



# Technical Assistance Report

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Project Number: 50184-001  
Policy and Advisory Technical Assistance (PATA)  
August 2016

## Democratic Socialist Republic of Sri Lanka: National Port Master Plan (Financed by the Japan Fund for Poverty Reduction)

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

**Asian Development Bank**

## CURRENCY EQUIVALENTS

(as of 5 August 2016)

Currency unit	–	Sri Lanka rupee/s (SLRe/SLRs)
SLRe1.00	=	\$0.006861
\$1.00	=	SLRs145.75000

## ABBREVIATIONS

ADB	–	Asian Development Bank
NPMP	–	National Port Master Plan
PAEH	–	port access elevated highway
SLPA	–	Sri Lanka Ports Authority
TA	–	technical assistance

## NOTE

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

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## POLICY AND ADVISORY TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 50184-001</b>	
<b>Project Name</b>	National Port Master Plan	<b>Department /Division</b>	SARD/SATC
<b>Country</b>	Sri Lanka	<b>Executing Agency</b>	Sri Lanka Ports Authority
<b>2. Sector</b>		<b>Financing (\$ million)</b>	
✓ Transport	Transport policies and institutional development		1.50
		<b>Total</b>	<b>1.50</b>
<b>3. Strategic Agenda</b>		<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 1: Cross-border infrastructure		
<b>4. Drivers of Change</b>		<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Institutional development Organizational development	No gender elements (NGE)	✓
Partnerships (PAR)	International finance institutions (IFI) Official cofinancing		
Private sector development (PSD)	Conducive policy and institutional environment Promotion of private sector investment		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Not Applicable	
<b>6. TA Category:</b>	B		
<b>7. Safeguard Categorization</b> Not Applicable			
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>0.00</b>	
None		0.00	
<b>Cofinancing</b>		<b>1.50</b>	
Japan Fund for Poverty Reduction		1.50	
<b>Counterpart</b>		<b>0.40</b>	
Government		0.40	
<b>Total</b>		<b>1.90</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems	No		
Use of country public financial management systems	No		

## I. INTRODUCTION

1. The Government of Sri Lanka requested the Asian Development Bank (ADB) to provide policy and advisory technical assistance (TA) to help the government develop a national master plan for its port sector, including the restructuring of Sri Lanka Ports Authority (SLPA). This is the first ADB intervention in Sri Lanka's port sector since the Colombo Port Expansion Project closed in July 2013.<sup>1</sup> The concept for this TA was approved by ADB Management on 10 June 2016. An ADB fact-finding mission was conducted from 26 May to 3 June 2016 where key aspects of the TA were discussed with officials of the government, SLPA, and other stakeholders. This report is based on the consensus reached with the government and SLPA regarding the TA framework, implementation arrangements, cost, financing arrangements, and outline terms of reference for consulting services.<sup>2</sup> The design and monitoring framework is in Appendix 1.

## II. ISSUES

2. As Sri Lanka is an island nation, maritime transport is essential for the nation. It is the dominant transport mode for international trade and accounts for a large share of the country's international logistics cost. Low-cost logistics is critical to Sri Lanka's economic efficiency and transition to an export-oriented economy because it affects both the competitiveness of exported goods and consumer price of imported goods of the country. Sri Lanka plays a significant role as a regional transport hub due to its strategic location in the vicinity of major international shipping routes. Ports and shipping are central to the economic ties between Sri Lanka and the rest of the world, including South Asia Subregional Economic Cooperation nations.<sup>3</sup>

3. Sri Lanka needs to keep strengthening its ports' capacity and competitiveness by improving infrastructure, operational efficiency, and institutions, in order to maintain its role as a regional transport hub despite severe competition with the ports of other nations.<sup>4</sup> The introduction of larger vessels and the emergence of gigantic container shipping line alliances have exacerbated the competition between international ports. Due to Sri Lanka's national economic growth and the rapid growth of international container shipping demand, the country urgently needs to strengthen its port capacity. Being left behind these recent trends will lead to the loss of economic opportunities and growth impediments in the South Asia Subregional Economic Cooperation region.

4. The Colombo port became the world's 83rd busiest port in terms of total shipping tonnage and the world's 35th busiest container port in 2014.<sup>5</sup> From 2005–2015, total container volume handled in Sri Lanka ports increased by 111%, from 2.5 million twenty-foot equivalent units to 5.2 million twenty-foot equivalent units.<sup>6</sup> Due to the rapid growth of vessel size, vessel calls recorded only a 15% increase during the same period. More than 75% of total container cargos are transshipment containers, mostly from or to the Indian subcontinent. The Colombo

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<sup>1</sup> ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Sri Lanka for the Colombo Port Expansion Project*. Manila.

<sup>2</sup> The TA first appeared in the business opportunities section of ADB's website on 15 June 2016.

<sup>3</sup> Member countries are Bangladesh, Bhutan, India, the Maldives, Nepal, and Sri Lanka.

<sup>4</sup> The six ports under the Sri Lanka Ports Authority are Colombo, Trincomalee, Hambantota, Galle, Oluvil, and Kankasanthurai.

<sup>5</sup> American Association of Port Authorities. *World Port Rankings 2014*. <http://www.aapa-ports.org/unifying/content.aspx?ItemNumber=21048> (accessed 29 July 2016).

<sup>6</sup> Twenty-foot equivalent unit is a standard unit to describe volume of container cargo. A forty-foot container cargo is counted as two twenty-foot equivalent units.

port handles more than 90% of the total cargo volume in the country, including 8 million metric tons of non-containerized cargo, which is equivalent to 22% of the port's total cargo volume.

5. In spite of the needs for capacity strengthening, the Colombo port is constrained due to the urbanization of and growing congestion in Colombo City. The Colombo port development must cope with urban development on the land side. At the same time, the Colombo port cannot accommodate all development needs due to its limited port area inside the breakwaters. Hence, cargo handling capacity for container, dry bulk, liquid bulk, automobile, and other types of cargo, as well as passengers, needs to be strategically allocated to other ports to alleviate growing pressures on the Colombo port and facilitate national economic growth. Port development direction must be properly determined with full consideration of the economies of scale, the size of the port hinterland, potential demand, and connection to other transport networks. Also, developing local ports is vital for economic growth, and will contribute to addressing the significant economic divide among the regions in the nation.

6. Trincomalee City, situated on the eastern shoreline, is the capital of Sri Lanka's Eastern Province, which is one of the nation's most underdeveloped provinces. The city is still recovering from the prolonged ethnic conflict that ended in 2009. The Trincomalee port currently handles bulk cargo only, but its total cargo-handling volume is the second largest in the nation. The Trincomalee port has a number of potential advantages including its geographical location, being situated within a deep and spacious harbor near the southern boundary of the Bay of Bengal. As Trincomalee area has been identified as a zone that could be developed as agricultural and energy hubs under the development program of the present government, the Trincomalee port development needs to be sufficiently discussed and planned along with discussions about the direction of the urban development.

7. Maritime related industries have not yet grown in the country, although the Colombo port is a dominant container hub port in South Asia. In comparison, Singapore has a diverse and large cluster of maritime industries including shipbuilding, ship registration, bunkering, trade credit insurance, vessel charter market, logistics, consulting, and international maritime arbitration. The presence of such a cluster reinforces its function and attractiveness as a hub port. Sri Lanka's ports need a strategy to foster such auxiliary functions.

8. Efficiency improvement in operations is another agenda in the port sector. The SLPA is a statutory corporation established under the SLPA Act of 1979 as the owner, operator, regulator, and supplier of marine and cargo handling services at the ports. SLPA is complex, large, and inefficient in comparison with other competing international port operators. As of December 2013, SLPA employees are no fewer than 9,900, and around 8,900 serves at the Colombo port. Build-operate-transfer concessions have been applied to some container terminals, which led to alleviation of the financial burden and efficient operations. Further institutional strengthening, including the restructuring of SLPA, needs to be sought with full consideration of a level playing field for all terminal operators, financial strength, efficiency, and competitiveness of Sri Lanka's ports.

9. Mitigation of environmental impacts of the port operations to surrounding residential and commercial areas, including vibration, noise, and odor, is critical for the sustainability of the Colombo port. As cargo volume grows and urbanization continues, coexistence of port and urban activities is tested and requires alleviation of the impacts. Congestion attributed to port traffic also requires harmonization of port and urban development. As Sri Lanka aims to transform to an export-oriented economy, the multimodal transport network plying ports and industrial zones must be strengthened and industrialization promoted.

10. Under these circumstances, the preparation of a master plan for the port sector was listed in the Ministry-wise Program of the government in 2015.<sup>7</sup> Given that SLPA recognizes its lack of capacity to develop a master plan, this TA will support the Government of Sri Lanka to develop the National Port Master Plan (NPMP) and identify priority projects, which will contribute to scaling up future ADB interventions in the nation. At the same time, the TA will technically support the government to coordinate with the road sector and ensure that the operation and development of the Colombo port in future will not be unduly constrained by the planned road development which will run through the port.

### III. THE POLICY AND ADVISORY TECHNICAL ASSISTANCE

#### A. Impact and Outcome

11. The impact will be the realization of the most competitive and preferred ports and shipping destination in the region, in line with the Public Investment Programme, 2016–2018.<sup>8</sup> The outcome will be harmonized and balanced port development facilitated in the nation.

#### B. Methodology and Key Activities

12. **Output 1: National Port Master Plan finalized for approval.** The NPMP will have two sections: (i) National Policy Directions, and (ii) individual port development plans. The National Policy Directions will contain visions, policies, institutional issues, and overall development framework from a national point of view, including the restructuring of SLPA. The individual port development plans will set the direction of development and identify priority projects for the Colombo and Trincomalee ports.

13. The NPMP will ensure that port infrastructure is developed and operated in an optimum manner, in coexistence with urban areas and in line with long-term planning. Hence, in developing the NPMP, ample consideration will be given to harmonization with urban development, hinterland economy, industries, and multimodal transport network as well as future port expansion. The NPMP will also identify priority projects, promote public and private investment, and boost economic efficiency by reducing logistics cost along with the restructuring of SLPA.

14. The National Policy Directions will include the (i) future visions of Sri Lanka's port sector; (ii) market analyses of the auxiliary functions of container hub ports; (iii) market analyses of non-container strategic cargo; (iv) future cargo and passenger demand estimation with a 30-year planning horizon; (v) designation of the key functions of ports under SLPA; (vi) trade facilitation; (vii) prioritized projects; (viii) study of the SLPA restructuring, including separation of the regulatory and operational functions; and (ix) study of the multimodal hinterland connectivity and logistics. Restructuring of SLPA will lead to economic efficiency improvement by strengthening the sector institutions and will be the most significant institutional change since its establishment in 1979.

15. The individual port development plans will include (i) traffic forecast of the port, (ii) assessment of port operations and infrastructure, (iii) clarifying development and improvement

<sup>7</sup> Government of Sri Lanka, Department of National Planning. Ministry of National Policies and Economic Affairs. 2015. *Economic Policy Statement By The Prime Minister on 05<sup>th</sup> of November 2015 (Ministry-wise Programme)*. Colombo. This contains detailed tasks assigned to the 28 ministries, following the statement by the Prime Minister.

<sup>8</sup> Government of Sri Lanka, Ministry of National Policies and Economic Affairs. 2016. *Public Investment Programme 2016–2018*. Colombo.

needs with a list of priority projects, (iv) feasibility studies of priority projects, (v) information technology strategy, (vi) alleviation measures of environmental impacts of port operation, (vii) land use plans, and (viii) a priority list of logistics and hinterland connection projects under other agencies. The priority projects identified in the TA will be further prepared by financing the detailed design and preparing bidding documents under a proposed TA loan.<sup>9</sup>

16. The NPMP is designed to support the government to accomplish the Ministry-wise Programme. The government is committed to implementing the NPMP which will be an official document to direct SLPA operation and port development with endorsement by the Parliament. The NPMP will be maintained and periodically updated by SLPA.

17. **Output 2: Technical review of the final design of the port access elevated highway submitted.** This output will support SLPA to conduct the technical verification of the design of the port access elevated highway (PAEH) and other engineering issues to secure an efficient port operation.<sup>10</sup> The Colombo port has only one access road connecting it with Colombo City so that this road is essential for the efficient operation of the port. As the Road Development Authority is planning to construct the PAEH, which will run through the port and beyond the existing access road, technical verification is needed from the point of view of the port operation. This component provides review of the design and other technical documents of the PAEH, and assistance to SLPA to coordinate with other agencies through a multiagency committee, i.e., preparation of reports and presentations.

### C. Cost and Financing

18. The TA is estimated to cost \$1,900,000, of which \$1,500,000 will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The government will provide counterpart support in the form of counterpart staff, office accommodation, office supplies, and other in-kind contributions. The detailed cost estimates and financing plan are in Appendix 2.

### D. Implementation Arrangements

19. The executing agency will be the SLPA. The executing agency will provide policy guidance and national-level coordination in relation to the TA and ensuing projects, and be responsible for managing daily implementation activities. A TA advisory committee headed by SLPA's managing director will be established within SLPA to guide and provide support to the TA team for smooth implementation. SLPA will appoint a project director to supervise the consultant team, and six supporting team members to work with the consultant. The supporting team members will contribute to data collection, drafting reports, analyses, and other relevant tasks, subject to its capacity. The TA will be implemented over 24 calendar-months, starting from November 2016 to November 2018.

20. ADB will engage an international consulting firm through the quality- and cost-based selection method with a quality–cost ratio of 90:10. The firm will be selected by full technical proposals. The TA will require about 47 person-months of international consulting services and 20 person-months of national consulting services in total to deliver the TA outputs. The TA

<sup>9</sup> ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Technical Assistance Loan to Sri Lanka for the Transport Project Preparatory Facility*. Manila.

<sup>10</sup> The preliminary design of PAEH was prepared in 2014 under the TA loan for the Road Project Preparatory Facility (Loan number 2080). Under the proposed TA loan for Transport Project Preparatory Facility, the detailed design and other preparation works will be prepared.



consulting service period for the firm will be 18 months. The required experts for the consulting firm will be a senior port engineer, maritime transport specialist, economic assessment specialist, financial specialist, trade facilitation specialist, public administration specialist, environment specialist, port engineer, port operation specialist, information technology specialist, and social safeguard specialist. Individual consultants as reviewers will be recruited for 2 person-months to support the executing agency on technical matters, including validation of deliverables by the consulting firm. The outline terms of reference for consultants is in Appendix 3. The consultants will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). Disbursements under the TA will be made in accordance with the *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Advance contracting for the recruitment of consultants will be used to expedite the implementation.

21. During implementation, five workshops will be held in Colombo and Trincomalee to facilitate incorporation of the views and requests from related agencies, port users, and other stakeholders, and to disseminate the NPMP to them. All TA-financed goods and equipment will be procured in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). The procured equipment will be handed over to the executing agency upon TA completion.

22. A review of the TA will be undertaken after 6 months of implementation to assess the progress, fine-tune the outputs, and make necessary adjustments, if any, to the key activities and implementation arrangements. Good practices and lessons will be disseminated through knowledge products and outputs available on the ADB website, as applicable.

#### **IV. THE PRESIDENT'S DECISION**

23. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$1,500,000 to the Government of Sri Lanka to be financed on a grant basis by the Japan Fund for Poverty Reduction for the National Port Master Plan, and hereby reports this action to the Board.

## DESIGN AND MONITORING FRAMEWORK

<b>Impact the TA is Aligned with</b> The most competitive and preferred ports and shipping destination in the region realized (Public Investment Programme, 2016–2018) <sup>a</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> Harmonized and balanced port development facilitated	By 2018: National Port Master Plan approved by the government (2015 baseline: 0)	SLPA reports	Economic slowdown hampers trade and investment
<b>Outputs</b> 1. National Port Master Plan finalized for approval  2. Technical review of the final design of PAEH submitted	By 2018: 1a. National port master plan submitted 1b. At least five workshops conducted  By 2017: 2a. Review of final PAEH designs submitted	1–2. TA consultant's monthly reports	Delay in review of PAEH design by other transport subsectors and urban sector
<b>Key Activities with Milestones</b> <b>Output 1: National Port Master Plan finalized for approval</b> 1.1 Recruit and mobilize consultants (November 2016) 1.2 Conduct first workshop on the draft national port master plan (November 2017) 1.3 Finalize the National Port Master Plan (May 2018)  <b>Output 2: Technical review of the final design of PAEH submitted</b> 2.1 Recruit and mobilize consultants (November 2016) 2.2 Report technical advice on the final PAEH design to the committee (May 2017)  <b>TA Management Activities</b> Submit final report (May 2018)			
<b>Inputs</b> Japan Fund for Poverty Reduction: \$1,500,000  Note: The government will provide counterpart support in the form of counterpart staff, office space, office supplies, and other in-kind contributions.			
<b>Assumptions for Partner Financing</b> Not Applicable			

PAEH = port access elevated highway, SLPA = Sri Lanka Ports Authority, TA = technical assistance.

<sup>a</sup> Ministry of National Policies and Economic Affairs. 2016. *Public Investment Programme, 2016–2018*. Colombo.

Source: Asian Development Bank.

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

Item	Amount
<b>Japan Fund for Poverty Reduction<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	1,052.1
ii. National consultants	98.8
b. International and local travel	58.0
c. Reports and communications	6.5
2. Equipment <sup>b</sup>	52.4
3. Training, seminars, and conferences <sup>c</sup>	24.0
4. Surveys	70.0
5. Miscellaneous administration and support costs	10.0
6. Contingencies	128.2
<b>Total</b>	<b>1,500.0</b>

Note: The technical assistance (TA) is estimated to cost \$1,900,000, of which contributions from the Japan Fund for Poverty Reduction are presented in the table above. The government will provide counterpart support in the form of counterpart staff, office space, office supplies, and other in-kind contributions. The value of the government contribution is estimated to account for 21.1% of the total TA cost.

<sup>a</sup> Administered by the Asian Development Bank.

<sup>b</sup> Equipment

Type	Quantity	Cost
Desktop computer	1	\$ 2,500
Laptop computer	2	\$ 4,000
Printer	1	\$ 1,000
Scanner and Photocopier	1	\$ 500
LCD projector	1	\$ 2,000
Software and associated licenses	1	\$ 500
Accessories	1	\$ 500
Vehicle rental	1	\$32,400

Turnover or disposal arrangement will be made at TA completion.

<sup>c</sup> Training, seminars, and conferences

Purpose	Number of Participants	Venue and Location	Duration	Cost
Workshop on Draft Inception Report	20	Colombo	1 day	\$4,000
Workshop on Draft National Policy Directions	30	Colombo	1 day	\$5,000
Workshop on Draft Colombo PDP	40	Colombo	1 day	\$5,000
Workshop on Draft Trincomalee PDP	40	Trincomalee	1 day	\$5,000
Workshop on National Port Master Plan	40	Colombo	1 day	\$5,000

PDP = port development plan.

Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

### A. Scope of Services

1. The scope of the consultancy services is to deliver the following outputs:
  - (i) The National Port Master Plan (NPMP)
    - (a) National Policy Directions
    - (b) Colombo Port Development Plan
    - (c) Trincomalee Port Development Plan
    - (d) Prioritized projects for logistics and hinterland connectivity
  - (ii) Technical review of the final design of the Port Access Elevated Highway Project (PAEH).
  
2. The consultant will develop National Policy Directions. Detailed tasks will include but not be limited to the following:
  - (i) Review the national long-term economic development strategy and other national plans of Sri Lanka; consult with Sri Lanka Ports Authority (SLPA) and identify visions for Sri Lanka's port sector for the next 30 years.
  - (ii) Review the latest cargo forecast under other recent studies and prepare a national cargo and passenger transport demand forecast up to 2040. Container cargo demand includes export, import, and transshipment cargo. The estimation of fuel cargo needs to take into account the energy mix change in the nation, development plans for power generation plants, and demand from industries around the ports, among others. Passenger demand includes those for cruisers, pleasure boats, and yachts. Based on origin and destination statistics of domestic cargo movement provided by SLPA, conduct a preliminary assessment on the modal split for major routes and competitiveness of inland waterway and coastal shipping.
  - (iii) Conduct a market assessment of the auxiliary functions required for a container hub port, including ship repair, ship registration and classification, logistics and other value addition services, bunkering, and financial services; and evaluate the feasibility of introducing such functions into Sri Lanka's ports.
  - (iv) Identify strategic non-container commodities for which Sri Lanka's ports can be a distribution and/or processing hub in the region, following market assessment of such commodities.
  - (v) Identify major functions and roles which each port should play, including those for container, non-container, and passenger. Propose strategies and determine segregation of functions among all Sri Lankan ports focusing on type and size of cargo handling capacity. Development of new ports may be included.
  - (vi) Assess the infrastructure of individual ports and identify the lag in cargo and passenger handling capacity and development needs, as well as assess development constraints including spatial and environmental constraints. Prepare a list of short-term prioritized projects (3–5 years) with cost estimation, following consultation with SLPA, and conduct a preliminary feasibility study for the projects.
  - (vii) Propose institutional changes for trade facilitation to strengthen Sri Lanka's port capacity and competitiveness, following an assessment and consultation with stakeholders.

- (viii) Assess organizational efficiency and capacity of SLPA with a focus on the financial self-sustainability of each port, and operation and organization for each port. Identify measurements to improve the operation of the organization. Conduct preliminary assessment of possible restructuring options of SLPA in the short and medium term, including separation of regulatory and operational functions, with consideration of solvency of the new organizations, efficiency of operation, and fair competition grounds for port operators, among others.
- (ix) Propose measures to improve multimodal connectivity in terms of software and hardware improvement.
- (x) Draft the National Policy Directions Report and finalize it by incorporating comments from stakeholders.
- (xi) Draft the National Port Master Plan and finalize it by incorporating comments from stakeholders.

3. The consultant will develop the Colombo Port Development Plan covering the next 30 years including an investment plan for priority projects to be carried out in the next 10 years, following an assessment of the characteristics of existing port operations, and of existing and planned maritime and landside infrastructure. Detailed tasks will include but not be limited to the following:

- (i) Review other transport plans and urban development plans, and evaluate consistency among them.
- (ii) Prepare cargo and passenger traffic forecast for the Colombo port for 30 years based on different scenarios for economic development.
- (iii) Assess the feasibility of auxiliary functions of a container hub port, including ship repair, ship registration and classification, logistics and other value-added services, bunkering, and financial services; and identify the possible location and required area for the functions in the Colombo port.
- (iv) Assess current port operation, infrastructure and related institutions. The assessment covers cargo handling, navigation, worker's capacity and training, vehicle flow, capacity and condition of facilities, land use within and around the port, and impact of construction of PAEH and railway link; and identify the development needs for the port, including the need to redevelop obsolete facilities.
- (v) Suggest measures to improve the physical, operational, and institutional efficiency for multimodal connectivity.
- (vi) Develop a concept for the construction of a passenger terminal with private financing, including berth, terminal building, and related facilities. Conduct an economic and financial viability assessment and propose measures to improve the feasibility of the project, including necessary SLPA investment and intervention. Also, propose possible improvement measures for terminal accessibility from the city.
- (vii) Prepare a list of priority projects to be carried out in the next 10 years with cost estimations and economic and financial viability assessments.
- (viii) Undertake preliminary assessments of the environment, social and potential need for land acquisition and resettlement for the priority projects in accordance with ADB's Safeguard Policy Statement (2009), as well as the government's environmental regulations and policies.
- (ix) Review information technology application in the port's operation, including traffic navigation, payment, and data exchange among shippers, government agencies, operators, and consignees, and propose measures to improve efficiency and to realize a paperless environment.

- (x) Prepare a phased Colombo Port Development Plan for the next 30 years, taking into account consistency with other transport plans and urban development plans.
- (xi) Establish a land use plan for the port, access to it, and related auxiliary facilities, which cater for the overall port development.
- (xii) Evaluate the environmental impacts of the port's operation on residential and commercial areas around the port and prepare recommendations to alleviate negative impacts both in the short and long term.
- (xiii) Recommend projects to be implemented with possible external financing from development partners or potential financing by the private sector.
- (xiv) Draft the Colombo Port Development Plan and finalize it by incorporating comments from stakeholders.

4. The consultant will develop the Trincomalee Port Development Plan for the next 30 years including an investment plan of priority projects for the next 10 years. Detailed tasks will include but not be limited to the following:

- (i) Review other transport plans and urban development plans and evaluate consistency among them. Draft a zoning map of the port to identify future port development areas to be secured and to be incorporated into the land use plan.
- (ii) Identify strategic non-containerized commodities where Trincomalee port has relative advantages to be a distribution and/or processing center in the nation and/or the region, following a market assessment of such commodities.
- (iii) Prepare a cargo and passenger traffic forecast for Trincomalee port for the next 30 years based on different scenarios of the economic development, taking into account strategic commodities, urban development, industrial development plans, and economic activities in hinterland, among others.
- (iv) Assess current port operation, infrastructure and related institutions. The assessment covers cargo handling, navigation, worker's capacity and training, vehicle flow, capacity and condition of facilities, land use within and around the port, and impact of construction of PAEH and railway link; and identify the development needs for the port, including the need to redevelop obsolete facilities.
- (v) Suggest measures to improve the physical, operational, and institutional efficiency of multimodal connectivity.
- (vi) Prepare a list of priority projects to be carried out in the next 10 years including cost estimations and economic and financial viability assessments.
- (vii) Undertake preliminary assessments of the environment, social and potential need for land acquisition and resettlement for the prioritized projects in accordance with ADB's Safeguard Policy Statement (2009), as well as the government's environmental regulations and policies.
- (viii) Identify the needs for information technology application in the port.
- (ix) Evaluate the environmental impacts of the port operation on residential and commercial areas around the port and prepare recommendations to manage and alleviate negative impacts both in the short and long term.
- (x) Prepare a phased Trincomalee Port Development Plan for the next 30 years, taking into account consistency with other transport plans and urban development plans.
- (xi) Establish a land use plan for the port with zoning, access to the port, and related auxiliary facilities that cater to the overall port development.
- (xii) Recommend projects to be implemented with possible external financing from development partners or potential financing by the private sector.

- (xiii) Draft the Trincomalee Port Development Plan and finalize it by incorporating comments from stakeholders.
5. The consultant will prepare a list of priority projects for logistics and hinterland connectivity. Detailed tasks will include but not be limited to the following:
- (i) Prepare a long list of projects, which contain a minimum 15 projects in total of the subsectors of road, railway, and logistics for multimodal transport chains. Conduct a preliminary assessment of the list in terms of cost estimation, project readiness, degree of urgency, and other evaluation criteria.
  - (ii) Following consultation with stakeholders and concerned agencies, prepare a list of prioritized projects for logistics and hinterland connectivity from the initial list.
6. The consultant will provide technical advice and support to establish the multiagency coordination required to ensure that the Colombo port will not be disturbed by the PAEH. The consultant will review the PAEH development plan and assess its conformity with the operation and development plan of the Colombo Port. Detailed tasks will include but not be limited to the following:
- (i) Prepare requirements of PAEH from a point of view of port operation and provide technical advice on (a) the preliminary design, alignment, construction methods, construction plan, inspection and maintenance methods of PAEH, including advice on the design of a new ramp inside the port; (b) the relocation plan of affected SLPA facilities; and (c) the plan of a service corridor connecting the north and west of Colombo. Ensure that the PAEH construction will not disturb the existing port access road and railway link during the preparation phase, construction period, and after completion of works.
  - (ii) Review current traffic data, future traffic estimation, and future development plan of the port; and evaluate the relevance of the data and plans to be used for the assessment of the impact of the PAEH construction, followed by the necessary revision or adjustment of the data, if any.
  - (iii) Evaluate the impact of the PAEH construction on the port's operation during the preparation phase, construction period, and after completion of works.
  - (iv) Develop a list of measures to secure smooth traffic flow and efficient port operation during the preparation phase, construction and in the longer term after completion.
  - (v) Support SLPA to coordinate with the Road Development Authority to establish a multiagency committee where all related agencies will identify, discuss, address, and monitor outstanding issues to implement the new PAEH construction project. Prepare the required documents for SLPA to present at the multi-agency committee, including a technical review of final proposals by the Road Development Authority.
7. The consultant, in collaboration with SLPA, will organize and attend workshops to update TA progress and discuss with stakeholders, at least after submission of the following reports:
- (i) inception report,
  - (ii) draft National Policy Directions,
  - (iii) draft Colombo Port Development Plan,
  - (iv) draft Trincomalee Port Development Plan, and
  - (v) final National Port Master Plan (Final Report).
8. Individual consultants will be hired separately to provide technical advice to SLPA.

## B. Project Management and Quality Assurance

9. The consultant shall be responsible for the management and overall coordination and integration of the TA in close cooperation with SLPA. The responsibilities also include quality management and quality assurance at all stages. The specific responsibilities for TA management and quality assurance include but are not limited to the following:

- (i) **Technical assistance management and coordination.** The consultant shall prepare a detailed task schedule during inception and follow the schedule, follow-up on internal and external deliverables and approvals, and closely monitor and coordinate survey and investigations to be conducted by third parties and verify their reports, if any.
- (ii) **Quality control and quality assurance.** The consultant shall establish and enforce a quality control and a quality assurance system for all deliverables.

## C. Reports, Time Schedule, and Payment

10. The consulting services will be implemented over 18 calendar-months from the commencement date. The consultant will submit the following reports: (i) inception report, (ii) PAEH report, (iii) National Policy Directions report, (iv) Colombo Port Development Plan report, (v) Trincomalee Port Development Plan report, and (vi) final report. All reports, in the English language, will be submitted by the consultant to the government (four copies) and ADB (two copies), including a CD-ROM. The consultants will also submit monthly progress reports with a summary of activities and recommendations for action.

## D. Schedule and Staff Requirements

11. The consulting services will be completed in 18 months, from November 2016 to May 2018. A firm of consultants will be engaged in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The consultants shall be selected using ADB's quality- and cost-based selection method with a quality-cost ratio of 90:10.

12. The consultants' inputs will comprise 47 person-months international and 20 person-months national inputs as stated below:

**Table 1: Consulting Services Inputs**

<b>International Experts</b>	<b>Person-Months</b>	<b>National Experts</b>	<b>Person-Months</b>
Team leader (cum port engineer)	18	Deputy team leader (maritime transport expert)	4
Maritime transport specialist (cum economist)	4	Feasibility assessment expert	4
Economic assessment specialist	4	Port operation specialist	4
Financial specialist	4	Information technology specialist	3
Trade facilitation specialist	3	Environment expert	2
Public administration specialist	5	Social safeguard specialist	3
Environment specialist	4		
Port engineer	3		
Reviewer (individual)	2		
<b>Total</b>	<b>47</b>	<b>Total</b>	<b>20</b>

Source: Asian Development Bank.