HIV/Trafficking, Communications, and Gender) – National, 30 person-months**

97. The Social Development Specialist will support the EA to implement the GAP, the

stakeholder communication strategy, oversee the implementation of the HIV/AIDS and human trafficking awareness and prevention program (HTAP), and build capacity of the EA, ESO, gender focal points, and the MPWT Gender Mainstreaming Action Group (GMAG), to ensure beneficiaries and women in particular, leverage full impact of the project's activities.

98. The Social Development Specialist will carry out the following activities:
- (i) Support and monitor the systems for effective implementation and monitoring of the project's GAP, the HTAP (including monitoring CLS), the Stakeholder Communications Plan. Ensure that the gender targets for the Community-based Road Safety Program are being met and reported on.
  - (ii) Work closely with the EA, ESO and the gender focal points in GAP implementation. Provide advice on implementing the GAP and regular monitoring and reporting (at least semi-annually to ADB, using the template in PAM).
  - (iii) Coordinate with the MPWT GMAG to ensure alignment with and support the operationalization of the MPWT Gender Mainstreaming Action Plan (GMAP).
  - (iv) Support and advise the EA and ESO on gender responsive consultation with project related beneficiaries to ensure the needs of women and vulnerable groups are addressed. Contribute to the preparation and delivery of stakeholder workshops to inform and raise awareness about project related and other more general social development and gender issues in project areas;
  - (v) Act as a facilitator for gender mainstreaming in data/information collection, monitoring, sector coordination, technical design issues, communication, training and capacity development and mentoring; that includes capacity-building of EA, ESO, GMAG, gender focal points and other key stakeholders in gender analysis and gender mainstreaming, particularly in relation to the GAP and the GMAP. Support capacity building for the GMAG and provincial gender focal points through their active involvement in project activities and training events.
  - (vi) Liaise with the M&E specialist to ensure that the gender indicators and targets included in the DMF and GAP are included in the PPMS and build capacity to collect and document the relevant quantitative and qualitative data, especially sex disaggregated data and gender related information.
  - (vii) Collect human interest stories during project implementation that document how the project contributed towards enhanced gender equality and women's empowerment and greater inclusion in the sector – which can be used in the project completion report to document achievement of gender equality results;
99. The Social Development Specialist monitor, review and provide recommendations on the following HTAP related works to be implemented by the HTAP service providers under each civil works contracts:
- (i) Design the work plan and budget and oversee and manage the implementation of the HTAP within the CW contractors' packages.
  - (ii) Provide guidance / supervision to the stakeholder mapping, capacity needs assessment, baseline survey; data collection, monitoring and evaluation
  - (iii) Undertake appropriate consultations with women and men in the communities, village health support groups, associations for people living with HIV/AIDS, and other key partners in the project area
  - (iv) Ensure close collaboration with relevant stakeholders including commune, district, provincial AIDS committees, gender focal points, local authorities and community health centers other relevant agencies and stakeholders to organize HTAP campaigns, and regular liaison with PMU3

- (v) Develop gender responsive training modules, capacity building and IEC materials prior to implementing the public awareness campaigns
- (vi) Oversee the implementation of gender responsive awareness and behavior change interventions using the IEC materials, targeting CW contractors' labor force, surrounding communities, "entertainment" centers
- (vii) Coordinate with the contractors to conduct awareness/training, outreach and follow-up activities for the labor force at construction sites, and monitor and report on core labor standards.
- (viii) Conduct capacity building (on-the job training) for the counterpart, provide guidance to project and counterpart staff in-charge of implementing the activities in the field
- (ix) Ensure that all activities are implemented according to this terms of reference and any instruction or guidance from EA and ADB and be responsible for the HTAP
- (x) Ensure quality control over the IEC, training modules / capacity building activities, to ensure they are complete, relevant and gender responsive prior to implementing the public awareness campaigns
- (xi) Keep records of number of beneficiaries and facilitators, and prepare reports and data collection necessary for the Project quarterly report, the GAP bi-annual Progress Report; the MTR and PCR.

100. The Social Development Specialist will review and provide recommendations of the Outputs/Deliverables of the HTAP service provider.

- (i) Needs assessment report, detailed work plan and budget. Gender responsive dissemination program and IEC materials;
- (ii) Improved capacity of stakeholders on HIV/AIDS and trafficking awareness and prevention; and
- (iii) HTAP project implementation progress reports (inputs to quarterly, bi-annual, MTR and PCR).

101. The Social Development Specialist will report to the ISC team leader. The PMU3 and ISC will support the Social Development Specialist in organizing field work, training and other project related activities. The Social Development Specialist will liaise on a regular basis with the gender specialist in the ADB RM.

102. The Social Development Specialist will assist PMU3 in the preparation of reports and documents following RGC and ADB rules and guidelines which will include:

- (i) Social (HTAP, CLS, Road Safety, Communications) and Gender analysis appendices of quarterly reports, MTR and PCR;
- (ii) Any other social development study reports as required and requested by PMU3/ISC/ADB.

103. Therefore, the Social Development Specialist will have a suitable qualification in social aspects related to labor and gender, at least a degree in social sciences, development studies, gender or a related discipline, a minimum of 5 years overall experience in gender, HIV/Trafficking, labor standards, consultation and participation related work, preferably in the context of transport and road maintenance in Cambodia, and familiar with policies and practices in Cambodia under donor-funded projects preferably with ADB.

**j. De-mining/UXO Specialist – National, 2 person-months**

104. A land mine or unexploded ordnance risk is widespread in Cambodia including the

provinces in which the proposed project will be conducted. The works are to improve existing roads and much of the work will be carried out within the width of the existing roads. Nevertheless, a risk remains. Deep seated mines may be exploded by heavy construction equipment and shallow ordnance may be uncovered during the works. Although maps exist to give a first indication of the level of risk, and many areas will have already been cleared by the Cambodian authorities and other organizations the evidence of clearance must be established.

105. Construction activities attract the attention of the local communities and children frequently watch the works from nearby. For these and other reasons, a public information program will be undertaken within the local communities to prepare and advise them of the risks. The workers of the implementing consultants and the civil works contractors, as well as others associated with the project, will also be taught and advised of the risks.

- (i) Assessing the exposure of UXO in project roads before any works starts including a suitable sampling survey of the project roads, as necessary and to ensure the safety of the Project site team(s) involved in the detailed design;
- (ii) Preparing the necessary documentation for any clearance that is required which will be undertaken through the civil works contracts, by the engagement by the contractor of qualified local clearance firms;
- (iii) Prepare a suitable information program for project staff and visitors to ensure they are fully aware of any de-mining or UXO risks before they visit (on visiting the work sites); and
- (iv) Prepare a suitable information program for the public within the areas where there is a perceived de-mining UXO risk, before the commencement of any works.

106. A Cambodian expert with a minimum of 15 years in-country experience to determine the level of risk for any particular project road or area and advise on the need for clearance. The expert should have project related experience and experience working with international organizations.

107. A team of resident engineer's inspectors will be assigned to each of the three civil works packages to work under the direction of the Resident Engineer (international). Each team comprises four members.

108. Each inspector/survey person will have a minimum of 10 years' experience and also experience working with international organizations. Collectively, they will be experienced in all of the tasks required to ensure the quality of the civil works including but not limited to supervision of the testing laboratory, supervision of field testing to meet end-product specifications, correct use of plant and equipment, and survey of works for the determination of quantity for payment in accordance with the bill of quantities and specifications for the civil works.

**k. Axle Load Control Specialist, National, 5 person-months**

109. The Axle Load Specialist having a bachelor degree of educational background will be a qualified professional engineer with at least 5 years' experience in the relevant field of expertise, and working experience in Cambodia's road sector. He/she should preferably have experience in axle load control operations. Experience of working in other countries (Thailand, Lao, Viet Nam), in the road sector, may be considered if the expert has no experience in Cambodia.

- (i) Report to the team leader, and support the team leader in axle load control on road network; prepare capacity building materials and inspect all weigh stations-related civil works and goods;

- (ii) Collect data on portable weigh scales and weigh stations which has a data recording; production function currently available in the international market; prepare technical specifications for procurement; and
- (iii) Provide-on-the-job training Provincial Public Works and Transport Departments' officers on the method of checking axle loads and processing of data, and report procedures

**I. Architect for Designing Laboratory Building, National, 3 person-months**

110. Registered Architect with a minimum of 10 years' experience in construction industry with proven proficiency in the preparation of architectural designs and drawings and supervision and execution of building construction projects. Experience in preparation of architectural designs for laboratories/industrial type buildings is essential. Shall be proficient in AutoCAD applications – 3D Views, Sketch Up and other design related software. This specialist's tasks will include:

- (i) Provide architectural services required for the construction of 4 laboratory buildings in Cambodia;
- (ii) Coordinate topographical survey of proposed laboratory construction sites and provide inputs on spatial requirements especially during the initial planning stage for the preparation of architectural drawings in consultation with the Pavement/Materials Engineer (International);
- (iii) Prepare architectural designs, rendering and working drawings of laboratory buildings in consultation with the Pavement/Materials Engineer (International);
- (iv) Prepare specifications and cost estimates for the laboratory buildings and assist MPWT in procurement of services for construction of laboratory buildings;
- (v) Conduct visits to laboratory building sites and provide architectural inputs on site related processes, as required;
- (vi) Assist MPWT in the administration of contracts for laboratory construction project;
- (vii) Provide architectural co-ordination and consultation with other engineers and professionals about design and construction of laboratory buildings; and
- (viii) Understand and adhere to applicable building codes in Cambodia (architectural, safety, engineering, sanitary etc.) while preparing and implementing the project.

**m. Road Safety Specialist, 4 person-months**

111. A nationally qualified expert is preferable to have a Bachelor's degree in relevant field with 10 year experience as the road safety specialist. The expert is preferred to have 2 assignments project experience in planning and implementing road safety activities in Cambodia, in rural settings, and with 2 assignments experience working with international organizations. The following tasks to be performed are:

- (i) Carry out road safety surveys and audits of the project roads.
- (ii) Supervise black spots improvements and civil works on safe school zones, regulating traffic during the construction and routine maintenance stages, assisting the implementation of ALC related activities.
- (iii) On the basis of the engineering review and the surveys and audits, devise a program to improve engineering standards with regard to building safer roads.
- (iv) Provide advice and devise a suite of road user hazard awareness, traffic separation and traffic calming measures for implementation.
- (v) For the safety of children and pedestrians, plan and provide speed bumps to slow traffic in villages on all project roads; and

- (vi) Ensure that road safety sign and other relevant measures are implemented in the road by the contractors;
- (vii) Conduct periodic monitoring on speed limit and other road safety measures;
- (viii) Coordinate the implementation with the stakeholders of road safety information such as the Road Traffic Accident & Victim Information System (RTAVIS) and provide feedback on the effectiveness of measures taken, training given and other components of the program.

#### 4. Facilities

112. A furnished main office in Phnom Penh and its utilities for the consultant will be provided by the MPWT. Transport and accommodation of the consultant's full-time, short-term, international, and domestic staff will be financed under the consulting services contract. Two furnished field offices, material testing laboratories, field transport, and their maintenance, as well as utilities will be provided through the two civil works contracts, one in southeastern Cambodia and the other in mid-western Cambodia.

#### 5. Reports

113. The consultant will submit reports to MPWT and ADB as shown in Table 11 below.

**Table 11: Reports to be Submitted to the MPWT and ADB**

	MPWTT	ADB
Inception Report (month 3)	3	3
Monthly Progress Reports	3	0
Quarterly Reports including on the Gender Action Plan	3	3
Semi-annual progress reports on ALC component	3	3
Semi-annual progress reports on QA and environmental safeguards including on the Gender Action Plan	3	3
Project benefit and monitoring reports at inception, midterm and completion completion	3	3
MPWT Project Completion Report	3	3

ADB = Asian Development Bank; ALC = axle load control; MPWT = Ministry of Public Works and Transport; QA = quality assurance.

### OUTLINE TOR FOR COMMUNITY-BASED ROAD SAFETY CONSULTING SERVICES

#### 1. Background

114. Road crashes in Cambodia have largely impacted on the vulnerable road users, like pedestrians, motorcycle riders, and bicyclists. Over 85% of road crash victims are such road users. Statistics show the road environment (or engineering) attributes to road crashes far less than other two attributes together, education and enforcement. Nevertheless, road user education on road safety is minimal, with illiteracy rates high in rural areas impeding such measures further. It is common that motorists driving vehicles, especially motorcycles, without licenses of which statistics are not available. Enforcement is almost non-existent, with limited resources of police force available for enforcement, and the lack of adequate knowledge for effective enforcement.

115. The project will provide Community-Based Road Safety Program to address above issues in the project communes. The proposed program focuses on three major areas of action in the communes in the project area: data compilation and analysis, school safety zone, and law

enforcement (details are in supplementary appendix 2, RRP).

## 2. Required Resources

116. It is proposed to have one national road safety expert (also the team leader), with extensive knowledge in community-based education and engagement with communities to implement the proposed program with one national road safety engineer (as the deputy team leader), and 2 national community trainers. The total input is expected to be 96 person months, recruited through a consulting firm (or Non-Government organization involved in road safety activities in the region).

### a. National road safety expert

117. **National Road Safety Expert.** Overall, the expert should design the proposed community based road safety program for project provinces, for roadside communities with the aim of reducing crash incidence. The program is as defined in Section B. The expert should seek guidance from MPWT and ADB on dynamic ideas to be introduced in the proposed program and coordinate with NRSC and other stakeholders/ongoing programs involved in road safety actions.

118. The expert should be a national professional with at least 15 years' experiences in development and implementation of road safety programs. Must have a good all-around knowledge of road safety in Cambodia. Must have hands-on working experience in road safety interventions in rural areas of Cambodia. Must have demonstrated successful work with a wide range of safety-related projects of government agencies, and ability to work with senior government officials. The minimum academic qualifications are Bachelor Degree in any discipline with experience in working with international organizations. English fluency in reading writing and speaking is essential.

119. The Team Leader will undertake the following tasks, but will not be limited to them:

- (i) Review the road safety issues in rural areas in Cambodia including the past and current programs that are in place and address them through a strong collaboration between the national experts and other stakeholders to prepare a strong dynamic work program, as outlined in Section B above;
- (ii) Develop an understanding of the psychology of road users and non-road users to formulate effective measures to address the road safety problems; demonstrate how this understanding will be used to implement an effective program of work on road safety;
- (iii) Lead stakeholder consultations on road safety in the project areas;
- (iv) Prepare and agree with stakeholders a community based road safety program to improve road safety in project areas;
- (v) Guide the team how to analyze detailed data on road safety such as the Road Traffic Crash and Victim Information System, and provide feedback on the effectiveness of measures taken, with capacity building training given;
- (vi) Design and provide simple guides for capacity development of the community based road safety program to key stakeholders;
- (vii) Implement the SSZ for schools with hands-on training and support;
- (viii) Ensure that this road safety program is implemented over 4 years uniformly with proper coordination and information exchange with other stakeholders like the Ministry of Rural Development which has a library of short movie clips for road user education: inception being implemented in coordination with detailed design, under the guidance of MPWT, plan periodic events and activities during construction to

maintain momentum of road safety initiatives, implement SSZ in a timely manner after civil works are substantially completed, again in coordination with MPWT and contractors; and

- (ix) Complete formal written reports, including the inception report, monthly report, quarterly reports, and completion report

**b. National road safety engineer**

120. National road safety engineer/Deputy Team Leader. The expert should have more than 10 years' experience in road safety engineering, including development and implementation of traffic and road safety measures. Need knowledge of road safety data analysis and development, and all-around knowledge of all other aspects of road safety. The minimum academic qualifications are Bachelor Degree in civil engineering with experience in working with international organizations. English fluency in reading writing and speaking is essential.

121. The expert will undertake the following tasks, but will not be limited to them:

- (i) Assess the existing conditions of road environment at the time of detailed engineering design and update the low-cost road safety measures carte, based on road safety audit, for project roads;
- (ii) Based on the project feasibility study safety audits, to improve engineering standards regarding building safer roads. Provide inputs to the design consultants and devise a road user hazard awareness, traffic separation, and traffic calming measures for implementation on the project roads with low-cost measures;
- (iii) Coordinate with the detailed design team and MPWT to select the locations for black spot treatment and include them in detailed design;
- (iv) For SSZ, design a prioritization criteria for 36 schools in the two project roads for SSZ implementation, in consultation with the team leader;
- (v) Design optimal engineering measures for priority schools and assist in implementation for sustainability;
- (vi) Report to the team leader, and support the team leader in implementing the road safety program and administration of the services, also support reporting; and
- (vii) Act as the team leader during the absence of the team leader.

**c. National community trainer (2 experts)**

122. The candidates should each have more than 5 years' experience in community-based education and training for road safety program or similar training activities. He or she must have knowledge of road safety measures, must demonstrate knowledge of traffic law, road signs, pavement markings, and roadside hardware, and must have all-around knowledge of all other aspects of road safety including crashes information system. The minimum academic qualification is Bachelor's Degree in any discipline with experience in working with international organizations. English fluency in reading writing and speaking is essential.

123. Each specialist will undertake the following tasks but will not be limited to:

- (i) support the team leader and road safety specialist in implementing the road safety program and administration of the services;
- (ii) conduct road safety education and training activities using the community-based road safety program within the project area;
- (iii) organize and participate in the capacity development curriculum for the local community members using the community-based road safety program;

- (iv) introduce to local communities' simple manuals for community-based road safety program developed under this program;
- (v) implement the SSZ for schools with hands-on training and support; and
- (vi) draft monthly and quarterly training reports, including detailing achievements such as number of attendance by gender and contents of education; and collect and report crashes details that occurred in the project areas regularly.

### 3. Implementation Period

124. The program duration should be about 4 years starting with commencement of civil works.

### 4.

### 5. Reporting

125. The consultants will submit reports to ADB, and the Government as shown in the table 12 below.

**Table 12: Reports, in English Language, for Submission to ADB, and MPWT**

<b>Report</b>	<b>ADB</b>	<b>MPWT</b>
Inception Report (after six weeks)	3	3
Approved complementary program for implementation (after 3 months)	3	5
Quarterly Reports	3	3
Practical short guides supplementing school curriculum on road safety <sup>a</sup>	1 set	1 set
Educational movie clips, posters, etc. <sup>a</sup>	1 set	1 set
Stakeholder guide to SSZ implementation <sup>a</sup>	1 set	1 set
Project Completion Report	3	3

<sup>a</sup> need to be in both Khmer and English

ADB = Asian Development Bank, MPWT = Ministry of Public Works and Transport; SSZ = school safety zones.

## OUTLINE TOR FOR INDEPENDENT TECHNICAL AUDITOR

### 1. Introduction

126. The Government of Cambodia has requested assistance from ADB with improving road asset management and road safety. The loan for \$70 million from Asian Development Fund is programmed for ADB's approval in September 2017. This RNIP will (i) support the Government's efforts in the implementation of Ministry of Public Works and Transport's (MPWT) Climate Change Action Plan for Transport Sector 2014–2018; (ii) apply performance-based maintenance contract (hybrid PBC) which combines civil works and routine maintenance; and (iii) introduce integrated quality control and quality assurance mechanisms to improve quality in civil works undertaken by MPWT.

127. The RNIP will upgrade two national roads NR1 (about 97 km) and NR6 (about 48km) to asphalt-concrete using hybrid PBC. A hybrid PBC is now being piloted under the World Bank-financed Road Asset Management Project II which was approved in May 2016. The civil works will be executed through three contract packages. The civil works comprise the improvement of existing DBST (NR1) and asphalt-concrete (NR6) roads, including placement, as necessary, of sub-base and road base, using unbound materials or stabilized materials for the road pavement. It is expected that the existing road structure, including the remaining gravel-wearing course, will be reused by applying stabilization techniques. The works also involves replacement or repair of existing cross drainage and small bridges, and the placement of some new culverts at existing locations.

128. The employer will be MPWT and the implementing agency will be PMU3 of MPWT. The project implementation and construction supervision consultant (ICS) will be responsible for the supervision of all civil works packages.

## **2. Objective of the Assignment**

129. The key objective of the assignment is to conduct due diligence on execution of hybrid PBCs to verify all steps between the procurement phase through to final payment and disbursement by ADB and MPWT; and provide recommendations on corrective actions for implementation.

## **3. 3. Scope of Services**

130. The scope includes (i) review procurement process of civil works and execution for civil works and ICS contracts, (ii) evaluate the performance of ICS and contractors and the quality of the completed works, and (iii) management of these processes by PMU3 to establish their effectiveness in promoting quality and completing contracts. Special attention will need to be given to reporting procedures and the processing and payment of invoices. The work will be carried out under time based contract. The consulting team will produce the following deliverables and reports in English and Khmer languages.

- (i) Three audit reports at civil works commencement, close to completion of major works and close to completion of contract; and
- (ii) The reports will discuss the processes of procurement, conducting the civil works, including their strengths and weakness, and recommendations to correct weaknesses. The mid-term and completion report will comment on whether previously identified problems are being remedied, and PMU3 have developed skills in administering hybrid PBC.

131. The consultants will perform the following tasks but not limited to:

- (i) review procurement process including the bidding documents and bid evaluation reports;
- (ii) review construction supervision process;
- (iii) review disbursement process including the contractors' payments are not being unnecessarily delayed;
- (iv) review the maintenance works implemented by contractors meet the performance indicators;
- (v) review the capacity being built in PMU3 and other relevant departments of MPWT involved in hybrid PBC process;
- (vi) assess whether the hybrid PBC been designed adequately, the bidding process adequate, competition between contractors and as well as between supervision consultants were adequate, the contractor and consultant were sufficiently qualified to undertake the PBC, any coaching of the contractor/ consultant and/or PMU3 staff was before and / or during implementation, the MPWT properly monitored the PBC, the supervision consultant did a proper supervision (of admeasured works, monitoring of performance criteria, applying penalties for non-compliance of the contractors), the contractor performed his obligations as per contract (initial works, road management services, quality control), the contractor complied the service levels, the contractors improved their performance of over time, the contractor were paid on time, the payment deductions were applied in accordance with the contract, the disputes if any resolved adequately and if so

- what kind and how were they solved, and the PBC provided good value for money;  
and  
(vii) recommend how to further implement and improve PBC

#### **4. Key Expertise Required**

132. MPWT requires 2 consultants including international and national consultants each with 2 person months on intermittent basis. International Consultant will be a road management and maintenance specialist with a minimum of 15 years' experience in road asset management and procurement processes, especially those of ADB and World Bank. National Consultant should be a roads engineer who has had some previous involvement in foreign-funded projects and has sufficient English to communicate with the international consultant

#### **5. Consultants Selection**

133. MPWT will select the international and national consultants in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). MPWT will use the ICS method to select the international and national consultants. The assignments will be paid on time –based payment basis.

#### **6. Duration and Location of Assignment**

134. The technical audit will be implemented about five years, between May 2018 and December 2022. The assignment will be undertaken in both field (the project provinces) and home office.

#### **7. Services Provided by the Employer**

135. The MPWT will provide the following:
- (i) furnished office accommodation in MPWT building;
  - (ii) access to project road sites for the purpose of collecting data and information and undertaking consultation meetings with ICS and contractors
  - (iii) detailed engineering designs
  - (iv) bidding documents and bid evaluation reports for civil works and ICS
136. The technical audit consultant will hire two local consultants to assist him or her. Each local consultant will be hired for a period coinciding with the technical audit consultant's engagement periods.

### **OUTLINE TOR FOR INDIVIDUAL PROCUREMENT SUPPORT CONSULTANT**

#### **1. Introduction**

137. The Government of Cambodia has requested assistance from ADB with improving road asset management and road safety. The loan for \$70 million from Asian Development Fund is programmed for ADB's approval in September 2017. This RNIP will (i) support the Government's efforts in the implementation of Ministry of Public Works and Transport's (MPWT) Climate Change Action Plan for Transport Sector 2014-2018; (ii) apply performance-based maintenance contract (hybrid PBMC) which combines civil works and routine maintenance; and (iii) introduce integrated quality control and quality assurance mechanisms to improve quality in civil works undertaken by MPWT.

138. The RNIP will upgrade two national roads NR1 (about 97 km) and NR6 (about 48km) to asphalt-concrete using hybrid PBMC. A hybrid PBMC is now being piloted under the World Bank-financed Road Asset Management Project II which was approved in May 2016. The civil works will be executed through three contract packages.

139. The employer will be MPWT and the implementing agency will be PMU3 of MPWT. The project implementation and supervision consultant (ICS) will be responsible for the supervision of all civil works packages.

## **2. Objective of the Assignment**

140. The objective of the assignment which is the subject of this TOR is to i) assist the MPWT in preparing of bidding documents for small civil works and goods contracts included in the project procurement plan and updated procurement plan and ii) help MPWT in bidding process in accordance with ADB's Procurement Guidelines (2015, as amended from time to time) and Royal Government of Cambodia's Standard Operating Procedures, update May 2012.

## **3. Scope of Services**

141. The Consultant will carry out the tasks upon mobilization to prepare the bidding document including all technical procurement aspects for the Bank's approvals.

142. The Consultant will assist the MPWT in selecting i) civil work contractors for School Safety Zones; Weigh Stations Structures; and Laboratory Buildings packages of NCB procurement type, and ii) selecting suppliers for (ii) Supply and Delivery of Equipment for Weigh Stations and Laboratory. The Consultants will assist MPWT through all necessary procurement process and prepare Bid Evaluation Reports for review and endorsement by RGC Procurement Review Committee (PRC) and for No-objection by the ADB,

143. The consultant will perform the following tasks but not limited to:

- (i) Prepare bidding documents and bid evaluation reports to obtain No-objection by the Bank
- (ii) Assist in answering questions from bidders and provide amendments to instructions to bidders as necessary;
- (iii) Assist in the evaluation of qualification information submitted by interested bidders and the evaluation of bids including checking accuracy of bids, checking technical and financial qualifications of bidders and the validity of bids, produce a list of compliant bidders, and prepare bid evaluation reports and recommendations on contract awards; and
- (iv) Assist in pre-contract discussions and review of securities submitted by bidders,
- (v) Prepare final contracts for signings.
- (vi) Maintenance procurement filing system and
- (vii) Perform other tasks as requested by the Component Director;

## **4. Key Expertise Required**

144. MPWT requires 1 national consultant with 8 person months on intermittent basis. The procurement specialist preferably to be a qualified specialist in procurement of civil works, goods and related services using the ADB's Procurement Guidelines: Procurement of Goods and Works.

- (i) At least Bachelor Degree in management, economics, business administration, engineering or any related field
- (ii) Minimum of 5 year specific experiences in the procurement of goods, works and related services and in management of project procurement procedures of Government Standard Operating Procedures for donor-financed projects/programs
- (iii) Understanding of the government administrative systems as well as the Government Standard Operating Procedures and Procurement Manual for donors financed projects
- (iv) Excellent communication skills, including speaking and writing in both English and Khmer languages
- (v) High degree of computer literacy, and intermediate to advanced knowledge of Microsoft Office Package (Excel, Word, and Power Point) and internet.

## **5. Consultant Selection**

145. MPWT will select the consultant in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) using ICS method. MPWT will use the bio data technical procedure. The assignment will be paid on time-based payment basis.

## **6. Duration and Location of Assignment**

146. The input for the assignment is 8 person months and will be carried out intermittently for a period of about two years, between January 2018 and December 2019. The assignment will be undertaken in home office.

## **7. Services Provided by the Employer**

147. The MPWT will provide the following:
- (i) furnished office accommodation in MPWT building;
  - (ii) communication/internet access
  - (iii) access to project sites for the purposes of collecting procurement-related information

## **OUTLINE TOR FOR INDEPENDENT FINANCIAL AUDITOR**

### **1. Introduction**

148. An audit of the annual financial statement of the Project will be conducted to provide an independent and objective opinion as to whether the project financial statements present fairly, in all material respects; a true and fair view of the project's financial position, its financial performance and cash flows; and a reasonable assurance opinion over certain specific representations made in the Statement of Compliance. It will describe the executing and implementing agencies; loan/grant amount and project cost (by each financier); accounting and financial management practices, financial reporting periods to audited; and (v) other relevant information that should be brought to the attention of the auditors.

### **2. Objective**

149. The objective of the audit of the annual project financial statement of each Project is to enable the auditor to express a professional opinion on the financial position of the Projects set

in separate list of the funds received and expenditure incurred during the year/period then ended; as well as separate opinions (i) that the proceeds of the loan and/or grant were used only for the purpose(s) of the project; and, (ii) on compliance with the statement of expenditure procedure (if applicable), (iii) on compliance with the Imprest Account procedure (if applicable), and (iv) on compliance with the covenants of the Loan/Grant Agreement, if any.

150. A management letter will also be provided by the audit firm, which will contain the items indicated in Section 6.

### **3. Auditing Standards**

151. The audit will be carried out in accordance with the International Standards on Auditing (ISA), International Standards of Supreme Audit Institutions (ISSAIs), and/or national standard equivalent. This will include such tests considered necessary in order to provide sufficient evidence that gives reasonable assurance that the financial statements are free from material misstatement whether caused by fraud or other irregularity or error. The auditor should state in the audit report if the audit was not in conformity with any of the above and indicate the alternative standards or procedures followed.

152. These standards require that the auditor comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the project financial statements are free from material misstatement.

- (i) An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the project financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the project financial statements whether due to fraud or errors. In making those risk assessment, the auditor considers the internal control relevant to the entity's preparation and fair presentation of the project financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.
- (ii) An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the project financial statements. The auditor will also note the impact(s) arising from any material deviations from the agreed accounting standards and comment on any accounting policy changes during a financial year or from one year to another.

### **4. Scope of Audit**

153. The audit should cover income and expenditure having been made through imprest account, reimbursement, direct payment and commitment. Special attention is required on:

- (i) The use of external funds in accordance with the relevant legal and financing agreements;
- (ii) The provision of counterpart funds in accordance with the relevant agreements and their use only for the purposes intended;
- (iii) The maintenance of proper books and records;
- (iv) The existence of project fixed assets and internal control related thereto;
- (v) Comments on any accounting policy changes, either during a financial year, or from one year to another.

- (vi) Where the audit report has been issued under ISSAI 1800, it shall include the mandatory paragraph alerting users of the audit report that the project financial statements are prepared in accordance with a special purpose framework and that, as a result, the project financial statements may not be suitable for another purpose. The auditor shall include this paragraph under an appropriate heading;
- (vii) Where reasonable assurance has been provided using ISSAI 4200, the assurance report must contain, among others:
  - A statement that the engagement was performed in accordance with ISSAI 4200;
  - Subject matter;
  - Criteria for measurement;
  - A summary of the work performed; and
  - The auditor's conclusion.
- (viii) On the imprest fund procedure (where applicable), audit procedures are planned and performed to ensure (a) the imprest account (and any sub-accounts) has been managed in accordance with ADB's Loan Disbursement Handbook, (b) the cash balance of the imprest account (and any sub-accounts) is supported by evidence, (c) the expenditures paid from the imprest account (and any sub-accounts) comply with the approved project purpose and cost categories stipulated in the loan agreement, and (d) the amount of expenditures paid from the imprest account (and any sub-accounts) comply with disbursement percentages stipulated in the loan agreement;
- (ix) Adequate supporting documentation has been maintained to authenticate claims stated in the SOE for reimbursement of eligible expenditures incurred and liquidation of advances provided to the imprest account (where applicable);
- (x) On the SOE procedure (where applicable), audit procedures are planned and performed to ensure that (a) the SOEs have been prepared in accordance with ADB's Loan Disbursement Handbook, (b) the individual payments for expenditures stated in the SOE are supported by evidence, (c) the expenditures stated in the SOEs comply with the approved project purpose and cost categories stipulated in loan agreement, and (d) the amount of expenditures stated in the SOEs comply with disbursement percentages stipulated in the loan agreement; and;
- (xi) Any weakness in internal controls. Review and evaluate the system of internal controls in effect, including internal audit procedures, to determine the degree of reliance that may be placed upon them and to determine the extent of testing of actual transactions needed to assure the auditor of the accuracy of the accounting records

154. MEF and ADB can request access to the auditor's unedited audit working papers.

## **5. Methodology**

155. In response to the terms of reference, a methodology will be proposed by the audit firm/institution. The methodology should address as a minimum:

- (i) Compliance with ISA, ISSAI, and/or national standard equivalent
- (ii) The auditor shall provide the management Letter of Engagement stating the auditor's responsibilities in agreeing the terms of the audit engagement with management and, where appropriate, those charged with governance.
- (iii) Understanding of the environment and key areas of audit risk for the project
- (iv) Audit planning and the role that the client is expected to play in the process

- (v) Evaluate the internal control process for key activities of the project
- (vi) The proposed audit teams experience (VERY IMPORTANT)
- (vii) The resources to be allocated to the audit to address the risks identified
- (viii) The approach to field work (i.e., gathering of evidence to support assertions to be made in the audit opinions)
- (ix) Quality assurance arrangements (including mechanisms for the client to be involved in this process)
- (x) Timetable for completed audit work

## 6. Audit Deliverables and Timing

156. The auditor is expected to present an Audited Project Financial Statement and a Management Letter.

157. **Audited Project Financial Statement.** The auditors' reports on the project's financial statement should include at least the following matters:

- (i) The audit report will state the purpose of the report and its intended use.
- (ii) Accounting standards that have been applied and indicated in the project's financial statements and indicate the effect of any deviations from those standards;
- (iii) The audit standards that were applied (International Standards on Auditing).
- (iv) The audited financial statement is required to cover the current period, prior year period, and the cumulative period since commencement of the project.
- (v) The audit opinion will also state (a) that the proceeds of the loan/grant were used only for the purposes of the project; (b) compliance with the statement of expenditure procedure, if applicable; (c) compliance with the Imprest Account Procedure, if applicable; and (d) compliance with loan/grant covenants.

158. **Management Letter.** The auditor will prepare and submit a Management Letter at the completion of the audit, which will address at a minimum the following:

- (i) Any weaknesses in the accounting and internal control system which were identified during the audit, including any irregularity in the use of the imprest fund and statement of expenditures (SOE) procedures (where applicable);
- (ii) Where the internal controls are not reliable, it is important that the auditor will provide details of the assessment and the alternative methods employed to gain assurance over the accuracy and completeness of the financial statements;
- (iii) The status of significant matters raised in previous management letters;
- (iv) Matters which have come to the auditor's attention during the course of the audit which might have a significant impact on the implementation of the Project.
- (v) Any identified internal control weaknesses related to the procurement process such as, over the bidding, evaluation and contract management domains; the adequacy of procurement and contract filing systems is important;
- (vi) Recommendations to rectify identified weakness;
- (vii) Management's comments on the audit recommendations along with the timeframe for implementation;
- (viii) Details of any ineligible expenditure identified during the audit. Expenditure is considered ineligible if it refers to (i) expenditures incurred for purposes other than the ones intended under the legal agreement(s); (ii) expenditures not allowed under the terms of the legal/financing agreements; and (iii) expenditures incurred in violation of applicable government regulations. If the auditor reports any ineligible expenditure in the management letter, the details of the findings should include the funding source to which the observation relates; and

- (ix) Any identified weaknesses in the internal control environment, including the auditors' assessment of the impact on the project and recommendations for remedial action. Where the internal controls are not reliable, the auditor will provide details of the assessment and the alternative methods employed to gain assurance over the accuracy and completeness of the financial statements.

159. Five sets of the Audited Project Financial Statements and the associated Audit Report and Management Letters in English shall be delivered to each EA and/or IA and 2 sets provided to MEF, and one set to ADB no later than 6 months after the end of the financial period to which the audit refers.

160. It is expected that the financial statements, prepared by the Project, will be ready for audits before the end of February and that the audit will be completed by deadline for submission of audit. The auditor will plan and conduct audit fieldworks to ensure that the audit reports are completed within 8 weeks of upon commencement of the audit.

161. The audit firm will retrieve confirmed ADB disbursements through the LFIS/GFIS database. No separate ADB Confirmation Letter in confirmed disbursements will be provided. ADB, MEF, EAs and/or IAs will provide the audit firm with access to LFIS/GFIS.

## 7.

### 8. Exit conference

162. Upon completion of the field work, the auditor will hold an exit conference with the project management. The exit conference will give the auditor an opportunity to obtain managements comments on the accuracy and completeness of the auditor's findings, conclusions, and recommendations. Issues discussed and/or raised in the exit conference should be properly documented and included in the audit work papers.

163. The audit firm will also organize a wrap-up session for MEF and ADB to share common findings across projects being audited and provide recommendations for addressing bottlenecks in preparation for the next audit (IMPORTANT).

### 9. Accounting and Report Standards

164. The project financial statements are prepared in accordance with International Public Sector Accounting Standards (IPSAS) promulgated by the International Public Sector Accounting Standards Board (IPSASB), or Cambodia Accounting Standards.

165. The financial statements should include the following:

#### **For Cash-Based Financial Statements**

- (i) a statement of cash receipts and payments
- (ii) a statement of budgeted versus actual expenditures
- (iii) a statement of imprest account (where applicable)
- (iv) a summary statement of expenditures (where applicable)
- (v) a statement of withdrawal applications by specific reference number and amount by expenditure (where applicable)
- (vi) significant accounting policies and explanatory notes
- (vii) any additional schedules agreed (e.g., a summary of assets, a reconciliation of the amounts shown as "received by the project from the ADB" with those shown as being disbursed by ADB)

166. Management must include the following in the Statement of Compliance:
- (i) That project financial statements are free from material misstatements including omissions and errors, and are fairly presented;
  - (ii) That the borrower or executing agency has utilized the proceeds of the loan only for the purpose(s) of the project;
  - (iii) That the borrower or executing agency was in compliance with the financial covenants of the legal agreement(s) (where applicable);
  - (iv) That the imprest fund procedure, where applicable, has been operated in accordance with the *ADB's Loan Disbursement Handbook*;
  - (v) That adequate supporting documentation has been maintained to authenticate claims stated on the statement of expenditures (SOE), where applicable, for reimbursement of eligible expenditures incurred and liquidation of advances provided to the imprest account; and
  - (vi) That effective internal control, including over the procurement process, was maintained
167. Management must provide Management Representation Letter to the External Auditor confirming their responsibilities towards preparing the financial statements and disclosed all information in accordance with laws and regulations.

### **10. Staffing and Qualifications**

168. It is important that the audit firm must submit its personnel schedule and price quotation per project.
169. CVs must be provided in the bid submission, including a list of who would be responsible for providing the opinions and reports, together with the CVs of managers, supervisors and key personnel to be involved in audit work.
170. CVs of proposed auditors should include audit experience carried out by these staff, including ongoing assignments.
171. The audit firm/institution must notify every time the auditor substitutes a staff member.
172. The auditors need to be impartial and independent from any aspects of management or financial interest in the executing agencies and/or the implementing agencies under audit.
173. Auditors are required to disclose any relationship likely to compromise their independence in their bid proposal.
174. The auditor shall have the right of access to all project documents, banks and depositories, consultants, contractors and other persons or firms engaged in the project. In case access has been restricted, the auditor must note this in the management letter.

#### **a. Audit Director/ Engagement Partner**

175. The director's responsibilities:
- (i) Hold highest responsibility for the audit engagement;
  - (ii) Provide directives for the whole audit team from the planning, implementation of the audit and issuing audit opinions; and

- (iii) Ensure the overall quality of the audit, including the audits to be carried out in compliance with the Firm's quality standards and procedures and with the requirements of the Client.
176. Minimum Qualifications/Experience:
- (i) A university graduate (preferably with a post-graduate degree) in Accounting, finance, Certified Auditor (ACCA or other recognized international accounting/auditing certificate);
  - (ii) At least 15 years or above experience working in auditing services; At least 4-year experience in management of auditing teams; and at least 8 years actual working years in auditing since being granted with Cambodian or international auditor certificate;
  - (iii) Working as Audit Director for audit contracts on ADB, the World Bank or other international donors funded projects is an advantage;
  - (iv) Fluent English is compulsory; and
  - (v) Experience working for a large regional accounting firm is a plus.
- b. Audit Managers:**
177. Audit Manager's Responsibilities:
- (i) Provide detailed guidance to all team members;
  - (ii) Monitor the audit fieldwork of engagement team, reviews staff work and ensure that it meet professional standards and the internal audit department's guidelines;
  - (iii) Take responsibility for the quality of the audit before submitting to Audit Director;
  - (iv) To be the contact point with Client's Management and Chief Accountant regarding key issues identified, audit adjustments; and
  - (v) Monitor the progress of the audit and monitor the adherence to the committed deadline.
178. Minimum Qualifications/Experience:
- (i) A university graduate (preferably with a post-graduate degree) in Accounting, finance, Certified Auditor (ACCA or other recognized international accounting/auditing certificate);
  - (ii) At least 10 years or above experience working in auditing services; Audit seniors who are the team leader shall have 5 years' experience in their profession;
  - (iii) Audit experience for ADB/World Bank funded projects in Cambodia would be an advantage;
  - (iv) Ability to work within budgetary and time constraints while providing a high-level of client satisfaction.
- c. Senior Auditors / Team Leaders at Field:**
179. Senior Auditor/Team Leader Responsibilities:
- (i) Follow the instructions from Director and Engagement Manager;
  - (ii) Keep Audit Director and Audit Manager being updated with the key issues or key audit adjustments day to day; (iii) Being responsible for the audit quality of the whole team in front of Audit Manager; and
  - (iii) Being responsible for the compliance with auditing firm quality standards and procedures and with the requirements of Clients/ Projects.
180. Minimum Qualifications/Experience:

- (i) Senior Auditors are required to be graduates of a recognized university in the fields of Commerce, Economics, Accounting and Auditing or equivalent;
- (ii) At least 05 years or above experience working in auditing services;
- (iii) Preferably to whom holding Certified Auditor (ACCA or other recognized international accounting/ auditing certificate);
- (iv) Preferably should have worked as Auditor for audit contracts on ADB's, the World Bank's on other international donors' funded projects; and
- (v) English proficiency would be preferable.

**d. Auditor Team Members:**

181. Auditor Team Member Responsibilities:

- (i) Implement professional work, auditing assigned sections in the agencies;
- (ii) Be responsible for the data and issues related to the auditing activities, and support release of the official report;
- (iii) Draft minute of audit; and
- (iv) Report to the Team leader of the rising issues related to the audit in the agencies.

182. Minimum Qualifications/ Experience:

- (i) a university graduate (preferably in recognized university in the fields of Commerce, Economics, Accounting and Auditing or equivalent);
- (ii) at least 03 years or above experience working in auditing services Preferably to whom holding Certified Auditor (ACCA or other recognized international accounting/ auditing certificate);
- (iii) should have worked as Auditor for audit contracts on ADB's, the World Bank's on other international donors' funded projects would be preferable; and
- (iv) English proficiency would be preferable.

## VII. SAFEGUARDS

183. **Project safeguards grievance redress mechanism.** MPWT PMU3 will establish the project safeguards grievance redress mechanism (GRM), as detailed in the environmental management plan (EMP) and in case if resettlement issues are identified following due diligence after detailed engineering design (DED), Resettlement Plan (RP) will be prepared and Inter-Ministerial Resettlement Committee (IRC) will establish GRM in accordance with such RP within 60 days of the loan effectiveness date, or before implementation of land acquisition and resettlement activities, whichever is the earliest.

184. The GRM sets out procedures for managing public concerns and safeguard issues (environment, involuntary resettlement and land acquisition) which may arise during project implementation. The GRM comprises a set of clear procedures to receive, record, and address any concerns or complaints raised and provides contact details of individuals from the PMU3 and General Department of Resettlement (GDR), implementing agencies, contractors teams, and other relevant safeguard authorities and stakeholders in the project provinces. All contractors and work staff will be briefed by the PMU3 and GDR on the project safeguards GRM. Multiple entry points to the GRM will be available including verbal and written complaints, hotline number, anonymous drop-boxes and/or e-mail. PMU3 will report complaints and their resolution to ADB in project progress reports and safeguard monitoring reports.

185. In case resettlement issues are identified, ADB and the IRC have agreed that GRM procedures will be established to address displaced households' grievances and complaints regarding land acquisition, compensation and resettlement, as described in the resettlement section below. All affected households have been made fully aware of their rights, and the detailed procedures for filing grievances and an appeal process. The GRM and appeal procedures have also been explained in the public information booklet that was distributed to all displaced households and fully publicized during public information campaign.

### A. Environment

186. An initial environmental examination (IEE) and environmental management plan (EMP) have been prepared based on assessment of the project areas, from the draft IEEs and feasibility study reports prepared by the TA consultants, discussions between the MPWT and ADB, and from results of public consultation activities that were carried out during project preparation. The IEE and EMP will be updated following the detailed engineering design to ensure that the impacts of any changes are addressed. The final EMP will be included in bidding documents.

187. The responsibilities of government agencies and ADB for environmental management and supervision during the different phases of project implementation are presented under Section III. A: Project Implementation Organizations: Roles and Responsibilities. In addition, Contractors will (i) prepare site-specific CEMP containing specific details on the locations of borrow areas, borrow roads, worker's camps, and other facilities and site-specific method statements on implementation of pollution control measures based on the project EMP. Annex A presents a template for the CEMP; (ii) allocate sufficient funding for proper and timely implementation of mitigation and monitoring measures; (iii) conduct daily inspection of the site and ensure the implementation of the CEMP during the construction phase; (iv) prepare/submit monthly reports on mitigation and monitoring activities to the PMU3 through the ICS; and (v) act as the local entry point for the project GRM, conduct immediate investigation of any complaint, report all complaints and their resolution to the PMU3. Ensure the timely and appropriate resolution of the complaint or incident in accordance with the GRM.

188. The ICS will supervise the civil works packages and implementation of EMP mitigation and monitoring measures. ICS will (i) assist and supervise each contractor in preparing the CEMP prior to commencement of civil works based on the project EMP, (ii) orient resident engineers and resident inspectors on EMP provisions to ensure that they will be able to adequately supervise on a day-to-day basis the contractors and sub-contractors with regard to proper and timely implementation of mitigation measures specified in the EMP, (iii) monitor implementation of environmental mitigation measures and environmental performance of contractors based on the EMP schedule and assist MPWT in the preparation of semi-annual environmental monitoring reports for submission to ADB; (iv) support contractors to establish a contract with the Ministry of Environment for environmental quality monitoring for dust, noise and water quality during construction, as specified in the EMP and include interpretation of monitoring results in semi-annual environmental reports; (v) undertake environmental training for the MPWT/ESO/PMU3 staff to build their capacity on environmental management and monitoring. A budget of USD\$20,000 has been allocated for training. The training will be implemented through on-the-job training and workshops based on the provisions of the EMP; and (vi) ensure that the affected stakeholders and sensitive receptors (hospitals, schools, temples) are regularly updated on project activities and are aware of the multiple entry points to the project GRM.

189. **Budget.** A budget has been allocated for implementing the project environmental monitoring and reporting requirements (see project IEE - Table 30). The ICS consulting services include 9 months of environment consulting services (3 months international, 6 months national). The contractors will be required to allocate a budget of USD\$146,100 for environmental quality monitoring (water and air quality and noise) pre-construction to establish baseline conditions and during construction to monitor deviations from the baseline and that relevant standards are maintained. Based on the presence of environmentally sensitive receptors, the budget has been split across the three civil works contract packages as shown in Table 13.

**Table 13: Summary of Environmental Quality Monitoring Cost per Contract Package**

	CW1 (east NR1)	CW2 (west NR1)	CW3 (NR6)
<b>Pre-Construction</b>			
Survey of sensitive receptors	1000	1000	1000
Water quality	1000	1000	1000
Air quality	4400	3000	4500
Noise and Vibration	1500	1000	1000
<b>Sub-total</b>	<b>7900</b>	<b>6000</b>	<b>7500</b>
<b>Construction</b>			
Water quality	4000	4000	4000
Air quality	8700	6000	8000
Noise and Vibration	2500	2000	3000
<b>Sub-total</b>	<b>15200</b>	<b>12000</b>	<b>15000</b>
<b>TOTAL</b>	<b>23100</b>	<b>18000</b>	<b>22500</b>
<b>Grand Total –for all packages</b>	<b>63600</b>		

190. **Information disclosure and public consultation.** The draft IEE and EMP will be disclosed on ADB website prior to loan approval and the final IEE and EMP after detailed engineering design. Public consultation meetings were conducted with affected persons during project preparation and will be ongoing during project implementation.

## **B. Resettlement**

191. For primary national roads 1 and 6, road repair works will be undertaken on the existing road pavements, and ancillary works are expected to take place on unoccupied land within the road right of way. Accordingly, resettlement impacts are not expected and the Project is classified as Category C for Involuntary Resettlement. This will be confirmed following DED. A Resettlement Framework has been prepared for NR1 and NR6 as a contingency measure. Should any resettlement impacts be identified following due diligence after DED, a resettlement plan (RP) will be prepared.

192. The Government will ensure all land acquisition and resettlement activities are implemented in compliance with (i) Cambodia's applicable laws and regulations relating to land acquisition and involuntary resettlement; (ii) ADB's Involuntary Resettlement Safeguard requirements; and (iii) all policies and requirements set forth in the updated resettlement plans, and any corrective or preventative actions set forth in the respective Safeguards Monitoring Report. Should there be any discrepancy between the ADB's policy and national laws and regulations, ADB's policy will prevail. GDR will carry out land acquisition and resettlement activities.

193. Prior to award of any works contract which involves involuntary resettlement impacts, the MPWT/GDR/IRC will:

- (i) prepare, disclose to Affected Persons and submit to ADB the final resettlement plan and obtain ADB's concurrence with such resettlement plan;
- (ii) ensure the measures provided in the final resettlement plan, including compensation and entitlements for the Affected Persons, are not downgraded;
- (iii) land acquisition, relocation of affected households, and clearance of land does not commence until the final resettlement plan has been agreed between ADB and the Government and provisions in such final resettlement plan have been satisfactorily implemented;
- (iv) ensure each of the project provinces does not issue a site possession notice to the works contractors to commence construction activities for a specific section, until the head of the provincial resettlement sub-committee has officially confirmed in writing that
  - a. payment and assistance has been fully provided to the Affected Persons and rehabilitation measures are in place for that specific section in accordance with the respective resettlement plan;
  - b. the Affected Persons, who need to be displaced for a specific section of the project road and have already been compensated in accordance with the respective resettlement plan, have been relocated from the concerned area in a timely manner; and
  - c. that any section of the Project road is free from any encumbrances; and
- (v) no physical or economic displacement takes place in connection with the project until compensation and other entitlements have been provided to Affected Persons and income restoration measures commenced in accordance with the resettlement plan.

194. Displaced households (including either spouse heading an affected household) are entitled to lodge complaints regarding any aspect of the land acquisition and resettlement requirements such as, entitlements, rates and payment and procedures for resettlement and income restoration programs. Displaced households' complaints can be made verbally or in written form via the IRC grievance redress process, however, the GDR, provincial grievance

redress committee (PGRC) working group and the commune chief will record, monitor and report on all complaints received. The GRM procedure for resettlement (agreed between IRC and ADB) includes four stages:

- (i) First stage: affected households will present their complaints and grievances verbally or in writing to the village chief, commune chief or IRC and Provincial Resettlement Sub-committee working groups. The receiving agent will be obliged to provide immediate written confirmation of receiving the complaint. If after 15 days the aggrieved affected household does not hear from the village and commune chiefs or the working groups, or if he/she is not satisfied with the decision taken in the first stage, the complaint may be brought to the District Office.
- (ii) Second stage: The District Office has 15 days within which to resolve the complaint to the satisfaction of all concerned. If the complaint cannot be solved at this stage, the District Office will bring the case to the Provincial Grievance Redress Committee.
- (iii) Third stage: The PGRC meets with the aggrieved party and tries to resolve the situation. The Committee may ask for a review of the detailed measurement survey (DMS) by the external monitor (EMA). Within 30 days of the submission of the grievance, the Committee must make a written decision and submit copies to the MPWT, DPWT, EMA, PRS/IRC and the affected household.
- (iv) Final stage: If the aggrieved affected household does not hear from the Provincial Grievance Redress Committee or is not satisfied, he or she can bring the case to Provincial Court. This is the final stage for adjudicating complaints. The Court will make a written decision and submit copies to the MPWT, PDPWT, EMO, PRS/IRC and the affected household. If any party is still unsatisfied with the Provincial Court judgment, he or she can bring the case to a higher-level court.

### **C. Indigenous Peoples**

195. The project falls under ADB's Safeguards Policy Statement Category C for Indigenous Peoples. The project will not trigger indigenous peoples related impacts and/or issues.

## VIII. GENDER AND SOCIAL DIMENSIONS

196. The project will benefit 290,000 persons (51% female) and 55,000 households in 31 communes in 9 districts of 3 provinces within the project area. The majority of the population is Khmer by ethnicity and less than 1% is Cham and Vietnamese. The household poverty rate (combined ID poor<sup>11</sup> level 1 and 2) in the 3 project provinces are as follows: Prey Veng (23.6%); Siem Reap (17.7%); and Svay Rieng (17.3%). The poverty rates fall mid-range along the provincial poverty spectrum which peaks at 33% (Battambang) and is lowest in Phnom Penh 9%.<sup>12</sup>

197. In the project area, the majority of rural women work as unpaid family labor in agriculture (i.e. raising livestock, poultry, and engage in selling). In other related ADB and/or MPWT road projects, women have accounted for 28% unskilled labor in road maintenance. There appears to be cases where the contractors pay women less than men for the same type of jobs, although the payment of salary is often not formally recorded. Women are willing to be employed in civil works and road maintenance, after planting and harvest seasons. Women represent 19.4% of MPWT staff, and 24% of PMU3 staff. In similar projects, women represented about 50% of the participants in HIV/trafficking and road safety awareness programs, and 30% of the facilitators in road safety programs. During the PPTA consultations over 40% of the participants were women.

198. The project is classified as effective gender mainstreaming and a gender action plan (GAP) has been developed in close consultation with the executing agency and the MPWT Gender Mainstreaming Action Group (GMAG). The GMAG is in the process of updating their Gender Mainstreaming Action Plan (GMAP) for 2017–2022. The head of the GMAG is also the Secretary General of the NRSC. The GAP is designed to enhance the gender equality impacts of the project as well as to strengthen national systems by closely aligning to the national gender priorities outlined in the forthcoming GMAP, and providing technical advice and capacity development to the GMAG and the NRSC.

199. Key activities and targets in the GAP include: (i) contractors cumulative unskilled labor days will be for at least 20% women; (ii) women are at least 50% participants and 30% as facilitators in HTAP, as well as in road safety awareness activities; (iii) at least 40% of participants in consultations on project design and implementation are women, and (iv) 25% of PMU staff are women. The GAP is shown in Table 14.

**Table 14: GENDER ACTION PLAN**

GENDER OBJECTIVES	GENDER ACTIVITIES/ ACTIONS	PERFORMANCE INDICATORS/ TARGETS	RESPONSIBLE AGENCIES
<b>Output 1: Safe and climate resilient national roads improved</b>			
1.1. Ensure social and gender inclusion in community participation during the project implementation.	1.1.1 Encourage participation of local people including women in consultations during the project implementation. <i>- record women participation in terms of numbers, percentage, and how their suggestions and concerns have been addressed.</i>	1.1.1.1 Number of local people who participate in consultations on project design and implementation disaggregated by sex. Target: at least 40% women for each road.	PMU3/SEO, with advice from the Social Development & Gender Consultant

<sup>11</sup> Identification of Poor Households Program.

<sup>12</sup> The provincial ID Poor poverty rates are not comparable to the national Household Survey poverty rate (which is 13.5% as of 2014) because they use different poverty measurement methods.

GENDER OBJECTIVES	GENDER ACTIVITIES/ ACTIONS	PERFORMANCE INDICATORS/ TARGETS	RESPONSIBLE AGENCIES
		1.1.1.2 Relevant clauses on core labor standards (including gender-specific ones such as equal pay for equal work, equal opportunities for employment) are included in all bidding and contract documents	
1.2 Generate unskilled jobs in road construction /maintenance for women	1.2.1 Ensure women benefit from unskilled jobs. - <i>Facilitate safe and conducive environment for women's employment in road works through creation of women's groups if appropriate; skills enhancement; on-site clean toilets.</i>	1.2.1.1 Contractors' cumulative unskilled labor days will be for at least 20% women, for all roads, by 2022.	Contractors, with oversight from Social Development & Gender Consultant
1.3 Ensure gender responsive social protection for the labor force during project implementation and maintenance	1.3.1 Raise awareness on core labor standards (CLS) among contractors and road workers. - <i>Include compliance with CLS in the bidding documents and contracts for the road labour and as part of their induction training.</i>	1.3.1.1 All workers including all women in road works understand CLS.	Contractors, with oversight from Social Development & Gender Consultant
	1.3.2 Ensure that contractors enforce CLS and the protection of labor rights and interests of employees, including equal pay for work of equal value between men and women. - <i>Keep accurate records of number or percent of men and women labor days and salary for skilled and unskilled labor per road. This data must be reflected in the GAP PR.</i> - <i>Monitor CLS enforcement on a monthly basis. This information must be reflected in the GAP PR.</i>	1.3.2.1 Average daily wage paid for unskilled labor to women and to men per major types of work. Target: no gender difference	
<b>Output 2: Road safety enforcement in project communes increased.</b>			
2.1 Increase women's involvement in and benefits from road safety awareness and enforcement	2.1.1 Involve communities and local people including women in road safety activities - <i>Service provider should keep accurate records of #/% of men and women participating in these events as (i) participants and (ii) facilitators.</i> - <i>Involve women as facilitators through schools, parent-teacher groups, local authorities, etc.</i> - <i>Target local taxi, bus, truck drivers in the awareness activities.</i>	2.1.1.1 All project roads have road safety signage and speed bumps to slow down traffic in local communities, especially in front of basic facilities, markets, religious buildings.  2.1.1.2 At least 50% of the participants and 30% of the facilitators in community-based road safety awareness activities are	PMU3, Road safety consultants, local authorities, with supervision from Social Development and Gender Consultant

GENDER OBJECTIVES	GENDER ACTIVITIES/ ACTIONS	PERFORMANCE INDICATORS/ TARGETS	RESPONSIBLE AGENCIES
		women in all school areas, by 2022.	
2.2 Mitigate HIV/AIDS and human trafficking risks due to improved connectivity and promote safe migration and CLS.	2.2.1 Implement HTAP during road works <i>- Keep accurate records of #/% of men/women participating in these events as (i) participants and (ii) facilitators.</i> <i>- Use ICT including social media and sms in addition to workshops and meetings.</i> <i>- Target schools, health centers, parent-teacher groups, and other local community centers and integrate into their regular information sharing activities and events.</i>	2.2.1.1 At least 40% of project beneficiaries (of which 50% women) in project areas participate in HTAP, by 2022.  2.2.1.2 At least 30% of the facilitators for HTAP are women, by 2022  2.2.1.3 All schools and health centers and local authorities in all 4 project areas are able to disseminate HTAP related information.	PMU3, local authorities, with supervision from Social Development and Gender Consultant
	2.2.2 Ensure contractors and labor force participate in training on HTAP. <i>- This should be included in the contracts and information on participation in monitoring reports.</i> <i>- Contractors should ensure condoms and CLS training and monitoring are made available to hired labour through the HTAP.</i>	2.2.2.1 100% of contractors' labor force participate in HTAP by 2021.	PMU3, local authorities, with supervision from Social Development and Gender Consultant
<b>Project management gender related activities and strengthening national systems for gender mainstreaming in MPWT</b>			
<ul style="list-style-type: none"> <li>• PMU staff to include 25% women (baseline 2016: PMU3 24 staff [6 female, 25%];</li> <li>• Appoint gender focal points for the project in the PMU</li> <li>• National Social Development and Gender consultant to be recruited to support GAP/HTAP implementation, monitoring and reporting, and strengthen national systems for gender mainstreaming in the sector by building capacity of the GMAG and gender focal points and PMU staff in gender analysis and mainstreaming, as well as advise GMAG on finalizing, disseminating, implementing, monitoring and reporting on the MPWT GMAP, as well as the other tasks outlined in TOR</li> <li>• Collect and analyze data disaggregated by sex where relevant and integrate gender sensitive indicators (from the DMF and the GAP) in the Project Performance Monitoring System.</li> <li>• Ensure regular monitoring and reporting (at least semi-annually to ADB together with the project progress reports, using the template provided in PAM to this effect).</li> </ul>			

CLS = Core Labour Standards; DMF = design and monitoring framework; GAP = gender action plan; GMAG = Gender Mainstreaming Action Group; GMAP = Gender Mainstreaming Action Plan; HTAP = HIV/AIDS and human trafficking awareness and prevention program; MPWT = Ministry of Public Works and Transport; PMU = project management unit.

200. The MPWT will ensure that the GAP is fully implemented in accordance with ADB's Policy on Gender and Development. The PMU3 will work in close coordination the GMAG on implementing the GAP and ensure alignment to the GMAP, through ICS collect sex disaggregated socio-economic baseline and impact assessment data.

## **HIV/AIDS and Human Trafficking Awareness and Prevention Program (HTAP)**

201. In the project provinces the level of women's knowledge of HIV prevention is lower than men's, and awareness is lower in rural areas than in urban areas. In November 2016, there were 646 cases of HIV/AIDS in project areas, 59% are women. Based on the experience from other civil works projects, the risk of increased HIV transmission is considered medium during the construction phase due to the presence of outside construction workers and the risk of increased human trafficking is considered low. Given the high rate of female HIV cases, a gender responsive HTAP have been prepared<sup>13</sup>. The HTAP will target 100% of the road works labor and 40% of the affected communities, including 50% women.

202. The Government, through MPWT, will ensure that agreed measures under the HTAP are fully implemented by the contractors to prevent HIV/AIDS transmission and human trafficking and promote safe migration and core labor standards associated with project activities. The details of HTAP will be subject to review and concurrence by ADB prior to the commencement of the road works. The HTAP will be implemented by the CW contractors for each of the 3 CW packages, with technical support, monitoring and oversight from the National Social Development and Gender expert to be recruited under the project.

203. HTAP involves conducting a public awareness campaign to prevent HIV/AIDS and human trafficking, and promote safe migration and core labor standards, aimed at the CW contractors and their labor force, local communities and other stakeholders, and aims to raise awareness of the risks, method of transmission and prevention of HIV/AIDS and Human Trafficking, as well as the promotion of safe migration and core labor standards.

### **A. OBJECTIVE OF THE HTAP**

204. The overall objective of the HTAP is to reduce vulnerability to the possible spread of HIV/AIDS, and prevent human trafficking, promote safe migration and core labor standards through building capacity at national and sub-national levels and implementing a public awareness campaign for the contractor's labor force, local people in the surrounding communities and other stakeholders in the project area. The expected outcome of the HTAP services in relation to this project is safe movement of women and men and girls and boys along the project roads. The expected results are that the capacity of relevant stakeholders to implement HTAP is strengthened; 100% of the contractors labor force and at least 40% of project beneficiaries in project areas participate in HTAP; the participants in the campaign indicate an understanding of the risks transmission and prevention of HIV/AIDS as well as human trafficking in structured surveys at the completion of the project. Further indicators include at least 50% of project beneficiaries in project areas who participate in HTAP are women and at least 30% of those who participate as facilitators are women.

### **B.**

### **C. SCOPE OF SERVICES**

205. The HTAP services are to be provided within the context of ongoing national HIV/AIDS and STIs Information, Education and Communication (IEC) campaigns of the National HIV and AIDS Authority (NAA) strategy; and the Ministry of Women's Affairs Anti-Trafficking Program, build on methodologies and lessons learned from similar HTAP campaigns under other roads projects in Cambodia.

206. The HTAP will complement and expand ongoing programs and activities in the project area (provincial, district and commune levels) and further strengthen national and local capacity

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<sup>13</sup> Output: Road Safety in Project Communes Improved (accessible from the list of linked documents in Appendix 2 of the RRP).

to carry out related programs. Human resource development, advocacy and IEC campaign, training and capacity building and supply of prevention and referral material will be the key interventions in the program. IEC materials such as brochures, posters, leaflets, banners, billboards, videos, etc. will be disseminated in public awareness campaigns, and messages will also be disseminated through the use of social media and sms. Key stakeholders, counterparts and role models such as commune leaders and council members, village heads, teachers, health workers, monks and other stakeholders will be mobilized and trained to participate in HTAP campaign implementation.

207. The HIV/AIDS awareness IEC materials will be based on the ADB and the International Organization for Migration (IOM) 2009<sup>14</sup> *For Life, With Love Training Tool for HIV Prevention in Road Construction Setting and Affected Communities* as a guide for the provision of HIV/AIDS education associated with transport. The anti-trafficking and core labor standards IEC materials can be based on previous or similar projects to ensure alignment and consistency.

208. Access and promotion of condom use will target both women, men and youth. The HTAP will encourage referral for voluntary blood tests, STI treatment and ARTs through available or existing government agencies which implement similar programs during project implementation. This is essential to maximize use of existing services and facilitate coordination with relevant government agencies.

209. To prevent human trafficking in the community, apart from the human trafficking and safe migration awareness program for the project communities, HTAP will provide phone numbers of village chiefs, commune councils, relevant NGOs and 24hours hotline of the Provincial Department Anti-Human Trafficking Police to ensure immediate transmission of information and action as soon as a missing case is reported. Information on support services for victims of trafficking will also be made available through appropriate means. HTAP will provide information and training on Core Labour Standards to CW contractors and their labor force, and monitor the reporting of compliance with CLS.

#### **D. ACTIVITIES AND TASKS**

210. The detailed tasks to be undertaken are presented below.

- (i) Conduct a rapid stakeholder analysis and capacity needs assessment among the sub national AIDS Committees, village health volunteers and commune health centers and schools and other key stakeholders on what knowledge and skills are needed to strengthen and/or effectively implement the HTAP. This will also provide information on the existing agencies/NGOs and other service providers implementing similar programs/services within the project area to ensure good coordination.
- (ii) Organize meetings with relevant government institutions, local authorities, CW contractors, and police to gather secondary data about the villages in the project areas under the RNIP, construction workers, people living with HIV/AIDS, domestic and gender based violence, migration patterns, families whose members are missing trafficked, places for male entertainment like karaoke and beer bars, etc. to prepare the profile on the situation in the project area. Consult target beneficiaries on what the most appropriate mechanisms, messages, communication channels are for IEC to different target groups, including different

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<sup>14</sup> ADB and IOM.2009. For Life, With Love: Training Tool for HIV Prevention in the Road Construction Setting and Affected Communities. Manila.

- groups of women.
- (iii) Based on the above develop a detailed program design, work-plan and budget, for capacity building for local counterparts and IEC public awareness campaigns targeting communities, civil works contractors and hired labor, schools, clinics, etc. The design shall include the detailed plans/activities, implementation schedule, resources needed and formulating targets and indicators for measuring the level of success of the program.
  - (iv) Develop gender responsive IEC materials based on existing packages and lessons learned from similar projects. The media for dissemination will include power-point slides, short videos posted online and shown at meetings, brochures, posters, leaflets, billboards, and social media, sms, to be confirmed during the needs assessment.
  - (v) Strengthen the capacity of relevant counterparts and stakeholders including community facilitators on the required knowledge and skills based on the result of capacity need assessment to implement the HTAP.
  - (vi) With support from the community facilitators and other key stakeholders trained, implement public awareness and education campaign, to be achieved through the following steps:
    - (a) Raising awareness and behavior change activities for HIV and STI prevention, safe migration and anti-trafficking and core labor standards
    - (b) Implementing social marketing through the condom use promotion and distribution at relevant and accessible points for the construction workers, target communities and entertainment facilities
    - (c) Supporting referral and encouraging vulnerable groups to access treatment services, as well as support services for victims of trafficking.
  - (vii) Organize training workshops for 100% of the road workers in the camp sites at the beginning of the civil works and a year later (follow up refresher training)

211. Monitoring and evaluation will be based on quality, timely data collection on progress and effectiveness of the activities implemented. Monitoring instruments will be prepared to serve as basis for data collection and monitoring the progress and impacts of the program on women and men. Gender sensitive targets and indicators that are measurable shall be formulated during the initial program planning stage. Bi-annual reports will be prepared and submitted to the PMU and key milestones included in the GAP.

## **E. BUDGET**

212. The HTAP has a budget of \$60,000.00 which will be financed from the project loan during the loan implementation period. Each civil works contract packages included a budget of \$20,000.00 to implement the HTAP in their specific project area as follows:

## **F.**

## **G. IMPLEMENTATION ARRANGEMENTS**

213. The MPWT will hire an International and a National Social Development and Gender Specialist under the implementation and supervision consulting team (ICS) and will also assist in providing technical advice, oversee and monitor the implementation of HTAP. The safeguard and social development focal point from PMU3 will be responsible for the overall implementation of the program.

214. As part of their standard bidding documents, construction contractors are required to ensure that their employees, sub-contractor's employees and local communities participate in HTAP campaigns. The MPWT and ICS will also monitor their compliance as part of the construction supervision activities. The activities will be conducted during project implementation, starting with capacity development for key stakeholders prior to the commencement of civil works,

and then targeting labor force and local communities during major civil works with follow up activities.



Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
3. Quality assurance for civil works in MPWT strengthened	By 2022: 3a. More than 50% of material quality control testing performed on government-funded roads (2016 baseline: Not applicable)  3b. Quality assurance audit annually conducted on 20% of ongoing road works of MPWT starting in 2020. (2016 baseline: 0 audits conducted)	3a.–3b. Project progress report	
4. Road safety enforcement in project communes improved	By: 2022 4a. At least 10 safe school zones established (2016 baseline: 0)  4b. At least 50,000 residents with increased awareness of traffic safety, of which are 30% are women (2016 baseline: 0)	4a.–4b. Project progress report	

### Key Activities with Milestones

#### 1. More safe and climate-resilient national roads delivered

- 1.1 Award civil works contracts by Q2 2018.
- 1.2 Complete one-digit national roads and provide routine maintenance in Q4 2022.
- 1.3 Implement gender action plan and HIV/AIDS awareness and human trafficking programs by Q3 2022

#### 2. Axle load control enhanced

- 2.1 Commence procurement of civil works contracts by Q1 2018.
- 2.2 Commence procurement of equipment by Q1 2018.
- 2.3 Provide training for staff in weigh station and mobile teams by Q4 2018.
- 2.4 Operationalize weigh stations and mobile teams to control vehicle overloading by Q2 2019.

#### 3. Quality assurance for civil works in the Ministry of Public Works and Transport strengthened

- 3.1 Undertake detailed design and prepare bidding documents for construction of laboratory buildings by Q1 2018.
- 3.2 Commence procurement of civil works contract for laboratory buildings by Q2 2018.
- 3.3 Complete civil works for laboratories by Q2 2019.
- 3.4 Commence procurement of laboratory equipment by Q2 2018.
- 3.5 Complete installation of equipment and training of staff by Q2 2019.
- 3.6 MPWT approves the standard operating procedure for laboratory network by Q2 2019.
- 3.7 Commence operation of regional laboratories and quality assurance wing in MPWT by Q2 2019.

#### 4. Road safety enforcement in project communes improved

- 4.1 Recruit a consulting firm by Q1 2018.
- 4.2 Carry out community-based road safety program by Q3 2022.

4.3 Provide safe school zones along the project roads by Q4 2021
<b>Project Management Activities</b> Start recruitment of project implementation and supervision consultant (advance action): August 2017.
<b>Inputs</b> Asian Development Bank: \$70.00 million (concessional loan from ordinary capital resources) Government of Cambodia: \$6.7 million
<b>Assumptions for Partner Financing</b> Not applicable

km = kilometer, MPWT = Ministry of Public Works and Transport, NR = national road, Q = quarter.

<sup>a</sup> Government of Cambodia. 2014. *National Strategic Development Plan 2014–2018*. Phnom Penh.

<sup>b</sup> Includes reinforced embankment slope protection, increased drainage capacity, and additional urban drains and outlets.

<sup>c</sup> Mixture of construction and routine maintenance contract.

Source: Asian Development Bank.

## B. Monitoring

215. **Project performance monitoring.** MPWT shall establish, within six months from the effective date, a project performance monitoring and evaluation system that shall operate throughout the life of the project. The project implementation consultant services will include qualified consultants to help establish the monitoring and evaluation system. The system shall be integrated with the existing management information system. At the initial stage, MPWT shall develop and conduct sample surveys to establish baseline data for subsequent performance monitoring and establish pre-project social and economic living conditions for the direct beneficiaries of the Project. MPWT shall ensure that sufficient data is gathered to monitor the indicators set out in the design and monitoring framework for the Project. The baseline and impact surveys shall include areas impacted by the Project and assess all interventions under the Project, including safeguards interventions. These baseline surveys shall be carried out within 12 months from the effective date. A second survey shall be carried out at the midterm review and a third survey shall be carried out at project completion.

216. Disaggregated baseline data for output and outcome indicators gathered during project processing will be updated and reported quarterly through the MPWT's quarterly progress reports and after each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.<sup>15</sup>

217. **Compliance monitoring.** ADB, with Government representatives, will undertake regular reviews of the Project at about 6-month intervals to assess compliance with the loan covenants. The ICS will assist ADB and MPWT in the preparation, updating and monitoring of interim milestones for each of the outputs as part of the 6-month concessional loan covenant compliance assessment.

218. **Safeguards monitoring.** The activities identified in the environment and resettlement plans will be monitored and reported as follows.

219. **Environmental Monitoring.** Semi-annual environmental monitoring reports will be

<sup>15</sup> ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

prepared by the ICS for submission to the PMU3 and then to ADB. Within three months after completion of each road component, an environmental acceptance monitoring report of the completed road will be prepared by the ICS. This final report on environment safeguards should provide information on the schedule of project component implementation, scope of works, implementation of mitigation measures and any additional or corrective actions, and the summary of the results of the monitoring program. The environmental acceptance reports for each national and provincial road will serve as inputs to the project completion report to be submitted to ADB.

220. **Resettlement Monitoring.** The implementation and effectiveness of the resettlement plan if any will be monitored both internally and externally. In the event the involuntary resettlement impact is classified as category B, the IRC will ensure that external monitoring will be carried out by an outside independent entity otherwise known as the external monitoring organization (EMO). The overall aim of this monitoring is to ensure that the resettlement plans are comprehensively updated and implemented in accordance with versions finally approved by both ADB and the IRC.

221. The main objectives of external monitoring is to provide an independent periodic review and assessment of (i) the completeness of the updating of the resettlement plan, including ensuring all resettlement impacts are iterated and addressed; (ii) appropriateness of compensation and assistance levels in accordance with the stated resettlement plan policy; (iii) completeness and timeliness of disbursement of monetary compensation and assistance as well as provision of other specified assistance measures; (iv) the effectiveness and inclusiveness of communication activities as well as grievance redress mechanism; and (v) the need for further mitigation measures. Strategic lessons for future policy formulation and planning will also be drawn from the monitoring and evaluation of resettlement. If a RP is implemented under the project, the EMO will conduct a post-resettlement implementation evaluation study to be carried out 6–12 months following completion of resettlement activities.

222. Adherence to the Resettlement Framework requirements will be monitored internally. Following detailed engineering design, GDR will conduct due diligence to assess if there are resettlement impacts expected based on the final design. GDR will submit a resettlement impact assessment due diligence report to ADB following completion of detailed engineering design in advance of commencement of civil works. The report will either confirm absence of resettlement impacts or set out the extent and nature of any expected resettlement impacts. GDR will conduct ongoing monitoring of adherence to the Resettlement Framework (and RP, if required) throughout implementation of civil works and include this in their quarterly project progress reports.

223. **Rehabilitation and Relocation.** Verify that resettlement assistance and/or replacement land have been provided as planned, that income rehabilitation programs (if any) are progressing appropriately and that affected persons are progressing appropriately in re-establishing their pre-project income and productive levels.

224. **Gender and social dimensions monitoring.** PMU3 will engage national gender specialist under ICS consulting services with 30 person months, to support the implementation and monitor GAP and HTAP and report on the GAP on a quarterly basis using the GAP Progress Report template (see Annex B). PMU3 will also monitor HTAP on a regular basis through the project performance management system and provide quarterly progress reports to ADB.

### C. Evaluation

225. ADB, with Government representatives will undertake regular reviews of the Project at about 6-month intervals to assess the potential risk for achieving the project outcome. In addition

to these regular reviews, a comprehensive midterm review of Project implementation will be carried out at the end of the second year of the project implementation. This midterm review will allow for any necessary midcourse corrections. Within 6 months of physical completion of the Project, MPWT will submit a project completion report to ADB.<sup>16</sup> About 1 year after project completion, ADB will conduct a project completion review to document the achievements of the Project.

#### **D. Reporting**

226. The MPWT will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, should be adequately reviewed.

#### **E. Stakeholder Communication Strategy**

227. The MPWT will ensure that agreed measures under the Stakeholder Communications Strategy are fully implemented to promote participation and awareness of project activities and impacts of all key stakeholders and including vulnerable groups, in particular with respect to Environmental Management Plan implementation, resettlement impacts and entitlements, the grievance redress mechanism, HIV/trafficking prevention, road safety, and civil works related labor standards and opportunities.

228. The stakeholder communication strategy is based on the principles of transparency, timeliness, participation, meaningful engagement, and inclusiveness. Means of communication and consultation are to promote participation of those who may otherwise tend to be marginalized such as women, indigenous people, elderly, and the poor. Stakeholder communication will encompass institutional stakeholders, communities within the project area, and persons directly affected by the project.

229. Communities within the project area as well as individuals directly affected by the project have a natural vested interest in the effectiveness of project implementation as well as mitigation of negative impacts and maximization of project benefits and are stakeholders.

230. Such consultation shall take place as early as possible and continue throughout the project implementation. Consultation will include information on project objectives and policies, project technical design, implementation activities and schedules; potential and actual impacts and risks such as environmental, resettlement, livelihood, access restrictions, HIV/AIDS transmission, and human trafficking along with mitigation measures; benefit and opportunities; institutional arrangements; GRM; and the results of project monitoring and evaluation. All significant communications will be recorded and stakeholders will have the opportunity to present questions, opinions and suggestions. The planned consultation and disclosure measures are shown in Table 15.

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<sup>16</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>



**Table 15: Planned Consultation Activities and Disclosure Measures**

ISSUE	TARGET AUDIENCE	MEANS OF COMMUNICATION	RESPONSIBLE	TIMING
<b>RESETTLEMENT</b>				
<p>Disclose Resettlement Framework on ADB and MPWT websites prior to Management Review Meeting. Following detailed engineering design also disclose on ADB and MPWT websites, resettlement impact assessment due diligence report and, if required, a Resettlement Plan when available, as well as all monitoring reports.</p> <p>In the event that the project is subsequently assessed as having resettlement impacts, distribute information booklets and consultation with the local people and local government agencies following detailed design and updating resettlement plan, prior to start of civil works/project implementation, to explain resettlement policy, procedures, entitlements, grievance redress mechanism, resettlement impacts, timing of resettlement actions, when the CW will start, could clarify issues, and address issues that may arise during project implementation.</p>	<p>Government agencies, local government authorities (Provincial, District and Commune);</p> <p>Local people/ Communities (40% women) along project alignment.</p>	<p>Public consultations, meetings with the concerned local authorities/people.</p>	<p>PMU3 / SEO with support of ISC consultants (Resettlement, Social Development/Gender specialist)</p>	<p>Prior to commencement of civil works</p>
<b>ENVIRONMENTAL</b>				
<p>Environmental issues/problems that may arise during civil works (i.e., dust, noise, pollution), and other issues.</p>	<p>Local government authorities (Provincial, District and Commune);</p> <p>Local people/ communities along project alignment;</p>	<p>Public consultations, meetings with the concerned local authorities/people.</p>	<p>PMU3 / SEO with support of ICS consultants (Environment Specialist);</p>	<p>Prior to commencement of civil works; regular monitoring (monthly, quarterly).</p>

ISSUE	TARGET AUDIENCE	MEANS OF COMMUNICATION	RESPONSIBLE	TIMING
	contractor; local labor force; 40% women.			
<b>OTHER SOCIAL IMPACT ISSUES</b>				
Project Grievance Redress Mechanism (covering any issues of concern)	Local communities in the project areas, people directly affected by the project.	Public information meetings, public announcement in local communities, project notice boards during implementation (for PMU3 hotline).	PMU3/SEO, local authorities	Ongoing during project implementation
HTAP	Civil works employees (Target 100% of the labor force, men and women); Local people/households/ Communities (50% women) along project alignment.	Targeted information meetings; IEC materials.	Social Development/Gender specialist, in collaboration with the civil works contractors;	Prior to commencement of civil works and throughout project implementation.
Opportunities for project work.	Local people/households/ communities (40% women) along project alignment.	Public announcements in local communities, and ensure equal opportunities for men and women in the hiring by the contractors.	Civil works contractors; with support of ISC (ensure promotion of women's participation, as stated in the GAP);	Prior to commencement of civil works and throughout project implementation
Implementation schedule, restricted access, disruptions, hazards, road safety, etc.	Local people/households/ Communities (40% women) along project alignment.	Public information meetings, consultations, public announcements in local communities.	PMU3/SEO, local authorities, ISC, contractors.	Ongoing during project implementation.

ADB = Asian Development Bank; ISC = implementation and supervision consultants; GAP = gender action plan; HTAP = HIV/AIDS and human trafficking awareness and prevention program; IEC = information education and communication; MPWT= Ministry of Public Works and Transport; PMU = project management unit; SEO = social and environment office.

## X. ANTICORRUPTION POLICY

231. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>17</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.<sup>18</sup>

232. To support these efforts, relevant provisions are included in the loan agreement/regulations and the bidding documents for the project. Moreover, the Government will ensure that all of the MPWT staff are fully aware of and comply with the Government's and ADB's procedures, including procedures for (i) implementation, (ii) procurement, (iii) use of consultants, (iv) disbursement, (v) reporting, (vi) monitoring, and (vii) prevention of fraud and corruption.

233. In addition to the above requirements, the MPWT will set up a project website that shall disclose how the loan proceeds are being used and the contracts awarded, including: (i) the list of participating bidders; (ii) the name of the winning bidder; (iii) basic details on bidding procedures adopted; (iv) the amount of the contract awarded; (v) the list of goods and/or services purchased; and (vi) the resettlement monitoring reports. The website shall be updated within two weeks after: (i) each award of contract; and (ii) each submission of the semi-annual monitoring reports on resettlement.

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<sup>17</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>18</sup> ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

## **XI. ACCOUNTABILITY MECHANISM**

234. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>19</sup>

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<sup>19</sup> Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

## **XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

235. This PAM describes the essential administrative and management requirements to implement the financing for the project. ADB, the government, and MPWT PMU3 prepared this PAM during the fact-finding from 21 November to 1 December 2016. This PAM was discussed during the loan negotiations on 18 August 2017. All revisions/updates during course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

## **Annex A: OUTLINE OF A CONTRACTOR'S ENVIRONMENTAL MANAGEMENT PLAN (CEMP)**

### **I. INTRODUCTION**

- A. Project Description
- B. Purpose of CEMP

### **II. PACKAGE COMPONENTS**

- A. **Brief Description of Package – Provide Map with Clear Delineation of Boundaries**
  - a. Land Use/Terrain within 1 kilometer radius from package alignment
  - b. Sensitive Areas – List down schools, temples, hospitals, protected areas, historical sites, residential areas, etc.; indicate their approximate distances from road alignment and associated facilities; show in map

### **III. Facilities Associated with Package – brief description of each, describing the activities; show locations in a map (may be integrated in previous map); if actual location is not yet available at this time, indicate date when it will be available; also indicate the water bodies if any**

- a. Project Camp/Construction Camp
- b. Batching Plant
- c. Construction or Fabrication Yard/ Maintenance Areas
- d. Borrow Pits/Quarries
- e. Spoils Disposal Areas
- f. Solid Waste Disposal Areas
- g. Drainage Plans
- h. Bridges
- i. Wastewater Treatment Facilities – indicate the kind of treatment, including settling ponds if applicable and disposal for effluent, including the receiving body of water with a description of its present use
- j. Material balance – cut and fill requirements; material sources

### **IV. MITIGATION MEASURES FOR CONSTRUCTION IMPACTS (refer to project EMP/IEE for a rundown of possible mitigation measures; include only the measures applicable to the contract package; add other measures not included)**

- a. Relocation of utilities (prior to site works)
- b. Tree cutting/vegetation clearing (including permits, re-planting/balling if necessary, etc.)
- c. Air quality
- d. Noise and vibration
- e. Water quality
- f. Wastewater (this should cover all wastewater resulting from contractors/subcontractors activities/facilities such as workers' camps/construction camps, batching plants, etc.)
- g. Solid waste (contractors shall not allow burning of any type of waste)
- h. Spoils disposal
- i. Erosion and Sedimentation
- j. Hazardous substances (and other dangerous materials such as explosives)
- k. Protection of flora and fauna
- l. Health and safety of workers (including safety measures due to blasting as well as accommodation and basic amenities, water supply, first aid provisions, etc.)

- m. Public safety
- n. Traffic management
- o. Archaeological finds
- p. Vegetation clearing
- q. Restoration of borrow areas restoration of sites used for temporary facilities
- r. Maintenance of access roads used for the Project
- s. Damage to properties and community facilities (structures, plantation, drainage, canals, agricultural land, etc.)

**V. ENVIRONMENTAL MONITORING PROGRAM**

**A. Contractor Environmental Compliance Inspection and Monitoring**

Monitoring Locations: At all sites under construction

Monitoring Frequency: Weekly during construction period

Refer to sample EMP Implementation Monitoring Checklist

**B. DDIS/CSC and SEO Monitoring**

Monitoring Locations: At all sites under construction

Monitoring Frequency: Monthly during construction period

Refer to sample EMP Implementation Monitoring Checklist

**VI. INSTITUTIONAL SETUP FOR CEMP IMPLEMENTATION - responsibilities for CEMP implementation (including diagram of organizational structure, name and designation of designated staff, specific responsibilities)**

- A. Organizational Setup
- B. Description of Responsibilities
- C. Training Program – for workers, subcontractors, etc. (Describe the training program – topics, participants, duration, venue, etc.)
- D. Reporting Procedure
- E. List of Applicable Permits (attach as annex English translation)

**VII. REPORTING AND PUBLIC DISCLOSURE**

**VIII. GRIEVANCE REDRESS MECHANISM**

**IX. COST ESTIMATE FOR EMP IMPLEMENTATION AND MONITORING PROGRAM**

- A. Budget for Taking Mitigation Measures (indicate if included in package contract)
- B. Monitoring Expenses
- C. Cost for Training
- D. Total Cost for Implementing Environmental Management Plan

**X. CHECKLIST FOR FIELD INSPECTION (see separate file)**

**APPENDIX**

- 1. English copies of applicable permits
- 2. EMP Implementation Monitoring Checklist
- 3. Photographs

## Annex B: GAP Reporting Template

### GENDER ACTION PLAN MONITORING TABLE

Date of Update: \_\_\_\_\_

<b>Project Title:</b>	Road Network Improvement Project
<b>Country:</b>	Cambodia
<b>Project No.:</b>	41123-015
<b>Type of Project (Loan/Grant/TA):</b>	Loan
<b>Approval and Timeline:</b>	xxx
<b>Gender Category:</b>	effective gender mainstreaming
<b>Mission Leader:</b>	Erdene Oyunchimeg
<b>Project Impact:</b>	The development of transport infrastructure that contributes to the enhancement of national competitiveness and people's welfare
<b>Project Outcome:</b>	Transport efficiency increased on the Greater Mekong Subregion Southern Economic Corridor and connecting project roads

<p style="text-align: center;"><b>Gender Action Plan</b> <b>Activities, Indicators and Targets, Timeframe and Responsibility</b></p>	<p style="text-align: center;"><b>Progress to date (as of _____)</b> (This should include information on period of actual implementation, sex-disaggregated quantitative updates (e.g. number of participating women, women beneficiaries of services, etc.), and qualitative information. However, some would be on-going - so explain what has happened so far towards meeting the target.</p>	<p style="text-align: center;"><b>Issues and Challenges</b> (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc., and provide recommendations on ways to address issues and challenges)</p>
<p><b>Output 1: Safe and climate resilient national and provincial roads completed.</b></p>		
<p>11.1.1 Encourage participation of local people including women in consultations during the project implementation. <i>- record women participation in terms of numbers, percentage, and how their suggestions and concerns have been addressed.</i></p> <p>1.1.1.1 Number of local people who participate in consultations on project design and implementation disaggregated by sex. Target: at least 40% women for each road.</p> <p>1.1.1.2 Relevant clauses on core labor standards (including gender-specific ones such as equal pay for equal work, equal opportunities for employment) are included in all bidding and contract documents</p>		
<p>1.2.1 Ensure women benefit from unskilled jobs. <i>- Facilitate safe and conducive environment for women’s employment in road works through creation of women’s groups if appropriate; skills enhancement; on-site clean toilets</i></p> <p>1.2.1.1 Contractors’ cumulative unskilled labor days will be for at least 20% women, for all roads, by 2022.</p>		
<p>1.3.1 Raise awareness on core labor standards (CLS) among contractors and road workers. <i>-Include compliance with CLS in the bidding documents and contracts for the road labour and as part of their induction training.</i></p> <p>1.3.1.1 All workers including all women in road works understand CLS.</p>		

<p align="center"><b>Gender Action Plan</b> <b>Activities, Indicators and Targets, Timeframe and Responsibility</b></p>	<p align="center"><b>Progress to date (as of _____)</b> (This should include information on period of actual implementation, sex-disaggregated quantitative updates (e.g. number of participating women, women beneficiaries of services, etc.), and qualitative information. However, some would be on-going - so explain what has happened so far towards meeting the target.</p>	<p align="center"><b>Issues and Challenges</b> (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc., and provide recommendations on ways to address issues and challenges)</p>
<p>1.3.2 Ensure that contractors enforce CLS and the protection of labor rights and interests of employees, including equal pay for work of equal value between men and women.  <i>- Keep accurate records of number or percent of men and women labor days and salary for skilled and unskilled labor per road. This data must be reflected in the GAP PR.</i>  <i>- Monitor CLS enforcement on a monthly basis. This information must be reflected in the GAP PR</i></p> <p>1.3.2.1 Average daily wage paid for unskilled labor to women and to men per major types of work. Target: no gender difference</p>		
<p><b>Output 2: Road safety enforcement in project communes increased.</b></p>		
<p>2.1.1 Involve communities and local people including women in road safety activities  <i>-Service provider should keep accurate records of #/% of men and women participating in these events as (i) participants and (ii) facilitators.</i>  <i>-Involve women as facilitators through schools, parent-teacher groups, local authorities, etc.</i>  <i>- Target local taxi, bus, truck drivers in the awareness activities.</i></p> <p>2.1.1.1 All project roads have road safety signage and speed bumps to slow down traffic in local communities, especially in front of basic facilities, markets, religious buildings.</p> <p>2.1.1.2 At least 50% of the participants and 30% of the facilitators in community-based road safety awareness activities are women in all school areas, by 2022.</p>		

<p align="center"><b>Gender Action Plan</b> <b>Activities, Indicators and Targets, Timeframe and Responsibility</b></p>	<p align="center"><b>Progress to date (as of _____)</b> (This should include information on period of actual implementation, sex-disaggregated quantitative updates (e.g. number of participating women, women beneficiaries of services, etc.), and qualitative information. However, some would be on-going - so explain what has happened so far towards meeting the target.</p>	<p align="center"><b>Issues and Challenges</b> (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc., and provide recommendations on ways to address issues and challenges)</p>
<p>2.2.1 Implement HTAP during road works                      - <i>Keep accurate records of #/% of men/women participating in these events as (i) participants and (ii) facilitators.</i>                      - <i>Use ICT including social media and sms in addition to workshops and meetings.</i>                      - <i>Target schools, health centers, parent-teacher groups, and other local community centers and integrate into their regular information sharing activities and events.</i></p> <p>2.2.1.1 At least 40% of project beneficiaries (of which 50% women) in project areas participate in HTAP, by 2022.</p> <p>2.2.1.2 At least 30% of the facilitators for HTAP are women, by 2022</p> <p>2.2.1.3 All schools and health centers and local authorities in all 4 project areas are able to disseminate HTAP related information.</p>		
<p>2.2.2 Ensure contractors and labor force participate in training on HTAP.                      - <i>This should be included in the contracts and information on participation in monitoring reports.</i>                      - <i>Contractors should ensure condoms and CLS training and monitoring are made available to hired labour through the HTAP.</i></p> <p>2.2.2.1 100% of contractors' labor force participate in HTAP by 2021.</p>		

CLS = Core Labour Standards; DMF = design and monitoring framework; GAP = gender action plan; GMAG = Gender Mainstreaming Action Group; GMAP = Gender Mainstreaming Action Plan; HTAP = HIV/AIDS and human trafficking awareness and prevention program; MPWT = Ministry of Public Works and Transport; PMU = project management unit.

Comments/ Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Accomplished by: \_\_\_\_\_

Date Accomplished: \_\_\_\_\_