Photo Credit

Tanker ship

Transport ship or type unknown

Ports Module

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Module 4 of the Annex in Asset Recycling.

This module sets out sector-specific asset recycling guidelines for the ports sector, including sector-specific due diligence requirements, sample risk allocation matrix and sample terms of reference (TOR) for selection of transaction advisors. *Find more below, or visit the Guidelines for Implementing Asset Recycling Transactions section and Content Outline, or Download the Full Report.*

The Relevant Authority should undertake a due diligence study of the port asset that is considered for asset recycling. This should form part of the asset recycling transaction preparation process. The due diligence process for a port asset should include:

- Traffic Forecast and Demand Assessment
- Port Infrastructure and Capacity Development
- Financial Performance
- E&S and Climate Resilience Due Diligence

Due Diligence for Ports

The objectives of the due diligence process are:

- Review the condition of the ports (including the superstructure and the terminal equipment, as is the case);
- Review the service and performance standards provided under the current operations of the port;
- Review the legal arrangements by which the relevant authority is occupying and operating the port;
- Review the financial status of the port and its financial feasibility if the port is to be operated and managed by a private sector party;
- Determine measures that can be implemented to enhance value through the asset recycling transaction; these may include considerations such as capital investment in the port superstructure and terminal equipment; and
- Identification of key (environmental and social) E&S and climate risks to be taken into account in the selection process and risk allocation.

In the context of a port asset recycling transaction, the following additional due diligence activities should be undertaken

- Demand forecast; including consideration of any competing ports or future port developments;
- Assessment of the port infrastructure and future capacity development;
- Assessment of financial performance;
- Assessment of E&S risks and climate risks.

Traffic Forecast and Demand Assessment

The relevant authority should consider the following aspects when conducting traffic forecast and an assessment of demand for the port:

Historical analysis

- a macro-economic analysis of the port traffic trend, including historical trend of import and export in the region;
- historic container, cargo, port related services and other demands at the port; and
- impact of existing and foreseeable policy changes on the demand at the port, including the potential of upcoming new ports around the region.

Forecast

- project a baseline forecast for growth in container, cargo, port related services and other demands for the period under consideration. With respect to the operations of the terminal, forecasts should be made with respect to terminal handling charges (THCs) with respect to cargo movement/stevedoring services performed by the operator at the terminal. For container terminals, THCs cover the movement of a container between the ship's hold to the exit–entry gate via the container terminal yard;
- identify potential scenarios for both downside and upside growth;
- based on the port infrastructure development plan, assess potential for new types of cargo (for example, liquid / dry bulk, reefer container, etc) or different vessel sizes that the port will have the capacity to handle; and
- assess potential for business and development of other port related services, such as logistics, land rental and warehousing.

Port Infrastructure and Capacity Development

Undertake a preliminary assessment of the existing port infrastructure, propose a plan to improve capacity or ability to handle new types of cargo and vessels.

A gap analysis report, including an assessment of the port's condition, to determine the adequacy to provide required service levels should also be prepared. The gap analysis should cover:

- Assessment of the remaining useful life of the port;
- Potential replacement / overhaul / major maintenance required and the timing thereof;
- Overall performance against benchmark with reference to the current capacity; and
- Service specifications required to meet future needs.
- Based on the above findings and local/international benchmarks, provide a preliminary quantity estimate for the proposed upgrade as applicable including all required services, such as pre-design investigations, design, supervision, etc.

Financial Performance

Due diligence should be undertaken of the port's financial performance.

To this end, the due diligence process should review revenues derived from the port charges, and the operating expense; presenting historical and projected Earnings Before Interest, Tax and

Depreciation/Amortisation (EBITDA). The elements are as follows:

Revenues

- Current structure of the relevant charges and the applicable fee adjustment mechanism/s:
  - Base charges detailing the prevailing port charges and historical revenue therefrom;
  - Base charges growth rate detailing prevailing escalation or indexation regime and an assessment as to whether adjustments have been adequate to cover historical inflation.
- Forecast of port revenues based on demand forecast and prevailing charging mechanisms.

Operating Expenses

- Review operations and maintenance expenses comprising staff and non-staff costs
- Review the total operating cost by benchmarking it against the median average of comparable (i.e. regional or local port assets)

Capital Expenditure

- Assess projected capital investment in expansions and asset renewal and detail any required expenditure plans (for improvement of service levels, technological upgrade, increasing capacity and procurement of terminal equipment) to meet expected growth in demand over the term of the concession.

E&S and Climate Resilience Due Diligence

E&S due diligence should be conducted to identify:

- gaps between applicable laws and lenders' requirements and ways to bridge them with the relevant timeline;
- key E&S risks, such as but not limited to: land acquisition and/or clearing, resettlement, impact on livelihood with attention to limitation in accessing the fishing group, terrestrial and aquatic habitat alteration and biodiversity, water quality, air emissions, waste management, hazardous materials, oil spills, noise and vibration (including underwater), legacy issues (if any); and
- applicable E&S permitting and studies to be developed and the risks allocation between the relevant authority and the private sector.

The Climate Resilience due diligence should include:

- assessment of GHG emissions baseline of the port;
- historical climate data and natural disaster events affecting the port;
- review of climate and natural disasters risks of the port asset (e.g. flood risk to ports, increased disruption to port operations; reduced navigability of rivers);
- assessment of the Disaster Risk Management plan or Emergency Preparedness and Response plan (if in place); and
- assessment of integration of climate resilience concepts in maintenances regimes and design specifications.

TOR for Transaction Advisors for Ports Development

This document has been prepared as part of the annex of the section on Guidelines in Implementing Asset Recycling in the PPP Legal Resource Center (PPPLRC) for contracts, laws and regulations. It is for general

guidance purposes only and should not be used as a substitute for specific legal advice for a project.

Introduction

Project Background

The **[Relevant Authority's]** Board of Directors is engaging the integrated consultant services (either as a single firm or consortium, referred to as 'the consultant') for the transaction advisory services for the **[operations, maintenance and management]** of the **[xxx]** port for the next **[xxx]** years under the Asset Recycling Scheme ("the Project").

Objective and Purpose of the Project

The Consultant will directly support the **[Relevant Authority]** in providing advisory and transaction services for this Project. The key project objective is to carry out the technical and financial feasibility studies, develop technical specifications and standards, draft legal contractual framework and assist in the administration of partner selection from inception to the financial close.

During the tender support process, the consultant will assist the **[Relevant Authority]** in implementing a competitive tender, consistent with the best international practices and local laws.

Legal Basis

The legal basis for the framework of the preparation and selection of a partner for **[XXX]** port under the Asset Recycling Scheme refers to [.] Laws and Regulations including but not limited to:

1. **[XXX]**
2. **[XXX]**

Scope of Work

Introduction

The Consultant scope of work involves multi-disciplinary capabilities and expertise involving planning, port traffic forecasting, port business valuation, port funding and financing and transaction advisory. In addition, the experience of drawing legal and regulatory framework, with emphasis in concession structuring of transport infrastructure is also needed for this project. The study's scope of services forms a part of the following deliverables/tasks:

a. Feasibility Study (technical and financial) for transaction structuring;
b. Tender Process for Partner Selection;
c. Post-transaction award assistance (up to financial close);

Consultant Governance Structure

It is expected that consultant team will be comprised of a Financial, Technical and Legal advisory team. The Financial Consultant will be the lead consultant and work closely with others as an integrated team under **[Relevant Authority's]** guidance, particularly during the feasibility and tender process.

Scope of Works

The below Scope of Services reflects the minimum requirements which **[Relevant Authority]** envisages will be necessary to conduct the consultancy advisory services.

- Stakeholders Management Discussion
- Port Traffic Demand Forecast
- Technical Analysis and Capex Estimation
- Legal and Regulatory Assessment
- E&S and Climate Resilience Assessment
- Preparation of financial model, business and financial analysis
- Project structuring and transaction advisory
- Transaction process management

Project Duration and Reporting

It is expected that the consultant will be appointed and commence its services no later than **[xxx]**. The entire project scope is expected to be completed within **[xxx] weeks** with the following indicative timeline allotted to the following:

- Final Feasibility Study- **[XXX weeks]**;
- Report on final project structure - **[XXX weeks]**;
- Tender Selection Process for Partner Selection (including negotiations & contract signing) - **[XXX weeks]**;
- Post-award assistance (till financial close) - **[XXX weeks]**;

Expert Requirements

Composition of Consultant's Expert Team

The project is scheduled to be delivered within **[XXX]** months, including **[XXX]** weeks for the completion of monitoring and evaluation report after the project financial close. Under the project requirements, the consultant will mobilize the following experts:

- Team Leader / Project Manager
- Deputy Team Leader / Deputy Project Manager
- Traffic Forecasting Expert
- Legal Expert
- Regulatory and Policy Expert
- Environmental and Social and Climate Resilience Expert
- Transport Planner Expert
- Transport Economist
- Transaction Advisory Expert
- Financial Modelling and Business Senior Analyst

The Consultant will determine the number, effort and the nature of experts/support staff they will require to achieve the objectives of the project, in accordance with their proposed approach and methodology. However, the **[Relevant Authority]** requires a minimum of **[XXX]** key experts for proposal evaluation purposes. For any changes in the team composition post award award shall have to be agreed with the **[Relevant Authority]**.

Project Deliverables

Project Deliverables

- A report covering technical, financial, and legal feasibility, including incorporation of feedback from the **[Relevant Authority]** (due in **XXX** weeks):
- An overview of the project implementation schedule aligned with agreed dates during kick-off meeting;
- A draft Port Traffic Demand Forecast Study;
- Technical assessment covering the review of existing port and related facilities and available land areas and capacity assessment and its ability to accommodate the future demand with highlighting social and environmental impacts and climate change impacts (including climate resilience strategies) and mitigation strategies;
- Financial and business feasibility analysis for the Project;
- Legal and Regulatory Framework Assessment.
    - Project structuring
    - Project documentation preparation, including pre-qualification, request for proposal, draft concession agreement, and tender selection process
    - Post-award assistance (till financial close)

Indicative Payment Schedule

- Professional fees: The project fee shall be proposed as a lump sum contract value, inclusive of typical travel expenses, including accommodation and per-diem of the professional consultants' team, and exclusive of [.] withholding tax and other applicable taxes and inclusive of consultant's country GST and Taxes;
- Payment terms: Terms of payment are proposed are as follows:
    - Inception report submission - **XX**% of the lump sum contract;
    - Draft Feasibility report submission - **XX**% of the lump sum contract;
    - Final Feasibility report submission - **XX**% of the lump sum contract;
    - Report on final project structure -**XX**% of the lump sum contract;
    - Completion of Tender Selection Process, Negotiation, & Award Signing - **XX**% of the lump sum contract;
    - Post-award assistance (till financial close) - **XX**% of the lump sum contract;
- Schedule of consultant hourly rates

Project Evaluation Criteria

Form of Proposal

The Consultant's proposal must be submitted in [bilingual (both in English and [.]) / English], duly signed by the authorized signatory of the Lead Consultant.

The following criteria will be used as guidance in comparing and evaluating the different proposals submitted by the Consultants. The proposal should include a technical and financial proposal comprised of the following:

- Organization Experience
- Specific experience of team members and dedication to the project

- Comments on Terms of Reference
- Description of Approach, Methodology, and Scope of Work Plan for Performing the Project:
    - Technical Approach and Methodology
    - Work Plan
    - Organization and Experts
    - Curriculum vitae of each expert and supporting staff
- Financial Proposal as proposed lump sum fee (with a breakdown of fixed professional fee, expenses, contingencies); consultants are also requested to submit discounted hourly rates.

Instruction to Consultants

Notice of Receipt and Queries and/or Clarification

Consultants shall acknowledge receipt of this RFP immediately upon receipt. Consultants shall also advise of their intention to submit a Proposal no later than **XXXX202Y**.

Consultants may request clarifications and/or raise queries in writing, during the period of submission, with respect to any aspect of this RFP. The final date for requesting any query and/or clarification or further information is **XXX**. No queries and/or clarifications will be responded to after this date.

Should the **[Relevant Authority]** provide additional information or responses to a Consultant, it reserves the right to issue a copy of such information to all Consultants and all additional information or responses will form part of this RFP.

All correspondence including notification of receipt, confirmation of intention to submit a Proposal raising queries and/or clarifications shall be delivered directly to **[Procurement Unit of Relevant Authority]**

Submission of Proposal

Consultant proposals are to be submitted no later than **XXX202Y** (the “Submission Date”) and delivered directly to: **[Procurement Unit of Relevant Authority]**

Validity of Proposal

Proposals shall remain valid and binding upon the Consultants for a period of ninety (90) calendar days from the Submission Date ("Period of Validity"). Proposals valid for a shorter period may be rejected by **[Relevant Authority]** as failing to be deemed substantially responsive pursuant to this TOR. Proposals may be accepted at any time before the expiration of the Period of Validity.

[Relevant Authority] may, not later than fourteen (14) calendar days prior to the expiration of the Period of Validity, request the Consultant's consent to an extension of the Period of Validity. Both the request for extension and the response shall be made in writing.

Reservation of Rights

[Relevant Authority] reserves the right to, at its absolute discretion:

- Amend this TOR and/or the TOR process;
- Amend the indicative timetable as outlined in the earlier sections;
- Suspend, cancel or vary the intended selection process;
- Reject any and/or all Proposals;

- Award the engagement to whichever Consultant best satisfies the TOR requirements, such successful Consultant not necessarily being the Consultant with the lowest fees; and

Cost of Preparation of Proposals

All costs incurred by the Consultant in the preparation and lodgement of their Proposal or otherwise in the course of the evaluation of their Proposal shall be borne by the Consultant. **[Relevant Authority]** will not be responsible for and will not pay for, any expense or loss that may be incurred by the Consultant in the preparation, evaluation or negotiation of their Proposal.

Acknowledgement

Submission of a Proposal by the Consultant will constitute and evidence acknowledgement by the Consultant that it has:

- Examined this TOR (including any amendments or addenda); and
- Satisfied itself as to the correctness and sufficiency of its Proposal and that the fees submitted cover the cost of complying with all matters and things necessary for the due and proper performance of the Services and any other elements deemed necessary by the Consultant for a Project of this nature.

Form of Agreement

The successful agreement should form the basis of client-consultant model services agreement as defined in the draft **[to be drafted at the transaction stage]**.

Risk Matrix for Ports

In selecting appropriate port for asset recycling, the selected port should have an operating track record, thereby **de-risking the private sector of upstream risks**, such as land acquisition, project planning, design risk, construction risks (time and cost-overrun risk), and development-related approvals.

Checklists of issues to consider when preparing or reviewing sector-specific asset recycling guidelines for ports:

- Operating Risk
- Demand / Revenue Risks
- Financial Risk
- Change in Law
- Force Majeure
- E&S Risks
- Climate Risks

Sample risk matrix – Ports

Risk	Description	Public	Private	Shared	Mitigation

	Inadequate performance	**The risk of service quality provided by the concessionaire not meeting contracted service standards or availability.**		**x**		**Ensuring the appointment of a competent concessionaire, or private sector party that can remediate any inadequacies in performance.** **Periodic monitoring and reporting of the compliance with the port minimum service standard.**
	O&M costs overrun	**Risk of O&M costs being higher than forecast or budgeted.**		**x**		**Appointment of a competent concessionaire or private sector party with experienced management that is able to put into place timely remedial steps.**
OPERATING RISKS	**Life cycle costs overrun**	**Risk of lifecycle costs being higher than forecast or budgeted.**		**x**		**Appointment of a competent concessionaire and management putting into place timely remedial steps to manage increased costs; passing of increased costs to end-users within the parameters of toll setting regime.**

Utilities costs overrun	**Risks of utility costs being higher than estimated or budgeted due to inefficiencies or increased charges.**		**x**		**Appointment of a competent concessionaire; proactive asset management to ensure that assets are maintained in a manner that optimises costs.**
Latent Defects and Existing Liabilities	**Risks of latent defects and existing liabilities in the port assets.**			**x**	**Conduct adequate technical due diligence; the concessionaire to bear the risk up to a certain threshold beyond which the risk will be borne by the public sector.**

DEMAND / REVENUE RISKS	**Demand and traffic risk**	**Actual traffic is lower than forecast causing a shortfall in revenue against budgeted revenue.**		**x**		**Ensure that traffic forecast are conducted by qualified and experienced advisers; defer timing of capacity-driven capital expenditure program; re-deployment of staff and re-calibration of level and intensity of operational functions.**
	Failure to collect toll charges	**Due to failure or non-optimality of collection system from users.**		**x**		**Proven collection system and good operational performance.**
	Tariff setting risk (1)	**Risk that toll charges indexation does not match inflation or cost increases and escalations, thereby impacting margins.**			**x**	**Clear regulations or contract terms that regulate the rate and adjustments of toll charges.**
	Tariff setting Risk (2)	**The relevant authority does not approve escalation as per agreed fee and charges escalation mechanism.**	**x**			**Contract should provide that this constitute a default on the part of the authority.**

	Failure to achieve financial close	**Inability to achieve financial close due to market uncertainty or the project capital structure is not optimal.**		**x**		**Good coordination with potential and credible lenders.** **Ensure quality in financing aspects of the bid (including potential lenders and feasibility of proposed financing) and monitor progress of financing process.**
	Foreign exchange rate risk	**Fluctuation of foreign exchange rate.**		**x**		**This will depend on the currency in which charges and fees are denominated.**
FINANCIAL RISK	**Inflation and interest rate risk**	**Increase of inflation rate used for estimating life-cycle costs and interest rate.**		**x**		**Fee and charges indexation factor; interest rate hedging.**
	General change in law	**Change in law such as taxation which impacts all businesses and industries.**		**x**		**General change in law risk should be borne by the concessionaire.**
CHANGE IN LAW	**Discriminatory or project specific change in law**	**Change in project-specific law or regulation such as fee and charges setting.**	**x**			**Mediation, negotiation; political risk insurance.**

FORCE MAJEURE	**Natural disasters**	**The occurrence of natural disasters disrupting operations.**			**x**	**Insurance, to extent possible. In extended FM, parties will have the right to terminate.** **Climate adaptation plan.** **Emergency Preparedness and Response plan (EPR plan) / Disaster Risk Management plan (DRM plan).** **Incorporate Qualified Climate Risk Events.**
	Political force majeure	**Events of war, riots, civil disturbance.**			**x**	**Insurance, to extent possible; termination with compensation if settlement cannot be reached.**
	Prolonged force majeure	**If above prolongs for 6 to 12 months, may cause economic problems to the affected party (esp. if insurance does not exist).**			**x**	**Either party should be able to terminate the contract and trigger an early termination.**

		Ports development and operation create many E&S impacts and risks, which if not appropriately managed, can result in impact on the social and natural environment. **Potential oil spills.**		**x**		**The party in charge for construction and Operation and Maintenance (O&M) to have in place an ESMS and develop E&S Studies addressing the E&S project impacts and risks and consistent with applicable laws.** **Oil spill equipment, training and membership to 24/7 365 days response services.** **Provide shore power to reduce emissions from ships at berth.** **Foster use of sprinkler system (dust emissions dry bulk).** **Decarbonize the cargo-handling facilities.**
E&S Risks	**E&S risks management**	**Risk of noncompliance on the E&S aspect of the concession agreement.**			**x**	**The parties to hire an Independent Engineer (IE) having E&S expertise to review compliance of the E&S aspect of the Concession Agreement, during construction and O&M.**

					Increased height and strength of sea walls. **Facilitate ecosystem-based adaptation.** **Implement navigation warning systems.** **Improve emergency repair procedures.** **Integrate climate resilience in maintenance regimes (e.g. dredging plans; prioritize materials tolerant to salinity and acidification).** **Provide hydraulic structures of an adequate capacity to pass water under a canal.** **Cathodic protection**

*Based on "WB (2016) - *Emerging Trends in Mainstreaming Climate Resilience in Large Scale, Multi-sector Infrastructure PPPs*" and based on "IDB (2021) - *Climate Risk and Ports: A Practical Guide on Strengthening Resilience*"

Key variables to monitor on climate risks and its impacts, in particular for toll roads assets:

- Sea level rise (in meters)
- Wave height (in meters)
- Sea roughness inside port (in meters)
- Flooding(port area affected)
- Intense precipitation events (in millimetres)
- Wind speed (in km/hour)
- Storm surge (# events and intensity)
- Fog (# days affecting port operations)
- River/Channel flow rate (in m3/hour)
- Sedimentation rate (in m3/day)
- Coastal and bank erosion (port area affected)
- Port unavailability (# days per year)
- GHG emissions (tons CO2 e.g., per year)

Related Content

- **Guidelines for Implementing Asset Recycling Transactions (Download PDF version)**

Additional Resources

- Public Private Partnerships in Ports / Port Reform
- Public-Private Partnerships for Transport

This section has not been prepared with any specific transaction in mind and are meant to serve only as general guidance. It is therefore critical that the content will be reviewed and adapted for specific transactions.

This is a new section of the website and is currently in draft form. For feedback on the content of this section or to suggest additional links or materials, please contact the PPP Resource Center using the feedback form.

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