

Project Administration Manual

Project Number: 50299-001
Loan Number: LXXXX
September 2018

Democratic Socialist Republic of Sri Lanka: South
Asia Subregional Economic Cooperation Port Access
Elevated Highway Project

ABBREVIATIONS

ADB	–	Asian Development Bank
CKE	–	Colombo Katunayake Expressway
CSC	–	construction supervision consultant
DMF	–	design and monitoring framework
ECTS	–	electronic cargo tracking system
EMP	–	environment management plan
EMOP	–	environmental monitoring plan
EOM&M	–	Expressway Operation Maintenance and Management
ESDD	–	Environment and Social Development Division
ESSD	–	Environment and Social Safeguard Division
ETC	–	electronic toll collection
FMA	–	financial management assessment
FY	–	fiscal year
GRC	–	Grievance Redress Committee
ICB	–	international competitive bidding
IEE	–	initial environment examination
IT	–	information technology
JICA	–	Japan International Cooperation Agency
km	–	kilometer
MFC	–	maritime facilitation center
MOHRD	–	Ministry of Highways and Road Development
MOPS	–	Ministry of Ports and Shipping
NCB	–	national competitive bidding
NKB	–	New Kelani Bridge
OCH	–	Outer Circular Highway
OCR	–	ordinary capital resources
PAM	–	project administration manual
PIU	–	project implementation unit
PMC	–	project management consultant
RDA	–	Road Development Authority
SASEC	–	South Asia Subregional Economic Cooperation
SLCD	–	Sri Lanka Customs Department
SLPA	–	Sri Lanka Ports Authority
SLR	–	Sri Lanka rupees
SPS	–	Safeguard Policy Statement
TA	–	technical assistance

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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 the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Highways and Road Development (MOHRD), Ministry of Ports and Shipping (MOPS), Road Development Authority (RDA), and Sri Lanka Ports Authority (SLPA) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by MOHRD, MOPS, RDA, and SLPA of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB have agreed 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 (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

1. The proposed South Asia Subregional Economic Cooperation (SASEC) Port Access Elevated Highway (PAEH) Project will construct about 5.3 kilometers (km) of an elevated toll highway with related facilities between New Kelani Bridge (NKB) and Galle Face in central Colombo¹. It will provide a direct link to the city center and the port from Colombo–Katunayake Expressway (CKE) via NKB, and then extend the expressway network into the city.² The project will help alleviate traffic congestion in the densely populated areas of Colombo, improve last-mile connectivity from the country's expressway network to the international port in Colombo, provide better logistics services for freight operations, and facilitate regional trade.

2. **Impact and outcome.** The project is aligned with the following impact: economic growth and regional trade and cooperation of the country facilitated. The project will have the following outcome: transport efficiency along the project road increased.

3. **Output 1: Elevated toll highway and related infrastructure constructed, upgraded and installed.** About 5.3 km of toll elevated highway between NKB and Galle Face with a ramp to the port and related facilities will be constructed and installed.³ An advanced toll collection system will be installed in due consideration of its expansion to the entire expressway network. About 1.4 km of the existing ground-level port access road will be upgraded from 4 lanes to 6 lanes.⁴ A maritime facilitation center will be constructed (i) to relocate and gather administrative and operational functions many of which are to be affected by the elevated highway construction; and (ii) to provide better services to port users.

4. **Output 2: Tolling operation capacity of expressways strengthened.** An attached technical assistance (TA) will strengthen operation capacity of the expressway regarding toll rate policy and electronic toll collection (ETC) system. A consultant firm and individual consultants will be recruited to prepare deliverables under the TA.

5. **Output 3: Support for trade logistics facilitation provided.** Another attached TA will enhance trade logistics facilitation by (i) preparing diagnostic studies, standard operating procedures, and action plan, and providing capacity building to improve risk management practices; (ii) undertaking a feasibility study for a new customs inspection facility to improve process flow and timeliness; and (iii) conducting a study on technical design and business case for an electronic cargo tracking system (ECTS) to monitor and facilitate cargo movement to and from the port.⁵ A consultant firm and individual consultants will be recruited and prepare deliverables under the TA.

¹ The project will construct along the route a dedicated ramp to the port for port-related traffic.

² Japan International Cooperation Agency (JICA). 2014. [Ex-Ante Evaluation: New Bridge Construction Project over the Kelani River](#). Tokyo. New Kelani Bridge is financed by the JICA.

³ The elevated highway and port ramp construction requires related facilities, including an interterminal road, workshops, port security gates, customs offices, surveillance cameras, scanners, and an automated logistics system, that will improve port logistics services together with the elevated highway. The SLPA will implement these facilities.

⁴ The project scope also includes rehabilitation and widening of the existing inner port road that leads to the ground-level port access road, since it will be partially affected by the elevated highway structure.

⁵ The electronic cargo tracking system (ECTS) enables regulatory authorities to track the movement of vehicles, cargo and containers as well as the integrity of seals applied on the trucks or containers, on real time basis, to alleviate concerns on cargo and revenue security and provide complete shipment visibility for efficient management of operations.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 1: Project Readiness Activities

Month Year	Loan Processing		Project Implementation	
	ADB Actions	Government Actions	ADB Actions	Government Actions
Apr 2017		Cabinet approved the project in January 2017	Review bid documents	Finalization of bid documents and safeguard documents
Mar 2018			PQ closed	PQ closed
Apr 2018				
May 2018	Fact-finding mission			Finalize PQ evaluation and submit the result to ADB Finalize bid documents
Jun 2018		Aide Memoire endorsed	Review and approval of the PQ result Review and approval of the bid documents	Finalize shortlist and RFP for supervision consultants (CSC) and Submission 1
Jul 2018	Management review meeting		Review and approval of Submission 1 for CSC	Bids to be invited Issue RFP for CSC
Aug 2018	Loan negotiations			
Sep 2018	Loan approval		Review and approval of Submission 2 for CSC	Technical proposal opening, for CSC Submit technical bid evaluation (submission 2) to ADB Bid opening and start bid evaluation
Oct 2018			Review and approval of bid evaluation	Financial proposal opening, preparation of Submission 3 for CSC

Month Year	Loan Processing		Project Implementation	
	ADB Actions	Government Actions	ADB Actions	Government Actions
Nov 2018		Loan signing	Review and approval of Submission 3 for CSC	Preparation of Submission 4 for consulting contracts
Dec 2018	Loan effectiveness		Review and approval of Submission 4 for CSC	Contract award (Works contract)
Jan 2019				Contract award (Consulting contracts)

ADB = Asian Development Bank, CSC = construction supervision consultant, PQ = prequalification, Q = quarter, RFP = request for proposals.

Note: Procurement of civil works started with prequalification (announced in September 2017). One envelope including both technical and financial bids is adopted.

Source: Asian Development Bank estimates.

B. Overall Project Implementation Plan

6. Table 2 shows a Gantt chart recording outputs with key implementation activities updated annually and submitted to ADB with contract and disbursement projections for the following years.

Table 2: Project Implementation Plan

Indicative Activities	2018	2019	2020	2021	2022	2023	2024	2025
A. DMF								
Output 1: New elevated highway constructed, upgraded, and installed								
Activity 1.1: 5.3km of elevated highway								
Activity 1.2: 1.4km of existing port access road								
Activity 1.3: ETC system installed								
Activity 1.4: Port trade facilities constructed/ procured								
Activity 1.5: Relocation and maritime facilitation center								
Output 2: Operation capacity of expressway strengthened								
Activity 2.1: Toll rate policy guidelines								
Activity 2.2: Enabling policy for ETC								
Activity 2.3: IT section established								
Activity 2.4: IT knowledge training								
Activity 2.5: Management support								
Output 3: Support for trade logistics facilitation provided								
Activity 3.1: Diagnostic study on risk management system								
Activity 3.2: Feasibility study for a new customs inspection facility prepared								
Activity 3.3: Technical design of ECTS								
B. Management Activities								
Procurement of civil works								
CSC selection procedures								

CSC = construction supervision consultant, DMF = design and monitoring framework, ECTS = electronic cargo tracking system, ETC = electronic toll collection, IT = information technology, km = kilometer.

Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Table 3: Project Implementation Organizations

Project Stakeholders	Management Roles and Responsibilities
Executing agencies	<p>Ministry of Highways and Road Development</p> <ul style="list-style-type: none"> <input type="checkbox"/> Overall coordination of project implementation for road-related facilities under road development component <input type="checkbox"/> Interagency coordination <p>Ministry of Ports and Shipping</p> <ul style="list-style-type: none"> <input type="checkbox"/> Project implementation for port-related facilities under road development component <p>Sri Lanka Customs Department</p> <ul style="list-style-type: none"> <input type="checkbox"/> TA executing agency for trade logistics facilitation component
Implementing agencies	<p>(i) Road Development Authority (for road facilities) and (ii) Sri Lanka Ports Authority (for port trade facilities)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Day-to-day project and safeguards management <input type="checkbox"/> Consultant recruitment and procurement of works <input type="checkbox"/> Preparation and submission of withdrawal applications <input type="checkbox"/> Preparation and submission of project progress reports and safeguard monitoring reports <input type="checkbox"/> Maintaining project accounts and complete loan financial records
<p>Project Steering Committee Co-chairs: Secretary of MOHRD and Secretary of MOPS</p> <ul style="list-style-type: none"> • Chairman, Director General, RDA • Director General, Sri Lanka SLCD • Managing Director, SLPA • Project Director, RDA • Project Director, SLPA • External Resources Department, Motor Traffic Department, National Planning Department, Project Monitoring and Management Department, National Budget Department, Treasury Operations Department, Ministry of Megapolis and Western Development (multimodal hub), Ceylon Electricity Board, National Water Supply and Drainage Board, Sri Lankan Railway, Colombo Municipal Council, and other stakeholders 	<ul style="list-style-type: none"> <input type="checkbox"/> Oversee and monitor project implementation as well as coordinate among stakeholders <input type="checkbox"/> Also oversee, monitor, and coordinate among stakeholders the operation and management of the toll roads particularly the electronic toll collection system. <input type="checkbox"/> Hold meetings as required (at least quarterly) to discuss overall status and project issues, and when necessary, invite representatives from the Central Environmental Agency, utilities (electricity, telecommunications, water, and drainage), and other stakeholders for coordination purposes
Asian Development Bank	<ul style="list-style-type: none"> <input type="checkbox"/> Monitor and review overall implementation of the project in consultation with the executing agencies/implementing agencies, including the project implementation schedule; actions required in terms of poverty reduction, environmental impacts, and resettlement plans if applicable; timeliness of budgetary allocations and

Project Stakeholders	Management Roles and Responsibilities
	counterpart funding; project expenditures; progress with procurement and disbursement; statement of expenditures when applicable; compliance with particular loan covenants; and the likelihood of attaining the project's immediate development objectives

ADB = Asian Development Bank, ERD = Department of External Resources, MOF = Ministry of Finance and Mass Media, MOHRD = Ministry of Highways and Road Development, MOPS = Ministry of Ports and Shipping, RDA = Road Development Authority, SLCD = Sri Lanka Customs Department, SLPA = Sri Lanka Ports Authority.

Source: Asian Development Bank.

7. The scope of the project and the responsible executing and implementing agencies are summarized in Table 4. The maritime facilitation center (MFC) will be constructed by the Road Development Authority (RDA); and after its physical completion, the MFC will be transferred to the SLPA. The SLPA shall ensure that the MFC will be used (i) to relocate and gather administrative and operational functions, many of which will be affected by the elevated highway construction; and (ii) to improve port operations, which include but are not limited to providing one-stop service to port users and accommodation of the port logistics system. A contract for the installation of electronic toll collection system will include service agreement (operation agreement) for the first several years of its operation. ADB's financing does not currently cover the service agreement portion, but ADB may finance the portion subject to fund availability, contract structure, and ADB's prior approval. RDA shall ensure that enabling policy environment for the toll collection system such as mandatory requirements of ETC tags, effective enforcement system, secured vehicle registration database access, and consistency of vehicle classifications.

Table 4: Scope and Project Implementation Organization

Output	Component	Executing Agency	Implementing Agency	Scope	Category	Estimated Value (\$ million)
Output 1: Elevated toll highway and related infrastructure constructed, upgraded and installed	Road Development	MOHRD	RDA	- Construction of about 5.3km of elevated highway - Upgrading of about 1.4km existing port access road	Civil works (loan)	242.3
				- Relocation of 49 affected SLPA facilities and construction of maritime facilitation center	Civil works (loan)	30.8
				- Installation of electronic toll collection system	Equipment (loan)	28.4
				- Construction supervision consultants	Consultant (loan)	8.2
				- Project management consultants for the toll	Consultant (loan)	3.5

Output	Component	Executing Agency	Implementing Agency	Scope	Category	Estimated Value (\$ million)
				collection system		
				- Individual consultants for implementation support	Consultant (loan)	1.1
		MOPS	SLPA	- Construction of port trade facilities such as internal roads, workshops, security gates, and custom facilities	Civil works (loan)	5.2
				- Procurement of related equipment for the port trade facilities such as CCTV camera, scanner, and IT logistics system	Equipment (loan)	1.15
				- Individual consultants for implementation support	Consultant (loan)	0.17
Output 2: Tolling operation capacity of expressways strengthened	Road Development	MOHRD	RDA	- Preparation of a new toll rate policy guideline - Preparation of action plan to create an enabling policy environment for the ETC - Establishment of IT section - Training of RDA staff on IT knowledge and electronic toll collection system - Support for expressway management improvement	TA	0.5
Output 3: Support for trade logistics facilitation provided	Trade logistics facilitation	SLCD	-	- Diagnostic studies on risk management system and capacity building to improve risk management practices	TA	1.25

Output	Component	Executing Agency	Implementing Agency	Scope	Category	Estimated Value (\$ million)
				<ul style="list-style-type: none"> - Feasibility study for a new customs inspection facility - Technical design and business case for electronic cargo tracking system 		

CCTV = closed-circuit television, ETC = electronic toll collection, IT = information technology, MOF = Ministry of Finance and Mass Media, MOHRD = Ministry of Highways and Road Development, MOPS = Ministry of Ports and Shipping, RDA = Road Development Authority, SLCD = Sri Lanka Customs Department, SLPA = Sri Lanka Ports Authority, TA = technical assistance.

Source: Asian Development Bank.

B. Key Persons Involved in Implementation

Executing agencies

Ministry of Highways and Road
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Implementing agencies

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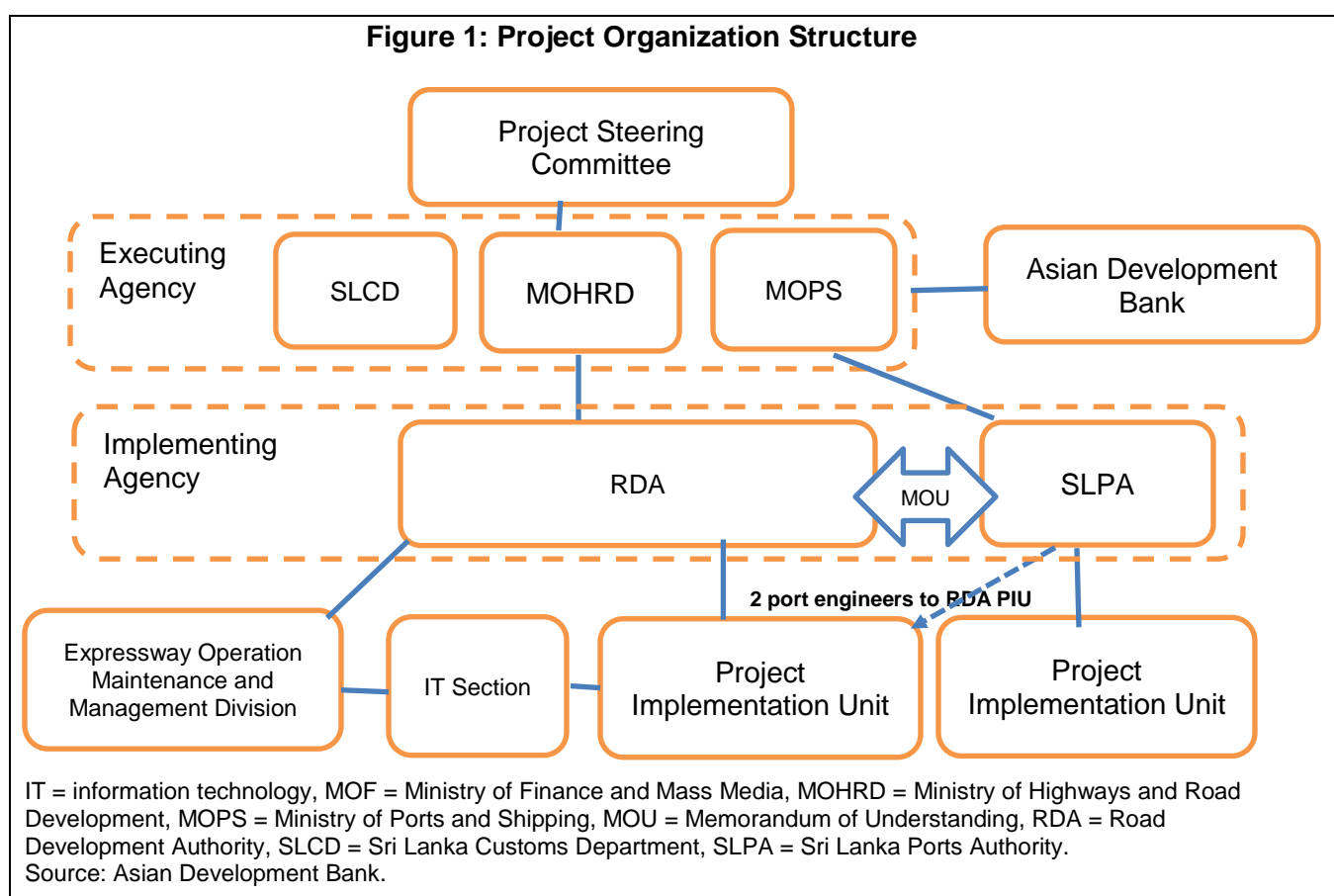
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C. Project Organization Structure

8. Figure 1 shows the reporting lines and essential internal structures of key organizations involved in the implementation of the SASEC Port Access Elevated Highway Project, including the steering committees, executing agencies, implementing agencies, and the project implementation units (PIUs). The RDA and the SLPA shall coordinate with each other to implement the project effectively. The RDA and the SLPA have concluded a memorandum of understanding (MOU) on project scope and implementation on 3 July 2018, and will revise the MOU when needed. The SLPA will assign two port engineers to the PIU under the RDA to coordinate project implementation. Operation, maintenance, and management of the elevated highway will be carried out by the Expressway Operation, Maintenance, and Management (EOM&M) Division of the RDA. An information technology (IT) section will be established in the RDA by 2020 to support the PIU and the EOM&M Division in implementing and managing the electronic toll collection system.



9. **Road Development Authority.** The following table shows the internal structure of the PIU under RDA and their staffing assignments.

**Table 5: Internal Structure of the Project Implementation Unit
under the Road Development Authority**

No.	Sr. No.	Position	Name	Existing	Appointment Timeframe
1	[1]	Project director	A.H. M. Nizar	<input type="checkbox"/> Appointed	
2	[1A]	Deputy director		<input type="checkbox"/> Appointed	31 Dec 2018
3	[1B]	Senior engineer (Highways) ^a		<input type="checkbox"/> Appointed	31 Dec 2018
4	[1C]	Senior engineer (Structures) ^a		<input type="checkbox"/> Appointed	31 Dec 2018
5	[1D]	Senior engineer (Port) ^b		<input type="checkbox"/> Appointed	31 Dec 2018
6	[2A]	Senior engineer (Construction)		<input type="checkbox"/> Appointed	31 Dec 2018
7	[2B]	Senior engineer (Contracts)		<input type="checkbox"/> Appointed	31 Dec 2018
8	[2C]	Project engineer 1 (Structure)		<input type="checkbox"/> Appointed	31 Dec 2018
9	[2D]	Project engineer 2 (Structure)		<input type="checkbox"/> Appointed	31 Dec 2018
10	[2E]	Project engineer (Building)		<input type="checkbox"/> Appointed	31 Dec 2018
11	[2F]	Project engineer (Port) ^a		<input type="checkbox"/> Appointed	31 Dec 2018
12	[2G]	Project engineer (IT) ^a		<input type="checkbox"/> Appointed	31 Dec 2018
13	[2G]	Project engineer (IT) ^a		<input type="checkbox"/> Appointed	31 Dec 2018
14	[2H]	Environmental / social officer		<input type="checkbox"/> Appointed	31 Dec 2018
15	[2I]	Administrative assistant		<input type="checkbox"/> Appointed	31 Dec 2018
16	[2J]	Management assistant		<input type="checkbox"/> Appointed	31 Dec 2018
17	[2K]	Management assistant		<input type="checkbox"/> Appointed	31 Dec 2018
18	[2L]	Management assistant		<input type="checkbox"/> Appointed	31 Dec 2018
19	[2M]	Office aid		<input type="checkbox"/> Appointed	31 Dec 2018
20	[2N]	Office aid		<input type="checkbox"/> Appointed	31 Dec 2018
21	[3]	Project accountant		<input type="checkbox"/> Appointed	31 Dec 2018
22	[3A]	Accounts assistant		<input type="checkbox"/> Appointed	31 Dec 2018
23	[3B]	Management assistant (accounts)		<input type="checkbox"/> Appointed	31 Dec 2018
24	[3C]	Management assistant (accounts)		<input type="checkbox"/> Appointed	31 Dec 2018
25	[3D]	Management assistant (accounts)		<input type="checkbox"/> Appointed	31 Dec 2018
26	[3E]	Driver		<input type="checkbox"/> Appointed	31 Dec 2018
27	[3F]	Driver		<input type="checkbox"/> Appointed	31 Dec 2018

IT = information technology.

^a To be released by the RDA for part-time engagement.

^b To be released by the SLPA.

Source: Asian Development Bank.

10. **Sri Lanka Ports Authority.** The following table shows the internal structures of the project implementation unit under the SLPA and their staffing assignments.

**Table 6: Internal Structure of the Project Implementation Unit
under the Sri Lanka Ports Authority**

No.	Sr. No	Position	Name	Existing	Appointment Timeframe
1	[1]	Project director	Susantha Abaysiriwardena	<input checked="" type="checkbox"/> Appointed	
2	[2]	Deputy project director		<input type="checkbox"/> Appointed	31 Dec 2018
3	[3]	Port engineer		<input type="checkbox"/> Appointed	31 Dec 2018

No.	Sr. No	Position	Name	Existing	Appointment Timeframe
4	[4]	Project accountant		<input type="checkbox"/> Appointed	31 Dec 2018
5	[5]	Assistant accountant		<input type="checkbox"/> Appointed	31 Dec 2018
6	[6]	Management assistant		<input type="checkbox"/> Appointed	31 Dec 2018

Source: Asian Development Bank.

11. **Sri Lanka Customs.** Sri Lanka Customs Department will assign the Additional Director General (Revenue and Services) as the head of counterpart staff of the attached TA, and will involve a risk assessment unit for TA implementation.

IV. COSTS AND FINANCING

12. The project is estimated to cost \$360.2 million, including taxes and duties, physical and price contingencies, interest, and other charges during implementation.

Table 7: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Civil works	277.9
2. Equipment	29.6
3. Consulting services	12.9
4. Recurrent costs (project management)	3.4
Subtotal (A)	323.8
B. Contingencies^c	20.2
C. Financial Charges During Implementation^d	16.2
Total (A+B+C)	360.2

^a Includes taxes and duties of \$42.2 million. Such amount does not represent an excessive share of the project cost. The government will finance taxes and duties of \$42.2 million as exemption and/or cash contribution.

^b In mid-2018 prices as of 31 March 2018.

^c Physical contingencies computed at 5% for civil works, equipment, and consulting services. Price contingencies computed at average of 5.2% on foreign exchange costs and 1.6% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for the ordinary capital resources (OCR) loan has been computed at the 5-year US dollar fixed swap rate plus an effective contractual spread of 0.50% and maturity premium of 0.20%. Commitment charges for the OCR loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

13. The government has requested a regular loan of \$300 million from ADB's ordinary capital resources to help finance the project. ADB will finance the expenditures in relation to civil works, equipment, consulting services, recurrent costs, and financial charges during construction. The government will finance taxes and duties, and part of contingencies, for a total of \$60.2 million.

A. Cost Estimates Preparation and Revisions

14. The cost estimates were prepared by the RDA, based on the bill of quantities in accordance with the employer's detailed design. The project cost will be updated from time to time during project implementation with conditions set forth in the contracts.

B. Key Assumptions

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

- (i) Exchange rate: SLRs 157.83 = \$1.00 (as of 4 May 2018).
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 8: Escalation Rates for Price Contingency Calculation

Item	Escalation Rates (%)						Average
	2018	2019	2020	2021	2022	2023	
Foreign rate of price inflation	1.5	1.5	1.5	1.6	1.6	1.6	1.6
Domestic rate of price inflation	4.3	5.3	5.3	5.3	5.3	5.3	5.2

Source: Asian Development Bank.

- (iii) In-kind contributions cannot be easily measured and have not been quantified.

C. Detailed Cost Estimates by Expenditure Category

Table 9: Detailed Cost Estimates by Expenditure Category and Financier

Component	Government		ADB		Total	
	\$ million	%	\$ million	%	\$ million	% of total cost
A. Investment Cost						
1. Civil works	0.0	0.0	241.7	100.0	241.7	67.1
2. Equipment	0.0	0.0	25.7	100.0	25.7	7.1
3. Consultants						
a. CSC	0.0	0.0	7.1	100.0	7.1	2.0
b. ETC management	0.0	0.0	3.0	100.0	3.0	0.8
c. Others	0.0	0.0	1.1	100.0	1.1	0.3
Subtotal (A)	0.0	0.0	278.6	100.0	278.6	77.3
B. Recurrent Cost	0.0	0.0	3.0	100.0	3.0	0.8
C. Tax and Duties	42.2	100.00	0.0	0.0	42.2	11.7
D. Contingencies						
1. Physical	12.6	89.1	1.5	10.9	14.1	3.9
2. Price	5.4	89.1	0.7	10.9	6.1	1.7
Subtotal (D)	18.0	89.1	2.2	10.9	20.2	5.6
E. Financial Charges						
Implementation						
1. Interest during Construction	0.0	0.0	15.4	100.0	15.4	4.3
2. Commitment Charges	0.0	0.0	0.8	100.0	0.8	0.2
Subtotal (E)	0.0	0.0	16.2	100.0	16.2	4.5
Total (A+B+C+D+E)	60.2	16.7	300.0	83.3	360.2	100.0

ADB = Asian Development Bank, CSC = construction supervision consultant, ETC = electronic toll collection.

Note: The costs of the actual audits of the project are minor and will be borne by the government.

Source: Asian Development Bank estimates.

D. Allocation and Withdrawal of Loan Proceeds

Table 10: Regular OCR Loan – Allocation and Withdrawal of Loan Proceeds

CATEGORY		ADB FINANCING	
Number	Item	Amount Allocated (\$ million equivalent)	Percentage and Basis for Withdrawal from the Loan Account
1	Works and equipment	267.40	100% of total expenditure claimed*
2	Consulting services	11.20	100% of total expenditure claimed*
3	Project management	3.00	100% of total expenditure claimed*
4	Interest and commitment charge	16.20	100% of amount due
5	Unallocated	2.20	
	Total	300.00	

ADB = Asian Development Bank, OCR = ordinary capital resources.

* Exclusive of taxes and duties imposed within the territory of the Borrower.

Source: Asian Development Bank.

E. Detailed Cost Estimates by Year

Table 11: Detailed Cost Estimates by Year
(\$ million)

Component	Total Cost	Year							
		2018	2019	2020	2021	2022	2023	2024	2025
A. Investment Cost									
1. Civil works	277.90	0.00	73.85	114.24	53.24	12.36	0.00	0.00	24.23
2. Equipment	29.60	0.00	0.46	11.94	17.16	0.00	0.00	0.00	0.00
4. Consultants									
a. CSC	8.20	0.00	2.04	3.27	1.64	0.41	0.24	0.24	0.33
b. ETC management	3.50	0.00	1.04	1.04	0.87	0.52	0.00	0.00	0.00
c. Others	1.30	0.00	0.17	0.42	0.59	0.08	0.00	0.00	0.00
Subtotal (A)	320.40	0.00	77.56	130.91	73.50	13.37	0.24	0.24	24.56
B. Recurrent Costs	3.40	0.00	0.86	0.86	0.86	0.34	0.17	0.17	0.17
C. Contingencies									
1. Physical	14.10	0.00	3.41	5.73	3.24	0.59	0.02	0.02	1.07
2. Price	6.10	0.00	0.47	1.87	1.68	0.47	0.02	0.03	1.54
Subtotal (C)	20.10	0.00	3.88	7.60	4.92	1.06	0.04	0.05	2.61
D. Financial Charges during Implementation									
1. Interest during construction	15.40	0.00	1.13	6.07	8.24	0.00	0.00	0.00	0.00
2. Commitment charges	0.80	0.00	0.40	0.25	0.11	0.00	0.00	0.00	0.00
Subtotal (D)	16.20	0.00	1.53	6.32	8.35	0.00	0.00	0.00	0.00
Total (A+B+C+D)	360.20	0.00	83.83	145.69	87.63	14.77	0.45	0.46	27.34

CSC = construction supervision consultant, ETC = electronic toll collection

Source: Asian Development Bank estimates.

F. Contract and Disbursement S-Curve

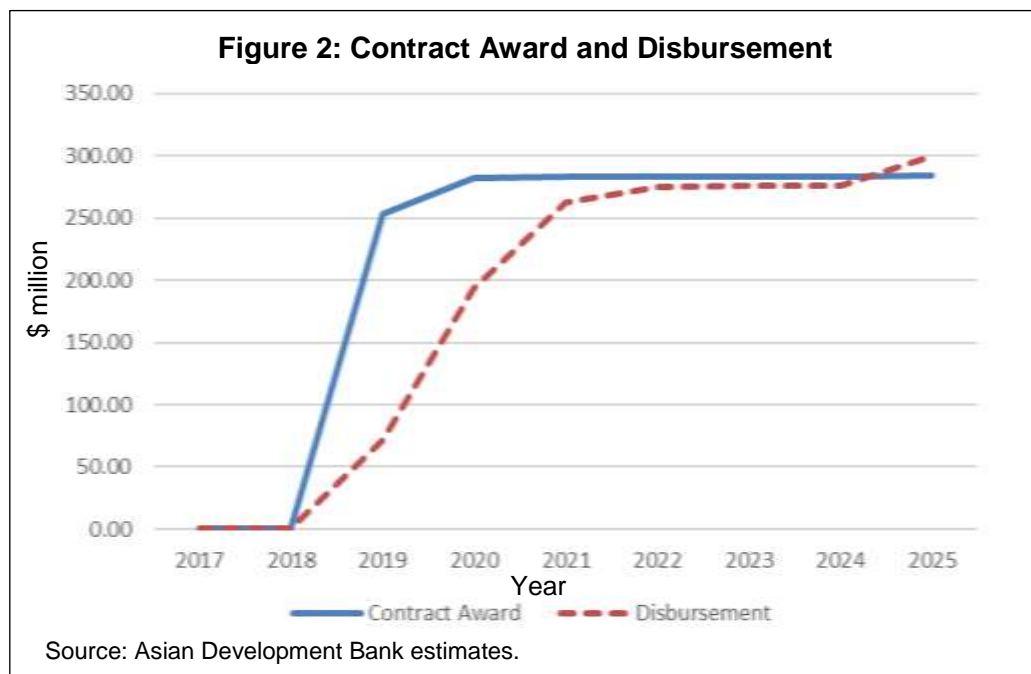


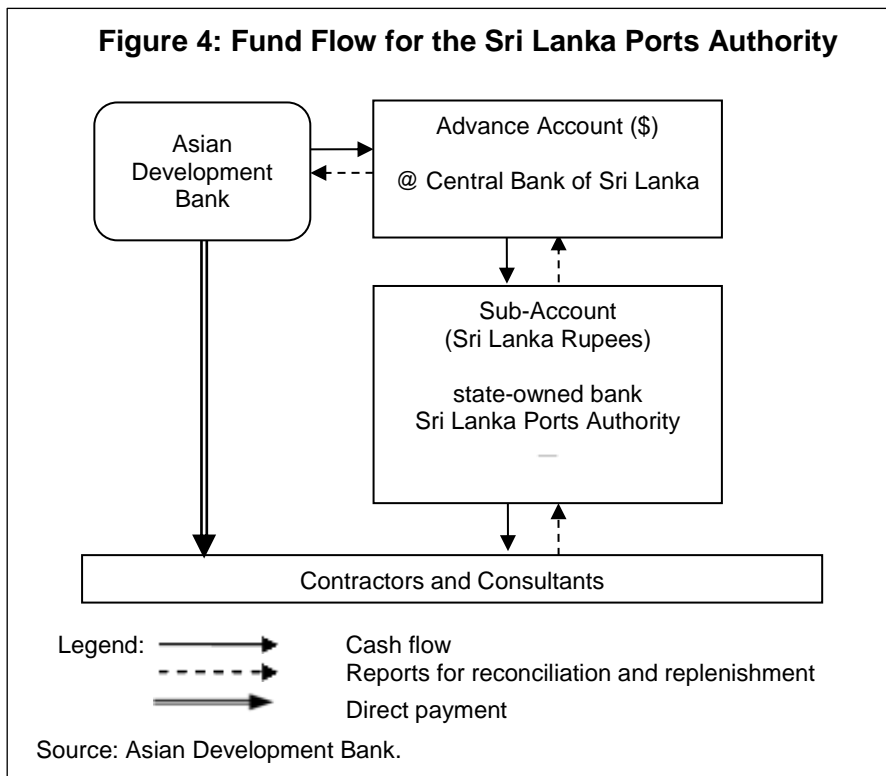
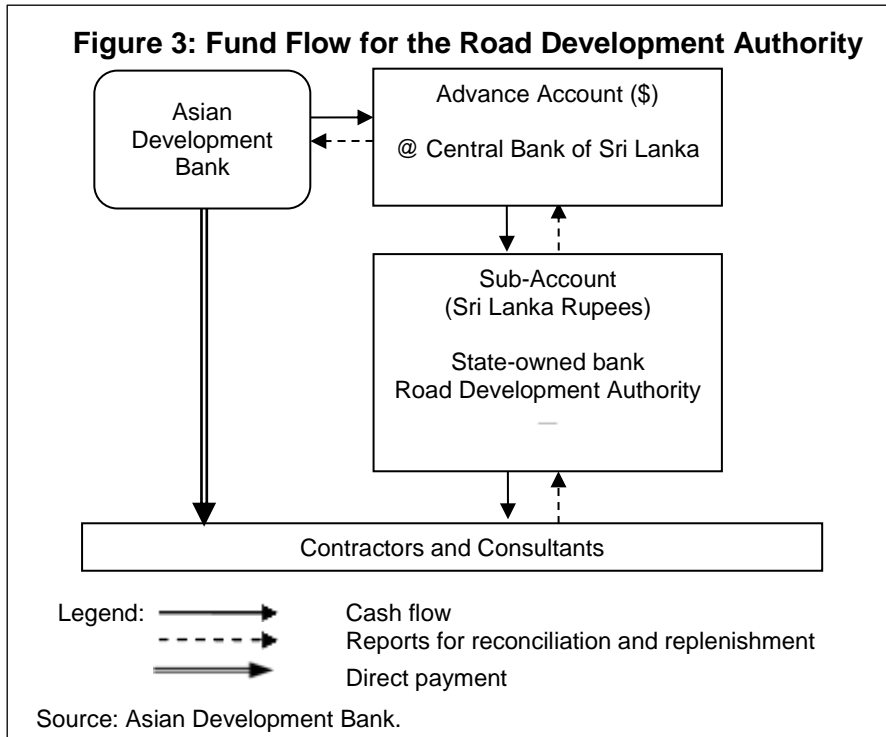
Table 12: Contract Award and Disbursement
(\$ million)

Item	Total	2017	2018	2019	2020	2021	2022	2023	2024	2025
Contract award	283.79	0.00	0.00	253.53	28.76	0.75	0.30	0.15	0.15	0.15
Disbursement	300.00	0.00	0.00	71.70	121.50	69.10	12.90	0.40	0.40	23.90

Source: Asian Development Bank estimates.

G. Fund Flow Diagram

16. The following diagrams show how the funds will flow from ADB and the Borrower to implement project activities.



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

17. The financial management assessment (FMA) for the RDA was conducted in January 2018 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note.⁶ The FMA considered the capacity of the RDA and the SLPA, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management risks identified are (i) staffing for the financial management (RDA) and (ii) reporting quality linked between financial and physical progress. Overall premitigation financial management risk of the RDA and the SLPA is considered *moderate*. Both the RDA and the SLPA have adopted advance fund and statement of expenditure (SOE) procedures for other ADB-funded projects. The RDA and SLPA have agreed to implement an action plan as key measures to address deficiencies. The financial management action plan is provided in Table 13. Financial management risks and risk-mitigation measures should be reviewed and updated throughout the life of the project.

Table 13: Financial Management Action Plan

Key Risks	Risk Mitigating Activity	Timeline	Responsible Entity
Staffing	All approved staff must be in place.	Before start of the project	RDA/MOHRD SLPA/MOPS
Internal audit	A thorough internal audit system should be in place. The project should be included in the annual audit plans.	At project start	RDA/MOHRD SLPA/MOPS
Training on ADB policies and procedure	Training all field staff involved in the ADB project.	Before start of the project	ADB
Reporting and monitoring	Prepare quarterly reports for the ADB project including financial and disbursement, as well as variance analysis of physical and financial progress.	At project start	RDA/SLPA

ADB = Asian Development Bank, MOHRD = Ministry of Highways and Road Development, MOPS = Ministry of Ports and Shipping, RDA = Road Development Authority, SLPA = Sri Lanka Ports Authority.

Source: Asian Development Bank.

18. **Road Development Authority.** The RDA has comprehensive experience in implementing ADB-funded projects and has satisfactory capacity in terms of project financial accounting and knowledge of ADB procedures. The RDA has a dedicated project accounting and finance team with suitable qualified accountants: a project accountant, an accounts assistant, and three management accounting assistants. The RDA will maintain separate project records and accounts to identify the financing resources received and expenditures made for the project, ensuring an adequate audit trail. The RDA operates with the Computer Integrated Government Accounting System (CIGAS) for monthly cash reports under statutory reporting. The PIUs under the RDA use a combination of manual and off-the-shelf packages for accounting and recording purposes. The government's Office of the Auditor General annually audits the project financial statements and related accounts in accordance with the Sri Lanka Auditing Standards. Audited

⁶ The FMA for the SLPA was conducted in July–August 2016, and updated information was collected in May 2018.

project financial statements for previous ADB-funded projects implemented by the RDA were of adequate quality and there are no significant unresolved audit observations.

19. The RDA's own audited statutory financial statements for fiscal year (FY) 2015 indicate that the department is functioning primarily with treasury grants but has adequate financial management and internal controls. The audit has been sometimes delayed. The audited financial statements for FY2016 have been reviewed by the Auditor General's Department, and are currently awaiting parliamentary approval. The financial statements are prepared in accordance with the Sri Lanka Accounting Standards. The RDA is primarily governed by financial regulations of the government and has an internal audit department. ADB-funded projects are subject to internal audit—this project should be included in their annual audit program.

20. Timely availability of counterpart funds has been identified as an issue in previous projects. To minimize the risk of implementation delays, ADB's direct payment procedure will be used for disbursements above \$100,000 for works, goods, and consulting services. The permanence of staff throughout the implementation period is also essential. Frequent transfer of staff should be minimized. Continuous training should be given to new and existing staff to minimize this type of loss.

21. Since the proposed SASEC Port Access Elevated Highway is a toll-based project, toll collection and management underwent evaluation. The Expressway Operation Maintenance and Management Division (EOM&M) under the RDA currently manages the existing toll-based expressways and toll system. The toll system uses both electronic and manual modes of toll collection. There is a teller superintendent supported by assistant teller superintendent per location, with head tellers per shift under the assistant teller superintendent. Tellers staff the tolling booths and report to the head teller. The amount collected from the booths are remitted on a daily basis by the head teller to the Bank of Ceylon collection account. Monthly reconciliation is carried out by the EOM&M finance staff. The Internal Audit Department of the RDA also check the documents on a quarterly basis. Monthly accounts with a bank reconciliation statement are submitted to the RDA Finance Director. Periodic maintenance of the expressways is carried out by the RDA through the EOM&M. Total revenue from the expressways was about SLRs7.9 billion in 2017, while operation and maintenance expenses were about SLRs2.3 billion. There is a big surplus in the toll account after meeting toll operation expenses and maintenance expenses.

22. **Sri Lanka Ports Authority.** The SLPA was established as a government entity by Parliament under Ports Authority Act No. 51 of 1979 and amendments thereafter. The SLPA has satisfactory capacity in project financial accounting and ADB disbursement processes. The SLPA accounts division is headed by the Director (Finance). The Director is supported by the chief finance manager and the deputy chief finance manager in the head office has support staff. All the staff are permanent SLPA officers. The SLPA keeps all its financial transactions according to financial regulations of the government. It follows accrual basis accounting in accordance with Sri Lanka Accounting Standards and is also consistent with international accounting standards. The internal audit division of the SLPA is also under the Chief Internal Auditor. The government's Office of the Auditor General is the external auditor of the SLPA. The annual audit is carried out in accordance with Sri Lanka Auditing Standards.

23. Accounting deficiencies and insufficient information disclosure were brought up by the auditors in their audits for the year 2016. They also pointed out the financial weakness of the

SLPA in analyzing some indicators although financials have since recovered after 2015.⁷ Although the SLPA is a revenue-earning agency with about \$250 million operating revenue and the project cost under the SLPA responsibility is relatively small (about \$6 million), the revenue is not always sufficient to meet the necessary expenditures of the SLPA. To minimize the risk of implementation delays, ADB's direct payment procedure will be used for disbursements above \$100,000 for works, goods, and consulting services. In addition, considering the features of the project and financial situation of the SLPA, the proceeds of the loan will be granted to the SLPA not through a subsidiary loan from the government.

B. Disbursement

1. Disbursement Arrangements for ADB

24. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time), and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.⁸ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

25. ADB's disbursement procedures (direct payment, commitment, reimbursement, and/or advance fund) will be used for withdrawal of project funds. A separate advance account in US dollars at the Central Bank of Sri Lanka and a sub-account in local currency in a state-owned bank will be established and maintained by each implementing agency. A local currency account for the related sub-account will also be established and administered by each implementing agency to facilitate disbursements in local currency costs. Direct payment procedure by ADB will be utilized for progress payments above \$100,000 for civil works, equipment, and consultants' fees. Reimbursement and/or advance fund (liquidation or replenishment) procedures will be utilized for recurrent costs (project management) and for progress payments less than \$100,000 on civil works, equipment, and consultants' fees.

26. **Advance fund procedure.** The advance accounts will be established, managed, replenished, and liquidated in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time). Separate advance accounts should be established and maintained by RDA and SLPA for each funding source. The currency of the advance accounts is the US dollar. The advance accounts are to be used exclusively for ADB's share of eligible expenditures. The RDA and SLPA, which will administer the advance accounts are accountable and responsible for proper use of advances to the advance accounts including advances to any sub-accounts and will be responsible for preparing documents for liquidation/replenishment.

27. The total outstanding advance to the advance accounts should not exceed the estimate of ADB's share of expenditures to be paid through the advance accounts for the forthcoming 6 months. The RDA and SLPA may request for initial and additional advances to the advance accounts based on an Estimate of Expenditure Sheet⁹ setting out the estimated expenditures to be financed through the accounts for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the RDA and SLPA in accordance with ADB's *Loan Disbursement*

⁷ Financial statements in the 2016 Annual Report show that profit before tax of the SLPA has been improved from a loss of SLRs14,169 million in 2015 to SLRs 1,036 million in 2016. The 2017 financial statements is under the Auditor General's review, but it shows further improvement of the profit to SLRs13,222 million in 2017.

⁸ Disbursement e-Learning: http://wpqr4.adb.org/disbursement_elearning.

⁹ Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

Handbook (2017, as amended from time to time) when liquidating or replenishing the advance accounts.

28. **Statement of expenditure procedure.**¹⁰ The SOE procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

29. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is stipulated in ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the RDA or SLPA and subsequently claimed from ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. The use of ADB's Client Portal for Disbursements (CPD) system is encouraged for submission of withdrawal applications to ADB.¹¹

2. Disbursement Arrangements for Counterpart Fund

30. Counterpart funds will be provided by the Ministry of Finance and Mass Media through the MOHRD to the RDA as direct budgetary support. The SLPA will secure counterpart funds under their responsibility from their own resources. The project implementation units will be responsible for annually (i) preparing disbursement projections and (ii) requesting budgetary allocations for counterpart funds.

C. Accounting

31. The RDA and SLPA will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project and prepare separate project financial statements in accordance with the government's accounting laws and regulations, which are consistent with international accounting principles and practices (International Financial Reporting Standards and national accounting standards). The financial statements shall include at the minimum, a statement of receipts and payments with accompanying notes and schedules.

D. Auditing and Public Disclosure

32. The RDA and SLPA 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 audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the RDA and SLPA.

¹⁰ SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

¹¹ The CPD facilitates online submission of withdrawal application to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

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

34. In addition to the annual audited project financial statements referred to in paragraph 32, the RDA and the SLPA will provide their annual financial statements prepared in accordance with financing reporting standards acceptable to ADB. The entity-level financial statements will be audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB. The audited financial statements together with the auditors' opinion will be presented in the English language to ADB within 1 month after approval by the relevant authorities of the RDA and the SLPA.

35. 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.

36. The government, the MOHRD, the MOPS, the RDA, and the SLPA have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹² ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB financing is used in accordance with ADB policies and procedures.

37. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.¹³ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days from ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹⁴

¹² ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

¹³ Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

¹⁴ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

38. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, MOHRD, MOPS, the RDA, and the SLPA have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

39. **Advance contracting.** Advance contracting will be carried out for works, equipment, and consulting services.

40. **Retroactive financing.** Withdrawals from the loan account may be made to finance eligible expenditures incurred under the project before the effective date, but not earlier than 12 months before the date of the loan agreement in connection with items to be retroactively financed, subject to the maximum amount equivalent to 20% of the loan amount.

B. Procurement of Goods, Works, and Consulting Services

41. All procurement of goods and works will be undertaken in accordance with ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

42. Open competitive bidding with international advertisement will be used for civil works contracts estimated to cost \$15,000,000 or more, and supply contracts valued at \$2,000,000 or higher. Request for quotations will be used for procurement of works and equipment worth less than \$100,000.

43. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

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

45. All consultants will be recruited according to ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).¹⁵ The terms of reference for all consulting services are detailed in Appendix C.

46. To facilitate project management and implementation, an international firm (or joint venture) will be recruited as construction supervision consultants (CSC). The total person-months is estimated at 153 for international consultants and 1,611 for national consultants. The consulting firm will be engaged using the quality- and cost-based selection method with a standard quality-

¹⁵ 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/>

cost ratio of 90:10 as the nature of the assignment requires priority consideration for quality.¹⁶ Another firm will be recruited as project management consultant for the electronic toll collection system with the same selection method as the CSC.

C. Procurement Plan

47. The procurement plan is in Appendix B and describes all procurement of goods, works, and consulting services to be undertaken.

D. Consultant's Terms of Reference

48. Outline terms of reference of the consulting services to be financed under the project are in Appendix C.

C-1: Construction Supervision Consultants

C-2: Project Management Consultants for Electronic Toll Collection

C-3: Individual consultants

VII. SAFEGUARDS

49. **Environment safeguards.** The project is classified *B* in accordance with ADB's Safeguard Policy Statement (2009) as no significant irreversible environmental impacts are expected. Initial environment examination (IEE) reports have been prepared for the highway construction and the maritime facilitation center and are disclosed on the ADB website.

50. The environmental management plan (EMP) is for mitigating all anticipated environmental impacts during project construction and operation and will be included in the contract agreement with the respective civil works contractor. Specific mitigation measures with details on location, time, and the responsible agency for implementation are given in the EMP. The environmental monitoring plan (EMOP) is a plan for monitoring various environment quality parameters and checking the effectiveness of the EMP. It comprises activities on testing the quality of air and water through laboratory tests, measuring levels of noise and vibration and physical monitoring of problems of soil erosion, tree plantations and occupational health and safety issues. The most sensitive impact expected in this project are noise and vibration effects on old historical buildings located along the elevated road alignment. Both the EMP and EMOP include stringent measures to control and monitor noise and vibration levels.

51. **Implementation arrangements for environment safeguards.** The responsibilities of various agencies and parties for implementing environment safeguards are provided below.

52. **Environment and Social Safeguard Division (ESSD), RDA.** The RDA through the ESSD will be responsible for ensuring the implementation of environment safeguards under the project as required in the respective IEE and EMP in accordance with ADB's Safeguard Policy Statement (SPS) and environmental regulations of the Government of Sri Lanka. The RDA will ensure timely processing and securing of all statutory clearances and permits such as the environmental clearance, tree cutting permits and others. One environmental officer from ESSD will be responsible for managing the overall implementation of environment safeguards under the

¹⁶ The consultants will be required to support the implementation of several innovative activities, including performance-based maintenance and climate change adaptation measures. Therefore, 90:10 is considered more appropriate.

project. Annual environmental monitoring reports prepared by the contractor and CSC will be reviewed and verified by the ESSD and submitted to ADB for disclosure on the ADB website. Consultations will be held and technical advice sought from the Department of Archeology on issues concerning historical buildings as necessary.

53. **Construction supervision consultant.** The CSC will be responsible for supervising implementation of the EMP and EMOP by the contractor. The CSC will include an environmental expert who will be responsible for regular site level supervision and monitoring. All sub-plans such as construction camp layout plan, waste management plan, borrow area management plan, traffic management plan, tree plantation plan and others prepared by the contractor will be reviewed and approved by the CSC. The environmental expert will review and verify monthly or quarterly environmental reports prepared by the contractor. Based on site inspections and environmental reports from the contractor the environmental expert will prepare annual environmental monitoring reports. The CSC will also carry out capacity-building activities on the implementation of environment safeguards through training workshops and on-site training for the contractor as necessary.

54. **Contractor.** The contractor will implement the EMP and EMOP. A team of qualified environmental health and safety experts will be recruited within 30 days of contract signing. These personnel will be present in all construction areas and camp sites and ensure proper day-to-day implementation of the EMP. The EMOP will include data collection on air, water, noise and vibration following protocols as provided in the IEE. Monthly or quarterly environmental monitoring reports will be prepared for review and approval by the CSC.

55. **Social safeguards and indigenous peoples.** The project is classified C for both involuntary resettlement and indigenous peoples in accordance with ADB's SPS. The CSC will undertake continued monitoring and will notify the implementing agency if any impact may occur. The ESSD of RDA will conduct annual monitoring to verify that there are no impacts during implementation and that information disclosure and meaningful consultation are continued throughout the construction period. The result will be compiled as part of the annual safeguard monitoring report. The project director will review the report and submit it to ADB for review and disclosure. If unanticipated impacts are found during project implementation, the RDA will conduct a social impact assessment and formulate mitigation measures in line with the applicable requirements of the ADB's SPS.

56. The RDA will adhere to the ADB's SPS objectives, which are: (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring design alternatives; (iii) to enhance or at least to restore, the livelihood of all displaced persons in real terms relative to pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups. Specifically, RDA will (i) implement the project in accordance with any safeguard planning document; (ii) ensure that all displaced persons (if any) should be paid compensation and assistance prior to the commencement of the civil works; (iii) ensure that land that is free of encumbrance can be handed over to the contractors; (iv) undertake continued meaningful consultation; (v) establish efficient grievance redress mechanisms to assist affected persons to resolve grievances and complaints in a timely manner; and (vi) submit annual monitoring reports to ADB on the implementation of the safeguard activities.

57. **Prohibited investment activities.** Pursuant to ADB's SPS, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth in Appendix 5 of the SPS.

58. **Grievance redress mechanism.** Grievances from the affected people on social and environmental issues during project implementation will be addressed mainly through the existing local administrative system. Depending on the nature and significance of the grievances or complaints, grievances will be addressed at three levels. The first will be at the grassroots level where complaints will be directly received and addressed by the contractor and the PIU representative on site. Grievances which are simple but still cannot be addressed at the grass roots level will be addressed at the divisional secretariat level. More complex grievances which cannot be addressed at the Grama Niladhari level will be addressed at the district secretariat level.¹⁷

59. There will be a grievance redress committee (GRC) at the Grama Niladhari and district secretariat levels with the following composition.

Table 14: Composition of Grievance Redress Committee

Supervisory Level and GRC Members		Position
I. Divisional Secretariat Level		
1.	Divisional secretary of the area	Chair
2.	Representative of PMU	Secretary
3.	Representative of SLPA	Member
4.	Representative of CSC	Member
5.	Representative of Contractor	Member
6.	Representative of NGO/CSO/CBO	Member
7.	A community member/religious leader	Member
8.	Woman representative from the local community	Member
II. District Level		
1.	District secretary of the area	Chair
2.	Representative of the PMU	Member
3.	Representative of the SLPA	Member
4.	Representative of the CSC	Member
5.	Representative of the contractor	Member
6.	A community member/religious leader	Member
7.	Representative from CBO/NGO	Member
8.	Woman representative from the community	Member

CBO = community-based organization, CSC = construction supervision consultant, CSO = civil society organization, GRC = grievance redress committee, NGO = nongovernment organization, PMU = project management unit, SLPA = Sri Lanka Ports Authority.

Source: Asian Development Bank.

60. For the mechanism to be gender-responsive, the GRC will include one woman member to represent the local community women. Furthermore, when grievances or complaints are submitted to the GRC, both women and men complainants will be treated equally and necessary measures will be taken to address the grievance in the best way possible.

¹⁷ Grama Niladhari division is governed administratively by a Grama Niladhari (village officer) who is a public official appointed by the Central Government of Sri Lanka. A division is a sub-unit of the divisional secretariat. There are 14,022 grama niladhari divisions under 332 divisional secretary's division in Sri Lanka. The divisions are under Home Affairs Division of the Ministry of Home Affairs.

VIII. GENDER AND SOCIAL DIMENSIONS

A. Gender and Development

61. The project is categorized *some gender elements* per the Guidelines for Gender Mainstreaming Categories of ADB Projects.¹⁸ Table 15 lists the gender-related measures under the project and the institutions responsible for their implementation.

Table 15: Provisions of Gender-related Measures

	Activity	Responsibility
1	Integrating elderly- women- children- disabled-friendly features in the designs of the maritime facilitation center, including separate toilets for male and female, and disability-friendly access features	<ul style="list-style-type: none"> ▪ Detailed design by design consultant. ▪ Monitoring by ESDD.
2	Targeting 50% of members of the GRC to be women	<ul style="list-style-type: none"> ▪ Implementation by ESDD
3	Provision in the bidding document and civil works contract to ensure that all applicable labor laws will be complied with, including not employing child labor for construction; encouraging increased employment of women and local poor; and not differentiating wages between men and women for work of equal value	<ul style="list-style-type: none"> ▪ Implementation by civil works contractor ▪ Implementation monitoring by CSC

CSC = construction supervision consultant, ESDD = Environment and Social Development Division (RDA), GRC = grievance redress committee, RDA = Road Development Authority.

Source: Asian Development Bank.

B. Health

62. The RDA shall ensure that civil works contractors provide adequately for the health and safety of construction workers and further ensure that bidding documents include measures on how contractors will address this, including an information and awareness raising campaign for construction workers on sexually transmitted diseases, HIV/AIDS, and human trafficking. The SLPA is encouraged to display awareness raising materials in strategic locations in the port during operations. The project management consultant (PMC) will monitor.

C. Labor

63. The RDA will ensure that works contracts under the project follow all applicable labor laws of the government and that these further include provisions that contractors will (i) carry out semi-annual HIV/AIDS awareness programs for labor and disseminate information at work sites on risks of sexually transmitted diseases and HIV/AIDS, as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.

¹⁸ Updated Gender Mainstreaming Categories of ADB Projects.
<https://lpdgedmz.adb.org/lnadbg1/ocs0178p.nsf/0/37CC7D6E8E3CC57D482576E20083C156?OpenDocument>

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

64. The design and monitoring framework (DMF) for the project is in Appendix A.

B. Monitoring

65. **Project performance.** The achievement of the project performance targets will be assessed following the DMF. The RDA, assisted by the CSC, survey and preliminary engineering consultants, and other consultants as required, will establish and assist in the implementation of a project performance management system (PPMS). The PPMS will include detailed methodology of data collection and analysis ensuring statistical validity, isolation of compounding factors, and comparison with baseline and control data. As a minimum, the indicators will be monitored before and after the construction of the project road.

66. Indicators to be monitored may include, but not be limited to: (i) traffic volume and travel time on the constructed road; (ii) the number of cargo trucks from and to the port, (iii) the number of cargo trucks from and to the port that use the elevated highway; (iv) periods of construction, amounts and frequencies of variation orders, and frequencies and durations of holding up of civil works (by causes, including instances of holding up of civil works due to the omissions in design); (v) toll revenue collected from the elevated highway and enforcement ratio (with the support of the PMC for the electronic toll collection system); (vi) the progress of other project components such as the maritime facilitation center and the SLPA's civil works (with the support of individual consultants and SLPA), and (vi) the number of accidents on the project road.

67. The RDA will also monitor (i) the project budget and actual expenditures, (ii) road maintenance and operation expenses, (iii) toll revenue from the elevated highway, and (iv) other relevant indicators.

68. The results of the performance monitoring will be carefully documented and made accessible to the MOHRD, the RDA, and ADB. The CSC will establish a practice of annual presentation to the MOHRD, the RDA, and ADB on the key performance indicators of the project. The MOPS and the SLPA will provide the RDA with required performance indicators for the components under SLPA responsibility.

69. **Compliance.** Compliance with loan covenants will be monitored through ADB's (i) project administration missions, including the inception mission, to discuss and confirm the timetable for compliance with the loan covenants; (ii) review missions to check the compliance with particular loan covenants and, where there is any noncompliance or delay, to discuss proposed remedial measures with the MOHRD, the MOPS, the RDA and the SLPA; and (iii) midterm review mission if necessary to review covenants to assess whether they are still relevant or need to be changed, or waived due to changing circumstances.

70. **Environment.** The ESSD will conduct periodic site inspections and verify all monitoring reports submitted by the CSC. The CSC will prepare quarterly environmental monitoring reports based on site inspections and reports submitted by the contractor. These quarterly reports will be compiled into annual environmental monitoring reports that will be submitted to the ESSD for their review and endorsement and for further submission to ADB for disclosure on the ADB website.

71. **Social safeguards.** The ESDD will conduct annual monitoring of the project to ensure that there are no impacts of involuntary resettlement or to indigenous peoples, and that the grievance redressal mechanism is functioning. The results will be submitted in the combined annual safeguard monitoring report together with monitoring on environment.

72. **Gender and social dimensions.** The ESDD will conduct annual monitoring of gender and social aspects, especially to ensure that information disclosure is continued and meaningful consultations are taking place. The results will be submitted in the combined annual safeguard monitoring report.

C. Evaluation

73. An ADB inception mission will be fielded within 3 months after the legal agreements for the project have been signed; thereafter, regular reviews will follow at least annually. As necessary, special loan administration missions and a midterm review mission will be fielded, under which any changes in scope or implementation arrangement may be required to ensure achievement of project objectives. The RDA and SLPA will monitor the implementation of the project in accordance with the schedule and time-bound milestones, and keep ADB informed of any significant deviations that may result in the milestones not being met. Within 6 months of physical completion of the project, the RDA in coordination with SLPA will submit a project completion report to ADB.¹⁹

D. Reporting

74. The RDA in coordination with the SLPA 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) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency's audited financial statement together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

75. Various information regarding the project—including scope, general progress status, beneficiaries, invitation for bids, and consultant recruitment notices—will be provided to the general public. The information will be made available and updated through the official RDA website and ADB. ADB's communication strategy is summarized in Table 16.

Table 16: Project Communication Strategy

Project Documents	Means of Communication	Responsible Party	Frequency	Audience
Project data sheet	ADB website	ADB	Initial PDS no later than 30 calendar days from concept approval; quarterly updates afterwards	General public
Design and monitoring framework	ADB website	ADB	Draft DMF after fact-finding mission	General public

¹⁹ Project completion report format available at <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

Project Documents	Means of Communication	Responsible Party	Frequency	Audience
Initial environmental examination reports	ADB website RDA website ^a	ADB	Post fact-finding mission	General public, project-affected people in particular
Social safeguard due diligence reports	ADB website RDA website ^a	ADB	Post fact-finding mission	General public, project-affected people in particular
Summary Poverty Reduction and Social Strategy	ADB website	ADB	Post fact-finding mission for the investment program and each tranche	General public, project-affected people in particular
Legal Agreements	ADB website	ADB	No later than 14 days from Board approval of the project	General public
Project Administration Manual	ADB website	ADB	After loan negotiations	General public
Social Monitoring Reports	ADB website	ADB	Annually	General public, project-affected people in particular
Environment Monitoring Report	ADB website	ADB	Annually	General public, project-affected people in particular

ADB = Asian Development Bank, DMF = design and monitoring framework, PDS = project data sheet, RDA = Road Development Authority.

^a The RDA website will have a hyperlink to ADB's website where all these documents will be posted.

Source: Asian Development Bank.

X. ANTICORRUPTION POLICY

76. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.²⁰ 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.²¹

77. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the project.

XI. ACCOUNTABILITY MECHANISM

78. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working

²⁰ Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²¹ ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.²²

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

79. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

²² Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with Economic growth and regional trade and cooperation of the country facilitated (Public Investment Programme, 2017–2020) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Transport efficiency along the project road increased	By 2026: a. Average travel time from Galle Face to the Colombo–Katunayake Expressway reduced to 7 minutes (2018 baseline: 30 minutes) ^b b. Average daily vehicle-km using the project road increased to 111,500 (2018 baseline: 0) c. Ratio of import cargo traffic using the project road from the port increased to 25% (2018 baseline: 0%) ^c	a.–c. RDA and SLPA surveys	Delay in implementation of trade facilitation agreement may affect smooth trade-related activities
Outputs 1. Elevated toll highway and related infrastructure constructed, upgraded, and installed	By 2025: 1a. About 5.3 km of elevated highway with a ramp to the port constructed (2018 baseline: 0) 1b. About 1.4 km of the existing port access road upgraded to 6 lanes (2018 baseline: 4 lanes) 1c. ETC system installed and commissioned (2018 baseline: not applicable) 1d. Port trade facilities constructed, installed, and commissioned (2018 baseline: not applicable) ^d 1e. Maritime facilitation center constructed with inclusive features for the elderly, women, children, and people with disability, in line with ADB and Sri Lanka practices (2018 baseline: 0)	1a.–e. RDA and SLPA progress reports	Unpredicted administrative and policy changes in port operation requirements not covered by the memorandum of understanding delay civil works.
TA project 2. Tolling operation capacity of expressways strengthened	2a. By 2019, new toll rate policy guideline endorsed by the RDA (2018 baseline: not endorsed) 2b. By 2019, operational and management parameters to be obtained from the ETC system approved (2018 baseline: not approved) 2c. By 2020, organization structure and human resources plan for IT division submitted to the RDA (2018 baseline: not applicable)	2a.–c. Reports by the TA consultants	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	2d. By 2022, at least 10 RDA IT staff reported increased knowledge and skills in ETC (2018 baseline: not applicable)	2d. Reports by the TA consultants and participant surveys	
TA project 3. Support for trade logistics facilitation provided	3a. By 2019, at least two diagnostic studies on risk management systems submitted to the SLCD (2018 baseline: 0) 3b. By 2020, feasibility study for a new customs inspection facility submitted to the SLCD (2018 baseline: not applicable) 3c. By 2020, technical design and business case for the ECTS submitted to the SLCD (2018 baseline: not applicable)	3a.–c. Reports by the TA consultants	

Key Activities with Milestones

1. Elevated toll highway and related infrastructure constructed, upgraded and installed

- 1.1 Award the maritime facilitation center construction contract by 2019
- 1.2 Award road construction contract by 2018
- 1.3 Award toll collection system contract by 2019
- 1.4 Relocate 49 affected SLPA facilities by 2020
- 1.5 Complete maritime facilitation center by 2020
- 1.6 Complete road construction works and toll collection installation by 2021

2. Tolling operation capacity of expressways strengthened

- 2.1 Mobilize TA consultants by 2019
- 2.2 Develop toll rate policy and guidelines by 2019
- 2.3 Prepare action plan to create enabling policy environment for the toll collection system by 2020
- 2.4 Develop action plans for the establishment of an IT section by 2020
- 2.5 Conduct training program by 2022

3. Support for trade logistics facility provided

- 3.1 Mobilize TA consultants by 2019
- 3.2 Prepare reports on risk management and cross-border compliance by 2019
- 3.3 Prepare technical design and business case for the ECTS by 2020
- 3.4 Prepare a study for a new customs inspection facility by 2020

Inputs

ADB: \$300,000,000 (regular loan); \$500,000 (TASF-6 grant)
 Government: \$60,200,000
 Japan Fund for Poverty Reduction: \$1,250,000 (TA grant)

Assumptions for Partner Financing

Output necessary to reach design and monitoring framework outcome that is not administered by ADB includes:
 New Kelani Bridge constructed (Japan International Cooperation Agency)

ADB = Asian Development Bank, ECTS = electronic cargo tracking system, ETC = electronic toll collection, IT = information technology, km = kilometer, RDA = Road Development Authority, SLCD = Sri Lanka Customs Department, SLPA = Sri Lanka Ports Authority, TA = technical assistance, TASF = Technical Assistance Special Fund.

^a Government of Sri Lanka, Ministry of National Policies and Economic Affairs. 2017. [Public Investment Programme 2017-2020](#). Colombo.

^b The travel time includes 2 km of the New Kelani Bridge section.

^c The target indicator is linked to outputs of the TA for Supporting Trade Logistics Facilitation and the implementation progress of the trade facilitation agreement, particularly through the physical inspection rate.

^d The port trade facilities include the construction of a customs office and security gates at the port ramp, construction of internal roads from the security gates to an existing road and between container terminals, and procurement of a cargo inspection scanner.

Source: Asian Development Bank.

PROCUREMENT PLAN

Basic Data		
Project Name: South Asia Subregional Economic Cooperation Port Access Elevated Highway Project		
Project Number: 50299-001	Approval Number: xxx	
Country: Sri Lanka	Executing Agency: Ministry of Highways and Road Development; and Ministry of Ports and Shipping	
Project Procurement Classification: B	Implementing Agency: Road Development Authority (RDA); and Sri Lanka Ports Authority (SLPA)	
Procurement Risk: Medium		
Project Financing Amount: \$ 360,200,000 ADB Financing: \$ 300,000,000 Cofinancing: Non-ADB Financing: \$ 60,200,000	Project Closing Date: 31 December 2025	
Date of First Procurement Plan: 02 August 2018	Date of this Procurement Plan: 02 August 2018	
Procurement Plan Duration: 18 months	Advance contracting: Yes	eGP: No

A. Methods, Review and Procurement Plan

Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works and consulting services.

Procurement of Goods and Works		
Method	Applicability	Comments
Open Competitive Bidding (international advertisement)	\$15,000,000 and above	
Open Competitive Bidding (national advertisement)	Between \$100,000 and \$14,999,999	
Request for Quotation	Up to \$100,000	

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	90:10 quality to cost ratio
Individual consultant selection for individual consultants	

B. List of Active Procurement Packages (Contracts)

The following table lists goods, works and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

Goods and Works							
Package Number	General Description	Estimated Value	Procurement Method	Review	Bidding Procedure	Advertisement Date	Comments
PAEH-CW-01	Construction of Port Access Elevated Highway	\$242,300,000	OCB	Prior	1S1E	Q2/2018	International Advertisement PQ: Yes Domestic preference: No Advance

							contracting: Yes Bid documents: FIDIC Yellow IA RDA
PAEH-CW-02	Construction of maritime facilitation center (building)	\$26,960,000	OCB	Prior	1S2E	Q3/2018	International Advertisement PQ: No Domestic preference: No Advance contracting: Yes Bid documents: FIDIC Yellow IA RDA
PEEH-CW-03	Piling works for maritime facilitation center (piling)	\$3,850,000	OCB	Prior	1S1E	Q2/2018	National Advertisement PQ: No Domestic preference: No Advance contracting: Yes Bid documents: Large works IA RDA
PAEH-CW-04	Construction of workshops	\$2,750,000	OCB	Prior	1S2E	Q3/2018	National Advertisement PQ: No Domestic preference: No Advance contracting:

							Yes Bid documents: FIDIC Yellow IA SLPA
PAEH-EQ-01	Procurement of electronic toll collection system	\$28,400,000	OCB	Prior	2S2E	Q1/2019	International Advertisement PQ: No Domestic preference: No Advance contracting: No Bid documents: IT products and services IA RDA
PAEH-CW-SLPA	Construction of port related facilities	\$2,450,000	OCB	Prior	1S1E	Q1/2020	National Advertisement PQ: No Domestic preference: No Advance contracting: Yes Bid documents: Small works IA SLPA

Consulting Services

Package Number	General Description	Estimated Value	Selection Method	Review ⁶	Type of Proposal ⁷	Advertisement Date	Comments ⁸
PAEH-CO-CSC	Construction Supervision	\$8,170,000	QCBS	Prior	FTP	Q2/2018	Assignment: international advertisement QC ratio: 90:10 Advance

							contracting: yes IA RDA
PAEH-CO-ETC	Electronic toll collection system management	\$3,470,000	QCBS	Prior	FTP	Q4/2018	Assignment: international advertisement QC ratio: 90:10 Advance contracting: yes IA RDA
PAEH-IC-01	Structural Advisor	\$406,000	ICS	Post		Q4/2018	Assignment: international advertisement Expertise: Structural engineer Advance contracting: no IA RDA
PAEH-IC-02	Contract Management Advisor	\$175,000	ICS	Post		Q2/2019	Assignment: international advertisement Expertise: Contract management Advance contracting: no IA RDA
PAEH-IC-03	Contract Engineer	\$128,000	ICS	Post		Q1/2019	Assignment: national advertisement Expertise: Information and telecommunication

							Advance contracting: no IA RDA
PAEH-IC-04	IT specialist	\$100,000	ICS	Post		Q2/2019	Assignment: national advertisement Expertise: Information and telecommunication Advance contracting: no IA RDA
PAEH-IC-05/06	Implementation support for maritime facilitation center	\$73,000/ contract (2 contracts)	ICS	Post		Q3/2018	Assignment: national advertisement Expertise: civil engineer/ building engineer Advance contracting: yes IA RDA
PAEH-IC-07/08	Implementation support for civil works for port related facilities	\$73,000/ contract (2 contracts)	ICS	Post		Q1/2020	Assignment: national advertisement Expertise: civil engineer Advance contracting: no IA SLPA

C. List of Indicative Packages (Contracts) Required under the Project

The following table lists goods, works and consulting services contracts for which the procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e. those expected beyond the current procurement plan duration).

Goods and Works						
Package Number ¹	General Description	Estimated Value	Procurement Method	Review ²	Bidding Procedure ³	Comments ⁵
PAEH-EQ-SLPA	Procurement of equipment required for port facilities	\$1,150,000 (5 contracts)	OCB and/or Request for Quotations	Post	1S1E	National Advertisement PQ: no Domestic preference: no Advance contracting: no Bid documents: Equipment IA SLPA

Consulting Services						
Package Number	General Description	Estimated Value	Selection Method	Review	Type of Proposal	Comments

D. List of Awarded and Completed Contracts

The following table lists the awarded contracts and completed contracts for goods, works and consulting services.

Goods and Works					
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments

Consulting Services					
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments

E. Non-ADB Financing

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

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Selection Method	Comments

F. Open Competitive Bidding with National Advertisement

A. Regulation and Reference Documents

1. The procedures to be followed for open competitive bidding (national) shall conform to the provisions prescribed in the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, amended from time to time) with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB Procurement Guidelines.

B. Procurement Procedures

1. Eligibility

2. The eligibility of bidders shall be as defined under Section I of ADB's Procurement Guidelines (2015, as amended from time to time); accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in Section I of the said guidelines.

2. Registration and Sanctioning

3. Registration is acceptable under the following conditions:

- (i) Bidding shall not be restricted to pre-registered firms under the national registration system of the Institute for Construction, Training and Development (ICTAD), and such registration shall not be a condition for the submission of bids in the bidding process.
- (ii) Where registration is required prior to award of contract, the bidders: (i) shall be allowed a reasonable time to complete the ICTAD registration process; and (ii) shall not be denied registration for reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.
- (iii) National sanction lists or blacklists may be applied only with prior approval of ADB.

3. Prequalification

4. Prequalification is discouraged for open competitive bidding (OCB) (national advertisement). When used, particularly for works contracts, an individual prequalification exercise is acceptable for each contract as is the use of a registration system (or approved standing list) of contractors based on criteria such as experience, financial capacity, and technical capacity. Foreign bidders from eligible countries must, however, be allowed to register and to bid without unreasonable cost or additional requirements.

4. Advertising

5. The posting of OCB (national advertisement) specific notices for contracts valued at less than \$1 million on ADB's website is not required but is highly recommended.

5. Preferences

6. The following shall be observed:

- (i) No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.
- (ii) Foreign suppliers and contractors from ADB member countries shall be allowed to bid, without registration, licensing, and other government authorizations, leaving compliance with these requirements for after award and before signing of contract.

6. Participation by Government-Owned Enterprises

7. Government-owned enterprises in the Democratic Socialist Republic of Sri Lanka shall be eligible to participate only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the procuring entity, or the Project Executing Agency or Implementing Agency.

7. Rejection of Bids and Rebidding

8. Bids shall not be subjected to a test for unrealistic rates. No lowest evaluated and substantially responsive bid shall be rejected on the basis of comparison to rates, including but not limited to market, historical, or agency established rates, without prior approval of ADB.

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

8. Price Negotiations

10. Price negotiation shall be allowed only where the price offered by the lowest evaluated and substantially responsive bidder substantially exceeds costs estimates. Approval of ADB is required prior to any negotiation of prices.

C. Bidding Documents

9. Acceptable Bidding Documents

11. Procuring entities shall use standard bidding documents acceptable to ADB for the Procurement of Goods, Works and Consulting Services, based ideally on the standard bidding documents issued by ADB.

10. Bid Security

12. Where required, bid security shall be in the form of a certified check, a letter of credit or a bank guarantee from a reputable bank.

11. ADB Policy Clauses

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

14. A provision shall be included in all bidding documents for OCB (national advertisement) works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.

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

I. TERMS OF REFERENCE FOR CONSTRUCTION SUPERVISION CONSULTANTS PORT ACCESS ELEVATED HIGHWAY PROJECT

A. Introduction

1. The Democratic Socialist Republic of Sri Lanka has applied for a loan from the Asian Development Bank (ADB) that will be utilized for implementing the South Asia Subregional Economic Cooperation (SASEC) Port Access Elevated Highway (PAEH) Project. Part of the loan will be used for providing construction supervision and implementation of the project.
2. The executing agency for the Project is the Ministry of Highways and Road Development (MOHRD) and the Employer is the Road Development Authority (RDA).
3. The RDA seeks to engage a consultant with experience in the construction supervision of viaduct (Elevated Highway) with post-tensioned box girder and administered based on FIDIC yellow book.
4. The proposed SASEC Port Access Elevated Highway commences from Ingurukade Junction and ends at Galle Face traverses through Sri Lanka Ports Authority (SLPA) premises. The total length of the 4-lane elevated highway is 5.3 km. Entry/exit ramps at an appropriate location in Colombo port area and at end of Elevated Highway near Fort will be provided. Further start-up provisions for Aluthmawatha and Pettahrapm will be constructed. The project also includes widening of existing 4-lane ground-level Port Access Road to 6 lanes. In addition to that existing Port Internal Road sections will be made to six lane roadway where the roads are affected due to this proposed elevated highway construction.
5. Due to shifting of some of the existing buildings in the SLPA, the possession of the site will be given in sections probably in two stages.
6. As the Proposed road corridor is located mainly on the Sri Lanka Port Authority premises, any port daily activities shall not be disturbed during the construction. Further the entrance to the Port premises is strictly restricted. Necessary passes could be obtained by the Consultants from relevant authority.
7. Since the working hours are restricted due to port operation, the Engineer's staff shall be available round the clock as and when necessary to meet the Contractor's working requirement. Necessary and adequate shift arrangement shall be organized by the Engineer without any additional burden to the Employer.
8. The procurement of the Contractor for the above project will be ADB single stage bidding among prequalified Bidders.
9. The main objective of this consultancy is to assist the RDA ("the Employer") in implementing the project.
10. The design review includes but not limited to reviewing and accepting the design submitted by Contractor based on the Initial Detailed Design for structure, highway alignments, pavement, lighting, toll system etc.
11. The Construction supervision includes but not limited to clearing and grubbing, soil improvements, earth works, widening of existing road, piling, construction of pile caps,

construction of concrete piers, construction of pier capping beams, precast construction of box girders in segments and deck construction, drainage, utility, toll system, lighting and signing etc.

B. Scope of the Consultant Services

The services will include, but will not be limited, to the following:

1. General

12. Civil works will be carried out based on condition of contracts given in the FIDIC yellow book 1999. The Consultant will be engaged to act as the Engineer for the contract.

13. The Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practices.

14. The Engineer will:

- (i) review all designs submitted by the Contractor based on the initial detailed design submitted by the Employer,
- (ii) carry out the supervision/administration of the civil works contract,
- (iii) monitor project implementation schedule with milestones and critical path analysis,
- (iv) prepare reports as required for the Employer and the ADB,
- (v) monitor the implementation of safeguards in accordance with ADB's Safeguard Policy Statement,
- (vi) ensure implementation of the environmental management plan (EMP) and other measures related to environmental protection in accordance with ADB's Safeguard Policy Statement,
- (vii) review the road safety plan and monitor the road safety measures adopted by the contractor,
- (viii) conduct on-the job training for the Employer's Staff,
- (ix) Arrange overseas study tours and trainings for MOHRD and RDA staff
- (x) Review building information model (BIM) prepared by Contractor and final model of as-built.

15. The Engineer shall provide any of the following as additional services: (i) prepare reports, including technical appraisals, additional contract documentation, and/or review and comments on the Contractor's proposals, as may be required or the successful completion of the Project; and (ii) provide any other specialist services as may be required from time to time if so required by the Employer.

16. The Engineer shall submit monthly progress reports to the employer within 10 days of the beginning of every month. The report format will be agreed during contract negotiation.

2. Construction Period

17. The Engineer shall examine the contractor's installations, accommodation, medical clinics, construction equipment and laboratories to see that all of them conform to the agreed conditions of contract and check if the Contractor's maintenance of the work is satisfactory during the total contract period. Notify the contractor immediately of failure to meet these conditions.

18. The Engineer shall review the drawings furnished by the Contractor along with supporting data and documents, including the geotechnical and hydrological investigations, characteristic of materials from borrow areas and quarry sites, topographical surveys, and the recommendations

of the Safety management, recommendation of traffic management at grade road sections of SLPA where construction is being done.

19. The Engineer shall coordinate with SLPA, Sri Lanka Customs and Sri Lanka Navy for all matters related to traffic management, safety at sites, working corridor, working time duration, etc.

20. Check if the Contractor protects utilities that remain in place during construction.

21. The Engineer shall coordinate and monitor the shifting and relocation of utility services where necessary.

22. The Engineer shall check if the Contractor cooperates with the utility agencies to remove and rearrange underground or overhead utilities to avoid service interruption or duplicate work by the utility owner.

23. The Engineer shall inspect Contractor's construction equipment at the construction site and the yards (Concrete, beam casting, etc.), results of material and soil tests, safety of the works, property and personnel. Inspect and test all materials, their sources and works to ensure compliance with specifications and giving immediate notice to the Contractor to remedy in the event that such equipment, materials and works fail to comply with the specifications.²³

24. The Engineer shall complete reviews as in para. 18 and send its observations and recommendations to the Contractor within 14 days of receipt of such drawings. However, for major structures, the aforesaid period may be extended up to 21 days as agreed mutually.

25. The Engineer shall review any revised drawings sent by the Contractor and furnish comments and recommendation within 7 days of receiving such revised drawings.

26. The Engineer shall review the quality assurance plan submitted by the Contractor and shall convey its comments to the Contractor within a period of 14 days stating the modifications, if any, required thereto.

27. The Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the works and convey its comments to the Contractor within a period of 10 days from the date of receipt of the proposed methodology from the Contractor.

28. The Engineer shall review the monthly progress report furnished by the Contractor and send its comments to the Contractor within 7 days and send to the Employer within 3 days from the receipt of the revised and qualified monthly progress report.

29. The Engineer shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Engineer may require and recommend.

30. The Engineer shall test check at least 20% of the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor. The timing of tests and the criteria for acceptance and/or rejection of the Contractor's results shall be determined by the Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of the tests that may be carried out by the Contractor.

²³ Specifications denotes Standard Specification and Particular Application issued with Bidding documents under Section 6 Employer's Requirements.

31. The Engineer shall issue a notice to the Contractor to carry out remedial measures for any defects or deficiencies in the Works.
32. In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and users, and requires the Engineer to inspect such works, the Engineer shall inspect the suspended works within 3 days of receiving Contractor's request and make a report to the Employer, recommending whether or not such suspension may be revoked by the Employer.
33. The Engineer shall obtain from the Contractor a certified copy of all the Contractor's quality control records and documents and send a copy to the Employer before the completion Certificate is issued as per the condition of contracts.
34. The Engineer shall recommend to the Employer on the acceptability and adequacy of Contractor's guarantees and insurances.
35. The Engineer shall conduct monthly progress review meetings with respect to contract in consultation with the Employer.
36. The Engineer shall establish efficient procedures for verifying Contractor performance and control reports, quality survey records, request for variation or change orders, requests for time extension, and Contractor's claims and invoices.
37. The Engineer shall check and recommend "as built" drawings and refine the BIM prepared by the Contractor. Keep and record a complete set of as built drawings in paper and electronic formats for archiving in the Employer's repository.
38. The Engineer shall accept or reject any part of the completed works and certify the completion.
39. The Engineer shall assist the Employer for provisional and final hand over of works by the Contractors.
40. The Engineer shall inspect the project during defects liability period at appropriate intervals as agreed with the Employer and issue performance certificate to the Contractor.

3. Defects Notification Period

41. The Engineer shall advise the Contractor in preparation of its Program in rectifying identified defects.

4. Environmental and Social safeguards

42. Ensure implementation of relocation in accordance with ADB's Safeguard Policy Statement (2009) and the right to fair compensation and transparency in land acquisition, if any. Prepare the due diligence reports on resettlement implementation as needed. Provide monthly and quarterly reports on resettlement implementation, including close monitoring of resettlement implementation of indigenous peoples, and provide updates on the schedule and financial aspects of resettlement to the team.
43. Act as the external monitor for the project, tasks include: (i) develop specific monitoring indicators for (ii) review results of internal monitoring and verify claims through random checking

by adopting suitable sampling method at the field level to assess whether land acquisition and resettlement objectives have been generally met; (iii) evaluate and assess the adequacy and effectiveness of the consultative process, particularly those vulnerable, including the adequacy and effectiveness of grievance procedures and legal redress available to the displaced persons, and dissemination of information about these.

44. The Engineer shall monitor the implementation of the gender action plan and ensure activities are carried out as planned and relevant baseline and monitoring database collected.

45. The Engineer shall monitor Contractors' compliance with and performance of required actions regarding HIV/AIDS, human trafficking, and labor core standards in accordance with the contract documents, such as awareness and education of laborers and workers.

46. The Engineer shall ensure that the Project is complying with ADB's Safeguards Policy Statement (2009) and assist and guide the Employer to ensure compliance of environmental and social safeguards

47. Ensure implementation of the environmental management plan (EMP) and other measures related to environmental protection as given in the IEE report and in accordance with ADB's Safeguard Policy Statement (2009). Prepare due diligence reports on EMP implementation as needed. Provide monthly and quarterly reports on EMP implementation and provide updates on the schedule and financial aspects to the team.

48. Monitor implementation of the EMP by the contractor and ensure compliance with the environmental safeguard requirements of civil works contracts. Provide training and technical advices including on-site advice to the contractors as found necessary. Review and confirm that the EMP implementation records are maintained by the contractor. Prepare semi-annual environmental monitoring reports based on these records and on-site spot checks carried out.

49. The Engineer shall carry out the following duties related to environmental safeguard: (i) ensure that all the environmental mitigation measures required to be implemented are incorporated in the bidding/contract documents; (ii) supervise and monitor the implementation of EMP; and (iii) in the event of occurrence of any unexpected environmental impacts, coordinate with the contractor and Employer to ensure that necessary mitigation measures are implemented; (iv) provide technical advice to the contractor, if necessary; (v) prepare periodic monitoring reports, monthly and annually and submit to the Employer; and (f) facilitate grievance redress in the case of environmental related issues.

5. Road Safety Audit

50. Conduct road safety audits with use of ADB's Road Safety Audit for Road Project. An Operational Tool Kit or similar procedures acceptable to ADB.

51. The following will be carried out: (i) conduct pre-audit meetings with Employer's staff and the contractor's design team to review project information and drawings; (ii) conduct office safety review of detailed designs combined with mandatory field visits to the project roads conducted both during daytime and night time; (iii) conduct office road safety audit analysis and preparing concise road safety audit reports for the project with the list of road safety issues identified, highway risk for each issue assessed, and specific countermeasures proposed to be incorporated into detailed designs; (iv) present findings and recommendations to detailed design team; and (v) checking the revised detailed designs to ensure that measures to address road safety issues, are incorporated in detailed designs; and preparation of provisions for managing road safety aspects

appropriately during construction to be included. Conduct awareness programs to concerned officers, supervision consultants, and contract staff.

6. Other Duties

52. The Engineer shall certify contract value, the contractor executed and process interim and final payments of the Contractors.

53. The Engineer shall evaluate and recommend to the Employer of contractor's proposal for variations, claims and the rates for any unscheduled items of work that may arise.

54. The Engineer shall ensure that project financial management procedures are in order and are strictly followed, specifically relating to payments, financial accounting, financial reporting and record keeping.

55. The Engineer shall provide on-site training where ever required for Employer's staff on quality assurance, contract administration and other project management activities.

56. The Engineer shall maintain records, correspondence and diaries and submit all the key documents and records to the Employer at the completion of the contract.

57. The Engineer shall develop performance indicators and project targets in close cooperation with the Employer and, if necessary, coordinate with the relevant local authorities.

58. The Engineer shall collect baseline data based on the indicators agreed in the project's design and monitoring framework; and measure the indicators over time during the assignment period. Undertake project performance monitoring and evaluation in accordance with the project framework and ADB's Project Performance Management System Handbook. Design a simple MS Excel or similar system for recording the baseline and periodic data.

59. The Engineer shall assess the indicators in para. 53 at midterm, and project completion.

60. The Engineer shall assess the socio-economic impacts of the project on potential beneficiaries through research methods.

61. The Engineer shall assess the environmental sustainability of the project.

62. Conduct training in operational social research methods and building Employer's capacity on performing management and impact assessment.

63. The Engineer shall facilitate overseas training to Employer staff in gaining the latest technology and experience in construction of elevated highways, and contract management. Arrange workshops and training program on project performance to Employer's staff.

64. The Engineer shall prepare a project completion report in accordance with procedures of the ADB as spelled out in relevant project administration instructions of the ADB.

65. The Employer will authorize any additional service, other than minor extras that do not materially affect the scope of the design review and supervision work, at the rates established in the construction supervision contract, or at the rates mutually agreed upon when the services require the use of specialists not listed in the contract.

C. Assignment Period and Engineer Inputs

- (i) This assignment will be carried out by international firm/s in association with national consultant firm/s. The national consultant(s) and/or firm(s) will be selected by the executing agency in accordance with ADB's Guidelines on Quality and Cost Based Selection (QCBS).
- (ii) The construction supervision period will be 36 calendar months and the Defect notification period will be 36 calendar months thereafter.
- (iii) A total of 153 international experts' person-month inputs and 1,611 national experts' person-months inputs will be required. (Key experts 632 and non-key experts 979)
- (iv) all international and national key experts must be professionally qualified. The key and non-key positions are given in the table.

Proposed Positions

	Position	No.	Person - months
E	International Key Experts		
E1	Team leader	1	42
E2	Senior resident engineer	1	39
E3	Senior bridge/ structural engineer	1	18
E4	Senior contract /claim specialist	1	36
E5	Senior material engineer	1	12
E6	Senior toll System and facility engineer	1	6
	Subtotal International Key Experts		153
N	National Key Experts		
N1	Resident engineer (structural)	1	72
N2	Resident engineer (highways)	1	36
N3	Bridge / structural engineer	1	39
N4	Highway engineer	1	9
N5	Geotechnical / pavement design engineer	1	12
N6	Material engineer	2	72
N7	Planning engineer	1	36
N8	Toll system and facility engineer	1	8
N9	Quantity surveyor	1	42
N10	Contract / claim specialist	1	48
N11	Environmental specialist	1	36
N12	Social development and gender specialist	1	12
N13	Assistant resident engineer	5	210
	Subtotal National Key Experts		632
L	Non-Key Experts		
L1	Drainage Engineer	2	12

L2	Electrical Engineer	2	24
L3	Utility Engineer	2	48
L4	Construction Safety Engineer	3	108
L5	Assistant Quantity Surveyor	1	39
L6	Surveyor	3	108
L7	Construction Engineers	8	280
L8	Technical Officer	10	360
	Subtotal National Non-Key Experts		979
	Total National Experts		1,611

66. Qualification descriptions of each expert are as follows:

A. International Experts

67. **Team Leader (E1).** Professionally qualified Civil Engineer with post graduate qualifications and minimum 20 years working experience in highway/bridge construction and at least 5 years' experience as a Team Leader in construction supervision of post-tensioning box girder bridges and elevated highways using the FIDIC yellow book as a Conditions of Contract. The team leader should have experience in leading teams of multi-disciplinary professionals in projects of similar scope. the team leader, the Engineer, has to administer the civil works contract under the FIDIC yellow book Conditions of Contract.

68. **Senior Resident Engineer (E2).** Professionally qualified Civil Engineer and post graduate qualification in structural design with minimum 20 years working experience in design and construction supervision of bridges and highways and at least 5 years' experience as a Senior Resident Engineer in post-tensioning box girders bridges and elevated highway construction supervision. He/she will assist Team Leader (TL) on coordination and supervision of all construction works in the field. He/she will assist TL in day-to-day construction supervision, monitoring schedule, reviewing and approving design and as-built-drawings and issuing Site Instructions in consultation with TL. Timely inform the TL on issues on quality of works, progress of work, and any other constraints affecting the work.

69. **Senior Bridge / Structural Engineer(E3).** Professionally qualified Civil Engineer with post graduate qualifications in structural design with minimum 15 years bridge designs and construction supervision experience. He/she should have a minimum 5 years' experience as a Senior Bridge / Structural Engineer in construction supervision of post-tensioning box girders and elevated highway construction. He/she will assist Senior Resident Engineer (SRE) in ensuring that the design complies with technical and safety standards. He/ she will review designs prepared by the contractor. He will also supervise the bridge/ structural constructions and assist SRE in issuing instructions to the contractors.

70. **Senior Contract/ Claim Specialist (E4).** Professionally qualified Engineer with minimum 15 years working experience in road works contracts administration including FIDIC yellow book. He/she will evaluate and settle variations and standard format of claims. He/she will guide the employer in case of disputes by the contractor on claims settlement.

71. **Senior Material Engineer (E5).** Professionally qualified Civil Engineer with post graduate qualifications and minimum of 15 years' experience highway / bridge projects. He should have a minimum 5 years' experience as a material engineer in construction supervision of post tensioned box girder bridges and elevated highways. He/she will assist senior resident engineer (SRE) in ensuring that the design and contractions complies with technical and safety standards.

72. **Senior Toll System Facility Engineer(E6).** Professionally qualified Engineer with minimum of 15 years' experience out of which 5 year experience in Toll System Design, Management and Operation. He/she shall have experience of installation of Toll Gates, Toll Gantries, Toll office buildings etc. to expressway construction. He/she will assist Senior Resident Engineer (SRE) in ensuring that the design complies with technical and safety standards. He/ she He/she will update designs prepared by the design consultants.

B. National: Key Experts

73. **Resident Engineer - Structure (N1).** Professionally qualified Civil Engineer with minimum 15 years working experience and as a Resident Engineer structural at least 5 years' experience in bridge construction. Experience in Post tensioning box girder will be added qualification. He/she will assist SRE on coordination and supervision of all construction works in the field. He/she will assist SRE in day-to-day construction supervision, monitoring schedule, preparing monthly certificates, reviewing design drawing and as-built-drawings and issue Site Instructions in consultation with SRE. Timely inform the SRE on issues on quality of works, progress of work, and any other constraints affecting the work.

74. **Resident Engineer - Highway (N2).** Professionally qualified Civil Engineer with minimum 15 years working experience and as a Resident Engineer Highway at least 5 years' experience in Highway construction. He/she will assist SRE on coordination and supervision of all construction works in the field and reviewing highway design drawing. He/she will assist SRE in day-to-day construction supervision, monitoring schedule, preparing monthly certificates and as-built-drawings and issue Site Instructions in consultation with SRE. Timely inform the SRE on issues on quality of works, progress of work, and any other constraints affecting the work.

75. **Bridge / Structural Engineer (N3).** Professionally qualified Civil Engineer with minimum 10 years working experience and as a Bridge / Structural Engineer at least 5 years' experience in bridge design/construction. He/she will assist RE (Structure) in ensuring that the design submitted by the contractor complies with required technical and safety standards and update. Supervise the bridge / structural constructions and assist SBE in issuing instructions to the contractors.

76. **Highway Engineer (N4).** Professionally qualified Civil Engineer with minimum 10 years working experience and as a Highway Engineer at least 5 years' experience in Highway design. He/she will assist RE (Highway) in ensuring that the design submitted by the contractor complies with required technical and safety standards and update. Also assist RE (Highways) on coordination and supervision of all construction works in the field.

77. **Geotechnical / Pavement design Engineer (N5).** Professionally qualified Civil Engineer with minimum of 10 years' experience, out of which 5 years' experience in soil investigations, foundation investigations, soft soil treatment designs, designs of foundation for heavy structures, including experience in settlement analysis, slope analysis, slope protection and evaluation related to roads & elevated highway construction. He/she will assist Resident Engineer in ensuring that the design complies with technical and safety standards. He/ she will review and update designs prepared by the contractor.

78. **Material Engineer (N6).** The material engineer shall have a bachelor's degree in civil engineering with minimum 10 years' experience with minimum 5 years' experience in major road/bridge construction supervision. He/she will undertake day-to-day supervision of compliance to material specifications and testing, supervise the contractors work, and certify the construction

in accordance with contract conditions including acceptance standards of materials, approval of source supply, and material testing methods.

79. **Planning Engineer (N7).** Civil Engineer with minimum of 10 years' experience, out of which 5 years' experience in Project Planning and monitoring. The expert shall have experience in MS Project. He/she will assist Team Leader and Senior Contract Specialist in monitoring the Contractor's targets and progress complies with construction program.

80. **Toll System Facility Engineer (N8).** Professionally qualified Engineer with minimum of 6 years' experience out of which 2 year experience in Toll System Design Management and Operation. He/she shall have experience of installation of Toll gantries, Toll Plazas, Toll office buildings etc. to expressway construction. He/she will assist Resident Engineer in ensuring that the design complies with technical and safety standards.

81. **Quantity Surveyor (N9).** The quantity surveyor shall have a bachelor's degree in quantity surveying with minimum 10 years' experience in quantity surveying of highway/bridge construction. He/she should have 5 years' experience in construction supervision of highway/bridge projects. He/she shall check and recommend the payment certificates, maintain measurement records, and review and update the estimates as required. Assist SRE to check the quantity, variations, justification

82. **Contract/ Claim Specialist (N10).** Professionally qualified Engineer with minimum 15 years working experience in road works contracts administration using FIDIC. He/she will assist Senior Contract/ Claim Specialist to evaluate and settle variations and standard format of claims.

83. **Environmental Specialist (N11).** The Environmental Specialist shall have a bachelor degree in environmental science or similar preferably with minimum 6 years' experience in civil works. He/she will (i) review all documents and reports regarding the integration of environmental including contractor's environmental action plan, (ii) supervise the contractor's compliance to Environmental Monitoring Plan, and (iii) prepare compliance reports.

84. **Social Development and Gender Specialist (N12).** The Social Specialist shall have a bachelor degree or similar preferably with minimum 6 years' experience in road construction works. He/she will (i) prepare, review all documents and reports regarding the integration of social development and coordinate with contractor and other stakeholders, (ii) supervise the contractor's compliance with due diligence and (iii) prepare compliance reports.

85. **Assistant Resident Engineer (N13).** Having BSc Civil Engineering with minimum of 5 years' experience in road construction. He/she will assist RE on coordination and supervision the road construction works in the field. He/she will assist RE in day-to-day construction supervision, monitoring schedule, checking monthly certificates, reviewing and approving shop drawing and as-built-drawings.

C. National: Non-Key Experts

86. **Drainage Engineer (L1).** BSc in Civil Engineering with minimum of 5 year experience out of which 2 year experience in drainage systems in expressway projects. He/shell review the design, specifications of the design consultants and advise on the amendments proposed. He/she shall identify existing drainage system at the construction site and make sure functioning properly at the construction stage and thereafter.

87. **Electrical Engineer (L2).** BSc Electrical Engineering with minimum of 5 year experience out of which 2 year experience in expressway projects. He/shell review the design, specifications of the design consultants and advise on the amendments proposed.

88. **Utility Engineer (L3).** Engineer with minimum of 5 years' experience out of which 2 years' experience in expressway projects. He/shell review the design, specifications of the design consultants and advise on the amendments proposed. He/she shall identify existing utilities at the construction site and if necessary get necessary action to replace or shift coordinate with utility authorities.

89. **Safety Engineer (L4).** Engineer with minimum of 8 years' experience out of which 4years' experience in expressway projects. He/shell review the design, specifications of the design consultants and advise on safety and maintain.

90. **Assistant Quantity Surveyor (L5).** The Assistant quantity surveyor shall have a bachelor degree in quantity surveying with minimum 7 years' experience in quantity surveying of major projects, out of which, 2 years' experience in expressway projects. He/she shall check and recommend the payment certificates, maintain measurement records, and review and update the estimates as required. Assist SRE to check the quantity, variations, justification

91. **Surveyor (L6).** Professionally qualified Licensed Surveyor having minimum 7 years' experience out of which 3 years experiences in road works contract. He/she will assist RE in ensuring that the setting outs are checked and assist in adjusting the profiles to suit the site conditions. Continuously check the contractors setting outs and approve. Ensure designed centreline fixed complies with technical and safety standards.

92. **Construction Engineer (L7).** Having BSc Civil Engineering with minimum of 2 years' experience in road construction. He/she will assist ARE on coordination and supervision the road construction works in the field. He/she will assist ARE in day-to-day construction supervision, monitoring schedule, checking monthly certificates, reviewing and approving shop drawing and as-built-drawings.

93. **Technical Officer (L8).** The Technical Officer shall have National Diploma in civil engineering with minimum 5 years' experience in road construction works especially in workmanship and construction methods. He/she shall ensure the construction works are carried out according to the drawings and specifications. Take measurements of daily work done. Coordinate and liaise with Land Surveyor and Materials Engineer in checking and testing.

D. Reporting Requirements

94. The Consultant shall submit the following reports (each in 3 hardcopies & a softcopy) and documents to the RDA during the course of the services.

- Inception Report [including initial finding, project schedule, staff mobilization schedule, and recommendations if any within 1.0 months from the commencement date]
- Monthly Progress Report [Brief details of the work carried out during the previous month (all components), the problems encountered or anticipated, together with the steps taken or recommendations for their correction, and financial and physical progress to date by 10th of on-going month following the inception report]
- Monthly Design Review Report [Detailed design submitted and reviewed and accepted during the month]
- Monthly Social and Environmental safeguard monitoring report

- Project Completion Report [in accordance with ADB's format within 3.0 months from the completion of the construction]
- Any other reports requested by the Project Director related to the Project.

E. Facilities Provided by the Employer/ Consultant

95. The Employer will provide:

- (i) Visa supporting letters and registrations for host country
- (ii) Supporting letter to obtain entry pass at Ports Authority
- (iii) Relevant project data and reports
- (iv) Access to data, records, and other information required to perform the assigned tasks

96. The following will be provided under the civil works contract;

- (i) Providing and maintaining air-conditioned office spaces with support facilities including utilities, furnishings and fittings
- (ii) Provide and maintaining vehicles for site supervision

97. The following will be provided by Consultant

- (i) The consultants will provide and maintain an office near by the site for initial period of 3 months until provided by through Civil works contract.

II. TERMS OF REFERENCE FOR PROJECT MANAGEMENT CONSULTANTS FOR ELECTRONIC TOLL COLLECTION SYSTEM

A. Introduction

1. The Democratic Socialist Republic of Sri Lanka intends to apply for a Loan from the Asian Development Bank (ADB) which will be utilized for installation of multi-lane free flow electronic toll collection system (MLFF-ETC) contract under SASEC Port Access Elevated Highway (PAEH) Project. Part of these loan proceeds will be used for providing the project management consultancy service for the MLFF-ETC.

2. The executing agency for the Project is the Ministry of Highways and Road Development (MOHRD) and the Employer is the Road Development Authority (RDA).

3. PAEH commences from Ingurukade Junction and ends at Galle Face traverses through Sri Lanka Ports Authority (SLPA) premises. The total length of the 4 lane elevated highway is 5.3 km. Entry/exit ramps at both ends of the road as well as at an appropriate location in Colombo port area and provision for Pettah ramp will be constructed. The proposed PAEH is an urban toll expressway to be connected to Colombo-Katunayake Expressway (CKE) via New Kelani Bridge (NKB).

4. RDA has expanded its expressway network since the Southern Expressway, Sri Lanka's first expressway, was opened to traffic in 2011. CKE and a part of Outer Circular Highway (OCH) have been in operation since 2013 and 2014, respectively.

5. Current toll collection systems in Sri Lanka have been historically developed on a project-to-project basis; therefore, the toll collection systems differ among expressways. However, once the rest of the OCH is completed, the three expressways will be connected with each other. The planned new Central Expressway leading to OCH will also join the network. Furthermore, the New Kelani Bridge, funded and implemented by the Japan International Cooperation Agency (JICA), links the Colombo-Katunayake Expressway to the proposed toll elevated highway; the proposed PAEH project will become a part of the expressway network. Giving an eye on the expressway operation, the expansion of the expressway network will require a comprehensive, modern, and consistent toll collection system.

6. Given the background above, RDA decided to introduce the multi-lane free flow electronic toll collection system (MLFF-ETC) with the technologies of RFID and automatic number plate recognition (ANPR) for enforcement. MLFF-ETC is a new toll collection system to Sri Lanka; it will be applied to all expressways including PAEH, NKB, CKE, OCH, Southern Expressway, and other expressways under construction. Contract of MLFF-ETC will include design of the total ETC system, issuance of RFID tags, construction of gantries, supply of road side equipment including RFID reader and ANPR, payment clearance system, minimum 3-year operation and maintenance service, marketing, and customer services.

7. The main objective of this consultancy is to assist the RDA ("the Employer") in managing, implementing, and operating the MLFF-ETC project ("the Project"). RDA has no previous internal experience of managing and implementing MLFF-ETC; therefore, the consultancy will totally support RDA in all aspects of management, implementation, and operation of MLFF-ETC.

8. The Project Management Consultant (PMC) includes, but not limited to, overall MLFF-ETC project ("the Project") management support, finalization of basic specification of MLFF-ETC system, support for creating implementation scheme and enabling environment, preparation for

bid documents, support for evaluation of bids, review of contractor's detailed design, monitoring progress of the implementation, witness of contractor's testing and operational trials, verification of system operation, monitoring service performance, and contract management.

9. The total length of the service will be 39 months, including 15 months for pre-bid and procurement stages, 18 months for MLFF-ETC implementation stage, and 6 months for MLFF-ETC initial operation stage.

10. The procurement is expected to be carried out with two-stage two-envelope method in accordance with ADB's Procurement Policy and Procurement Regulations.

B. Scope of the Consultant Services

The services are described below.

1. General Task

- (i) Support institutional and modality arrangement with clear roles and responsibilities of each party for MLFF-ETC implementation and operation,
- (ii) Support creation of enabling environment for introducing MLFF-ETC,
- (iii) Examine technical requirements for communication, monitoring, and traffic management systems used for expressway management to be integrated with MLFF-ETC,
- (iv) Prepare bidding documents including technical specifications and service agreement,
- (v) Assist in procurement process including the evaluation of technical bids,
- (vi) Review all designs submitted by the contractor
- (vii) Monitor the Project implementation schedule with milestones and critical analysis,
- (viii) Test and verify functionality of MLFF-ETC installed by the contractor,
- (ix) Monitor and audit ongoing operational service performance,
- (x) Identify implementation and operational issues of the contractor, and propose practical solutions, and
- (xi) Prepare reports as required for the Employer and ADB.

2. Specific Tasks

Component 1: Overall Project Management

Task 1.1: Overall Project Management

- (i) Provide project management services throughout design, procurement, construction, and commissioning, and operation stages. The consultant is to maintain and update the project schedule throughout the project, and undertake project performance management system for MLFF-ETC in the format acceptable by the Employer and ADB, which consists of (1) preparing in the initial stage a project performance management system, in accordance with the ADB's project design and monitoring framework, to monitor (i) the progress of the overall MLFF-ETC project implementation, and (ii) the development impact of the MLFF-ETC project; and (2) collecting/updating the project performance indicator benchmarks.
- (ii) Prepare (i) monthly reports on project progress and other issues; and (ii) prepare a project completion report when the project is substantially completed.
- (iii) provide on-site training where ever required for Employer's staff on quality assurance, contract administration and other project management activities.
- (iv) Arrange overseas study tours and trainings for MOHRD and RDA staff to understand implementation and operation issues of MLFF-ETC.

- (v) Provide any of the following as additional services: (i) prepare reports, including technical appraisals, additional contract documentation, and/or review and comments on the Contractor's proposals, as may be required or the successful completion of the Project; and (ii) provide any other specialist services as may be required from time to time if so required by the Employer.

Task 1.2: Contract Management

- (i) Throughout the service period, the PMC shall:
- oversee all contractual obligations such as certification of achievement of milestones
 - review requests for certificates under the contract where required
 - produce recommendations with regards to payments due to the contractor, and process interim and final payments
 - Reconcile monitoring data with contractor's payments
 - hold day to day technical and administrative progress meetings with contractor
 - Issue a notice to the Contractor to carry out remedial measures established any defects or deficiencies in the requirements
 - evaluate and recommend to the Employer of contractor's proposal for variations, claims and the rates for any unscheduled items of work that may arise
 - ensure that project financial management procedures are in order and are strictly followed, specifically relating to payments, financial accounting, financial reporting and record keeping
 - maintain records, correspondence and diaries and submit all the key documents and records to the Employer at the completion of the contract
 - provide other contract management services as required

Component 2: Pre-Bid Stage Services

Task 2.1: Stakeholder Coordination

- (i) Prepare a stakeholder management plan that assesses groups, interested parties, banks, payment clearance system holders, relevant civil works contractors for expressways, and relevant government agencies.
- (ii) Identify level of appropriate engagement to support delivery and operation of the MLFF-ETC charging scheme.
- (iii) Produce a statement of requirements which sets out the underlying requirements for the MLFF-ETC charging scheme.

Task 2.2: Organization Architecture Development

- (i) Assess capacity of stakeholders including relevant government agencies to implement MLFF-ETC in accordance with the statement of requirements.
- (ii) Produce a blueprint for an organizational architecture that sets out optimal structure, modality, and responsibilities of relevant stakeholders that will be involved in the delivery and operation of MLFF-ETC.
- (iii) Propose organizational and staffing requirements for the Employer to provide MLFF-ETC services under the proposed responsibilities.

Task 2.3: Creation of Enabling Environment

- (i) Carry out a review of regulatory environment including both implementation and operation aspects. The review includes, but not limited to, permission to construct gantries for toll collection, legislation required to enforce payment of tolls, regulation to allow the service provider to access vehicle registration database, and other regulatory requirements for data protection/user privacy/information security. To obtain practical results in the context of Sri Lanka, the review should be conducted in consultation

- manner with legislation or regulation authorities/agencies as well as other ETC experts including that to be hired by ADB.
- (ii) Based on the review, make time-bound action-oriented practical recommendations for any necessary changes to legislation or regulations required to introduce MLFF-ETC.
 - (iii) Support amendment work for the legislation or regulation required for the introduction of MLFF-ETC to achieve the proposed timeline and actions.
 - (iv) Prepare a practical transition plan for the existing expressways from the manual toll collection or existing electronic toll collection to the proposed MLFF-ETC.

Task 2.4: Definition of the Project scope

- (i) Based on the previous tasks, define and propose scope of the Project with implementation responsibilities of each party concerned.
- (ii) Prepare preliminary cost estimates for MLFF-ETC in line with the Project scope defined in the above.

Component 3: Procurement Stage

Task 3.1: Market Sounding for Information Gathering

- (i) Hold meetings to invite potential bidders to explain the Project background and concept, policy environment, scope of the Project, basic technical requirements, responsibilities of the contractor and the Employer, procurement method, and implementation and operation timeline.
- (ii) Collect from the participants suggestions, responses, and concerns about the Project to be reflected in bidding documents.

Task 3.2: Definition of Technical Requirements and service agreement

- (i) Carry out detailed technical requirement capture analysis, including not only technical specification of the system but also investigation of physical locations and technical requirements of gantries and related facilities.
- (ii) Produce detailed statement of Employer's requirements which set out all technical, functional, serviceability, and performance requirements to be met by the contractor's solution.
- (iii) Prepare personnel requirements of the contractor to implement MLFF-ETC.
- (iv) Prepare draft service agreement for the operation of MLFF-ETC to maintain the functional and performance requirements as well as to satisfy institutional requirements to be carried out by the contractor.
- (v) Review and finalize the cost estimates with categorized pricing schedules.

Task 3.3: Preparation of bidding documents

- (i) Prepare bidding documents including evaluation criteria, Employer's requirements, and draft contract together with service agreement in accordance with ADB's Procurement Policy and Procurement Regulations.
- (ii) Ensure at least all aspects described in Task 4.1 shall be included in Employer's requirements and/or other parts of the bidding documents as requirements of bidders' proposals.
- (iii) Consider in the preparation of technical specifications parameters which could be obtained from MLFF-ETC (e.g. traffic volume, sections used) to be used for expressway and traffic management purpose.

Task 3.4: Procurement Support

- (i) Assist the Employer in advertising, issuing bidding documents, responding to queries, and receiving bids.
- (ii) Assist the Employer in evaluating bids, reviewing technical specifications and other requirements, negotiating the contract, and other procurement-related activities.

Component 4: Implementation Stage

Task 4.1: Review of the contractor's detailed design

- (i) Review the following, but not limited to, documents on behalf of the Employer to confirm compliance with Employer's requirements:
 - Contractor's proposal for MLFF-ETC demonstrator
 - Contractor's project implementation plan
 - Contractor's quality management documentation
 - Contractor's system design document
- (ii) Carry out a detailed review as appropriate of the following aspects of the contractor's proposal:
 - Gantry structural designs
 - Gantry site detailed proposal
 - Sub-contractor proposal
 - RFID tag design
 - RFID tag supply arrangements
 - Customer contact center proposals
 - Charging algorithms/ methods
 - Toll payment account proposals including customer service processes
 - Enforcement systems and operational processes
 - Call center proposals
 - IT/ back-office solutions
 - Arrangements for special groups of customers/ exempt users
 - Integration with manual toll operations
 - Interfaces with existing toll collection systems and plazas
 - Monitoring and reporting proposals
 - Risk register

Task 4.2: Witness of testing and operational trials

- (i) On behalf of the Employer, attend and witness tests of whole or parts of the system as required by the contractor's test program in order to meet the requirements of the contract with respect to the testing.
- (ii) On behalf of the Employer, attend and witness end to end trials of system operation as required by the contractor's trials program in order to meet the requirements of the contract with respect to trialing or MLFF-ETC services before the live operation.

Component 5: Service Delivery and Operation Stage

Task 5.1: Verification of Correct System Operation

- (i) Verify correct operation of the system after the initial implementation including correct collection of toll revenue for all links in the road network under the toll system.
- (ii) Verify that the contractor has achieved the required performance levels after commencement of operation as defined in the contract.

Task 5.2: Monitoring/ Auditing of Ongoing Service Performance

- (i) Monitor operational information including, but not limited to, user accounts, revenue reports, and transaction reports to ensure that technical or operational issues are identified, understood, and addressed.
- (ii) Provide a control function to ensure that those issues are being identified by the contractor, and appropriate remedial measures are being identified and correctly implemented by the contractor.

Task 5.3: Management of Changes to System

- (i) Review the contractor's plans for the expansion of the MLFF-ETC onto additional sections of expressways where required by the Employer after initial introduction of the system and monitor the testing and implementation of such expansion.

C. Assignment period and Engineer Inputs

1. This assignment will be carried out by international firm/s in association with national consultant firm/s, to be selected by the Employer in accordance with ADB's Guidelines on Quality and Cost Based Selection (QCBS).
2. The service period will be 39 calendar months including 18 months for MLFF-ETC implementation stage and 6 months for MLFF-ETC initial operation stage.
3. A total of 58 International Experts person-month inputs and 110 National Experts person-months inputs will be required. (Key experts 128 and Non-Key experts 40)
4. All International and National Key expert must be professionally qualified. The Key and Non-Key positions are given in the table below.

Proposed Positions

	Position	No.	Man -months
IC	International		
	Key Experts		
IC1	MLFF-ETC Management Specialist/ Team Leader	1	22
IC2	MLFF-ETC Test and Trial Specialist – 1	1	9
IC3	MLFF-ETC Test and Trial Specialist - 2	1	5
IC4	Payment Services and Back Office IT Specialist	1	11
IC5	MLFF-ETC Enforcement Specialist	1	9
IC6	Institutional Management Specialist	1	2
	Total (International)		58
N	National		
	Key Experts		
N1	Senior Electronic Telecommunication Specialist Deputy Team Leader	1	32
N2	Customer Service Specialist	1	8
N3	Financial Management Specialist	1	3
N4	Procurement Specialist	1	7
N6	Legal/ Contract Management Specialist	1	20
	Total (Key)		70
	Non- Key Experts		
L1	Junior IT Specialist	2	40
	Total (Non-key)		40
	Total (National)		168

Qualification descriptions of each expert are as follows;

International experts

IC1	<p>MLFF-ETC Management Specialist/ Team Leader</p> <ul style="list-style-type: none"> • Professionally qualified BSc IT/computing, telecommunications or electronic engineering, with post graduate qualifications • Minimum 20 years professional experiences in transport, communication or IT sector • Minimum 10 years working experience in electronic toll collection and/or electronic charging system, preferably in expressways • At least 5 years' experience as a Team Leader. • Should have experience in project management services of similar scope and contract modality.
IC2	<p>MLFF-ETC Test and Trial Specialist – 1 (equipment)</p> <ul style="list-style-type: none"> • Professionally qualified BSc IT/computing, telecommunications or electronic engineer, with post graduate qualifications • Minimum 15 years professional experiences in transport, communication or IT sector • Minimum 7 years working experience in installing and/or testing gantries, RFID systems, ANPR, and other related equipment for MLFF-ETC • Should have experience in testing of equipment functionality of MLFF-ETC or similar projects.
IC3	<p>MLFF-ETC Test and Trial Specialist – 2 (IT solution)</p> <ul style="list-style-type: none"> • Professionally qualified BSc IT/computing, telecommunications or electronic engineer, with post graduate qualifications • Minimum 15 years professional experiences in transport, communication or IT sector • Minimum 7 years working experience in developing and/or testing charging algorithms, payment reconciliation and clearing system, and other related system necessary for MLFF-ETC operations • Should have experience in testing of IT system of MLFF-ETC or similar projects.
IC4	<p>Payment Services and Back Office IT Specialist</p> <ul style="list-style-type: none"> • Professionally qualified BSc IT/computing, telecommunications or electronic engineer, with post graduate qualifications • Minimum 15 years professional experiences in transport, communication or IT sector • Minimum 7 years working experience in developing and/or supervising payment reconciliation and clearing system, database access, IT management system, information security, and other related system necessary for MLFF-ETC • Should have experience in developing IT system of MLFF-ETC or similar projects.
IC5	<p>MLFF-ETC Enforcement Specialist</p> <ul style="list-style-type: none"> • Professionally qualified relevant bachelor's degree such as IT/computing, telecommunications, public administration, and public policy, with post graduate qualifications • Minimum 15 years professional experiences in transport or communication sector • Minimum 5 years working experience in electronic toll collection system, enforcement of charging system, and/or expressway management • Preferably have experience in MLFF-ETC project
IC6	<p>Institutional Management Specialist</p> <ul style="list-style-type: none"> • Professionally qualified relevant bachelor's degree such as public administration, public policy, business administration, economics with post graduate qualifications

	<ul style="list-style-type: none"> • Minimum 10 years professional experiences in institutional management • Preferably have experience in MLFF-ETC project
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Key national experts

N1	Senior Electronic Telecommunication Engineer / Deputy Team Leader
	<ul style="list-style-type: none"> • Professionally qualified BSc Engineering in computing, telecommunications, or electronic engineering. Post graduate qualification is preferred. • Minimum 20 years professional experiences in transport, communication or IT sector • Minimum 5 years working experience in expressway management, expressway operation, and/or electronic payment/ toll collection business • Should have experience in project management services of similar contract modality
N2	Customer Service Specialist
	<ul style="list-style-type: none"> • Professionally qualified BSc business administration, telecommunications or equivalent • Minimum 7 years professional experiences in customer service development or management • Preferably have experience in customer service development or management in public utility or transport sector.
N3	Financial Management Specialist
	<ul style="list-style-type: none"> • Professionally qualified BSc finance, business administration, accounting, economics or equivalent. • Minimum 10 years working experience in financial management, accounting, and business administration • Should have experience in infrastructure-related projects, preferably in transport sector
N4	Procurement Specialist
	<ul style="list-style-type: none"> • Professionally qualified BSc engineer, law, economics, public administration or equivalent. • Minimum 10 years working experience in procurement activities in public sector • Should be familiar with lump-sum contract modality and ADB Procurement Policy and Procurement Regulations • Should have experience in contract management for ADB- or other development partner- funded projects, preferably in transport sector
N5	Legal/ Contract Management Specialist
	<ul style="list-style-type: none"> • Professionally qualified BSc law, contract management, engineering management or equivalent. • Minimum 10 years working experience in contact management including lump-sum contracts • Should have experience in contract management for ADB- or other development partner- funded projects, preferably in transport sector

Non-key national experts

L1	Junior IT Specialist
	<ul style="list-style-type: none"> • Professionally qualified BSc Engineering, IT/computing, or telecommunications. • Minimum 3 years working experience in IT/computing or telecommunications. • Preferably, have experience in public utility/ infrastructure sector

D. Reporting Requirements

The Consultant shall submit the following reports (each in 3 hardcopies & a softcopy) and documents to the RDA during the course of the services.

- Inception Report [including initial finding, project schedule, staff mobilization schedule, and recommendations if any within 1.0 months from the commencement date]
- Monthly Progress Report [Brief details of the work carried out during the previous month (all components), the problems encountered or anticipated, together with the steps taken or recommendations for their correction, and financial and physical progress to date by 10th of on-going month following the inception report]
- Monthly Design Review Report [Detailed design submitted and reviewed and accepted during the month]
- Project Completion Report [in accordance with ADB's format within 3.0 months from the completion of the construction]
- Any other reports requested by the Project Director related to the Project.

E. Facilities Provided by the Employer/Consultant

The Employer will provide;

- (i) Visa supporting letters and registrations for host country
- (ii) Supporting letter to obtain entry pass at Ports Authority
- (iii) Relevant project data and reports
- (iv) Access to data, records, and other information required to perform the assigned tasks

The following will be provided under the civil works contract;

- (i) Providing and maintaining air-conditioned office spaces with support facilities including utilities, furnishings and fittings
- (ii) Provide and maintaining vehicles for site supervision

The following will be provided by Consultant

- (i) The consultants will provide and maintain an office near by the site for initial period of 3 months until provided by through Civil works contract.

III. OUTLINE TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS FOR INTERNATIONAL STRUCTURAL ENGINEER (PAEH-IC-01)

A. Background

1. Traffic entering Colombo city along the Colombo Katunayake Expressway (CKE) which will connect to Outer Circular Expressway, future propose Central Expressway and the construction of the Colombo Port Development Project and Port City Project. The traffic will enter to the Colombo metropolitan area via New Kelani Bridge (NKB). Extension of the Expressway Network to the economic, administrative and transport hubs in Colombo area has become important to improve the overall transport efficiency within the densely populated Colombo.
2. Ministry of Highways and Road Development has decided to construct an elevated highway from the New Kelani Bridge to Fort via the Port Access road. The proposed SASEC Port Access Elevated Highway traverses from Ingurukade junction and ends at Galle Face.
3. The proposed elevated highway section includes (i) four lanes elevated road section from Ingurukade Junction to Fort, (ii) three exit, entry ramps and exit and entry provision to the proposed Transport hub be developed in future, (iii) widening existing four lanes Port Access road to six lanes and (iv) rehabilitate inside port premises road sections to maintain similar three lanes capacity on either side after construction of Elevated Highway, (v) reinstate rail line and drainage system affected due to construction of elevated highway.
4. Considering above an Employer's Detailed Design (EDD) has been carried out by selected design consultant with the financial assistance provided by the Asian Development Bank. The total length of the elevated road is about 5.2 Km. The construction of highway is intended to commence on October 2018. And the construction period will be 36 calendar months.
5. The Colombo Port is one of the most important port in Sri Lanka. Therefore no any port operational daily activities would be interrupted during construction or operation period of Port Access Elevated Highway. Thereby, the design consultant has fixed and designed the elevated road alignment including ramps as well as pier locations with coordination of Ports Authority. The elevation of elevated structures' soffit was also determined with consent of Ports Authority.
6. The contractor for the above project will be selected calling International Competitive Bidding using ADB prequalification bidding procedure.
7. The selected Contractor shall responsible for review an EDD and Construction of the Works based on the information given by the Employer for the functional requirement of the Elevated highway with all three entry / exit ramps and at ground road improvement according to the Employer's Requirement. If the Contractor adopts any aspect or element of the EDD in his detailed design, the contractor shall be responsible for design.
8. A Project Implementation Consultant will be mobilized for construction supervision.
9. It is proposed to procure the services of an Individual International Structural Engineer to assist the Client as an Advisor for Port Access Elevated Highway Civil Works Contract.
10. The Democratic Socialist Republic of Sri Lanka is applying for a loan for South Asia Subregional Economic Cooperation Port Access Elevated Highway (PAEH) Project from the

Asian Development Bank (ADB). The loan will be used (i) to construct the elevated highway, (ii) to install multi-lane free flow electronic toll collection system (MLFF-ETC), (iii) to construct maritime facilitation center (MFL), and (iv) to construct and procure port trade facilities. The components from (i) to (iii) will be implemented by Road Development Authority (RDA), and (iv) will be by Sri Lanka Ports Authority (SLPA). Part of the loan shall be used for engaging individual consultants with special expertise for implementation support to the Ministry of Highways and Road Development (MOH&RD), the Road Development Authority (RDA), MOPS, SLPA, and PAEH project implementation units (PIUs) in RDA and SLPA. There are four main components under the individual consulting services: (i) advisors for PAEH civil works contract, (ii) implementation support for MLFF-ETC, (iii) implementation support for MFC, and (iv) implementation support for construction and procurement of port trade facilities. The PIUs shall manage and coordinate the individual consultants to maximize efficiency and outputs of services.

11. The project will be implemented under the Project Director, Port Access Elevated Project, Road Development Authority, and International Structural Engineer is directly responsible to the Project Director.

B. Scope of Services

12. The Consultant shall assist to the Client on following:
- (i) Review of structural design submitted by the Contractor and advises to any changes.
 - (ii) Review of Contractor's design of a sample bridge module.
 - (iii) Overall review of drawings and construction methodology submitted by the Contractor.
 - (iv) Spot check on complete bridge design.
 - (v) If needed, advice on items that may be required in connection with the mentioned objective.
 - (vi) Assist to other matters related to Structural Designs.

C. Expert Required

13. The consultant shall have a postgraduate degree in civil engineering or structure engineering. He/she should have at least 15 years of relevant experience in bridge/ structure design, preferably in elevated highways or urban expressways.

Minimum General Experience	15 Years
Minimum Specific Experience (relevant to assignment)	5 Years

D. Duration

14. The Contract will be 12 months (6 person – months field and 6 person – months home) period from October 2018 to end of 2021 intermittently.

E. Payment for the consultancy services shall as follow

15. The consultant has to submit his Invoice to the Project Management Unit after completion of intermittent assignment schedule.

- Remuneration will be paid in Working day basis on actual inputs as agreed rate.
- Out-of-Pocket Expenses are reimbursable with supporting documents/receipts.

F. Facilities provided by Project Implementation Unit (PMU)

16. PMU will provide the Consultant with suitably equipped office facilities, internet connection, and supplies (stationary etc) in the PMU office. Transport will be provided only for the field visits if required.

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS FOR INTERNATIONAL CONTRACT SPECIALIST (PAEH-IC-02)

A. Background

1. Traffic entering Colombo city along the Colombo Katunayake Expressway (CKE) which will connect to Outer Circular Expressway, future propose Central Expressway and the construction of the Colombo Port Development Project and Port City Project. The traffic will enter to the Colombo metropolitan area via New Kelani Bridge (NKB). Extension of the Expressway Network to the economic, administrative and transport hubs in Colombo area has become important to improve the overall transport efficiency within the densely populated Colombo.
2. Ministry of Highways and Road Development has decided to construct an elevated highway from the New Kelani Bridge to Fort via the Port Access road. The proposed SASEC Port Access Elevated Highway traverses from Ingurukade junction and ends at Galle Face.
3. The proposed elevated highway section includes (i) four lanes elevated road section from Ingurukade Junction to Fort, (ii) three exit, entry ramps and exit and entry provision to the proposed Transport hub be developed in future, (iii) widening existing four lanes Port Access road to six lanes and (iv) rehabilitate inside port premises road sections to maintain similar three lanes capacity on either side after construction of Elevated Highway, (v) reinstate rail line and drainage system affected due to construction of elevated highway.
4. Considering above an Employer's Detailed Design (EDD) has been carried out by selected design consultant with the financial assistance provided by the Asian Development Bank. The total length of the elevated road is about 5.2 Km. The construction of highway is intended to commence on October 2018. And the construction period will be 36 calendar months.
5. The Colombo Port is one of the most important port in Sri Lanka. Therefore, no any port operational daily activities would be interrupted during construction or operation period of Port Access Elevated Highway. Thereby, the design consultant has fixed and designed the elevated road alignment including ramps as well as pier locations with coordination of Ports Authority. The elevation of elevated structures' soffit was also determined with consent of Ports Authority (SLPA).
6. Due to shifting of some existing buildings in the SLPA, the possession of the site will be handing over partially, probably in two stages.
7. As the Proposed road corridor is located mainly on the Sri Lanka Port Authority premises, during the construction phase any port daily activities shall not be disturbed and the entrance of the Port premises is strictly restricted.
8. The contractor for the above project will be selected calling International Competitive Bidding using ADB prequalification bidding procedure.
9. The selected Contractor shall responsible for review an EDD and Construction of the Works based on the information given by the Employer for the functional requirement of the Elevated highway with all three entry / exit ramps and at ground road improvement according to the Employer's Requirement. If the Contractor adopts any aspect or element of the EDD in his detailed design, the contractor shall be responsible for design.

10. Civil Works will be carried out based on the International Federation of Consulting Engineers (FIDIC) Condition of Contracts for Plant and Design Build Contracts 1999. A Project Implementation Consultant will be mobilized for construction supervision.

11. It is proposed to procure the services of an Individual International Contract Specialist to assist the Client as an Advisor for Port Access Elevated Highway Civil Works Contract.

12. The Democratic Socialist Republic of Sri Lanka is applying for a loan for South Asia Subregional Economic Cooperation Port Access Elevated Highway (PAEH) Project from the Asian Development Bank (ADB). The loan will be used (i) to construct the elevated highway, (ii) to install multi-lane free flow electronic toll collection system (MLFF-ETC), (iii) to construct maritime facilitation center (MFL), and (iv) to construct and procure port trade facilities. The components from (i) to (iii) will be implemented by Road Development Authority (RDA), and (iv) will be by Sri Lanka Ports Authority (SLPA). Part of the loan shall be used for engaging individual consultants with special expertise for implementation support to the Ministry of Highways and Road Development (MOH&RD), the Road Development Authority (RDA), MOPS, SLPA, and PAEH project implementation units (PIUs) in RDA and SLPA. There are four main components under the individual consulting services: (i) advisors for PAEH civil works contract, (ii) implementation support for MLFF-ETC, (iii) implementation support for MFC, and (iv) implementation support for construction and procurement of port trade facilities. The PIUs shall manage and coordinate the individual consultants to maximize efficiency and outputs of services.

13. The project will be implemented under the Project Director, Port Access Elevated Project, Road Development Authority, and International Contract Specialist is directly responsible to the Project Director.

B. Scope of Services

14. The Consultant shall guide, assist and advice to the Client,
- Contractor's claims
 - Variations,
 - Disputes and resolutions,
 - Insurance matters,
 - Any other contractual matters during the bidding and implementation stages.

C. Expert Required

15. The consultant shall have a bachelor degree in law, contract management, civil engineering or the equivalent. Relevant postgraduate degree is preferred. He/she should have at least 15 years of relevant experience in contract management of international civil works contracts. He/she should be knowledgeable about FIDIC-based contract management, particularly FIDIC-Yellow book. Preference will be for candidates with experience in working on road projects as well as similar projects financed by international development agencies.

16. The consultant will (i) assist the PIU in reviewing contractual issues and/or disputes arising in the PAEH civil works contract; (ii) assist the PIU in proposing practical and reasonable solutions with regard to the issues and/or disputes; (iii) assist the PIU in negotiating the contractual issues with the contractor, and (iv) provide contract management trainings to RDA, in particular with regard to FIDIC-Yellow based contracts.

D. Duration

17. The Contract will be 4 months (2 person – months field and 2 person – months home) period from October 2018 to end of 2021 intermittently.

E. Payment for the consultancy services shall as follow

18. The consultant has to submit his Invoice to the Project Management Unit after completion of intermittent assignment schedule.

- Remuneration will be paid in Working day basis on actual inputs as agreed rate.
- Out-of-Pocket Expenses are reimbursable with supporting documents/receipts

F. Facilities provided by Project Implementation Unit (PMU)

19. PMU will provide the Consultant with suitably equipped office facilities, internet connection, and supplies (stationary etc) in the PMU office. Transport will be provided only for the field visits if required.

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS FOR NATIONAL CONTRACT ENGINEER (PAEH-IC-03)

A. Background

1. Traffic entering Colombo city along the Colombo Katunayake Expressway (CKE) which will connect to Outer Circular Expressway, future propose Central Expressway and the construction of the Colombo Port Development Project and Port City Project. The traffic will enter to the Colombo metropolitan area via New Kelani Bridge (NKB). Extension of the Expressway Network to the economic, administrative and transport hubs in Colombo area has become important to improve the overall transport efficiency within the densely populated Colombo.
2. Ministry of Highways and Road Development has decided to construct an elevated highway from the New Kelani Bridge to Fort via the Port Access road. The proposed SASEC Port Access Elevated Highway traverses from Ingurukade junction and ends at Galle Face.
3. The proposed elevated highway section includes (i) four lanes elevated road section from Ingurukade Junction to Fort, (ii) three exit, entry ramps and exit and entry provision to the proposed Transport hub be developed in future, (iii) widening existing four lanes Port Access road to six lanes and (iv) rehabilitate inside port premises road sections to maintain similar three lanes capacity on either side after construction of Elevated Highway, (v) reinstate rail line and drainage system affected due to construction of elevated highway.
4. Considering above an Employer's Detailed Design (EDD) has been carried out by selected design consultant with the financial assistance provided by the Asian Development Bank. The total length of the elevated road is about 5.2 Km. The construction of highway is intended to commence on October 2018. And the construction period will be 36 calendar months.
5. The Colombo Port is one of the most important port in Sri Lanka. Therefore no any port operational daily activities would be interrupted during construction or operation period of Port Access Elevated Highway. Thereby, the design consultant has fixed and designed the elevated road alignment including ramps as well as pier locations with coordination of Ports Authority. The elevation of elevated structures' soffit was also determined with consent of Ports Authority (SLPA).
6. Due to shifting of some existing buildings in the SLPA, the possession of the site will be handing over partially, probably in two stages.
7. As the Proposed road corridor is located mainly on the Sri Lanka Port Authority premises, during the construction phase any port daily activities shall not be disturbed and the entrance of the Port premises is strictly restricted.
8. The contractor for the above project will be selected calling International Competitive Bidding using ADB prequalification bidding procedure.
9. The selected Contractor shall responsible for review an EDD and Construction of the Works based on the information given by the Employer for the functional requirement of the Elevated highway with all three entry / exit ramps and at ground road improvement according to the Employer's Requirement. If the Contractor adopts any aspect or element of the EDD in his detailed design, the contractor shall be responsible for design.

10. Civil Works will be carried out based on the International Federation of Consulting Engineers (FIDIC) Condition of Contracts for Plant and Design Build Contracts 1999. A Project Implementation Consultant will be mobilized for construction supervision.

11. It is proposed to procure the services of an Individual National Contract Engineer to assist the Client as an Advisor for Port Access Elevated Highway Civil Works Contract.

12. Asia Subregional Economic Cooperation Port Access Elevated Highway (PAEH) Project from the Asian Development Bank (ADB). The loan will be used (i) to construct the elevated highway, (ii) to install multi-lane free flow electronic toll collection system (MLFF-ETC), (iii) to construct maritime facilitation center (MFL), and (iv) to construct and procure port trade facilities. The components from (i) to (iii) will be implemented by Road Development Authority (RDA), and (iv) will be by Sri Lanka Ports Authority (SLPA). Part of the loan shall be used for engaging individual consultants with special expertise for implementation support to the Ministry of Highways and Road Development (MOH&RD), the Road Development Authority (RDA), MOPS, SLPA, and PAEH project implementation units (PIUs) in RDA and SLPA. There are four main components under the individual consulting services: (i) advisors for PAEH civil works contract, (ii) implementation support for MLFF-ETC, (iii) implementation support for MFC, and (iv) implementation support for construction and procurement of port trade facilities. The PIUs shall manage and coordinate the individual consultants to maximize efficiency and outputs of services.

13. The project will be implemented under the Project Director, Port Access Elevated Project, Road Development Authority, and National Contract Engineer is directly responsible to the Project Director.

B. Scope of Services

14. The Consultant shall guide, assist and advice the Client,
- Contractor's claims
 - Variations,
 - Disputes and resolutions,
 - Insurance matters,
 - Any other contractual matters during the bidding and implementation stages.

C. Expert Required

15. The consultant shall have a bachelor degree in civil engineering or the equivalent engineering degree. He/she should have at least 15 years of relevant experience in administrating civil works contract. He/she should be knowledgeable about FIDIC-based contract management and/or contracts financed by international development agencies. Knowledge about FIDIC-Yellow book is advantage. Preference will be for candidates with experience in working on road projects.

16. The consultant will (i) assist the PIU in managing the civil works contract including technical aspects of the requirements; (ii) assist the PIU in coordinating with the Structural Engineer and the Contract Management Specialist for smooth contract administration; (iii) assist the PIU in managing the construction supervision consultant contract; and (iv) assist the PIU in managing the contracts of the other individual consultants.

D. Duration

17. The Contract will be 42 months period from September 2018 to end of 2021.

E. Payment for the consultancy services shall as follow

18. The consultant has to submit his Invoice to the Project Management Unit in monthly basis with documents agreed at the negotiation.

F. Facilities provided by Project Implementation Unit (PMU)

19. PMU will provide the Consultant with suitably equipped office facilities, internet connection, and supplies (stationary etc) in the PMU office. Transport will be provided only for the field visits if required.

**TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS FOR
NATIONAL INFORMATION AND COMMUNICATION TECHNOLOGY SPECIALIST
(PAEH-IC-04)**

A. Background

1. Traffic entering Colombo city along the Colombo Katunayake Expressway (CKE) which will connect to Outer Circular Expressway, future propose Central Expressway and the construction of the Colombo Port Development Project and Port City Project. The traffic will enter to the Colombo metropolitan area via New Kelani Bridge (NKB). Extension of the Expressway Network to the economic, administrative and transport hubs in Colombo area has become important to improve the overall transport efficiency within the densely populated Colombo.
2. Ministry of Highways and Road Development has decided to construct an elevated highway from the New Kelani Bridge to Fort via the Port Access road. The proposed SASEC Port Access Elevated Highway traverses from Ingurukade junction and ends at Galle Face.
3. The proposed elevated highway section includes (i) four lanes elevated road section from Ingurukade Junction to Fort, (ii) three exit, entry ramps and exit and entry provision to the proposed Transport hub be developed in future, (iii) widening existing four lanes Port Access road to six lanes and (iv) rehabilitate inside port premises road sections to maintain similar three lanes capacity on either side after construction of Elevated Highway, (v) reinstate rail line and drainage system affected due to construction of elevated highway.
4. Considering above an Employer's Detailed Design (EDD) has been carried out by selected design consultant with the financial assistance provided by the Asian Development Bank. The total length of the elevated road is about 5.2 Km. The construction of highway is intended to commence on October 2018. And the construction period will be 36 calendar months.
5. The Colombo Port is one of the most important port in Sri Lanka. Therefore no any port operational daily activities would be interrupted during construction or operation period of Port Access Elevated Highway. Thereby, the design consultant has fixed and designed the elevated road alignment including ramps as well as pier locations with coordination of Ports Authority. The elevation of elevated structures' soffit was also determined with consent of Ports Authority.
6. The contractor for the above project will be selected calling International Competitive Bidding using ADB prequalification bidding procedure.
7. The selected Contractor shall responsible for review an EDD and Construction of the Works based on the information given by the Employer for the functional requirement of the Elevated highway with all three entry / exit ramps and at ground road improvement according to the Employer's Requirement. If the Contractor adopts any aspect or element of the EDD in his detailed design, the contractor shall be responsible for design.
8. A Project Implementation Consultant will be mobilized for construction supervision.
9. It is proposed to procure the services of an National Information Communication Technology (IT) Specialist to assist the Client.
10. The Democratic Socialist Republic of Sri Lanka is applying for a loan for South Asia Subregional Economic Cooperation Port Access Elevated Highway (PAEH) Project from the Asian Development Bank (ADB). The loan will be used (i) to construct the elevated highway, (ii)

to install multi-lane free flow electronic toll collection system (MLFF-ETC), (iii) to construct maritime facilitation center (MFL), and (iv) to construct and procure port trade facilities. The components from (i) to (iii) will be implemented by Road Development Authority (RDA), and (iv) will be by Sri Lanka Ports Authority (SLPA). Part of the loan shall be used for engaging individual consultants with special expertise for implementation support to the Ministry of Highways and Road Development (MOH&RD), the Road Development Authority (RDA), MOPS, SLPA, and PAEH project implementation units (PIUs) in RDA and SLPA. There are four main components under the individual consulting services: (i) advisors for PAEH civil works contract, (ii) implementation support for MLFF-ETC, (iii) implementation support for MFC, and (iv) implementation support for construction and procurement of port trade facilities. The PIUs shall manage and coordinate the individual consultants to maximize efficiency and outputs of services.

11. The project will be implemented under the Project Director, Port Access Elevated Project, Road Development Authority, and International Structural Engineer is directly responsible to the Project Director.

B. Scope of Services

12. The Consultant shall assist to the Client on following:
- (i) The consultant will (i) assist the PIU in coordinating with project management consultants (PMC) for MLFF-ETC; (ii) assist the PIU in understanding technical requirements of MLFF-ETC; (iii) assist the PIU in reviewing technical recommendations of project management consultant for MLFF-ETC; and (iv) assist the PIU in administering technical aspects of PMC for MLFF-ETC contract.
 - (ii) Prepare papers on necessary policy areas to be addressed include: Information Security, Database Management Information infrastructure etc.
 - (iii) Designing and Developing a website for the project
 - (iv) Monitor / help assisting project on software / license and limitations of service and Helping End user training.
 - (v) Administration training: Focusing on application installation, application monitoring, database management, performance tuning, security management, backup and recovery.
 - (vi) Application support training: Troubleshooting application licensing, procedures for keeping maintenance logs and enhancement logs.
 - (vii) Prepare a budget estimate for annual operation of the project. This budget shall include all equipment
 - (viii) Preparing GIS maps.

C. Expert Required

13. The consultant shall have a bachelor's degree in information technology, telecommunication, electronics, or the equivalent. He/she should have at least 7 years of relevant experience in information management and/or telecommunication, preferably in database development, e-payment, and/or image/information processing. Preference will be for candidates with experience in working for transport sector or public utility.

14. Should have basic knowledge and experience on computer Hardware and Software trouble shooting such as fixing printers, installing OS, installing windows applications.

15. Should have basic knowledge and experience on troubleshooting office networks.

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16. Should have knowledge in ArcGIS desktop and QGIS applications and map preparations.
17. Should be familiar with Database Management Information infrastructure etc.
18. Should familiar with Excel, Access database and other common windows applications.

D. Duration

19. The Contract will be 42 months period from October 2018 to end of 2021 intermittently.

E. Payment for the consultancy services shall as follow

20. The consultant has to submit his Invoice to the Project Management Unit after completion of intermittent assignment schedule.
 - Remuneration will be paid in Working day basis on actual inputs as agreed rate.
 - Out-of-Pocket Expenses are reimbursable with supporting documents/receipts.

F. Facilities provided by Project Implementation Unit (PMU)

21. PMU will provide the Consultant with suitably equipped office facilities, internet connection, and supplies (stationary etc) in the PMU office. Transport will be provided only for the field visits if required

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS FOR NATIONAL BUILDING ENGINEER (PAEH-IC-05/06)

A. Background

1. The Government of Sri Lanka has applied for financing from ADB for construction of proposed SASEC Port Access Elevated Highway Project (PAEH). The loan will be scheduled to be effective in the latter part of year 2018. Owing to the proposed PAEH, number of office buildings and workshops owned by SLPA will be relocated. On that regards "Maritime Facilitation Centre" (MFC) a new Port Administration building is proposed to be constructed under above ADB Loan.
2. The proposed Maritime Facilitation Centre is 17 storied building and proposed to be constructed on Port Premises.
3. The Preliminary Design of the building has been completed and construction of the building will be done in two civil works contracts. Piling Contract and Superstructure Building Contract.
4. The Construction period for the Superstructure 17 storied building is 24 months and Contractor will be selected on International Competitive Bidding (ICB) .
5. Civil Works will be carried out based on the International Federation of Consulting Engineers (FIDIC) Condition of Contracts for Plant and Design Build Contracts 1999.
6. It is proposed to procure the services of an Individual National Building Engineer to supervision/administration of the MFC building construction contract and assist the Client.
7. The project will be implemented under the Project Director, Port Access Elevated Project, Road Development Authority, and National Building Engineer is directly responsible to the Project Director.

B. Scope of Services

8. The consultant will:
 - (i) carry out the supervision/administration of the MFC building construction contract;
 - (ii) monitor project implementation schedule with milestones;
 - (iii) prepare reports as required for RDA and ADB;
 - (iv) monitor the implementation of safeguards in accordance with ADB's Safeguard Policy Statement;
 - (v) ensure implementation of environment management plan (EMP);
 - (vi) review of quality of the building construction works;
 - (vii) certify contract value executed by the contractor and process payments;
 - (viii) evaluate and recommend the contractor's proposal for variations and claims;
 - (ix) ensure that project financial management procedures are in order; and
 - (x) other supervision activities as required by RDA.

C. Expert Required

9. The consultants shall have a bachelor degree in architecture, building engineering, civil works or the equivalent. He/she should have at least 15 years of relevant experience in building

construction and/or relevant civil works. He/she should be also knowledgeable about supervising building construction works. Preference will be for candidates with experience in design-build contract management and safeguards management.

D. Duration

The Contract will be 24 months period from 2019 to 2021.

E. Payment for the consultancy services shall as follow

10. The consultant has to submit his Invoice to the Project Management Unit in monthly basis with documents agreed at the negotiation.

F. Facilities provided by Project Implementation Unit (PMU)

11. PMU will provide the Consultant with suitably equipped office facilities, internet connection, and supplies (stationary etc) through Civil Work Contract. Transport will be provided through Civil Work Contract.