



Technical Assistance Report

Project Number: 47358-001
Policy and Advisory Technical Assistance (PATA)
April 2015

Independent State of Samoa: Ports Development Master Plan

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 April 2015)

Currency unit	–	tala (ST)
ST1.00	=	\$0.41
\$1.00	=	ST2.45

ABBREVIATIONS

ADB	–	Asian Development Bank
cm	–	centimeter
O&M	–	operation and maintenance
PRIF	–	Pacific Regional Infrastructure Facility
SPA	–	Samoa Ports Authority
TA	–	technical assistance

NOTE

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

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POLICY AND ADVISORY TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 47358-001	
Project Name	Ports Development Master Plan	Department /Division	PARD/PATE
Country Borrower	Samoa Ministry of Finance	Executing Agency	Ministry of Finance
2. Sector		ADB Financing (\$ million)	
✓ Transport	Water transport (non-urban)		0.50
		Total	0.50
3. Strategic Agenda		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 2: Trade and investment		
4. Drivers of Change		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development Organizational development	No gender elements (NGE)	✓
Private sector development (PSD)	Promotion of private sector investment Public sector goods and services essential for private sector development		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. TA Category:	B		
7. Safeguard Categorization	Not Applicable		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.50	
Policy and advisory technical assistance: Technical Assistance Special Fund		0.50	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		0.50	
9. Effective Development Cooperation			
Use of country procurement systems	No		
Use of country public financial management systems	No		

I. INTRODUCTION

1. The Government of Samoa requested technical assistance (TA) from the Asian Development Bank (ADB) to prepare a ports development master plan. The proposed TA is included in the ADB country operations business plan, 2015–2017 for Samoa, and is consistent with ADB's Pacific Approach, 2010–2014.¹ The government concurs with the TA project's objectives, scope, implementation arrangements, cost, financing arrangements, and terms of reference. The design and monitoring framework is in Appendix 1.²

II. ISSUES

2. Samoa is a geographically compact country in the South Pacific with a population of about 200,000, a recorded gross domestic product per capita of \$4,212 in 2013, and a land area of 2,820 square kilometers. The two main islands—Savai'i and Upolu—account for almost all the land area. Samoa's small size makes it difficult to achieve economies of scale and production, although its compactness facilitates internal freight distribution and public service delivery. Samoa faces challenges typical of small island economies, including geographic isolation, limited human and financial resources, a narrow economic base, and underdeveloped markets. The economy is heavily dependent on agricultural exports and fisheries, and imports of fuel and basic commodities. Samoa is isolated from major centers of trade and commerce, resulting in high international transport costs. In the Doing Business 2015 report,³ Samoa ranked 80th out of 189 economies in the ease of trading across borders. Improved port infrastructure will improve connectivity and boost economic development and poverty reduction.

3. Samoa is at risk from the effects of climate change and geophysical hazards, which affect maritime transport infrastructure. An earthquake and tsunami in 2009 caused heavy damage to embankments and terminal buildings at the newly built Aleipata wharf, resulting in revenue losses and reconstruction costs. Cyclone Evan in 2012 damaged a number of ports in Upolu and Savai'i, particularly at the old wharf in Apia. During 1969–2010, 52 tropical cyclones passed within 400 kilometers of the capital city of Apia. Samoa's coastal zone is also vulnerable to ongoing sea level rise—sea level has risen by about 4 millimeters per year since 1993,⁴ and is projected to rise by 5–15 centimeters (cm) by 2030, 10–29 cm by 2055, and by 21–59 cm by 2090. Projections indicate that tropical cyclones will intensify.⁵ A 2010 World Bank study estimated the present economic value of damage through 2050 resulting from climate change in the absence of additional adaptive measures to be \$104 million to \$212 million over the same period in Samoa.⁶

4. The Samoa Ports Authority (SPA) was established in 1999 as a state-owned enterprise. SPA has a legacy of operational and institutional practices carried over from when the ports were managed by the Ministry of Works, Transport, and Infrastructure. Many of these practices have not kept pace with modern port management, reducing the efficiency of service delivery to port users and revenue to SPA. Suboptimal infrastructure investment and asset leasing

¹ ADB. 2014. *Country Operations Business Plan: Samoa, 2015–2017*. Manila; ADB. 2009. *ADB's Pacific Approach (2010–2014)*. Manila.

² The TA first appeared in the business opportunities section of ADB's website on 20 April 2015.

³ World Bank. 2014. *Doing Business 2015: Going Beyond Efficiency*. Washington, DC.

⁴ The global average sea level rise is estimated at 3 millimeters per year.

⁵ Samoa Meteorology Division of the Ministry of Natural Resources and Environment, Australian Bureau of Meteorology, and Commonwealth Scientific and Industrial Research Organization. 2011. *Current and Future Climate of Samoa*. Melbourne: Pacific Climate Change Science Program.

⁶ World Bank. 2010. *Economics of Adaptation to Climate Change: Samoa*. Washington, DC.

decisions cannot financially sustain SPA, and create additional obligations for operation and maintenance (O&M). License agreements to lease land and port facilities provide little yield, undermining SPA's revenue. As a result, inadequate funding is allocated for the O&M of core infrastructure such as navigation aids, fenders, bollards, and terminal container yard pavements, which are severely deteriorated. Until July 2014, SPA operated six facilities,⁷ including assets created through SPA's 2006–2009 capital works program. Operating revenues from the newly constructed assets do not cover direct operating expenses and debt finance repayments. SPA's consolidated financial results in 2012 reported a loss of ST2.28 million with a turnover of ST12 million.

5. The Matautu Port in Apia serves nearly 100% of Samoa's international trade and accounts for 90% of SPA's revenue. It provides a base for passenger and freight movement via international and coastal vessels. Operational characteristics include acceptable dwelling times for ships in port, occasional queuing of vessels, and limited operation times. Vessels are increasing in size, making berthing operations more difficult and less safe. Ships berthed at the main wharf are subject to excessive movement because of the intrusion of swell into the harbor, especially during the wet season, which poses operational and safety hazards during loading and unloading. Low demand in the local economy has led shipping lines that formerly operated direct international container services to consolidate their operations through transshipment via Fiji. As a result, import and export container movements have plateaued. International container ship arrivals at Apia declined from 174 in 2008 to 105 in 2014, with berth occupancy of 12.5%. A preliminary analysis indicated forecast trade growth for Matautu port did not expect to exceed 3% per annum between 2030–2020.⁸

6. A study conducted by the Pacific Regional Infrastructure Facility (PRIF) recommended that SPA's financial position be improved by (i) reducing its debt through a short-term subsidy from the government and sale of nonrevenue-generating assets, (ii) reviewing tariffs through benchmarking against other Pacific ports and adjusting container storage charges, (iii) recommending reforms to enable full private sector participation in port services, (iv) increasing land and property rentals, (v) reducing fixed and variable costs through organizational restructuring, and (vi) preparing a ports master plan.⁹ TA to support recommendations (i) to (v) is being implemented by PRIF, and will improve SPA senior management capabilities, redefine SPA's organizational structure, provide responsibilities and accountability for SPA's budget, and enhance port services by encouraging better private sector participation. The Japan International Cooperation Agency is also providing support to SPA by extending the existing wharf at Matautu Port.

7. The government has also identified as a priority the development of a proposed new port at a greenfield site at Vaiusu Bay.¹⁰ The government has also entered into preliminary agreements with private tuna processing companies to occupy the existing container yard and warehouse space at Matautu Port for tuna loining. The construction of new tuna processing plants will limit the container yard space, which could impact the port's container throughput and port productivity. Moreover, the introduction of tuna processing could lead to berth congestion, as fishing vessels occupy the port's berthing facilities to discharge their catch.

⁷ The six facilities are Matautu Port, Apia Fishing Wharf, Mulifanua domestic terminal, Salelologa domestic terminal, Aleipata ship repair facility, and Asau Wharf. The Mulifanua and Salelologa domestic terminals were transferred to Samoa Shipping Corporation as of 1 July 2014 through a cabinet decision.

⁸ PRIF. 2013. *Samoa Ports Authority Scoping Study*. Sydney.

⁹ PRIF. 2014. *Technical Assistance for Samoa Port Authority Operational and Financial Performance Improvement*. Sydney.

¹⁰ Vaiusu Bay is located about five kilometers west of the existing Matautu Port.

8. Competing port sector development necessitates development of a master plan to identify and prioritize investments in existing port infrastructure, and assess the need for new infrastructure. It will complement the PRIF study (footnote 9) by sequencing key reforms to improve the financial sustainability of SPA. The ports master plan will also help ensure that existing and new port infrastructure will be resilient to the effects of climate change and natural disasters.

III. THE POLICY AND ADVISORY TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact of the TA will be financially sustainable investments in Samoa's port sector by 2016. The outcome of the TA will be a government endorsed 20-year ports development master plan by 2016.

B. Methodology and Key Activities

10. To achieve the outcome, the TA will deliver the following outputs:

- (i) **Output 1: Demand assessment and port utilization study.** The demand assessment will carry out a review and 20-year forecast for vessel throughput for container services, tankers, general cargo vessels, cruise ships, and fishing vessels. Baselines will be established for berth utilization, and berth facility productivity for the facilities operated by SPA. The study on port utilization will consider future tenants that will occupy container yard space, capacity constraints during high container discharge, infrastructure and equipment constraints, and the effect of seasonal storms on stacked empty containers. The study will also recommend an optimized configuration of new investment, rehabilitation, and allocation of activities to attract vessel calls, improve revenue generation, and ensure SPA's financial sustainability. The study will also consider the involvement of private sector participants to improve the efficiency of cargo operations.
- (ii) **Output 2: Swell mitigation study.** A study will be undertaken of swell intrusion into the harbor at Matautu Port. It will recommend engineering measures to attenuate the swell to an acceptable level for uninterrupted vessel loading and unloading operations, and will determine baselines for safety incidents that occur at the port.
- (iii) **Output 3: Initial technical and economic assessment for Vaiusu Bay Port development.** The study will carry out an initial engineering and economic assessment for a proposed new greenfield port development at Vaiusu Bay to provide a preliminary indication of its viability. The economic analysis will (a) consider the macroeconomic context of Samoa, the demand assessment carried out under output 1, and alternatives and least-cost analysis; (b) compare investment and operating costs with expected benefits; and (c) assess the sustainability of the investment. It will also carry out sensitivity and risk analysis. The economic analysis will be carried out in accordance with ADB's Guidelines for the Economic Analysis of Projects (1997). The initial assessment will also consider potential environmental, resettlement, and social impacts that would be expected in association with the proposed development. The study will consider land transport linkages to and from the industrial zones.

- (iv) **Output 4: Asset management plan.** An asset management plan will be drafted, which will (a) identify assets critical for the sustainable delivery of port services, their minimum lifecycle costs, annual expenditures for maintenance, and replacement time and cost; (b) define medium- to long-term organizational and financial strategies to sustain the asset management plan; and (c) prepare planned maintenance, repair, and renewals linked to SPA's business plan and budget. The asset management plan will incorporate the findings and recommendations from the ongoing PRIF TA (footnote 9) to improve operational and financial performance. It will also consider recommendations for insurance cover for certain capital equipment.

C. Cost and Financing

11. The TA is estimated to cost \$550,000, of which \$500,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-Others). The government will provide counterpart support in the form of counterpart staff, office accommodation, and other in-kind contributions. The cost estimates and financing plan appear in Appendix 2.

D. Implementation Arrangements

12. The Ministry of Finance will be the executing agency, responsible for the overall administration of the TA. SPA will be the implementing agency responsible for guiding and overseeing the consultants. The TA will require consulting services consisting of 10 person-months of international and 4 person-months of national specialist inputs. ADB will select individual consultants in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). The individual consultants will include an international port specialist (6 person-months), international port engineer (4 person-months), and a national project administrator (4 person-months). Inputs are indicative and may be realigned to the TA requirements. The outline terms of reference are in Appendix 3. The TA will be disbursed in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Training and equipment will be procured by the Ministry of Finance and will follow ADB's Procurement Guidelines (2013, as amended from time to time). The use of an advance payment facility will be considered.

13. The TA will be implemented from 30 April 2015 to 31 August 2016. ADB will field an inception mission, regular review missions, and a finalization mission. ADB will liaise with government agencies and attend stakeholder workshops at inception and completion. A committee chaired by SPA and including representatives from the Ministry of Finance and ADB will monitor progress against schedules agreed upon during inception, and evaluate consultant performance against draft and final deliverables.

IV. THE PRESIDENT'S DECISION

14. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$500,000 on a grant basis to the Government of Samoa for the Ports Development Master Plan, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Financially sustainable investments in Samoa's port sector</p>	<p>By 2016:</p> <p>An investment project following recommendations from the endorsed ports development master plan is identified and approved (baseline: none)</p>		<p>Assumption</p> <p>SPA and the government remain committed to implementing the master plan.</p>
<p>Outcome</p> <p>Government-endorsed 20-year ports development master plan</p>	<p>Master plan approved by SPA board by May 2016 (baseline: Approved 1987 Samoa Port master plan)</p>	<p>SPA 2015 Annual Report</p>	<p>Assumption</p> <p>SPA's strategic planning for Apia Port remains consistent.</p>
<p>Outputs</p> <ol style="list-style-type: none"> 1. Demand assessment and ports utilization study 2. Swell mitigation study 3. Initial technical and economic assessment for Vaiusu Bay Port development 4. Asset management plan 	<p>Final report submitted and approved by SPA management by February 2016</p>	<p>Consultants' final report</p>	<p>Assumption</p> <p>The government provides counterpart support as planned.</p>
<p>Activities with Milestones</p> <ol style="list-style-type: none"> 1. Consultant recruitment activities <ol style="list-style-type: none"> 1.1 Select consultants (Q1 2015) 1.2 Award consultant contracts (Q2 2015) 1.3 Mobilize consultants (Q2 2015) 2. Demand assessment and port utilization study <ol style="list-style-type: none"> 2.1 Review existing port master plan 1993, port scoping study 2013, and ongoing operational and financial performance technical assistance (Q2 2015). 2.2 Conduct stakeholder workshop with SPA, shipping line operators, and port users (Q2 2015). 2.3 Review and forecast modeling for vessel throughput (Q2 2015). 2.4 Undertake port utilization study (Q2 2015) 2.5 Develop port layout optimization (Q2–Q3 2015). 3. Swell mitigation study 			<p>Inputs</p> <p>ADB: \$500,000</p> <p>Note: The government will provide counterpart support in the form of counterpart staff, office accommodation, and other in-kind contributions.</p>

Activities with Milestones	Inputs
<p>3.1 Undertake field surveys (Q2 2015)</p> <p>3.2 Conduct numerical modelling (Q2 2015)</p> <p>3.3 Develop swell attenuation proposal (Q2 2015).</p> <p>4. Initial technical and economic assessment for Vaiusu Bay Port development</p> <p>4.1 Initial engineering assessment, cost estimation, and economic analysis for proposed development (Q2 2015)</p> <p>5. Asset management plan</p> <p>5.1 Prepare asset inventory report (Q3 2015).</p> <p>5.2 Develop asset management strategy report consistent with SPA's business plan and budget (Q3–Q4 2015).</p> <p>6. Final report</p> <p>6.1 Receive and consolidate comments from ADB and the government (Q1 2016).</p> <p>6.2 Draft and submit final report (Q1 2016).</p>	

ADB = Asian Development Bank, Q = quarter, SPA = Samoa Ports Authority.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	280.0
ii. National consultants	70.0
b. International and local travel	30.0
2. Workshops, seminars, and conferences	10.0
3. Equipment ^b	10.0
4. Surveys, studies, and reports	50.0
5. Contingencies	50.0
Total	500.0

Note: The technical assistance (TA) is estimated to cost \$550,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, office accommodation, and other in-kind contributions. The value of government contribution is estimated to account for 9.1% of the TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-Others).

^b Survey equipment may be turned over to the government upon TA completion.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Scope of Consulting Services

1. The impact of the Ports Development Master Plan technical assistance (TA) project is financially sustainable investments in Samoa's ports sector. The outcome of the TA is a government-endorsed ports development master plan. The outputs of the TA will be (i) a demand assessment and port utilization study, (ii) a swell mitigation study, (iii) an initial technical and economic assessment for Vaiusu Bay Port development, and (iv) an asset management plan for the Samoa Ports Authority (SPA).

2. Two individual international consultants and one individual national consultant will be engaged in accordance with the Asian Development Bank (ADB) Guidelines on the Use of Consultants (2013, as amended from time to time). A total of 11 person-months of international and 6 person-months of national consulting services will be required.

3. The consultants will work closely with the Ministry of Finance and SPA, and support them in formulating a ports development master plan. The team will take into consideration a grant provided by Japan International Cooperation Agency for port development in Samoa, and take into consideration existing studies, including the 1987 Japan International Cooperation Agency port master plan,¹ the Samoa National Infrastructure Strategic Plan,² the Samoa Ports Authority Scoping Study,³ and the Pacific Regional Infrastructure Facility (PRIF) TA to improve operational and financial performance.⁴ They will also consider potential tenant agreements with the private sector and proposed partnerships between the government and development partners.

B. Consultant Qualifications and Requirements

4. Individual consultants will be engaged to deliver the TA outputs. The team will consist of the following experts:

- (i) **Port specialist and economist** (international, 6 person-months). The port specialist and economist will design and manage the detailed work program for all aspects of the TA, supervise and conduct the required analyses and consultations, and develop the full ports development master plan. The specialist will (a) prepare an efficient layout for the existing port that optimizes port safety and operations, with consideration of the demand assessment and port constraints; (b) incorporate findings of the swell mitigation study in the master plan; (c) undertake the initial economic assessment for the new port development in collaboration with the port engineer, and in accordance with ADB's Guidelines for the Economic Analysis of Projects (1997); and (d) formulate the asset management plan in consultation with SPA. The specialist will possess an advanced degree in engineering, transport planning, or other relevant discipline, and have a minimum of 10 years of demonstrated experience working in port and harbor design and operations in developing countries, preferably in the Pacific.

¹ Japan International Cooperation Agency. 1987. *The Study on the Development of Ports in Western Samoa*. Apia.

² PRIF. 2011. *Samoa National Infrastructure Strategic Plan*. Sydney.

³ PRIF. 2013. *Samoa Ports Authority Scoping Study*. Sydney.

⁴ PRIF. 2014. *Technical Assistance for Samoa Port Authority Operational and Financial Performance Improvement*. Sydney.

- (ii) **Port engineer** (international, 4 person-months). The port engineer will undertake initial engineering assessments with due consideration of the environmental, resettlement, and social impacts of the proposed port development at Vaiusu Bay. The port engineer will also provide engineering inputs for the optimized port layout. Both tasks will be undertaken in collaboration with the port specialist and economist, and contribute to completion of outputs 1 and 3. The port engineer will also be responsible for commissioning the studies and surveys necessary for the swell engineering study, and providing engineering recommendations to mitigate the swell, so that wave energy is adequately dissipated to allow safe vessel loading and unloading operations. The specialist will possess an advanced degree in engineering, and have a minimum of 10 years of demonstrated experience working in port and harbor engineering design in developing countries, preferably in the Pacific.
- (iii) **Project administrator** (national, 4 person-months). The expert will support the international consultants as the main liaison with SPA, government, and private sector representatives. The project administrator will also support the experts in obtaining estimates for required equipment, infrastructure condition surveys, and the swell engineering study. The expert will possess a degree in business administration, engineering or other relevant degree, and have a minimum of 5 years of experience in a project coordination role. Experience working with SPA will be an advantage.

C. Reports

5. The consultants will submit reports in English, in both hard copy and electronic form, to ADB and the government for distribution (three copies each). The following reports will be submitted:

- (i) **Inception report.** This will outline, in accordance with the terms of reference, the consultants' approach, methodology and work plan; and cost implications for consulting services. The report will provide activity and personnel schedules and recommend changes to the implementation arrangements if required. The inception report will be submitted by the project administrator within 4 weeks of the commencement of the TA.
- (ii) **Demand assessment and port utilization study.** The demand assessment will involve a review and 5-year forecast for vessel throughput for container services, tankers, general cargo vessels, cruise ships, and fishing vessels. Baselines will be established for the existing utilization of the port berth, and berth facility productivity. The study on port utilization will consider future tenants that will occupy container yard space, capacity constraints during high container discharge, infrastructure and equipment constraints, and the effect of seasonal storms on stacked empty containers. The study will also recommend an optimized configuration of new investment, rehabilitation, and allocation of activities to attract vessel calls, improve revenue generation, and ensure SPA's financial sustainability. The study will also consider the involvement of private sector participants to improve the efficiency of cargo operations. The study will be submitted by the port specialist and economist within 5 months of inception.
- (iii) **Swell mitigation study.** A study will be undertaken of swell intrusion into the harbor. It will recommend engineering measures to attenuate the swell to an acceptable level for uninterrupted loading and unloading operations of vessels. It will also determine baselines for safety incidents occurring at the port. The study

will be submitted by the port engineer and project administrator within 3 months of inception.

- (iv) **Initial technical and economic assessment for Vaiusu Bay Port development.** The study will carry out a preliminary engineering assessment and economic analysis for a new greenfield port development at Vaiusu Bay. The economic analysis will (a) consider the macroeconomic context of Samoa, the demand assessment carried out under output 1, and alternatives and least-cost analysis; (b) compare investment and operating costs with expected benefits; and (c) assess the sustainability of the investment. It will also carry out a sensitivity and risk analysis. The economic analysis will be carried out in accordance with ADB Guidelines for the Economic Analysis of Projects (1997). It will also consider potential environmental, resettlement, and social impacts that would be expected for a proposed development. The study will consider land transport linkages to and from the industrial zones. The study will be submitted jointly by the port specialist and economist and port engineer within 3 months of inception.
- (v) **Asset management plan.** An asset management plan will be drafted that will (a) identify assets critical for the sustainable delivery of port services, their minimum lifecycle costs, annual expenditure for maintenance, and replacement time and cost; (b) define medium- to long-term organizational and financial strategies to sustain the asset management plan; and (c) prepare planned maintenance, repair, and renewals linked to SPA's business plan and budget. The asset management plan will incorporate the findings and recommendations from the ongoing Pacific Regional Infrastructure Facility TA to improve operational and financial performance. It will also consider recommendations for insurance cover for certain capital equipment. The study will be submitted by the port specialist and economist within 9 months of inception.
- (vi) **Final report.** The final report will summarize and consolidate the findings of items (ii) to (v), detailing a full ports master plan for Samoa. It will be submitted by the port specialist and economist within 1 month after receipt of comments on the respective draft final reports from the government and ADB.

6. In addition to formal reporting, the consultants will organize consultation meetings with the government and ADB during inception and review missions regarding TA administration, outputs, deliverables, and achievements; and with stakeholders on all activities under the TA as documented in the reports. The consultants will also arrange meetings with other development partners operating in the sector. The consultants will prepare and circulate minutes of these meetings and incorporate comments in the reports and activities as appropriate.

D. Others

7. Office accommodation will be provided by SPA.

8. SPA will manage procurement and the budget for equipment, surveys and studies, workshops, seminars, and conferences in the course of normal TA administration. Procurement will follow ADB's Procurement Guidelines (2013, as amended from time to time). Upon completion of the TA all equipment, materials, and data will be handed over to the government, with a notice of disposal.

9. The consultants are expected to provide their own equipment and services for computers, telephone, fax, and internet communications for the duration of their services.