Dry Port Development and Public-Private Partnerships (PPPs)

Enhancing Trade Efficiency and Connectivity for Landlocked Countries

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Capacity building for efficient cross-border transit through dry ports development
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Zuvshiltsul Hall, Ministry of Foreign Affairs Building, Ulaanbaatar, Mongolia
INTRODUCTION

- Dry port development and its importance for global trade efficiency, connectivity and benefiting landlocked countries.
- Public-Private Partnerships (PPPs) and their role in promoting dry port development.
- Case studies
DRY PORTS
Dry ports’ important role in global trade and connectivity

- Dry ports are crucial components of intermodal/multimodal transport systems, acting as strategic hubs - ensuring intermodal/multimodal connectivity (between seaports and inland locations) and providing services such as storage, customs clearance, cargo/container handling.

- Often, a logistics centre/park/hub is developed adjacent to/integrated into a dry port, which would have a complementing nature with the dry port activities.

- The development of dry ports aim to enhance trade, regional integration, reduce transport cost, and promote economic and sustainable growth.
LLDCs pay more for the transport of their imports than the world average

In 2016, average transport costs represented about 11.6% of the value of imports for LLDCs compared with an average of 9.4% for Non-LLDCs.

How much Euro-Asia LLDCs pay for the transport of their imports?

Transport cost (all modes) for goods imports, per cent of FOB value

<table>
<thead>
<tr>
<th>Country</th>
<th>Transport Cost (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>10.8</td>
</tr>
<tr>
<td>Armenia</td>
<td>11.1</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>11.1</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>13.4</td>
</tr>
<tr>
<td>Lao People’s Dem. Rep.</td>
<td>7.9</td>
</tr>
<tr>
<td>Mongolia</td>
<td>14.4</td>
</tr>
<tr>
<td>Moldova, Republic of</td>
<td>12.9</td>
</tr>
<tr>
<td>North Macedonia</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Dry ports benefits (economic, environmental, and social)

<table>
<thead>
<tr>
<th>DIRECT BENEFITS – EXAMPLES</th>
<th>INDIRECT BENEFITS - EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Relieve congestion at busy seaports and decrease truck traffic at seaports;</td>
<td>• Support economic development within specific regions surrounding the dry port;</td>
</tr>
<tr>
<td>• Freeing up container yards and storage space (on high-value seaport land);</td>
<td>• Reduce city congestion (especially around the seaports);</td>
</tr>
<tr>
<td>• Economies of scale in distribution to end-users due to connectivity and efficiency by road and rail, or (where possible) inland waterways;</td>
<td>• Reduce negative externalities of hinterland transport emissions and facilitates freight modal shift;</td>
</tr>
<tr>
<td>• Potential improvement in empty container logistics (location in the proximity of export markets to provide empty containers).</td>
<td>• Create jobs and attract of businesses ranging from dry port activities to potential logistics centres/hubs activitiies.</td>
</tr>
</tbody>
</table>
Public-Private Partnerships (PPPs) Concepts
Public-Private Partnerships (PPPs) refer to long-term contractual arrangements between public-sector entities and private-sector actors. These partnerships are formed to jointly deliver public infrastructure projects or provide public services.

PPPs can be defined as cooperative ventures in which the public and private sectors collaborate, bringing together their respective strengths and resources to achieve common goals. The partnership typically involves sharing risks, responsibilities, and resources between the public and private entities.

PPPs can cover various sectors, including transportation, energy, water and sanitation, healthcare, education, etc...

The primary aims of PPPs are to leverage private sector expertise/innovation, efficiencies, and financing capabilities to complement the public sector's resources, enhance service quality, and promote sustainable development by combining the strengths of both sectors.

PPPs aim to deliver infrastructure projects or public services that are economically viable, socially beneficial, and environmentally sustainable.
Specific/exclusive rights are defined and granted to a private entity for a fixed period of time through a PPP contract.
WHAT DO WE MEAN BY A “PPP MODEL”

FEATURES
(what is a PPP ?)

- Long-term contract
- Public entity + private party (aligned interest)
- Public asset and/or service
- Risk-sharing agreement
- “Output/Result” oriented
- Life-cycle management
- Efficiency (Value for Money)

PPP MODEL – usual features

- 15-30+ years (depending on capital investments and operational life cycles)
- Revenue Generation/Funding (user tariffs and/or government)
- Fixed and/or variable revenues for the government
- Hand-over of asset at the end of the contract

<table>
<thead>
<tr>
<th>RISKS</th>
<th>public</th>
<th>shared</th>
<th>private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Construction</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Operation</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Finance</td>
<td></td>
<td>[x]</td>
<td>x</td>
</tr>
<tr>
<td>Social</td>
<td>x</td>
<td>[x]</td>
<td></td>
</tr>
<tr>
<td>Demand</td>
<td>[x]</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Termination</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Land availability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political / Legal</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WHAT MAKES A SUCCESSFUL PPP?

KEY ISSUES

Economic viability check that the project is cost-benefit (CBA) justified (all cost and benefit of the project to society) and represents the least-cost approach to delivering the expected benefits. Attention should be paid to environmental and social issues.

Commercial viability (structure the project). The project cashflow is well developed with an appropriate risks' identification and allocation.

Financial viability. Funding of the project - what amount is to be funded by the private sector, what amount will be funded by the government funding, and what user of the facility will pay.

Value for Money (VfM). Efficiency and effectiveness of a proposed PPP compared with traditional procurement. PPP can be expected to best achieve value (efficiency gains) for money compared to public procurement.

A PPP does not transform a bad project into a good project!
Important Remarks

Regarding the use of a PPP/Concession approach:
▪ There is no universal definition for the term “PPP”;
▪ It doesn’t work for all kinds of projects;
▪ It is more complex than delivering traditional public works;
▪ It can generate benefits but also entails in risks for the public sector;
▪ Important to have clear regulatory framework.

Regarding the Project:
▪ Before choosing the use of a PPP approach, the project needs to have a strategic case – a strong rational/clear logic to exist;
▪ The model to be adopted – and the risk allocation scheme – depends on the context, commercial/financial assessment and the nature of the project.
What is the typical structure of a PPP?

**Characteristics:**
- Long-term contract;
- Asset lifecycle management;
- Sharing risks and responsibilities;
- Compensation linked to performance;
- In general: Construction + O&M;

**Tradional Procurement vs. Public-Private Partnership (PPP):**

**Tradional Procurement**
- Authority (Public Partner)
- Contractor (SPV)
- Private Partner
- PPP
- Lender (debt)
- User (equity)
- Construction Contract
- O&M contract
- Loan Agreement
- Articles of association and Shareholders Agreement

**Public-Private Partnership (PPP)**
- Authority (Public Partner)
- Private Partner (SPV)
- PPP
- Lender (debt)
- User (equity)
- User charges
- O&M Contractors
- Construction Contract
- Loan Agreement
- Articles of association and Shareholders Agreement

**Fonte:** CP3P Guide (with adaptations).

**Characteristics:**
- Fixed amount contract paid during construction;
- Completed work delivered to the government, which is responsible for the operation and maintenance of the asset;
- Limited time warranty;
- There are no incentives centered on asset lifecycle management.

**Fonte:** CP3P Guide (with adaptations).
OVERVIEW OF THE PPP PROCESS CYCLE

**PHASES**

1. **Identification**
   - Identification of needs / projects
   - Draft project & collect information;
   - Preliminary Cost Benefit Analysis;
   - Preliminary Value for Money (VfM);
   - Prioritize projects.

2. **Prep.**
   - Appraisal
   - Define responsibilities;
   - Identify and allocate risks;
   - Prepare feasibility studies + VfM;
   - Assess affordability (fiscal space);
   - Discuss tender strategy.

3. **Transaction**
   - Structuring
   - Define: Performance criteria;
   - Payment mechanisms;
   - Dispute resolution mechanisms.

4. **Tender**
   - Tender
   - Define tender strategy;
   - Draft RFQ and RfP;
   - Qualify bidders;
   - Evaluate proposals and select winning bidder.

5. **MGT.**
   - Contract Management (until handover)
   - Define contract management governance;
   - Monitor results and risks;
   - Manage changes.

**MAIN TASKS**

1. **PHASE 1**
   - Identification of needs and projects, regardless the procurement strategy.

2. **PHASE 2**
   - Define responsibilities;
   - Identify and allocate risks;
   - Prepare feasibility studies + VfM;
   - Assess affordability (fiscal space);
   - Discuss tender strategy.

3. **PHASE 3**
   - Define: Performance criteria;
   - Payment mechanisms;
   - Dispute resolution mechanisms.

4. **PHASE 4**
   - Tender
   - Define tender strategy;
   - Draft RFQ and RfP;
   - Qualify bidders;
   - Evaluate proposals and select winning bidder.

5. **PHASE 5 & 6**
   - Contract Management (until handover)
   - Define contract management governance;
   - Monitor results and risks;
   - Manage changes.

**PRODUCTS**

- Studies / Contract
- Initial Concept
- "business case"
- RIQ, RfP and draft contract
- Contract

**DECISION POINTS**

1. Select the project?
2. Prepare as PPP?
3. Continue as PPP?
4. Tender?
5. Sign the contract?
6. Start operation?

**SOURCE:** WB 2017. PPP Reference Guide Version 3. (with adaptations)
Final Recommendations

- Apply a **progressive analysis approach** on the project (through “gateways”)
- Work all **relevant** dimensions of the project (**technical, economic, financial, legal, environmental, social and governance**).
- Engage all **stakeholders** at early stages of the project.
- Prepare **robust feasibility studies** that look at the whole project life cycle.
- **Standardize contracts** when possible or certain part of the contract (reduces transaction costs, increases predictability and points to a *pipeline* of projects).
- Invest in **capacity-building** of the staff contracting authority (from appraisal and structuring to management of PPP contracts).
- PPPs can be a mutually beneficial way promote dry port provided they are properly **defined, structured, implemented and monitored**.
Public-Private Partnerships (PPPs) for Dry Ports
Importance of PPPs for Dry Ports

- Enhancing infrastructure development and hinterland connectivity
- Improving operational efficiency
- Fostering innovation
- Attracting private sector investment
Scope of PPPs contracts

The development of logistics projects (including dry ports) usually involves high investments in:

- Access infrastructure
- Facilities
- Equipment
- Utilities

The type of infrastructure and services to be provided will define the scope of the PPPs contract and, consequently, the capital investment of the project. In increasing order of complexity (set of facilities and equipment):

- Dry Ports
- Logistic Parks
- Logistics Platforms/Logistic Hubs
## Typical Dry Port Facilities and Services

<table>
<thead>
<tr>
<th>Facilities &amp; Equipment</th>
<th>Services Provided</th>
<th>Transport Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Container Yard (CY)</td>
<td>▪ Container handling and storage</td>
<td>▪ Line-haul: Rail (most), Road</td>
</tr>
<tr>
<td>▪ Container Freight Station (CFS)</td>
<td>▪ Container stripping and stuffing</td>
<td>▪ and IWT (some)</td>
</tr>
<tr>
<td>▪ Access roads, Railway link or sidings, Inland Water Transport (IWT) berths</td>
<td>▪ Break-bulk cargo handling and storage</td>
<td>▪ Local feeder: Road</td>
</tr>
<tr>
<td>▪ Break-bulk receiving and storage area</td>
<td>▪ Bulk cargo handling and storage</td>
<td>▪ Inland Water Transport (where applicable)</td>
</tr>
<tr>
<td>▪ Bulk receiving and storage area</td>
<td>▪ Customs inspection and clearance</td>
<td></td>
</tr>
<tr>
<td>▪ Administrative office with space for banks, forwarders and cargo agents</td>
<td>▪ Container light repairs</td>
<td></td>
</tr>
<tr>
<td>▪ Customs office</td>
<td>▪ Freight forwarding and cargo consolidation services</td>
<td></td>
</tr>
<tr>
<td>▪ Container light repair facility</td>
<td>▪ Banking / insurance / financial services</td>
<td></td>
</tr>
<tr>
<td>▪ Secure fence and entry point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Cargo handling equipment (RTGs, RMGs, reach- stackers, empty lifters, forklifts, container chassis, prime movers etc.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Dry port utilities and infrastructure

<table>
<thead>
<tr>
<th>Power infrastructure including sub-stations</th>
<th>Water supply and sewerage system</th>
<th>Solid Waste Management (SWM) system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage network</td>
<td>Internal roads</td>
<td>Telecommunication infrastructure (including OFC / Mobile Tower)</td>
</tr>
<tr>
<td>Street lights</td>
<td>Green / Open area</td>
<td>Rail heads and internal/external rail links</td>
</tr>
</tbody>
</table>

**SOURCE:** UNESCAP (with adaptations)
CASE STUDIES
COUNTRY EXAMPLE: ANGOLA
STRATEGY for logistics platforms development:
1. Assessment of logistics sector;
2. Reform proposal in National Development Plan (PDN 2018-2022);
3. Presidential Decree published in 2021;

NEW LEGAL FRAMEWORK
- Creation of a new regulatory agency responsible for all activities related to Logistics and Cargo Certification (ARCCLA);
- Establishment of a National Network of Logistics Platforms;
- Guidelines for PPP/concession contract provisions for logistics platforms (as part of the Decree).
**Angola National Network of Logistics Platforms (NNLP) concept**

**WHAT**

Integrated cluster of logistic platforms (LPs), whose strategic location and operation will guarantee the optimization of the logistics network in Angola and the integration of different means of transportation.

**WHY**

1. Facilitate the homogenous development of Angola, by enabling a faster and economical accesses to the goods produced across the country.

2. Enhance Angola’s geostrategic position, as a continental platform for the entry and exit of goods that circulate in the scope of foreign trade.

**HOW**

- **Establishment of new business**
  New companies will emerge around the LP and/or exiting companies will relocate.

- **Employment creation**
  New direct and indirect jobs, during construction and operation phases.

- **Increased competitiveness**
  Due to improved confidence and lower costs resulting from an optimized logistics network.

- **Higher production and exports**
  As a result of the easier flow of local products to the rest of Angola and adjacent countries.

**SOURCE:** ARCCLA, 2021
The coastal platforms must allow the focus on sea activities, providing adequate cold-storage spaces for the products to be conserved.

Platforms at border areas will have to adapt to the most significant transactions (e.g.: ore, timber corridor) but not neglecting general trade between countries, providing support warehouses for the commercialization of food and non-food goods. These platforms can be a Dry Port.

The interconnection platforms between the various zones should focus on regional activities, agriculture and industry. These should also focus on the connection with the activities that may cross them, serving as a facilitator for distribution. These platforms can be a Dry Port.

SOURCE: ARCLGA, 2022
- Strategic location of projects (at the border, near main corridors or near production areas)
- Project 2 focus on agro-industries and project 4 serves the oil industry;
- Projects 5 and 6, in particular, work mainly as dry ports;

SOURCE: ARCCLA, 2022
Angolan PPP model for logistics platforms/dry ports

**DBOT Concession Model**
*Design Build Operate and Transfer*

**Design**
- Specific Layout for the Logistic Platform (LP) defined by the concessionaire

**Build**
- The concessionaire must ensure the construction in the LP
- ARCCLA can undertake investments at an early stage

**Operate**
- Concessionaire operational management
- Possibility of the concessionaire to make sub concessions and subcontracting

**Transfer**
- Platform transferred to the State after the end of the concession period

1. **ARCCLA**
   - Defines the global layout and the minimum requirements (compulsory activities and services)

2. **Concessionaire**
   - Defines the specific layout

**SOURCE:** ARCCLA, 2022
**Angolan PPP model – Project Structures & Stakeholders**

**Public or Private Entities and Associations**
- Ministries members of the Consultation Council
- Provincial Governments

**Basic Infrastructure and Access**
- Regulatory and intermediation role with ministries, provincial governments and other public institutions and companies
- Consultation Council ensures inter-institutional articulation for the implementation of the RNPL

**Project Logistic Platform (Dry Port)**
- Strategic, provides capital and management capacity to boost the logistics and transport sector

**Promotion of the National Network of Logistics Platforms**
- ARCCLA Promoter, Grantor, Regulator, Co-investor and Inspector

**CONCESSIONAIRE**
- Private investor or operator

**Investment support and incentives**
- Stimulating logistics activity, increasing competitiveness, facilitating trade, generating new sources of revenue for the State

**Concessionaire**
- Total: $57.3 M (excluding expansion phase)
- Allocation: 64% Concessionaire; 36% ARCCLA

**SOURCE:** ARCCLA, 2022

**i.e. Luvo Transborder Logistic Hub project capex:**
- Total: $57.3 M (excluding expansion phase)
- Allocation: 64% Concessionaire; 36% ARCCLA
Angolan PPP model – Risk Sharing Structure

**OVERSEEN BY THE CONCESSIONAIRE**

Core (essential / mandatory services)

- **Official bureaucratic services (e.g., customs, warehouses)**
  - Distribution (e.g., existence of transport operators)
  - Cargo handling and consolidation (2PL) (e.g., cranes, forklifts, weighing)
  - Infrastructure maintenance
  - Safety & Security (e.g., access control, surveillance, protection,…)

**Other Services**

- **Logistics infrastructures**
  - Parks (e.g., Areas for loaded / empty containers, manoeuvres)
  - Warehouses (e.g., dry, cold, silos)
  - Other (e.g., light industry, offices)

**DEVELOPED BY ARCCLA**

- Telecommunications
- Water and sanitation
- Energy
- Multimodal accesses

**SOURCE:** ARCCLA, 2022
**UNCTAD support**

- **EU-UNCTAD Joint Programme for Angola: Train for Trade II**
- **Transport & Logistics Component**
  - Technical advisory for PPP frameworks and PPPs in transport and logistics;
  - Tailored capacity-building and training activities;
  - Best practices and experience sharing;
  - Assisting ARCCLA in organizing technical visits to existing projects in the region and establishing dialogue and technical cooperation with other countries.
CAPACITY-BUILDING ON PPP WITH FOCUS ON TRANSPORT & LOGISTICS (CURRICULUM)

GENERAL

PPP TRACK
- Special Topics on PPPs
- Contract Management
- Tendering
- Structuring and Drafting
- Appraisal and Preparation
- Project Identification & PPP Screening
- Overview of PPP Process Cycle
- Overview of PPP Structuring & Financing
- Overview of PPP Framework
- Overview of PPPs

TRAINING TRACK FOR MEP, MOT and ARCCLLA
- Webinars (2020, 2021)
- One in-person Workshop (2022)

SPECIFIC

T&L TRACK
- Tools to support the implementations of PPPs
- Special Topics on transport & logistics
- Risk allocation in transport & logistics projects
- Hands-on tutorial on project preparation
- Roundtable with specialists by sector
- Case studies on transport & logistics
- Application of PPPs for logistics projects
- Application of PPPs for transport projects

ADVANCED

FOUNDATION
OTHER COUNTRY EXAMPLES
PPP for dry ports in Egypt

Egypt’s latest Transport Master Plan calls for the development of nine dry port and logistics centres throughout the country under PPPs structures.

In 2022 was the launch of “October Dry Port” - the first dry port in Egypt located in the new 6th of October City (west of Cairo) with a capacity of 720,000 TEU per annum (stretched over an area of 420,000 SQM). The PPP project comprises of; the General Authority for Land and Dry Ports (Ministry of Transport) and a Consortium of ELSEWEDY ELECTRIC and DB Schenker, represented by October Dry Port Company, in cooperation with EBRD.

The October Dry Port, an inland intermodal terminal, serves as an extended gateway to all operating seaports located in the north and east of Egypt and sets a benchmark for dry ports in Egypt - providing an integrated port facility operating with latest technologies, accelerating customs processes/procedures, reducing ports congestion, road accidents, and carbon emissions, by utilizing advanced electrified rail network.

An important aspect in the project is the high-level Presidential Decrees to create the institutional and administrative adjustments needed for the various public sector entities to support this PPP.

One of the key factors in this regards is the successful rail connectivity and the availability of trains to meet the increased amount of traffic demand for the new dry port.

It’s expected to save over 40,000 tons of CO2 per year and 14 million litres of diesel per year (26.8% savings).

Another important lesson key to the success of the project’s development and ultimate delivery is project preparation; The project preparation was supported by the EBRD and provided the necessary support on project feasibility and structuring that was essential to making the project bankable.

The fact that there is a programme of dry port PPPs underway in Egypt is an important signal to investors that there is a strong public sector commitment to private sector participation in the country’s logistics market.
PPP for dry ports in Thailand

- The concept is for the dry port operator to be the one who provide the lowest total cost to exporters and importers in the country while still meeting certain minimum level of service.

- Two key criteria are considered in the selection of new private sector concessionaires:
  1. The ability to efficiently and effectively operate the ICD
  2. The commitment to offer the lowest service rates to end customers.

- In case of Lard Krabang project (outside Bangkok), one of the most advanced and developed project in Asia, with high-speed rail connection to the port. The Public sector covered some project’s infrastructure costs, in addition to providing land.

- Capital investment and risks shared in varying proportions between public and private partners.

Thank you

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