

# Project Administration Manual

Project Number: 47086-002  
September 2014

Republic of the Union of Myanmar: Maubin–  
Phyapon Road Rehabilitation Project

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

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

Public Works of the Ministry of Construction (MOC) is wholly responsible for the implementation of the ADB-financed project, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff are responsible to support implementation including compliance by Public Works of MOC of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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.

After ADB Board approval of the project's report and recommendations of the President, 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.

## ABBREVIATIONS

ADB	–	Asian Development Bank
CEMP	–	contractors' environmental management plan
EMP	–	environmental management plan
FIDIC	–	International Federation of Consulting Engineers (Fédération Internationale Des Ingénieurs-Conseils)
FMA	–	financial management assessment
FMS	–	financial management system
HDM	–	Highway Development and Management
ICB	–	international competitive bidding
IEE	–	initial environmental examination
km	–	kilometer
MIS	–	management information system
MOF	–	Ministry of Finance
MOC	–	Ministry of Construction
NCB	–	national competitive bidding
PAM	–	project administration manual
PMU	–	project management unit
QCBS	–	quality- and cost-based selection
SOE	–	statement of expenditure
SPS	–	safeguards policy statement
TOR	–	terms of reference

## I. PROJECT DESCRIPTION

### A. Rationale

1. The project will support the rehabilitation of the Maubin to Phyapon road, hereinafter referred to as the project road. The project will also provide equipment for the Ministry of Construction (MOC) and Public Works research laboratories and testing facilities.

### B. Impact and Outcome

2. The impact of the project will be improved economic activities in the eastern Ayeyarwaddy Delta. The project outcome will be reduced travel time and transport costs in the project area. The Design and Monitoring Framework is presented in Part IX below.

### C. Outputs

3. The project will have two outputs: (i) rehabilitated 54.5 kilometer (km) road from Maubin to Phyapon, and (ii) improved testing facilities at MOC and Public Works laboratories and offices.

4. **Output 1: The rehabilitated 54.5 kilometer road from Maubin to Phyapon.** The completed road will have two traffic lanes throughout its length, with about 50 km of flexible pavement through rural areas, and about 4.5 km of rigid pavement through urban areas, specifically in the townships of Kyaiklat and Phyapon. The rehabilitation works will also include provision of a permanent two-lane superstructure for the existing Oo Yin Chaung bridge (Km. 25), replacement of the existing substandard Kyee Chaung bridge (Km. 28), and reconstruction of a bridge within Kyaiklat town.

5. **Output 2: Improved Testing Facilities for MOC and Public Works laboratories and offices.** The output will finance the purchase of (i) testing facilities for MOC and Public Works laboratories and offices, and for Yangon Road Research Laboratory; (ii) bridge testing equipment, and (iii) testing equipment at Public Works offices. The proposed scope and implementation arrangements for Output 2 are presented in Section VI.

## **II. IMPLEMENTATION PLANS**

6. The project is expected to be approved in November 2014. After loan effectiveness, anticipated in April 2015, the project implementation period is three years. The loan closing date will be 30 September 2018. The project is expected to be physically completed by 31 March 2018. Monitoring of project performance and outcome will be until 31 July 2019, including preparation of the project completion report. The project's milestones of readiness activities and overall project implementation are as follows:

**A. Project Readiness Activities**

ADB	2014												2015						Responsible
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Indicative Activities																			
Assistance with advance contracting actions		X	X	X	X	X	X	X	X	X	X	X	X						ADB
Establish project implementation arrangements		X	X																ADB
ADB Board Approval											X								ADB
Loan Signing													X						ADB/GOM
Loan Effectiveness																X			ADB/GOM

ADB = Asian Development Bank, GOM = Government of Myanmar.

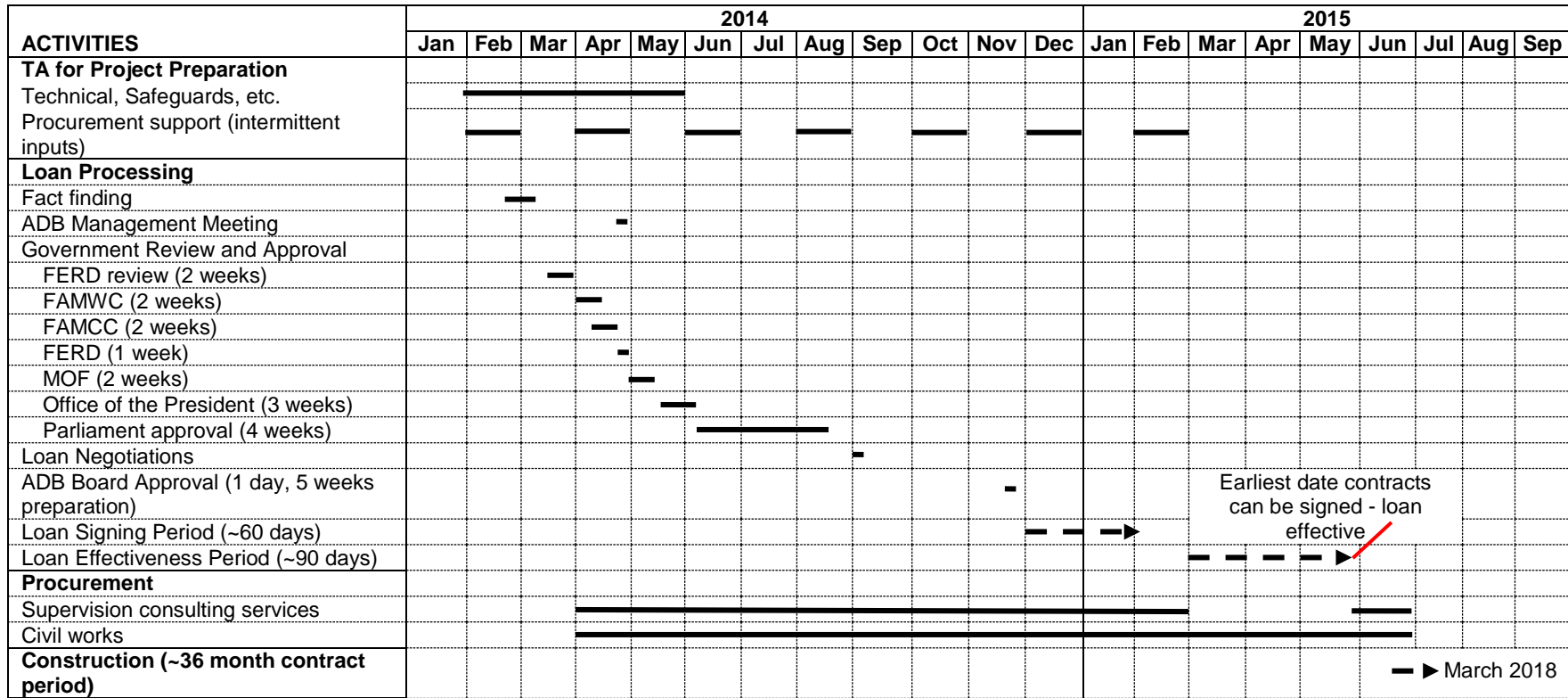
Government of Myanmar	2014												2015						Responsible
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Indicative Activities																			
Establish PMU			X	X															MOC/PW
Advance procurement action			X	X	X	X	X	X	X	X	X	X	X	X					MOC/PW
Establish project implementation arrangements			X	X															MOC/PW
Counterpart funds allocated for first year				X															MOC/MOF
Final PAM endorsed									X										MOC/ADB
Government approval obtained			X	X	X	X													GOM/ President/ Parliament
Government legal opinion provided														X					GOM/ADB
Loan effectiveness																X			ADB

ADB = Asian Development Bank, GOM = Government of Myanmar, MOC = Ministry of Construction, MOF = Ministry of Finance, PAM = project administration manual, PMU = project management unit, PW = Public Works.

Source: Asian Development Bank.



## B. Project Implementation Schedule



Earliest date contracts can be signed - loan effective

█ ► March 2018

ADB = Asian Development Bank, FAMCC = Foreign Aids Management Central Committee, FAMWC = Working Committee, FERD = Foreign Economic Relations Department, MOF = Ministry of Finance, TA = technical assistance.  
Source: Asian Development Bank.

### III. PROJECT MANAGEMENT ARRANGEMENTS

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

Project Implementation Organizations	Management Roles and Responsibilities
<b>Executing Agency</b>	
<ul style="list-style-type: none"> <li>• Ministry of Construction</li> <li>• Public Works</li> </ul>	<ul style="list-style-type: none"> <li>• Responsible for overall project implementation</li> <li>• Establishment of the PMU;</li> <li>• Timely provision of agreed counterpart funds for project activities;</li> <li>• Recruiting and supervising consultants and contractors;</li> <li>• Quality assurance of works and services of consultants, contractors and counterpart staff;</li> <li>• Establishing a strong financial management system and submitting timely withdrawal applications to ADB, ensuring financial audits are conducted as per agreed timeframe and taking recommended actions;</li> <li>• Complying with all covenants in the Loan Agreement; and</li> <li>• Collecting and retaining all support documents, reporting documents and annual audit reports and financial statements.</li> </ul>
<ul style="list-style-type: none"> <li>• Project Management Unit</li> </ul>	<ul style="list-style-type: none"> <li>• Finalizing bidding documents, managing the procurement of consultants and contractors, and finalizing contract awards;</li> <li>• Monitoring and evaluation of project activities and outputs, including periodic review, preparation of review reports, identifying issues and action plans; and</li> <li>• Preparing regular periodic progress reports, and the project completion report</li> </ul>
<ul style="list-style-type: none"> <li>• Ministry of Finance</li> </ul>	<ul style="list-style-type: none"> <li>• Signing the Loan Agreement;</li> <li>• Allocating and releasing counterpart funds;</li> <li>• Providing ADB with details of the authorized staff with specimen signatures for withdrawal application processing; and</li> <li>• Processing and submitting to ADB any request, when required, for reallocating the loan proceeds.</li> </ul>
<b>Asian Development Bank</b>	<ul style="list-style-type: none"> <li>• Assist MOC, Public Works and the PMU in providing timely guidance at each stage of project implementation in accordance with the agreed implementation arrangements;</li> <li>• Review all the documents that require ADB approval;</li> <li>• Conduct an inception mission, periodic loan</li> </ul>

Project Implementation Organizations	Management Roles and Responsibilities
	<p>review missions, a mid-term review, a completion mission for the project, and an overall project completion mission;</p> <ul style="list-style-type: none"> <li>• Monitor and ensure compliance with all loan covenants;</li> <li>• Process withdrawal applications and release payments to contractors, consultants, and others as appropriate;</li> <li>• Monitor compliance with financial audit recommendations;</li> <li>• Regularly update ADB's project performance review reports with assistance from Public Works and progress reports; and</li> <li>• Regularly post on the ADB website the updated project information documents for public disclosure.</li> </ul>

ADB = Asian Development Bank, MOC = Ministry of Construction, PMU = project management unit

## B. Key Persons Involved in Implementation

### Executing Agency

Ministry of Construction/Public Works

Officer's Name U Kyaw Linn  
 Position Managing Director  
 Telephone +95 67 407 073  
 Email address [eekyawlinn@gmail.com](mailto:eekyawlinn@gmail.com)

PMU

Officer's Name U Aung Myint Oo  
 Position Project Director  
 Telephone +95 67 407 073 or  
 +95 98615172  
 Email address [aungmyintoo6183@gmail.com](mailto:aungmyintoo6183@gmail.com)

### ADB

Southeast Asia Transport and Communications Division (SETC)

Staff Name Hideaki Iwasaki  
 Position Director  
 Telephone No. (632) 632 5413  
 Email address [hiwasaki@adb.org](mailto:hiwasaki@adb.org)

Myanmar Resident Mission

Staff Name Winfried Wicklein  
 Position Country Director  
 Telephone No. +95 9450038822  
 Email Address [wwicklein@adb.org](mailto:wwicklein@adb.org)

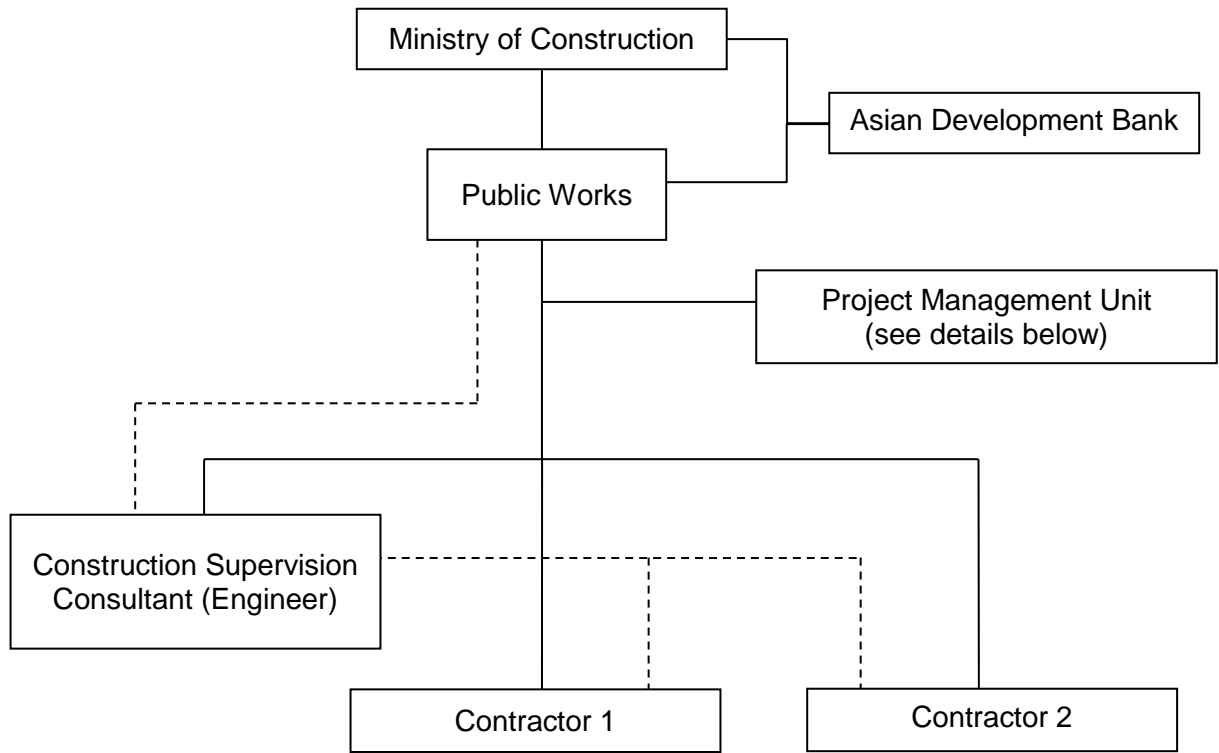
Mission Leader

Staff Name James Leather  
 Position Principal Transport Specialist  
 Telephone No. (632) 632 6605  
 Email address [jleather@adb.org](mailto:jleather@adb.org)

### **C. Project Organization Structure**

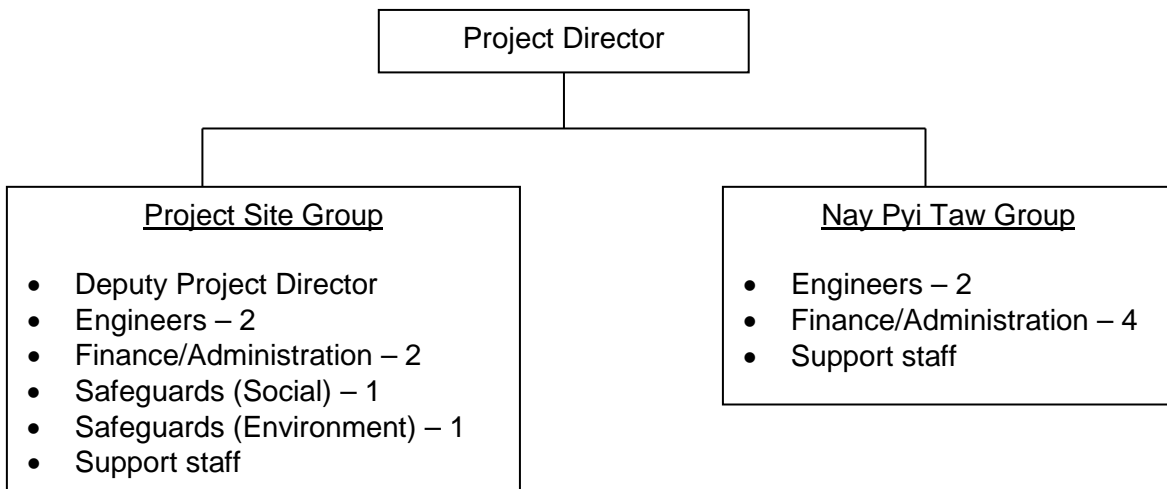
7. The project's executing agency will be MOC, and the implementing agency will be Public Works. Public Works will establish a project management unit (PMU) that will be responsible for the day-to-day management of the project. The PMU will be headed by a full-time project director of at least superintending engineer level, and will be staffed with engineering, financial, administrative and safeguards specialists. The PMU will be based in Naypyitaw, with an appropriately staffed and resourced office within the project area. Below is an outline organization chart for the project and for the PMU.

**PROJECT ORGANIZATION CHART**



— Administrative relationship  
 - - - Contractual relationship

**PROJECT MANAGEMENT UNIT**



#### IV. COSTS AND FINANCING

8. The estimated project cost is \$80.8 million equivalent, including physical and price contingencies, financing charges during implementation, and taxes and duties. ADB will provide a loan of Special Drawing Rights (SDR) 52,695,000 (\$80.0 million equivalent) from the Asian Development Fund to cover the costs of (i) civil works; (ii) consulting services for construction supervision and project implementation support; (iii) incremental operating expenditure, (iv) equipment; and (iii) interest during implementation. The cost of resettlement, utility relocation, and replanting roadside trees will be funded by the Government of Myanmar. The contribution of the Government is estimated at (\$0.8 million equivalent). The investment plan is summarized in the following tables.

**Table 1: Project Investment Plan**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Investment Costs<sup>b</sup></b>	
1. Civil Works	55.2
2. Mechanical and Equipment	2.3
3. Environment and Social Mitigation	0.8
4. Construction Supervision and Project Implementation Support <sup>c</sup>	4.0
5. Incremental Administration Costs	0.4
<b>Subtotal (A)</b>	<b>62.7</b>
<b>B. Contingencies<sup>c</sup></b>	
1. Physical	6.3
2. Price	10.2
<b>Subtotal (B)</b>	<b>16.5</b>
<b>C. Financing Charges During Implementation</b>	
1. Interest During Implementation <sup>d</sup>	1.6
<b>Subtotal (C)</b>	<b>1.6</b>
<b>Total Project Cost (A+B+C)</b>	<b>80.8</b>

<sup>a</sup> Includes taxes and duties of about \$3.6 million to be financed from Asian Development Bank (ADB) loan resources. The estimated taxes are reasonable as a proportion of the overall project cost, and their financing through the project loan will facilitate project implementation.

<sup>b</sup> In March 2014 prices.

<sup>c</sup> Constitutes consulting services.

<sup>d</sup> Physical contingencies computed at 10% for all items. Price contingencies computed at 2.2% on foreign exchange costs in 2015, and 1.8% in 2016 and 2017; and 5.6% on local currency costs in 2014, 6.3% in 2015, and 5.2% in 2016 and 2017. The price contingencies include provision for the potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>e</sup> Interest during implementation will be financed by ADB

Source: Asian Development Bank.

9. The ADB loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the loan agreement.

10. The financing plan is in Table 2.

**Table 2: Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank	80.0	99.0
Government	0.8	1.0
<b>Total</b>	<b>80.8</b>	<b>100.0</b>

Source: Asian Development Bank.

A. Detailed Cost Estimates by Expenditure Category

**Table 3: Detailed Cost Estimates by Expenditure Category**  
(\$ million)

Item	Total Cost	% of Total Base Cost
<b>A. Investment Costs</b>		
1. Civil Works	55.2	68.32
2. Mechanical and Equipment	2.3	2.85
3. Environment and Social Mitigation	0.8	0.99
4. Construction Supervision and Project Implementation Support <sup>a</sup>	4.0	4.95
5. Incremental Administration Costs	0.4	0.50
<b>Subtotal (A)</b>	<b>62.7</b>	<b>77.60</b>
<b>B. Contingencies</b>		
1. Physical	6.3	7.80
2. Price	10.2	12.62
<b>Subtotal (B)</b>	<b>16.5</b>	<b>20.42</b>
<b>C. Financing Charges During Implementation</b>		
1. Interest During Implementation	1.6	1.98
<b>Subtotal (C)</b>	<b>1.6</b>	<b>1.98</b>
<b>Total Project Cost (A+B+C)</b>	<b>80.8</b>	<b>100.00</b>

<sup>a</sup> Constitutes Consulting Services

Source: ADB estimates.



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

11. Table 4 sets forth the categories of works and other items to be financed out of the proceeds of the loan and the allocation of amounts to each such category.

**Table 4: Allocation and Withdrawal of Loan Proceeds**

<b>ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS</b>			
<b>Maubin-Phyapon Road Rehabilitation Project</b>			
<b>Number</b>	<b>Item</b>	<b>Amount Allocated (SDR) Category</b>	<b>Basis for Withdrawal from the Loan Account</b>
1	Works	36,360,000	100% of total expenditure claimed
2	Materials and Equipment	1,515,000	100% of total expenditure claimed
3	Construction Supervision and Project Implementation Support	2,635,000	100% of total expenditure claimed
4	Incremental Administrative Costs	263,000	100% of total expenditure claimed
5	Unallocated	10,868,000	
6	Interest during Implementation	1,054,000	100% of amounts due
	Total	52,695,000	

C. Detailed Cost Estimates by Financier

**Table 5: Detailed Cost Estimates by Financier  
(\$million)**

Items	ADB		Government		Total Cost
	Amount	% of Cost Category	Amount	% of Cost Category	
<b>A. Investment Costs<sup>a</sup></b>					
1. Civil Works	55.2	100.0	0.0	0.0	55.2
2. Mechanical and Equipment	2.3	100.0	0.0	0.0	2.3
3. Environment and Social Mitigation	0.0	0.0	0.8	100.0	0.8
4. Construction Supervision and Project Implementation Support <sup>b</sup>	4.0	100.0	0.0	0.0	4.0
5. Incremental Administration Cost <sup>c</sup>	0.4	100.0	0.0	0.0	0.4
<b>Subtotal (A) (Base Cost)</b>	<b>61.9</b>	<b>98.7</b>	<b>0.8</b>	<b>1.3</b>	<b>62.7</b>
<b>B. Contingencies</b>	<b>16.5</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>16.5</b>
<b>C. Financing Charges During Implementation</b>	<b>1.6</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.6</b>
<b>Total Project Cost (A+B+C)</b>	<b>80.0</b>	<b>99.0</b>	<b>0.8</b>	<b>1.0</b>	<b>80.8</b>
<b>% Total Project Cost</b>		<b>99.0</b>		<b>1.0</b>	

ADB = Asian Development Bank.

<sup>a</sup> Includes taxes and duties of \$3.6 million to be financed by ADB loan resources.

<sup>b</sup> Constitutes Consulting Services

<sup>c</sup> Costs to be financed include PMU travel allowances, office operation and maintenance, utilities, and consumable supplies.

Note: Government will finance annual audits.

Source: ADB estimates.

D. Detailed Cost Estimates by Outputs/Components

Table 6: Detailed Cost Estimates by Outputs

Items	(\$ million)				
	Total Cost	Output 1		Output 2	
		Amount	% of Cost Category	Amount	% of Cost Category
<b>A. Investment Costs</b>					
1. Civil Works	55.2	55.2	100.0	0.0	0.0
2. Mechanical and Equipment	2.3	0.0	0.0	2.3	100.0
3. Environment and Social Mitigation	0.8	0.8	100.0	0.0	0.0
4. Construction Supervision and Project Implementation Support <sup>a</sup>	4.0	4.0	100.0	0.0	0.0
5. Incremental Administration Costs	0.4	0.4	100.0	0.0	0.0
<b>Subtotal (A)</b>	<b>62.7</b>	<b>60.4</b>	<b>96.3</b>	<b>2.3</b>	<b>3.7</b>
<b>B. Contingencies</b>					
1. Physical	6.3	3.8	23.0	2.5	15.2
2. Price	10.2	9.4	57.0	0.8	4.8
<b>Subtotal (B)</b>	<b>16.5</b>	<b>13.2</b>	<b>80.0</b>	<b>3.3</b>	<b>20.0</b>
<b>C. Financing Charges During Implementation</b>					
1. Interest During Implementation	1.6	1.5	93.8	0.1	6.2
<b>Subtotal (C)</b>	<b>1.6</b>	<b>1.5</b>	<b>93.8</b>	<b>0.1</b>	<b>6.2</b>
<b>Total Project Cost (A+B+C)</b>	<b>80.8</b>	<b>75.1</b>	<b>92.9</b>	<b>5.7</b>	<b>7.1</b>

<sup>a</sup> Constitutes Consulting Services  
Source: ADB estimates.

E. Detailed Cost Estimates by Year

Table 7: Detailed Cost Estimates by Outputs (\$ million)

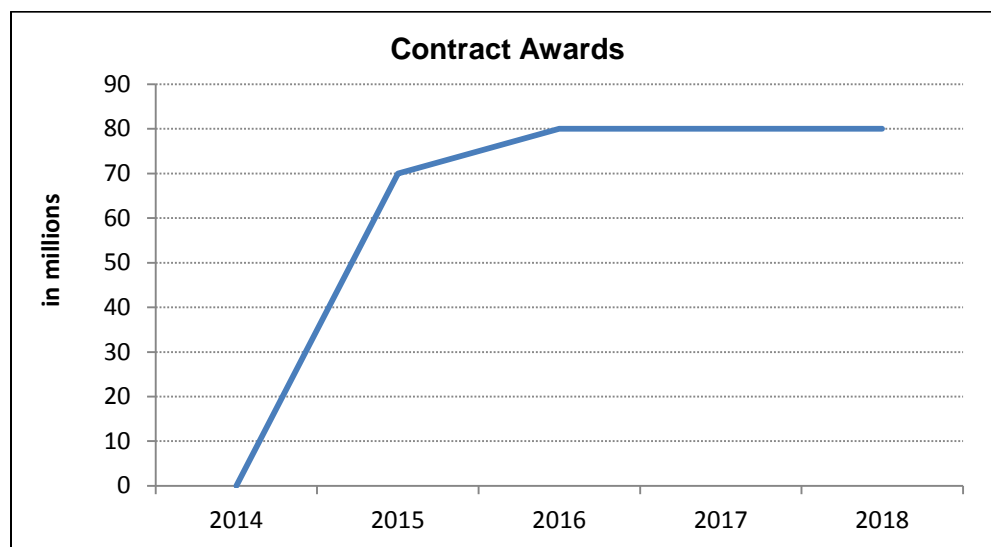
Items	Total	2014	2015	2016	2017	2018
<b>A. Investment Costs</b>						
1. Civil Works	55.2	0.0	11.2	16.5	22.0	5.5
2. Mechanical and Equipment	2.3	0.0	1.0	0.5	0.5	0.3
3. Environment and Social Mitigation	0.8	0.4	0.4	0.0	0.0	0.0
4. Construction Supervision and Project Implementation Support <sup>a</sup>	4.0	0.0	1.5	1.5	1.0	0.0
5. Incremental Administration Cost	0.4	0.0	0.1	0.1	0.1	0.1
<b>Subtotal (A) (Base Cost)</b>	<b>62.7</b>	<b>0.4</b>	<b>14.2</b>	<b>18.6</b>	<b>23.6</b>	<b>5.9</b>
<b>B. Contingencies</b>	<b>16.5</b>	<b>0.0</b>	<b>2.5</b>	<b>4.5</b>	<b>6.7</b>	<b>2.8</b>
<b>C. Financing Charges During Implementation</b>	<b>1.6</b>	<b>0.0</b>	<b>0.1</b>	<b>0.3</b>	<b>0.5</b>	<b>0.7</b>
<b>Total Project Cost (A+B+C)</b>	<b>80.8</b>	<b>0.4</b>	<b>16.8</b>	<b>23.4</b>	<b>30.8</b>	<b>9.4</b>
<b>% Total Project Cost</b>	<b>100.0</b>	<b>0.5</b>	<b>20.8</b>	<b>29.0</b>	<b>38.1</b>	<b>11.6</b>

a Constitutes Consulting Services

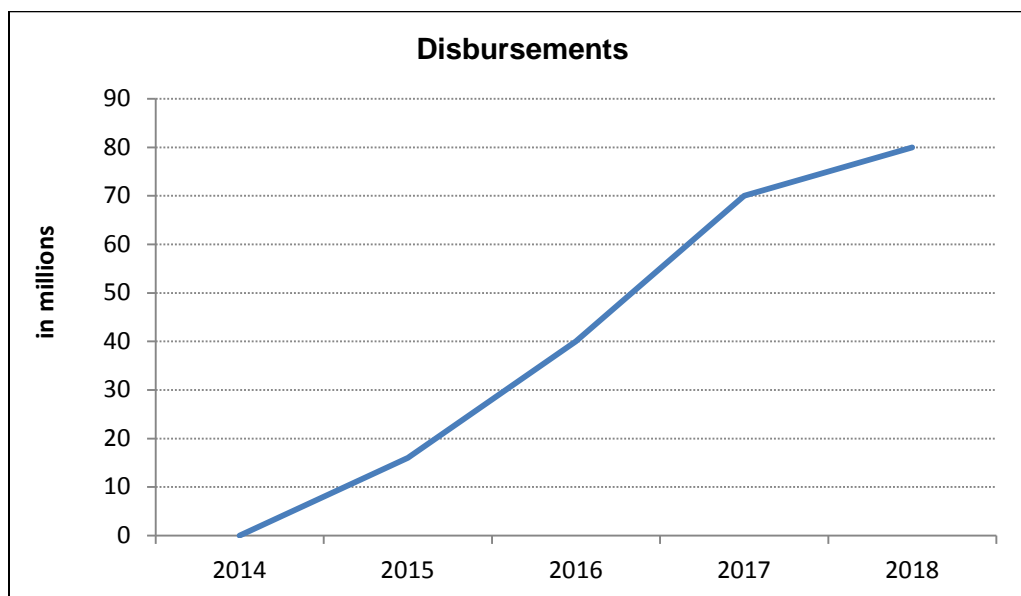
Source: ADB estimates.

## F. Contract and Disbursement S-curve

12. The graph below shows the contract awards and disbursement projections over the implementation period for the Project.



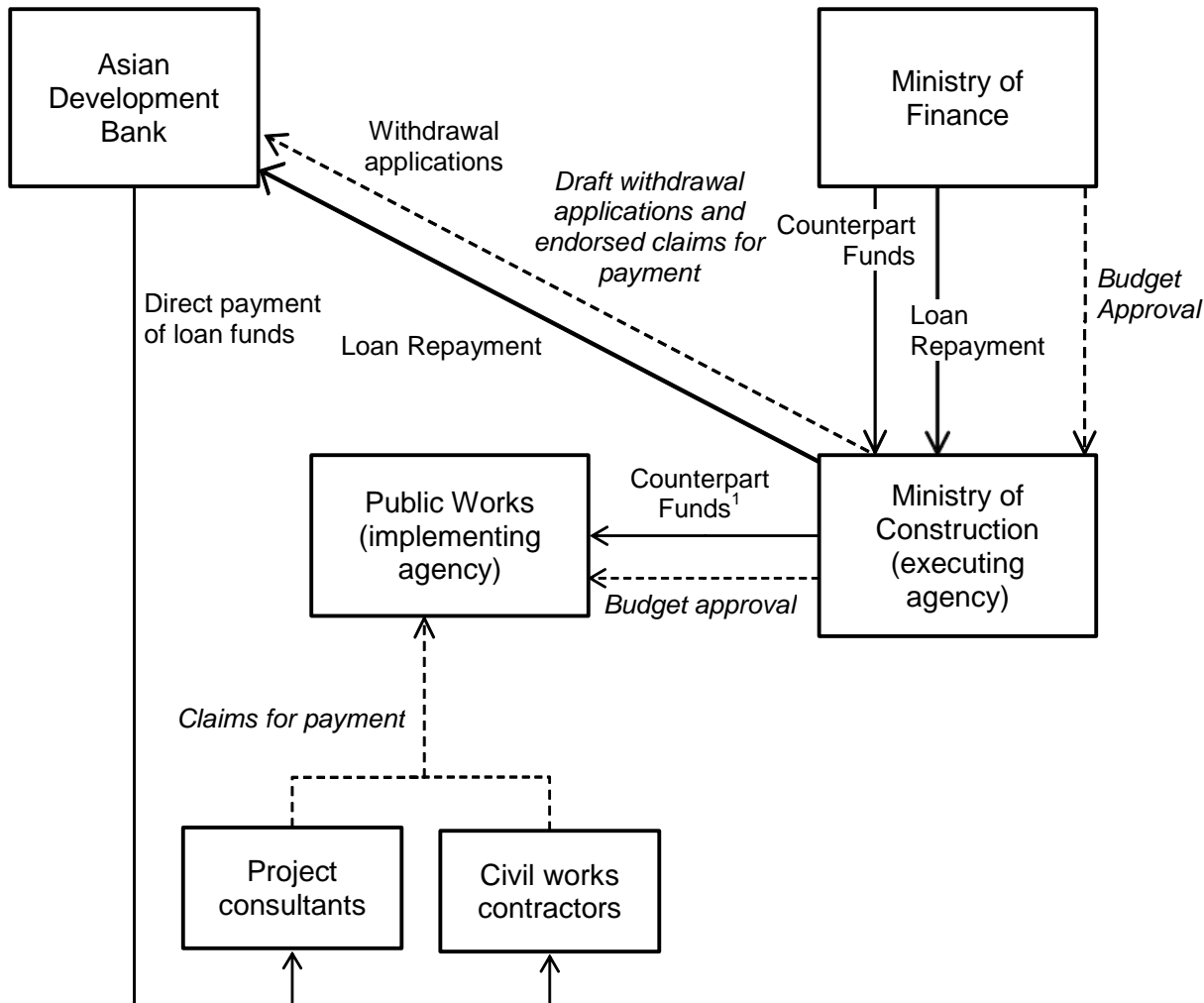
	2014	2015	2016	2017	2018	Total
<b>Contract Award</b>	0.00	70.00	10.00	0.00	0.00	80.00
<i>Cumulative</i>	0.00	70.00	80.00	80.00	80.00	



	2014	2015	2016	2017	2018	Total
<b>Disbursements</b>	0.00	16.00	24.00	30.00	10.00	80.00
<i>Cumulative</i>	0.00	16.00	40.00	70.00	80.00	

**G. Fund Flow Diagram**

13. The fund flow diagram below shows how the funds will flow from ADB and the Borrower to implement project activities.



**Legend:**

- Fund flow
- Requests and approvals

**Supporting Agreements:**

- Loan Agreement between ADB and the Government of Myanmar
- Management Agreement between Ministry of Construction and Public Works

<sup>1</sup> Includes relocation support for affected people (if required), utility relocation, and removal and replanting of roadside trees.

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

14. A financial management assessment (FMA) was prepared during the course of project preparatory activities undertaken between August and November 2013. The FMA is the first such review conducted by the ADB for the transport sector. The capacity of MOC and Public Works to manage the expenditures that are to occur under the Project was assessed in accordance with ADB's Guidelines for Financial Analysis and Management of Projects and Financial Due Diligence Methodology Note, including use of ADB's standard FMA Questionnaire that has been prepared in conjunction with agency staff. The focus was on the financial management capacity of Public Works as MOC primarily acts as the intermediary through which funds and approvals pass between Public Works and the Ministry of Finance (MOF). The proposed funds flow and approval flow is in Figure 1. Financial management arrangements and practices in MOC are the same, taking account of its primary role as a financial intermediary rather than an implementing agency.

15. The current financial management practices of Public Works and MOC, as in other parts of the Government, are based on old systems. The need to update the systems is recognized by the Government, and a recent diagnostic report has identified the substantial needs that lie ahead<sup>1</sup>. The necessary transformation and capacity building required in MOC and Public Works will need to occur as part of the long term and broader program of improvement to financial management in government. The recommended method for implementation of the project is designed to occur within this context by: (i) minimizing the number and complexity of financial transactions (ii) implementing a financial management system (FMS) that is compliant with the Government's current accounting systems, with an associated management information system (MIS), that will meet the needs of the project; and (iii) introducing modern project and financial management practices to MOC and Public Works. The results of the financial assessment and recommended arrangements are discussed in following paragraphs.

16. **Implementation Arrangements.** The PMU will be supported by well-qualified international and national consultants who will establish the FMS/MIS together with appropriate computer hardware, software, and manuals. The FMS/MIS will be capable of meeting Government and ADB financial reporting needs and of providing support for auditing of Project expenditures. The PMU will be responsible for day-to-day implementation and preparation of progress reports, ensuring that financial and reporting requirements are met,

17. **Staff.** The FMA identified that while the staff of MOC and Public Works are adequately qualified for their current work, they have no experience with ADB financial management policies and implementation procedures. An initial awareness program has been conducted during project preparatory activities, but additional training by personnel with precise knowledge of ADB policies and procedures is needed. Other formal and on-the-job training will be provided during project implementation (see para. 7).

18. **Accounting policies and procedures.** Public Works prepares financial statements in accordance with financial regulations that government agencies are obliged to follow. It uses an accrual accounting system that is based on practices and accounting manuals established in the 1960s. It will take some time and a coordinated approach in government to update the government's accounting policies and procedures to fully reflect international best practices.

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<sup>1</sup> Republic of the Union of Myanmar (2013). Public Financial Management Performance Report (2 volumes). May.

The FMS to be established for the Project will not replace current accounting policies and procedures, but will draw on data in the current accounting system, as well as other sources as input to the system. In so doing, it will assist MOC in their desire to modernize their financial systems.

19. **Accounting/Financial information system.** MOC and Public Works have very low levels of computerization, with their accounting systems entirely paper based and a few computers used for spreadsheet analysis and reporting. The Project's FMS/MIS will be used to introduce modern procedures to the agencies, based on the Government's financial management standards, and will be supported by on-the-job and formal training.

20. **Internal control systems.** The structure of the finance divisions and internal control systems in MOC and Public Works generally provide job and authorization segregation with regard to financial management, with separate sections authorizing, executing, and recording transactions.

21. **Budgeting and variance management.** MOC and Public Works have formal budgeting formulation processes. Public Works takes guidance from MOC on the overall budget envelope, and then prepares initial works programs and associated budgets with regard to the assets for which it is responsible. These are reviewed and approved by MOC. MOC then submits a consolidated budget for its broader range of responsibilities to the MOF, which in turn forwards them to parliament through the President's Office for approval. While financial statements are prepared on a monthly basis, they are rudimentary. Monitoring of budgets is limited by the low level of computerization that makes it difficult to produce meaningful financial reports. Together with an absence of modern management practices, budget monitoring is not used as a meaningful management tool. Variance analyses are prepared on a monthly basis, but are also done in a simplistic manner. The FMS/MIS to be implemented in the PMU will be used to introduce modern practices to MOC and Public Works, within the overall framework of the Government's financial management requirements.

22. **Safeguards over assets.** MOC and Public Works take physical inventories and examine fixed assets and stocks twice each year. MOC has only a limited set of office-related assets, but Public Works has substantial assets. Any discrepancy identified between the physical inventory and the records is brought to the attention of the Managing Director, who takes appropriate action in accordance with government regulations. The agencies do not take out insurance for their assets other than for motor vehicles.

## **B. Disbursement**

23. The Loan proceeds will be disbursed in accordance with *ADB's Loan Disbursement Handbook* (2012, as amended from time to time),<sup>2</sup> and detailed arrangements agreed upon between the Government and ADB.

24. Payments of works and consulting services will be disbursed by ADB through direct payment procedures as applicable, and should be certified by the PMU Director based on the payment terms in the contracts. The PMU, through MOC, will be responsible for: (i) preparing disbursement projections; (ii) requesting budgetary allocations for counterpart funds; (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB, with a copy to be sent to MOF. Each withdrawal application must include the claim or

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<sup>2</sup> Available at: [http://www.adb.org/Documents/Handbooks/Loan\\_Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf)



invoice from the contractor or consultant and approved by the borrower's authorized representative.

25. Public Works will establish an imprest account for the incremental administration cost part of the project loan at a commercial bank to be proposed by MOF. The ceiling of the imprest account will be \$80,000. The currency of the imprest account is the U.S. dollar. The imprest account is to be used exclusively for ADB's share of eligible expenditures. The government executing agency and/or implementing agency, who established the imprest account in its name, is accountable and responsible for proper use of advances to the imprest account. The request for the initial advance to the imprest account is to be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures to be financed through the account for the forthcoming six months. Supporting documents should be submitted to ADB or retained by the borrower (executing agency of implementing agency as appropriate) in accordance with ADB's Loan Disbursement Handbook when liquidating or replenishing the imprest account.

26. The statement of expenditure (SOE) procedure<sup>3</sup> will be used to reimburse and/or liquidate eligible expenditures not exceeding \$10,000 equivalent per individual payment. SOE records are to be maintained and made readily available for review by ADB's review missions or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling are to be supported by full documentation when submitting the withdrawal application to ADB.

27. Before the submission of the first withdrawal application, MOF will submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$50,000 equivalent, unless otherwise approved by ADB. Individual payments below this amount should generally be paid from the imprest account, or by the executing agency and/or implementing agency, and subsequently claimed to ADB through reimbursement.

### **C. Accounting**

28. MOC will maintain or cause to be maintained separate books and records by funding source for all expenditures incurred on the Project. MOF will prepare consolidated project financial statements in accordance with Government's accounting laws and regulations which are consistent with international accounting principles and practices and are acceptable to ADB.

### **D. Auditing and Public Disclosure**

29. MOC will cause the detailed project financial statements to be audited in accordance with International Standards on Auditing by an independent auditor acceptable to ADB. The audit, which will be undertaken by the Auditor Office of Myanmar, will include a separate audit opinion on the use of the imprest fund and on the use of Statement of Expenditure procedures. The audited project financial statements will be submitted by MOC to ADB, in the English language, within 6 months of the end of the fiscal year.

30. The annual audit report will include an audit management letter and auditor's opinion which covers: (i) whether the project financial statements present a true and fair view or are

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<sup>3</sup> SOE form is available in Appendix 9B of the *Loan Disbursement Handbook*.

presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreement for the project; (iv) compliance with the imprest fund procedure; and (v) compliance under SOE procedure certifying: (a) to the eligibility of those expenditures claimed under SOE procedures; and (b) proper use of the procedure in accordance with ADB's Loan Disbursement Handbook and the project documents.

31. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

32. The Government and MOC have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts.

33. ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower and/or grantee), 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.

34. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).<sup>4</sup> After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

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<sup>4</sup> Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>.

## VI. PROCUREMENT AND CONSULTING SERVICES

35. All procurement of works and services financed by ADB will be undertaken in accordance with ADB's Procurement Guidelines (2013, as amended from time to time).<sup>5</sup>

### A. Advance Contracting

36. All advance contracting will be undertaken in conformity with ADB's Procurement Guidelines and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).<sup>6</sup> The issuance of invitations to bid under advance contracting will be subject to ADB approval. The borrower and MOC have been advised that approval of advance contracting does not commit ADB to finance the Project.

37. **Advance contracting.** The project involves procurement of 2 international competitive bidding (ICB) packages for civil works, recruitment of 1 consulting firm for construction supervision and project implementation using quality- and cost-based selection (QCBS) using a standard quality:cost ratio of 90:10, a small building works contract, and equipment for MOC's Yangon Road Research Laboratory, bridge testing equipment and Public Works testing equipment using National Competitive Bidding (NCB). It is expected that preparation of tender documents to procure works and services will commence in the second quarter of 2014.

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

38. All procurement of works and services will be undertaken in accordance with ADB's Procurement Guidelines.

39. To ensure competitive bidding, ICB procedures will be adopted for civil works contracts estimated to cost \$1.0 million or more, and procurement of goods valued at \$500,000 or higher. The refurbishment of, and procurement of equipment for, the Yangon Research Laboratory, bridge testing equipment and Public Works testing equipment will be conducted through NCB, using ADB's standard bidding documents (subject to any modifications indicated in the NCB Annex to the Procurement Plan) and processes acceptable to ADB.

40. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages is in Section C.

41. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants.<sup>7</sup> The terms of reference (TOR) for all consulting services are detailed in Section D.

42. An estimated 480 person-months (69 international, 411 national) of consulting services are required for construction supervision and project implementation (Output 1), a Consulting firm will be engaged using the QCBS method with a standard quality:cost ratio of 90:10 and Full Technical Proposals.

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<sup>5</sup> Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

<sup>6</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

<sup>7</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**

**PROCUREMENT PLAN**

**Basic Data**

<b>Project Name:</b> Maubin-Phyapon Road Rehabilitation Project	
<b>Project Number:</b> 47086-002	<b>Approval Number:</b>
<b>Country:</b> Republic of the Union of Myanmar	<b>Executing Agency:</b> Ministry of Construction
<b>Project Financing Amount:</b> \$80.8 million	<b>Implementing Agency:</b> Public Works
<b>ADB Financing:</b> \$80.0 million	
<b>Non-ADB Financing:</b> \$0.8 million	
<b>Date of First Procurement Plan:</b> 9 September 2014	<b>Date of this Procurement Plan:</b> 9 September 2014

**1. Methods, Thresholds, Review and 18-Month Procurement Plan**

**a. Procurement and Consulting Methods and Thresholds**

43. Except as the ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

<b>Procurement of Goods and Works</b>		
<b>Method</b>	<b>Threshold</b>	<b>Comments</b>
ICB for Works	Above \$1,000,000	
ICB for Goods	Between \$500,000	
NCB for Works	Beneath that stated for ICB, Works	
NCB for Goods	Beneath that stated for ICB, Goods	
Shopping for Works	Below \$100,000	
Shopping for Goods	Below \$100,000	
ICB = international competitive bidding, NCB = national competitive bidding.		
<b>Consulting Services</b>		
<b>Method</b>	<b>Comments</b>	
Quality and Cost Based Selection		

**b. Goods and Works Contracts Estimated to Cost \$1 Million or More**

44. 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.

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Procurement Method</b>	<b>Review (Prior/ Post)</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
M-P CW1	Civil works for road rehabilitation: Km. 0 to Km. 25	\$25.0	ICB	Prior	1 Stage/ 2 Envelopes	Q3/2014	No prequalification; domestic preference applicable; large works documents
M-P CW2	Civil works for road rehabilitation: Km. 25 to Km. 54.5	\$35.0	ICB	Prior	1 Stage/ 2 Envelopes	Q3/2014	No prequalification; domestic preference applicable; large works documents

CW = civil works, ICB = international competitive bidding, km = kilometer, M-P = Maubin-Phyapon, Q = quarter

**c. Consulting Services Contracts Estimated to Cost \$100,000 or More**

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

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Recruitment Method</b>	<b>Review (Prior/ Post)</b>	<b>Advertisement Date (quarter/year)</b>	<b>Type of Proposal</b>	<b>Comments</b>
M-P CS1	Construction supervision and Project Implementation Services	\$4.0	QCBS	Prior	Q3/2014	Full	International 90:10

CS = consulting services, M-P = Maubin-Phyapon, Q = quarter, QCBS = quality- and cost-based selection.

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

46. 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**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Number of Contracts</b>	<b>Procurement Method</b>	<b>Review (Prior/Post)</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
M-P CW3	Yangon Research Laboratory: Building Refurbishment	\$0.2	1	NCB	Prior	1 Stage/ 1 Envelope	Q2/2015	No prequalification/ small works document
M-P G1	Yangon Research Laboratory: Equipment	\$0.8	1	NCB	Prior	1 Stage/ 1 Envelope	Q4/2015	Goods document
M-P G2	Bridge testing equipment	\$0.8	1	NCB	Prior	1 Stage/ 1 Envelope	Q4/2015	Goods document
M-P G3	Public Works testing equipment	\$0.7	1	NCB	Prior	1 Stage/ 1 Envelope	Q4/2015	Goods document

CW = civil works, G = goods, M-P = Maubin-Phyapon, NCB = national competitive bidding, Q = quarter.

**CONSULTING SERVICES**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Number of Contracts</b>	<b>Procurement Method</b>	<b>Review (Prior/Post)</b>	<b>Advertisement Date (quarter/year)</b>	<b>Type of Proposal</b>	<b>Comments</b>
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**2. Indicative List of Packages Required Under the Project**

47. 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**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (cumulative, million)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Review (Prior/Post)</b>	<b>Bidding Procedure</b>	<b>Comments</b>
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**CONSULTING SERVICES**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (cumulative, million)</b>	<b>Estimated Number of Contracts</b>	<b>Recruitment Method</b>	<b>Review (Prior/Post)</b>	<b>Type of Proposal</b>	<b>Comments</b>
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**3. List of Awarded and On-going, and Completed Contracts**

48. The following tables list the awarded and on-going contracts, and completed contracts.

**a. Awarded and Ongoing Contracts**

**GOODS AND WORKS**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Contract Value (million)</b>	<b>Procurement Method</b>	<b>Advertisement Date (quarter/ year)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Comments</b>
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**CONSULTING SERVICES**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Contract Value (million)</b>	<b>Recruitment Method</b>	<b>Advertisement Date (quarter/ year)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Comments</b>
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**b. Completed Contracts**

**GOODS AND WORKS**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Contract Value (million)</b>	<b>Procurement Method</b>	<b>Advertisement Date (quarter/ year)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Date of Completion</b>	<b>Comments</b>
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**CONSULTING SERVICES**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (million)</b>	<b>Contract Value (million)</b>	<b>Recruitment Method</b>	<b>Advertisement Date (quarter/ year)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Date of Completion</b>	<b>Comments</b>
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**4. Non-ADB Financing**

49. The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

**GOODS AND WORKS**

<b>General Description</b>	<b>Estimated Value (cumulative, million)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Comments</b>
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**CONSULTING SERVICES**

<b>General Description</b>	<b>Estimated Value (cumulative, million)</b>	<b>Estimated Number of Contracts</b>	<b>Recruitment Method</b>	<b>Comments</b>
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**5. National Competitive Bidding.** – see attached annex.



## NCB Annex

### 1. General

The procedures to be followed for national competitive bidding shall be those set forth in ADB's standard bidding documents, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of ADB's Procurement Guidelines (2013, as amended from time to time).

### 2. Application

Contract packages subject to national competitive bidding procedures will be those identified as such in the project procurement plan. Any changes to the mode of procurement from those provided in the procurement plan shall be made through updating of the procurement plan, and only with prior approval of ADB.

### 3. Eligibility

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.

### 4. Advertising

Bidding of national competitive bidding contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the procurement plan.

### 5. Anticorruption

Definitions of corrupt, fraudulent, collusive, and coercive practices shall reflect the latest ADB Board-approved Anticorruption Policy definitions of these terms and related additional provisions.

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.

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, or coercive practices in competing for, or in executing, ADB-financed contract.

### 6. Rejection of all Bids and Rebidding

Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

### 7. Bidding Documents

ADB's standard bidding documents will be used.

**8. Member Country Restrictions**

Bidders must be nationals of member countries of ADB; and offered goods, works, and services must be produced in and supplied from member countries of ADB.

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

50. The project requires one consulting service contract for construction supervision and project implementation support (Output 1). The outline TORs are provided below.

### **1. Introduction**

51. The Republic of the Union of Myanmar has applied for a loan from ADB towards the cost of rehabilitation of the Project Road from Maubin to Phyapon, in the Ayeyarwaddy Division of Myanmar. The project's executing agency will be MOC and the implementing agency will be Public Works.

52. The road will be reconstructed under two civil works contracts, each procured by ICB under ADB's Procurement Guidelines. These TORs apply to the construction supervision of both of these civil works contracts, which will be carried out in parallel.

53. The primary objective of the project is to provide a higher capacity, reliable, sustainable, maintainable, and safer road system to serve the region. Rehabilitation of the project road will generally be undertaken within the existing right-of-way (ROW). However, over some sections, the center line of the road will be moved to avoid construction over an existing, and important, underground fiber optic cable. Road rebuilding and rehabilitation will consist of:

- (i) widening the road formation to create a cross section that complies with the national standard for this class of road;
- (ii) improving the roughness shape and strength of the carriageway by the provision of an appropriate pavement structure with an asphaltic concrete surface;
- (iii) providing sealed hard shoulders;
- (iv) in the urban areas, providing an unreinforced concrete pavement;
- (v) rehabilitating or replacing existing bridges;
- (vi) clearing, and extending cross drainage, and irrigation culverts; and
- (vii) provision of road safety measures including junction improvements, guardrail at bridge approaches, provision of roadside furniture and traffic signs.

### **2. Components of Services**

54. The consulting services are to be provided under two components. Both components will be carried out under the direction of the consultant's Team Leader. The components are:

- (i) Component 1: Provision of Construction Supervision Consultancy (CSC) services.
- (ii) Component 2: Provision of Project Implementation Support (PIS) services.

55. The objective of Component 1 is to enable Public Works's PMU to carry out reviews of contractors' surveys and testing, and as built drawings, contract administration, construction supervision and supervision of quality control procedures, and the duties of the Engineer.

56. The objective of Component 2 is to enable Public Works' PMU to effectively and efficiently provide technical and financial management of the project.

### **3. Implementation Arrangements – Component 1 (CSC)**

57. The project's civil works contracts will be administered under the International Federation of Consulting Engineers (Fédération Internationale Des Ingénieurs-Conseils [FIDIC]) Conditions of Contract for Construction, Multilateral Development Bank Harmonized Edition 2010. The contracts will be awarded on the basis of outline and standard designs from which schedules of quantities will be derived. The specifications will provide for the contractor to carry out topographical surveys of center line and cross section, and soils and materials testing of subgrade and pavement construction materials. The design of finished road levels, earthworks, pavements, drainage works, and road furniture will be the responsibility of the CSC. The two ICB contracts will be:

- (i) Contract C1, Km. 0.0+00.0 (Maubin) to Km. 25.5
- (ii) Contract C2, Km. 25.5 to Km. 54.0+400.0 (Phyapon)

### **4. Implementation Arrangements – Component 2 (PIS)**

58. The services will take place during the first 3 months of the project implementation period. The services will be provided in both the MOC Headquarters in Naypyitaw, and in the site offices of the PMU to be located along the project road. The operational and implementation procedures of the project implementation unit and financial management and accounting arrangements and needs will be defined in the initial period of one month. A functioning MIS with a complementary FMS, compliant with the Government's financial management procedures, will be installed, manuals prepared, and training provided in the following two months. Thereafter, the balance of input by the project implementation specialist would be as required to provide on the job training of PMU staff, and to monitor and review the operational and implementation procedures.

### **5. Consultants**

59. The consultant services will be provided through an association of international and national consultants. The consultants will be selected in accordance with the Guidelines on the Use of Consultants, using the QCBS method.

60. The Consultant will provide the services of national consultants through direct engagement of individual experts and/or through association arrangements with national consulting firm/s. In addition, the Consultant will also provide technical and administrative support staff to adequately carry out the assignment. It is expected that 69 person-months of international consultants and around 411 person-months of national consultants, excluding administrative support staff, will be required during the project period of about 48 months, including the defects liability (maintenance) periods.

### **6. Scope of Services – Component 1 (CSC)**

61. The scope of the consultancy services for both works contracts will include carrying out reviews of contractors' surveys and testing, and as built drawings, contract administration, construction supervision and supervision of quality control procedures, and carrying out the duties of the Engineer, as described in the General and Particular Conditions of Contract. Services to be provided by the Consultant will include:

- (i) on the basis of the outline designs, standard designs, and schedules contained in the works contracts carry out a joint inspection with the contractors of all sections including road formation, embankment and carriageway widening, pavements, bridge widening, sites of culvert extensions, and agree the scope and extent of the contractors' surveys;
- (ii) ensure that the contractors topographical survey and cross sections to be used for working drawings, as-built drawings and measurement purposes comply with the requirements of the specifications;
- (iii) undertake a comprehensive road safety audit of the completed design of the project road, and adjust the design to reflect, within the framework of a road rehabilitation project, appropriate internationally-accepted road safety requirements;
- (iv) carry out design of finished road levels, alignment, subgrade, and pavement layers using TRL Road Note 31;
- (v) checking and approval of the contractors' bridge construction methods and program for both the temporary and permanent structures;
- (vi) administration of the civil works contract as the Engineer, and undertake the duties of the Engineer and the Engineers' Assistants, as defined in the contract documents, and as delegated by the Engineer;
- (vii) development of a comprehensive system of inspection checking and recording to ensure compliance of all work with the specifications;
- (viii) development of the interim and final measurement and payment systems; establish a monitoring system for costs to date, and costs to completion; provide a system for the preparation of interim and final payment certificates; provide advice on the evaluation of all claims and extensions of time; provide advice on the preparation of variation orders, and of monitoring variation orders; establish a claims monitoring, evaluation and reporting system; assist and advise the Employer on all matters pertaining to the Contract and to disputes;
- (ix) day-to-day supervision and inspection of works on site by the provision of suitably qualified and experienced site supervision staff; maintenance by the supervision staff of a site diary covering all contractors activities, and recording site conditions;
- (x) prior to commencement of works, approval of the contractors construction plans including traffic management and traffic control arrangements, proposed public and private haul and access routes, together with the contractors' arrangements for maintenance and reinstatement of the same, borrow locations, working areas, materials stockpile areas, materials mixing, and processing areas, etc.;
- (xi) review, comment upon, and accept the contractors quality assurance plan and procedures; assist the contractor with establishment of on-site and laboratory based quality control, testing, and reporting procedures for all construction, workmanship, and materials; supervise the contractors personnel in implementation of the quality assurance plan;
- (xii) together with the PMU counterparts, the Contractor, and the utility undertakers identify all utility services (electricity, telecommunication, and water), if any, within the ROW and that are to be protected and marked to avoid damage, or relocated, as required by the works; in this regard, special attention is drawn to identifying and marking the exact location of the buried fiber optic cable and ensuring proper arrangements are made to ensure its protection and uninterrupted service during construction of the works, and during any required relocation or adjustment of the cable;

- (xiii) maintain liaison with the Ministry of Agriculture and Irrigation to ensure that the contractors' temporary and permanent works do not adversely affect any canals or waterways;
- (xiv) receive, comment upon and ultimately approve the Contractors' EMP (CEMP), and, thereafter, monitor and report compliance with these plans;
- (xv) provide orientation and training on safeguards to PMU and Resettlement Coordinating Committee (RCC) members, provide training on financial literacy, savings, and bookkeeping to affected households, and assist the PMU and RCC in implementing and monitoring of the resettlement plan;
- (xvi) monitor the contractors program and costs to completion and provide advice to the Employer on procedures necessary to complete the works within the time and cost stated in the works contracts;
- (xvii) prepare reports and provide assistance, as necessary and as required, to the Disputes Board and during any subsequent arbitration procedures;
- (xviii) utilize the consultants assigned international experts, including staff assigned under component 2; conduct on-site workshops and provide comprehensive technical guidelines to the assigned counterpart staff of the PMU, and to the staff of the national consultants in contract administration, measurement and certification, construction supervision, quality control, in-situ and laboratory testing and reporting, monitoring and appliance of environmental safeguards;
- (xix) Not later than 6 months before the project works are complete, and again before the project road is accepted as being substantially complete, undertake road safety audits, and, on the basis of those audits, direct the contractors to implement such additional works as may be necessary to ensure the completed road meets appropriate internationally-accepted road safety standards;
- (xx) prepare an Inception Report, to be submitted within four weeks of commencement of these services, and, thereafter, Monthly Progress Reports to be submitted within seven days of the end of the preceding month. These reports are to be submitted as follows: 8 copies to the Employer, and 2 copies to ADB. These reports and all subsequent reports are also to be submitted electronically;
- (xxi) conduct monthly Contract Site Meetings, which are to be attended by Consultant, Contractor's Representative and the Employer; attend and make presentations at progress coordination meetings and similar progress reviews;
- (xxii) for each contract, provide the Employer with complete records and assist the Contractor in the provision of "As Built" drawings for the contract; certify completion and taking over of part or all of the works;
- (xxiii) for each contract, prepare a Final Payment Certificate, Taking Over Certificate, and Performance Certificate, to the timing of, and as required by, the General Conditions of Contract, and advise the Employer on the release of all contractors securities, and retentions;
- (xxiv) conduct a baseline survey of all sections of the Project Road prior to construction commencing. The survey will include an assessment of classified traffic volumes, average speeds, number and severity of accidents, International Roughness Index, and pavement condition, to act as a basis for the Benefit Monitoring and Evaluation Report;
- (xxv) prepare a Benefit Monitoring and Evaluation Report to be in conformity with ADB guidelines for such reports and submit this to the Employer and to the ADB, in the numbers given in (xix) above; and
- (xxvi) prepare a Project Completion Report to be in conformity with ADB guidelines for such reports and submit this to the Employer and to ADB.

62. **Environmental Management and Monitoring.** It is anticipated that the ICB construction contracts will commence in April 2015, and will coincide with the commencement of these construction supervision services. The construction period will be 36 months followed by a 12 month defects liability (maintenance) period. The environmental management and monitoring will be conducted by International Environmental Specialist (IES: 6 person-months) and National Environmental Specialist (NES: 22 person-months (10 person-months for the first year of construction and 6 person-months each for the remaining two years of construction)).

63. The IES will undertake the initial monthly monitoring, working with the NES. Detailed guidance regarding site inspection and report preparation will be provided by the IES to the NES. Subsequent monthly monitoring will be carried out by the NES. The IES will undertake semi-annual monitoring and report preparation working with the NES. The semi-annual report will be based on the results of monthly monitoring. The IES, with assistance from the NES, will design and conduct an environmental management capacity building and training program for MOC/Public Works staff. Detailed tasks are as follow:

- (i) Prior to review by ADB, review the CEMPs and recommend to the CSC modifications to the CEMPs in order to be compliant with the: (a) environmental requirements of the construction contracts as reflected in the EMP, (b) environmental laws of the Government, and (c) ADB's Safeguards Policy Statement (SPS, 2009);
- (ii) Supervise ambient environmental baseline monitoring (water quality, air quality, and noise levels) to be conducted by the contractors through an appropriate laboratory;
- (iii) Develop the environmental monitoring system to be used during the construction period for monitoring the contractors' performance relative to the environmental requirements, including the preparation of: (a) monitoring and corrective action forms/checklist, (b) inspection procedures, and (c) documentation procedures;
- (iv) Conduct orientation sessions with the contractors on the environmental monitoring system to be used, notification of non-compliance, and the process of requiring contractors to do corrective measures when necessary;
- (v) Before removal of the existing pavement commences, undertake an inspection and approval of the contractors' disposal sites to ensure that the EMP criteria for such sites are met;
- (vi) Within six months from commencement of civil works, design and conduct a training program for MOC/Public Works staff on how the environmental aspects of the project will be monitored, giving emphasis on CEMP evaluation; environmental monitoring of construction activities and preparation of corresponding reports; supervision responsibilities and interaction with contractors; and documentation, resolution and reporting of non-compliance issues and complaints;
- (vii) Supervise the implementation of environmental mitigating measures required for the construction activities;
- (viii) Discuss with the contractors how their respective CEMPs will be implemented including the: (a) requirements for each mitigation measure, and (b) implementation schedule of each mitigation measure taking into consideration the general requirement that no specific construction activity will be approved to be commenced by the CSC if the associated mitigation measures for such activity are not ready before work execution;

- (ix) Evaluate the environmental aspects of the contractors' construction methodology and recommend to the CSC corrective actions needed, if any, to make the methodology environmentally acceptable;
- (x) Evaluate the contractors' submitted works activities and schedules relative to the requirements of the approved CEMPs;
- (xi) Undertake monthly monitoring and inspection of construction sites and all construction-related facilities (workers' camps, asphalt batching plants, concrete batching plants, borrow pits, disposal sites for spoil and unsuitable materials, equipment maintenance areas, fuel and materials storage sites, project-specific quarries and crushers, etc.) to assess the contractors' compliance with the CEMP and Project EMP.
- (xii) Require the contractors to update their respective CEMPs when required;
- (xiii) Supervise any subsequent monitoring as necessary to be done by the contractors on ambient surface water quality, air quality, and noise during the construction period;
- (xiv) Monitor the contractors' compliance with health and safety requirements of the project as stipulated in the contract documents;
- (xv) Prepare monthly environmental monitoring reports for submission to the PMU and semi-annual environmental monitoring reports for submission to ADB;
- (xvi) Upon completion of construction, prepare a report on the project's environmental compliance performance, including lessons learned that may help MOC/ Public Works in its environmental monitoring of future projects. The report will be an input to the overall project completion report; and
- (xvii) Provide guidance to the PMU's environment specialist on the environmental aspects of the project with emphasis on environmental monitoring and reporting.

## **7. Scope of Services – Component 2 (PIS)**

64. Services to be provided by the Consultant will include:

- (i) assist the PMU to define a comprehensive and responsive organizational structure;
- (ii) define and establish all duties of the PMU for completion of the rehabilitation of the Project Road. Define the operational and implementation procedures of the PMU that are required to efficiently implement the project, with particular regard to ADB's and MOC Public Works' reporting, management, and accounting requirements;
- (iii) define and establish all PMU liaison channels with involved national, township, and provincial government departments and utility companies;
- (iv) establish all PMU reporting requirements, formats and frequency of reports, to all the implementing partners;
- (v) inform PMU of their duties and responsibilities under the FIDIC conditions of contract, and under the time-based consultants contract; and ensure that the recommended operational procedures enable them to efficiently and speedily discharge these duties;
- (vi) inform PMU and RCC of their duties and responsibilities in implementing the EMP, the resettlement plan, , and complaints resolution procedures, and ensure that that the recommended operational procedures enable them to efficiently and speedily discharge these duties.
- (vii) Install, commission, and support the operation of an FMS that is compliant with Government financial management procedures and complementary to the MIS



- (see item [viii]), which will enable financial management activities set out in the PAM to be accomplished. A manual that describes the FMS and its use, staff positions and duties, finance and accounting policies and procedures, and financial reporting will be prepared and staff trained in use of the system;
- (viii) install and commission an MIS to be used by both the PMU and the construction supervision team which will provide a project data base for all activities, communications, financial statements, and technical submissions and drawings for the construction phase, and to generate progress, financial, and technical reports to the implementing partners on behalf of the PMU and the CSC. Instruct staff of the PMU and the CSC in the use of the MIS.
  - (ix) provide a PMU Operations and Implementation Procedures Manual and an MIS User's Manual, three months after commencement of these services. 8 copies to the Employer, and 2 copies to the ADB; and
  - (x) after monitoring and review of the operational and implementation procedures, provide a review report recommending improvements. This report to be submitted 12 months after commencing these services and in the number of copies described in (ix) above.

## 8. Staffing – General

65. The staffing requirements for the two components described above are presented below. The staff are components of a single team under the direction and control of the Team Leader. All team members will carry out their duties through close liaison and efficient communication with each other and with the staff of the PMU.

## 9. Staffing – Component 1 (CSC)

66. The Consultant will have the authority and duties of the Engineer as defined in the General Conditions of Contract.

67. In the staff schedule and work plan to be submitted by the Consultant, they should be aware of, and make allowances for, the intense and severe annual rainy season that affects the project region, and that makes most aspects of road construction difficult to impossible for a large part of the season.

**Table 8: TOR for International Consultants for Component 1 (CSC)**

Ref	Title	Duties: International Staff	Estimated Inputs (person months)
A	<b>Team Leader/Road Design and Construction Specialist</b>	Professionally qualified BSc. or equivalent with a minimum of 20 years' experience in construction supervision and sufficient experience in highway and bridge designs out of which at least 5 years' experience shall be in the team leadership, management, and contract administration of highway and bridgeworks financed by multi-lateral development banks and carried out under the FIDIC conditions of contract. At least 5 years shall have been spent on projects carried out in similar geographic and climatic regions to that of Myanmar.	32
B	<b>Senior Highway and</b>	Professionally qualified BSc. or equivalent with	10

Ref	Title	Duties: International Staff	Estimated Inputs (person months)
	<b>Pavement Engineer</b>	minimum of 15 years' experience in highways, of which 10 years of proven experience in the design, design checking, and construction of road and pavement works in tropical countries. Particular experience of at least 5 years is required in the design and construction of stabilized earth, sub-base, base courses and asphaltic concrete pavement components	
<b>C</b>	<b>Senior Contracts Specialist/Quantity Surveyor</b>	Professionally qualified BSc. or equivalent with minimum of 15 years experiences in contract administration, variation order, claims monitoring and evaluation, measurement, and certification of road and bridge works carried out under FIDIC conditions of contract.	6 (Intermittent)
<b>D</b>	<b>Senior Materials Specialist</b>	Professionally qualified BSc. or equivalent with minimum of 15 years' experience in highway design and construction out of which 10 years' experience in a tropical climate as a Materials Engineer in establishment and monitoring of the site based construction materials quality control and testing facilities, testing regimes and reporting systems.	6 (Input to be phased with establishment of site testing and laboratory facilities)
<b>E</b>	<b>Training Officer</b>	Qualified BSc. or equivalent with a minimum of 10 years' experience, of which 5 years should have been spent in the management, curriculum development, programming, and reporting of training for civil engineers and civil engineering technicians.	6 (Intermittent over a 12-month period)
<b>F</b>	<b>Environmental Specialist</b>	Professionally qualified BSc. or equivalent with minimum of 10 years' experience in environmental management. The consultants should have at least prepared or assisted in the preparation of 6 EIA in infrastructure projects. The consultants should also possess a good knowledge of the ADB guidelines on EIA and monitoring. The expert will review and approve the CEMP, including establishment of baseline data.	6 (Intermittent)
<b>G</b>	<b>Resettlement and Social Development Specialist</b>	Qualified BSc. or equivalent with minimum of 10 years' experience in resettlement planning, implementation, and monitoring of social safeguards, and complaints resolution. The consultant should have at least prepared or assisted in the preparation of 5 resettlement plans in infrastructure projects, and have been engaged in at least 3 similar projects in resettlement monitoring and implementation. The consultant should also have experience in carrying out social impact assessments and have prepared social strategies/action plans	3 (Intermittent)

ADB = Asian Development Bank, BSc = Bachelor of Science, CEMP = contractors' environmental management plan, EIA = environmental impact assessment.

68. The Consultancy Services will include for the following national experts and support staff for construction supervision for the works contracts:

**Table 9: TOR for National Consultants for Component 1 (CSC)**

<b>Ref</b>	<b>Title</b>	<b>Duties: National Staff</b>	<b>Estimated Inputs (person months)</b>
<b>H</b>	<b>Deputy Team Leader</b>	Professionally qualified BSc. or equivalent with minimum 15 years' experience in road construction, of which 10 years should be spent on site in the contract administration and supervision of road and bridge works.	36
<b>I</b>	<b>Assistant Highway and Pavement Engineer</b>	Professionally qualified BSc. or equivalent with 10 years' experience, of which 5 years should have been spent in the design and design checking of road works. This position initially provides assistance to the Senior Highway and Pavement Engineer, with the intention of then becoming solely and fully responsible for those duties.	30
<b>J</b>	<b>Bridge Engineer</b>	Professionally qualified structural engineer BSc. or equivalent qualification with minimum 15 years' experience, of which 10 years should have been spent in the inspection, repair, design, design checking, and construction supervision of pre cast and reinforced concrete bridges.	30
<b>K</b>	<b>Materials Engineer</b>	Pavement, Soils and Materials Engineer, professionally qualified engineer BSc. or equivalent qualification with minimum 10 years' experience, of which 5 years should have been spent in the design, specification and testing of road pavements, sub-grade and road construction materials. This position initially provides assistance to the Senior Materials Engineer, with the intention of then becoming solely and fully responsible for those duties.	30
<b>L</b>	<b>Resident Engineers (2 Positions)</b>	Professionally qualified BSc. or equivalent qualification with a minimum of 15 years' experience in highways and bridge construction; to oversee the day-to-day construction supervision of the two civil works contracts.	72 total
<b>M</b>	<b>National Environmental Specialist</b>	Professionally qualified BSc. or equivalent qualification with a minimum of 5 years' experience in environmental impact assessment and monitoring, preferably for large scale infrastructure projects.	22
<b>N</b>	<b>Assistant Quantity Surveyors (2 Positions)</b>	BSc. qualified or equivalent quantity surveyors with a minimum of 5 years' experience in the measurement and preparation of payment certificates for civil/road works contracts.	60 total
<b>O</b>	<b>Site Engineers (6 Positions)</b>	Minimum BSc. or equivalent qualification, and preferably with a basic range of experience to cover surveying, earthworks, witnessing of site testing, concrete structures and bitumen based surfacing. The number of staff at any one time is expected to vary with the work load and the number given is indicative only.	216 total
<b>P</b>	<b>CAD Operators</b>	Technical qualification and certificate of competence in the use of AUTOCAD software to produce roadworks drawings.	4

BSc = Bachelor of Science.

69. Administrative and clerical support staff are to be provided as required by the consultant and the cost of these is to be clearly included in the Consultants cost proposal. Curriculum vitae must be supplied by the Consultants in his proposal for positions A through to O. The remaining staff must be nominated with curriculum vitae to the satisfaction of the Employer at least one month before their input commences as scheduled in the consultants accepted staffing schedule and work plan.

## 10. Staffing – Component 2 (PIS)

70. In the staff schedule and work plan to be submitted by the Consultant, they should note that the inputs are to be provided in two phases, the first phase being for implementation and the second for review.

**Table 10: TOR for National Consultants for Component 2 (PIS)**

Ref	Title	Duties: National Staff	Estimated Inputs Person Months
<b>A</b>	<b>Project Management Specialist</b>	Professionally qualified BSc or equivalent with a minimum of 20 years' experience in the management of large scale highway construction projects financed by multi-lateral donors, of which at least 5 years' experience should have been spent in institutional capacity building for management of similar projects.	6 (Input to be provided in 2 visits.)
<b>B</b>	<b>Management Information System/ Information Technology Specialist</b>	Professionally qualified BSc. or equivalent with minimum of 10 years experiences in information technology systems, of which 5 years spent in installing management information systems for large scale construction projects.	3
<b>C</b>	<b>Finance Specialist</b>	Professionally qualification in finance accounting and hold a recognized professional accountancy qualification, preferably with experience in the design and implementation of financial management systems for civil works projects financed by multilateral donors, and familiar with the ADB disbursement and financial reporting procedures.	2

ADB = Asian Development Bank, BSc = Bachelor of Science.

## 11. Facilities – Component 1 (CSC)

71. Throughout the project period, the PMU and Team Leader office will be located within the limits of Contract ICB1-MP. The location of the two Resident Engineers Offices will be located within the limits of their respective work contracts. It is anticipated that the site laboratory for each contract will be located close to the Team Leaders Office, and the respective Resident Engineers Offices.

72. The following facilities will be provided through the civil works contracts at no cost to the Consultants:

- (i) offices for the PMU and Team Leader and his staff, for the Resident Engineers and their supervision and administrative staff – fully furnished, maintained and

- serviced offices, including all office equipment, computers, software and printers, and all consumables;
- (ii) telecommunication systems by landline at each office and by mobile phones, excluding the cost of international telephone and fax charges for both landline and mobile calls. Internet connection at each office including all recurrent charges and charges made by the internet service provider;
- (iii) soils and materials testing laboratories – fully equipped, serviced and maintained, including computers, software and printers and all consumables;
- (iv) all survey, measurement, and setting out equipment necessary for checking the setting out and control of the works;
- (v) site safety equipment including visibility jackets and hard hats;
- (vi) all in-situ testing and sampling equipment;
- (vii) fully licensed and insured vehicles with drivers for the use of the PMU and Team Leader and his staff, and for the Resident Engineers and their staff in pursuance of their duties, including servicing, maintenance, fuel, and oil;
- (viii) fully licensed and insured motorcycles for the use of site supervision staff in pursuance of their duties, including helmets, protective clothing, servicing, maintenance, fuel, and oil; and
- (ix) security and maintenance services for the offices, laboratories, and their compounds.

73. The Consultants will make full provision in their cost proposals for the national accommodation of all their staff, including during field visits away from their duty station. This provision will be in the form of a per diem payment to each of the consultants' staff. The rate of the per diem will be an average for all locations. The rate of the average per diem, number of days to which the per diem applies, and the total per diem payment must be clearly stated in the cost proposal for each technical, clerical, and administrative staff position. No other payments or provisions will be made for the Consultants staff accommodation, site allowance, etc. The consultants must also make full provisions in their cost proposal for the reimbursement of international phone and fax charges by landline and by mobile telephone line and necessarily incurred in carrying out the above duties.

## **12. Facilities – Component 2 (PIS)**

74. The PIS staff will be accommodated in the PMU offices on the project site and in the MOC headquarter offices in Naypyitaw. Office consumables will be provided through the Construction Supervision site office. The Consultants will make full provision in his cost proposal for the following:

- (i) national accommodation of all the PIS staff, including during visits to Naypyitaw; this provision will be in the form of a per diem payment to each of the consultants' staff;
- (ii) provision of all land and air transportation; and
- (iii) provision of international and national telephone services, necessarily incurred in carrying out the assigned duties.

## VII. SAFEGUARDS

### A. Environment

75. A PMU staff member will be designated as the Environment Officer to oversee the implementation and monitoring of the project's environmental safeguards requirements. The contractors will be supervised, for compliance with the civil works contract, legal, and other provisions, by an international consulting firm for CSC selected by MOC.

76. The CSC will be responsible for the following activities related to environmental safeguards:

- (i) confirming that the EMP is included in the bidding documents and civil works contracts;
- (ii) ensuring the CEMPs are prepared by contractors, reviewed by ADB and CSC, and approved by CSC prior to construction commencing;
- (iii) establishing a system to monitor the environmental aspects of the project including the indicators set out in the monitoring plan of the EMP;
- (iv) supervising the implementation of environmental mitigating measures required for the construction activities;
- (v) reviewing, monitoring, and evaluating the effectiveness of the implemented CEMPs, and recommending corrective actions, if required;
- (vi) preparing monthly environmental monitoring reports for PMU,
- (vii) preparing semi-annual environmental monitoring reports for ADB's review and public disclosure;
- (viii) addressing, recording, and reporting on any grievances arising from the project's Grievance Redress Mechanism in a timely manner; and
- (ix) training MOC/ Public Works staff in environmental safeguards and monitoring.

77. Staff of the Maubin and Phyapon MOC/Public Works offices will sit as chairpersons in the temporary Village Environmental Complaints Committee that will be activated during the construction period. The construction contractors will be responsible for implementing the required environmental mitigation measures as defined by their respective approved CEMPs and will undertake baseline ambient sampling as specified in the project EMP. The contractors will designate their Environment Officer.

### B. Involuntary Resettlement

78. The Project has been classified as involuntary resettlement category B in accordance with ADB's SPS. The Government will ensure that:

- (i) the Resettlement Plan, including corrective actions agreed between the Government and ADB, are implemented in accordance with their terms and all applicable laws and regulations of Myanmar and ADB's SPS;
- (ii) in case of any inconsistency between government laws and ADB's policy, the latter will prevail;
- (iii) all affected persons are given adequate opportunity to participate in resettlement planning and implementation;
- (iv) counterpart funds for resettlement activities are provided according to the budget and project schedule;

- (v) any additional costs in excess of the resettlement plan budget estimates are met within the project schedule; and
- (vi) adequate staff and resources are committed to supervising and monitoring implementation of the resettlement plan.

79. No further relocation activities will take place until: (i) the resettlement coordinating committee has been set-up; (ii) an Implementation Plan, following review, that covers consultations carried out with affected households and other stakeholders, type of assistance to be provided to each affected household, relocation plan, implementation schedule, and budget as per agreed resettlement plan, has been reviewed and accepted by ADB; (iii) assistance detailed in the Implementation Plan has been provided to the affected households.

### **C. Indigenous Peoples**

80. There are no impacts on ethnic minorities. The Project is categorized as C for indigenous peoples.

81. Pursuant to ADB's SPS, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

## VIII. GENDER AND SOCIAL DIMENSIONS

82. Improved connectivity can bring substantial benefits for women. Access to rural, health, education, and other services improve for women and the poor. Women and girls are able to travel safely further from home. Markets are easier to reach and trading opportunities for women increase. Road construction and maintenance can also generate jobs for the poor and provide cash income for poor women. The Government will ensure that the Project is implemented in accordance with ADB's Policy on Gender and Development (1998) to ensure that social benefits are maximized and adverse impacts are mitigated. The gender categorization of the project is "Some Gender Elements". The following actions will be undertaken to support women to directly access project benefits:

- (i) The project will ensure that civil works will be based on labor based appropriate technology and contractors will prioritize the use of local unskilled labor. At least 30% of unskilled laborers for civil works will be female. Currently, in Myanmar, women are often engaged in labor based civil works and maintenance of rural roads. In order to support female employment, the project will disseminate related to the availability of the types of construction jobs for both women and men. In addition, the road maintenance action plan will delegate works to local communities and 30% of the workers will be women. Male and female laborers will receive equal pay for equal work. The types of jobs that women could undertake include among others: repairing potholes, cleaning the pavement, clearing ditches and culverts, collecting road maintenance materials, road brushing and maintaining signage, etc.
- (ii) In addition, the design of the roads will include the following features to support access and use by women and children in rural communities. Road shoulders will have sealed surfaces and/or platforms for pedestrians or carts carrying women, children, or goods. Road will include road safety signage, rumble strips, and speed tables for the safety and security of pedestrians, women, and children, especially in areas adjacent to buildings. Road safety information will be provided to communities, including women and children. At least 30% of the facilitators hired to provide road safety information to communities will be women.
- (iii) Gender issues are also integrated into the resettlement plan and social aspects of the project are described in the Summary Poverty Reduction and Social Strategy.<sup>8</sup> Interventions related to the awareness and prevention of HIV/AIDS and human trafficking are gender inclusive.

### A. Implementation Arrangements

83. The Public Works PMU will be responsible for ensuring the above actions to support women's access to project benefits. The Public Works PMU will be supported by the Project Consultant team. The gender related design aspects will be included in the TORs of the consultant engineering team recruited to undertake design and construction. The specifications for hiring women unskilled labours will be included in the contractual arrangements with the road contractors to be supervised by the consultant team. The resettlement and social development consultant will be responsible to guide and monitor that all the actions are implemented.

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<sup>8</sup> Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).



## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

### A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Improved economic opportunities in the eastern seaboard of the Ayeyarwaddy Delta</p>	<p>By 2022 Agribusinesses set up in project area; three agricultural processing facilities established</p>	<p>National statistics  Project benefit and monitoring and post-evaluation reports</p>	<p><b>Assumption</b> The economic reform process within Myanmar continues</p> <p><b>Risk</b> Motorization growth and trip generation assumptions are lower than predicted</p>
<p><b>Outcome</b> Reduced travel times and transport costs in the project area</p>	<p>Travel time reduced by 20% by 2018 from current levels (3 hours in 2014)</p> <p>Vehicle operating costs for a large bus to decrease by 42% by 2018 (\$57 in 2014)</p> <p>Traffic volume on project road increased to over 3,000 vehicles per day by 2018 (95,000 average daily vehicle-km) (1,000 vehicles per day in 2014)</p>	<p>National statistics  Project benefit and monitoring and post-evaluation reports</p>	<p><b>Assumption</b> Road rehabilitation completed as intended, and connections improved</p> <p><b>Risk</b> Contractors do not perform as intended</p>
<p><b>Outputs</b></p> <p>1. Rehabilitated 54.5 km road from Maubin to Phyaon</p> <p>2. Improved testing facilities at MOC and</p>	<p>54.5 km of road rehabilitated by 2018</p> <p>Public Works testing equipment is improved by 2018</p>	<p>Project progress reports  ADB review missions  ADB project completion report  ADB project review missions</p>	<p><b>Assumption</b> Project road is constructed to the intended quality and schedule</p> <p><b>Risks</b> Recruitment of contractors is delayed; contractors do not perform as required</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Public Works laboratories and offices		ADB project completion report	
<b>Activities with Milestones</b> <b>1. Rehabilitated 54.5 km road from Maubin to Phyapon</b> 1.1 MOC completes resettlement activities within corridor of impact from 1 May 2014 to 31 December 2014 1.2 MOC selects construction supervision consultants from 1 September 2014 to 31 March 2015 1.3 MOC undertakes procurement of civil works contractors from 1 September 2014 to 31 March 2015 1.4 MOC completes 54.5 km of road rehabilitation by 31 March 2018  <b>2. Improved testing facilities at MOC and Public Works laboratories and offices</b> 2.1 MOC acquires testing equipment for laboratories and offices from April 2015 to February 2016		<b>Inputs</b> <b>ADB: \$80.0 million</b>  <b>Government: \$0.8 million</b>	

ADB = Asian Development Bank, MOC = Ministry of Construction, km = kilometer.

Source: Asian Development Bank.

## B. Monitoring

84. **Project performance monitoring.** The PMU will establish a project performance monitoring system. ADB through the project performance reporting system will monitor the overall performance of the project. The PMU will refine the monitoring system within 6 months from project commencement and collect and update baseline data for performance monitoring. The key indicators and targets, assumptions, and risks outline at the impact, outcome, and output levels in the project's design and monitoring framework will be the primary data required for analysis. For this purpose, the ADB inception mission will provide to MOC a checklist of the required data which will be updated and reported quarterly through MOC'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>9</sup>

85. **Compliance monitoring:** Compliance for all loan covenants (environmental safeguards, financial, economic, and others) will be jointly monitored by MOC and ADB through monthly updates provided by the PMU. In this respect, the PMU will submit to ADB a status report on the covenants summary with the explanation and time-bound actions on partly or non-complied covenants. ADB's Myanmar Resident Mission will hold quarterly review meetings with MOC to ensure the full compliance of all the loan covenants. In addition, MOC and ADB will undertake a comprehensive midterm review after 2 years of project implementation. At the conclusion of the

<sup>9</sup> ADB's project performance reporting system is available at:  
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

mid-term review, ADB and MOC may agree on changes in both Project scope and implementation arrangements, as deemed necessary.

86. **Safeguards monitoring:** Compliance with environmental, involuntary resettlement, and indigenous peoples safeguards and correction action, if any, will be included in the quarterly progress report to be prepared by the PMU.

87. **Gender and social dimensions monitoring:** The project has some gender issues, and limited social issues or concerns, being a rehabilitation of an existing road along its current alignment. Those issues with gender elements, such as encouraging female labor and road design with women sensitive features such as shoulders and traffic calming measures in towns, and women's participation as road safety facilitators (as specified in Section VIII of the PAM) will be regularly monitored and reported by the executing agency to ADB during project implementation.<sup>10</sup>

### C. Evaluation

88. Following loan signing, a project inception mission will be fielded to confirm the working relationship between ADB and MOC/ Public Works and PMU staff involved in the implementation of the project. Progress under the project will be reviewed every 6 months by ADB, following loan effectiveness, to enable adjustment of project design and implementation arrangements, where required. The reviews will address policy, institutional, administrative, organizational, technical, environmental, social, economic, financial, and other relevant factors that may have an impact on project performance and the project's continuing viability. A comprehensive mid-term review is tentatively scheduled in mid-2017. Within 6 months of physical completion of the project MOC will submit a project completion report to ADB.<sup>11</sup> In this report, MOC will evaluate the project performance based on indicators and targets stipulated in the design and monitoring framework and baseline profiling data collected during project preparation. Subsequently, ADB will field a mission to finalize its project completion report. Evaluation activities are summarized below.

<b>Evaluation Activity</b>	<b>Purpose</b>	<b>Methodology</b>	<b>Who are responsible and involved</b>
Review Mission	Review the progress of the project and provide guidance to facilitate implementation	Site visit and meetings with MOC/ Public Works officials, contractors and consultants twice a year	ADB MOC/ Public Works PMU
Mid Term Review Mission (in 2016)	Review the progress of the project and provide guidance to facilitate implementation and amend contract and disbursement projections	Site visit and meetings with MOC/ Public Works officials, contractors and consultants	ADB MOC/ Public Works PMU/MOF

<sup>10</sup> ADB's *Handbook on Social Analysis: A Working Document*, is available at: <http://www.adb.org/Documents/Handbooks/social-analysis/default.asp>, *Staff Guide to Consultation and Participation*: <http://www.adb.org/participation/toolkit-staff-guide.asp>, and *CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations*: <http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp>

<sup>11</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

<b>Evaluation Activity</b>	<b>Purpose</b>	<b>Methodology</b>	<b>Who are responsible and involved</b>
Project Completion Review	Evaluate the overall output of the project and its relevance and suitability	Site visit and meetings with MOC/ Public Works officials	ADB MOC/Public Works PMU/MOF

ADB = Asian Development Bank, MOC = Ministry of Construction, PMU = project management unit.

#### **D. Reporting**

89. MOC will provide ADB with: (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including: (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) an updated procurement plan if required, and (d) an updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. Project accounts and MOC/Public Works audited financial statements, together with the associated auditor's report, are to be carefully reviewed.

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

90. The Stakeholder Communication Strategy includes the ADB requirements for disclosure of project information in accordance with ADB's SPS. In addition, broader stakeholder communication will be carried out regarding the project with government, civil society, and where applicable, the media.

91. This PAM provides details of the project disclosure, monitoring, and reporting requirements for safeguard policies on environment and resettlement. The executive agency will post all relevant information on its website. The website will include disclosure information requirements, as well as information regarding the bidding process, bidders, contract awards, use of funds disbursed under the project, and physical progress. The Project will follow ADB's Public Communication Policy and its guidelines on the disclosure and exchange of information.

92. Information of the project will also be communicated with government through the PMU, Public Works, and MOC. Such communication will include seminars, workshops, and other training material developed under Output 2 and provide a training resource for Public Works and MOC as part of their knowledge material. Relevant government officials in townships and villages will be briefed on the project, and provided with written information (in Myanmar language) on key project components and relevant requirements pertaining to ADB safeguards, stakeholder communication, and grievance redress procedures.

93. Stakeholder outreach meetings will be held in the project area to update local communities with project progress and information dissemination. Such communication will be undertaken in the three townships of Maubin, Kyaiklat, and Phyapon, and be carried out by the CSC and the PMU. Village elders, religious leaders, and/or other community-level officials will be involved to help ensure the consultative process is productive. Printed communication materials in Myanmar and other appropriate local languages will be provided to community members, describing, in language understandable to them (including low-literacy audiences), the scope of the project, governing ADB policies and procedures, benefit entitlements, and/or other relevant matters. Information on project process, HIV/AIDS, safe working conditions will be provided as documented in the civil works contracts. Where required the communication material will be translated to Myanmar language. A basic tracking system will be maintained to

record consultation activities, the provision of project information, to register concerns and/or complaints received, and to track follow-up action.

94. Where appropriate, project progress will be shared with local and national media.

95. A project focal point, with full name and contact information, will be designated for regular contact with affected people and other interested stakeholders. Any possible communication capacity deficits will be identified up front, and capacity building for key government staff in the development and implementation of stakeholder communication strategies can be combined with broader ADB-supported capacity building support to maximize resource utilization.

## X. ANTICORRUPTION POLICY

96. ADB reserves the right to investigate, directly or through its agents, any violations of ADB's Anticorruption Policy (1998) relating to the Project.<sup>12</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>13</sup>

97. To support these efforts, relevant provisions are included in the loan agreement and/or regulations and the bidding documents for the Project.

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<sup>12</sup> Available at: <http://www.adb.org/documents/anticorruption-policy>.

<sup>13</sup> ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>.

## **XI. ACCOUNTABILITY MECHANISM**

98. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism.<sup>14</sup> 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 a good faith effort 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.

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<sup>14</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

## **XII. RECORD OF PAM CHANGES**

99. The first draft of the PAM has been prepared and discussed during the loan fact-finding in February 2014. The PAM was revised and agreed upon during the loan negotiations on 9 September 2014.

100. The PAM will be subject to change after ADB's Board approval of the project and during the period of project implementation. All revisions and updates of the PAM should be recorded in this section to provide a chronological history of the changes to the implementation arrangements recorded in the PAM.