

Volume-I of the Final Report covers the potential project structuring options for development of dry ports under PPP mode in Asia-Pacific region.

The report was made under a United Nations Development Account project entitled “Building capacity and facilitating private sector involvement for infrastructure development for less developed countries in the Asia-Pacific region”, which focuses on four selected countries and is implemented by the Transport Division, ESCAP.

# Final Report

Potential project structuring options for development of dry ports under PPP mode in Asia-Pacific region



## Glossary

|       |  |
|-------|--|
| BAL   | - Bolloré Africa Logistics   |
| CFS   | - Container Freight Station  |
| COD   | - Commercial Operation Date  |
| CTD   | - Combined Transport Document  |
| CY    | - Container Yard   |
| EPEC  | - European PPP Expertise Centre  |
| ESCAP | - The United Nations Economic and Social Commission for Asia and the Pacific |
| GDP   | - Gross Domestic Product   |
| GoN   | - Government of Niger  |
| IMEX  | - Import Export  |
| IWT   | - Inland Water Transport   |
| JNPT  | - Jawaharlal Nehru Port Trust  |
| MIC   | - Moorebank Intermodal Company   |
| NPV   | - Net Present Value  |
| NSICT | - Nhava Sheva International Container Terminal                               |
| PPP   | - Public Private Partnership   |
| PPT   | - Paradip Port Trust   |
| SEZ   | - Special Economic Zone  |
| SIMTA | - Sydney Intermodal Terminal Alliance  |
| SSFL  | - Southern Sydney Freight Line   |
| Sq.M. | - Square Meter   |
| TP    | - Termination Provision  |
| UNDA  | - United Nations Development Account   |

The report has been prepared with the support of a consultant and the opinions, figures and estimates set forth in this paper are his sole responsibility, and should not necessarily be considered as reflecting the views or carrying the endorsement of the United Nations.

This publication has been issued without formal editing.

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# 1 Introduction

## 1.1 Setting the context

ESCAP Transport Division is mandated to implement a UNDA project on “building capacity and facilitating private sector involvement for infrastructure development for less developed countries in the Asia-Pacific region. As a part of the UNDA project, the ESCAP secretariat aims at enhancing the capacity of government officials to identify, develop and manage PPP infrastructure projects. To do so, it has been decided to support the development of model contract provisions for dry port of international importance.

A key challenge in Public Private Partnership (PPP) projects is to ensure that contracts between partners cover all the issues likely to arise during project life-cycle, which typically extends beyond 10 years. Both the variety of the risks to be allocated among the different parties and the uncertainties inherent to a long-term horizon make the task of drafting a comprehensive agreement particularly complex.

Standardizing documents and processes is the most common solution to ease the task and has been recognized in a number of countries as one of the key factors behind the success of projects conducted under PPP modalities.

While model contracts have been developed in various infrastructure sectors, such contracts do not seem to exist in relation to the development of dry ports. Yet, dry ports lend themselves well to private sector involvement and there appears to be a wide spread acceptance that these facilities could benefit from private sector participation, at least in their management and operation.

The ESCAP-brokered Intergovernmental Agreement on Dry Ports has given new prominence to the benefits of dry ports and brought renewed momentum to their establishment in many countries of the Asia-Pacific region.

Given the above context, ESCAP appointed a consultant to identify key issues that need to be addressed to structure dry port PPP projects, suggest different solutions for the identified issues and prepare draft heads of agreement for development of dry port on PPP mode.

The outcome of the study will enhance the capacity of government officials in developing dry ports by creating model contract provisions for this type of facilities.

## 1.2 Scope of the Study

In order to meet the above mentioned objectives, entire study has been covered into three broad tasks, namely:

- ▶ Task 1: Identification of key issues
- ▶ Task 2: Recommending PPP structuring alternative
- ▶ Task 3: Preparation of draft heads of agreement

### ***Task 1: Identification of key issues***

For a PPP project to run smoothly during its concession period, it is extremely advisable to identify every possible issue that may arise during the life-cycle of the project and address such issues upfront. Hence, the first and foremost task of the consultant is to identify a list of issues that may arise during life-cycle of a dry port PPP project.

### ***Task 2: Recommending PPP structuring alternative***

Every PPP project has a unique structure which depends on many factors including but not limited to capital requirement, service obligations, value-for-money (vfm), financial viability, market risks, pricing risks etc. For each issue, the consultant shall prepare an assessment report with pros and cons about available structuring alternatives in order to arrive at a suitable alternative for the issue.

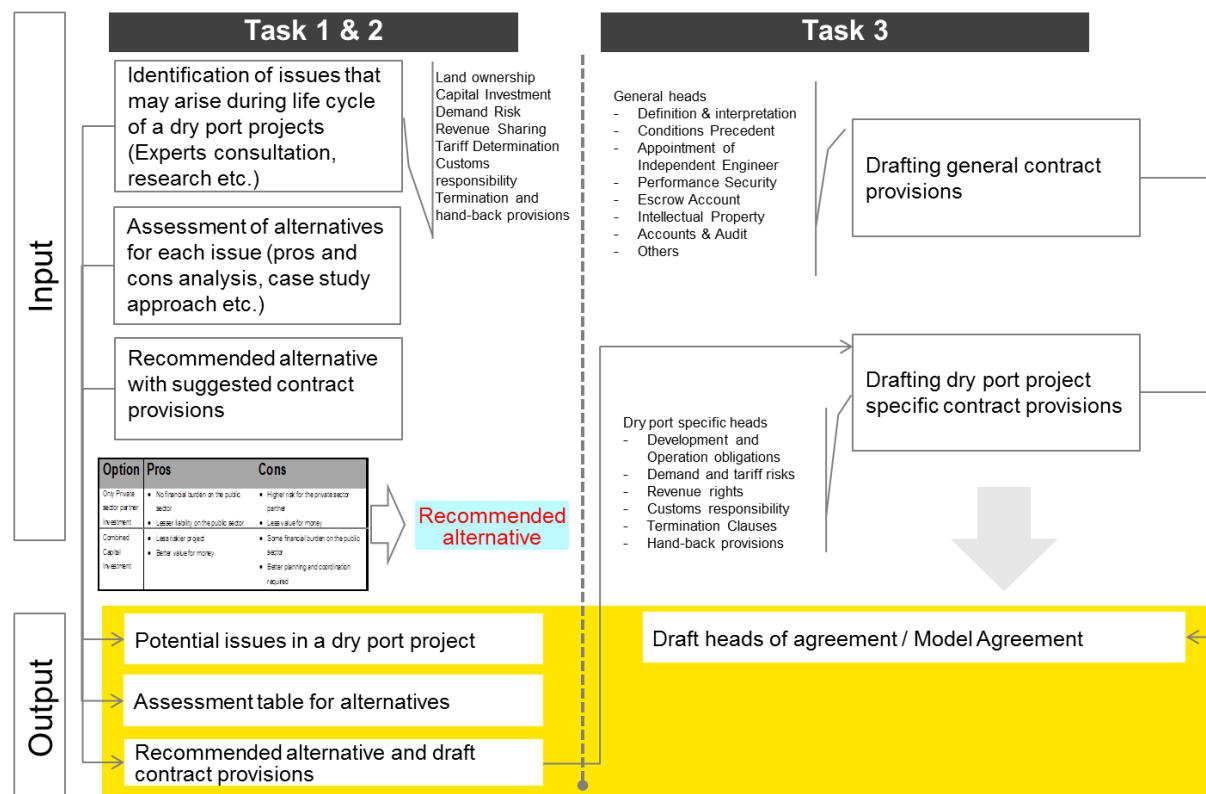
### ***Task 3: Preparation of Draft heads of agreement / Model Agreement***

Consultant shall prepare a draft heads of agreement for development of dry port on PPP mode considering recommended alternatives (draft provisions) for each issue identified earlier.

### 1.3 Our Approach and Methodology

The flowchart below provides a graphical representation of the detailed approach and methodology adopted in order to complete the tasks discussed in previous section.

Figure 1: Approach and Methodology



### 1.4 Structure of the Final Report

The final report is divided into two volumes as given below.

- ▶ Volume-I: Report on potential project structuring options
- ▶ Volume-II: Draft heads of agreement / Model Agreement

This report is Volume-I of the final report and is structure in following manner.

- ▶ Chapter 1: Introduction
- ▶ Chapter 2: Dry Ports: Issues and PPP Structuring Alternatives
- ▶ Chapter 3: Summary

## 2 Dry Ports: Issues and PPP Structuring Alternatives

Development of a dry port on PPP mode presents unique challenges to both the public sector and private sector partner. Huge investment requirement coupled with complex processes involved makes it a very risky business. Thus, a robust risk allocation framework becomes essential for successful operation of the dry port. Contract must be designed in such a way that it can handle any issue that may arise during the life cycle of the project. One of the most critical issues is the connectivity of the dry port with a sea port. Dry port will be useless if it not integrated with multi-modal transport system that saves cost and time in the overall movement of goods between origin and destination. It should be the responsibility of the public sector to provide such access by creating rail heads and road links. Hence, the contract must have provisions to allocate this responsibility to the public sector, which would be best able to manage the risk. Similarly, contract should have provisions for tackling other issues relevant to a dry port projects. An indicative list of such issues is given below:

- ▶ Land ownership
- ▶ Responsibility for creation of utilities and infrastructure including rail heads and internal/external rail links
- ▶ Demand risk
- ▶ Pricing mechanism and tariff determination
- ▶ Revenue sharing
- ▶ Number of operators
- ▶ Fiscal incentives
- ▶ Responsibility of Customs formalities
- ▶ Termination events and compensations
- ▶ Handover conditions

In subsequent sections, each issue has been discussed in detail, assessing pros and cons of various alternatives and recommending an alternative best suitable to address the underlying issue.



## 2.1 Land Ownership

In most PPP projects, land ownership completely lies with the public sector and in cases where the private sector partner is investing in existing or new infrastructure, the public sector provides assurance to the private sector partner that some rights of the land where the infrastructure is to be built shall be transferred to the project company in the form of either lease or licence for the entire project duration. Upon completion of the project, the private sector partner transfers back the possession of the land along with other assets to the public sector. The public sector will want to find a mechanism that gives the private sector partner sufficient rights to enable it to fulfil its obligations while allowing the public sector to maintain sufficient interest in the public assets and rights of reversion.

On the other hand, there are cases, though limited in number, of joint ownership of land in a PPP project. In such cases, the private sector partner invests in land apart from making investments to create other assets of the project. Both public sector and private sector partner lease their part of the land to the project company for the entire duration of project. In dry ports, this type of PPP structures has been followed in the Moorebank Intermodal Freight Precinct project, where two-thirds of the land is owned by the Commonwealth Government of Australia and other third of the land is owned by the Sydney Intermodal Terminal Alliance or SIMTA (a consortium of 67 per cent Qube and 33 per cent Aurizon). Details about the project are provided in Box 1.

### **Box 1: Case of the Moorebank Intermodal Freight Precinct Project<sup>1</sup>**

The Moorebank intermodal freight precinct will enable freight to make part of its journey by rail. Located at Moorebank in south-west Sydney, the freight precinct will handle import-export (IMEX) and interstate shipping containers, and include warehousing for temporary onsite storage. It will provide direct access to Port Botany via the Southern Sydney Freight Line (SSFL), which will connect to the terminal at the southern end of the precinct. Construction is planned to begin in late 2015 with the first stage of operation to begin in late 2017. The first stage of the interstate terminal is expected to start operating in late 2019.

The Sydney Intermodal Terminal Alliance (SIMTA) will build and operate the intermodal freight precinct at Moorebank. Moorebank Intermodal Company (MIC), an Australian government business, will oversee development of the project to make sure SIMTA delivers the core components of the terminal infrastructure to the required standards. During operations, MIC's main role will be to monitor SIMTA's compliance with its open access obligations. SIMTA will deliver most of the capital investment, and both MIC and SIMTA will provide land to the precinct.

The Commonwealth is expected to contribute around \$370 million to the development as well as Commonwealth land (158 ha of developable land plus biodiversity offset land), which will be leased to SIMTA. SIMTA will deliver funding for the terminal infrastructure and warehousing, at a cost of around \$1.5 billion over the first 10 years, as well as contributing land (83 ha of developable land) to the development. Under the terms of the agreement, both Commonwealth land and SIMTA land will be combined in a single trust structure and leased to SIMTA for 99 years. While MIC's monitoring and enforcement role, particularly in relation to open access, will not be sold, MIC's revenue streams as a landlord have been designed as a saleable structure that will be attractive to investors.

<sup>1</sup> Source: MICL website ([www.micl.com.au](http://www.micl.com.au))

Though there are examples of joint ownership of land in PPP projects, it is not advisable to adopt such model as many issues may arise, both during pre and post development period. One of the key requirements of a dry port project is the presence of contiguous and unencumbered land. It would be an extremely difficult task for the private sector partner to acquire or purchase land adjacent to the land provided by the public sector. Even if the private sector partner manages to acquire or purchase the required land parcel, the cost of such purchase would normally be higher than in case the public sector would have acquired or purchased it. In most of the cases, developers will be reluctant to take the risk of acquiring or purchasing land because they would neither want to default on their promise of providing land nor want to invest so much on land.

Further, a big question that comes to mind is what would happen upon termination of the Contract. To whom will the land ownership get transferred to and what will be the compensation terms for transfer of ownership? For smooth running of the project even after termination of the Contract, the land ownership of the land belonging to the private sector partner along with assets created on that land parcel will have to be transferred to the public sector. But, again we need to answer next series of questions - how the land will be valued and how the termination compensation that includes land will impact the public sector? Land valuation and hence calculation of termination compensation could be a tricky task because unlike other assets whose value depreciates over time, land appreciates in its value. Public sector might not have sufficient resources to buy the land at the time of termination. Table below summarizes pros and cons of both the options – Public sector land ownership and Joint land ownership.

**Table 1: Assessment of Land Ownership Options**

| Option                       | Pros   | Cons   |
|------------------------------|--|--|
| Public sector land ownership | <ul style="list-style-type: none"> <li>Public sector best able to control land acquisition or purchase</li> <li>Reduced risk for the private sector partner</li> <li>Project would not get stuck because of non-availability of land</li> <li>Lesser total project cost as no land is acquired or purchased by the private sector partner</li> <li>Easier termination as there is no need to deal with land</li> </ul> | <ul style="list-style-type: none"> <li>More upfront investment by the public sector in purchasing of land</li> </ul>   |
| Joint land ownership         | <ul style="list-style-type: none"> <li>Lesser upfront investment by the public sector in purchasing of land</li> </ul>   | <ul style="list-style-type: none"> <li>Difficult and riskier for the private sector partner to acquire or purchase contiguous land adjacent to the public sector land</li> <li>Total project cost would increase as land acquired or purchased by the private sector partner will be costlier</li> </ul> |

| Option | Pros | Cons  |
|--------|------|---|
|        |      | <ul style="list-style-type: none"> <li>Private sector land will have to be transferred to the public sector, thereby making land valuation upon termination a tricky task and termination compensation a burden on the public sector</li> </ul> |

Based on above assessment, it is highly recommended that a dry port PPP project have public sector land ownership. Draft heads of agreement for a dry port PPP project should have clauses reflecting upon the public sector land ownership structure. Some of the key consideration in the Draft heads of agreement regarding public sector land ownership structure could be:

- ▶ Public sector shall make unencumbered and litigation free land available to the private sector partner before the signing of the Agreement.
- ▶ Public sector shall transfer the interest in the land to the project company by way of a long-term lease valid through the Project term upon condition that the private sector partner shall pay an annual lease fee to the public sector.
- ▶ The project company shall have the rights to mortgage the land for achieving financial closure for the project.
- ▶ The private sector partner shall manage the operation and maintenance of such land and infrastructure during the Project term. Upon termination of the Contract, the lease shall become null and void and the land shall be transferred back to the public sector.

## 2.2 Capital Investment

The development of a dry port usually requires large investments in utilities, infrastructure, facilities and equipment. Table below provides details of the facilities and equipment required for providing comprehensive service offerings by a dry port.

**Table 2: Dry Port Facilities and Services**

| Facilities & Equipment  | Services Provided  | Transport Mode  |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Container Yard (CY)</li> <li>• Container Freight Station (CFS)</li> <li>• Access roads, Railway link or sidings, Inland Water Transport (IWT) berths</li> <li>• Break-bulk receiving and storage area</li> <li>• Bulk receiving and storage area</li> <li>• Administrative office with space for banks, forwarders and cargo agents</li> <li>• Customs office</li> <li>• Container light repair facility</li> <li>• Secure fence and entry point</li> <li>• Cargo handling equipment (RTGs, RMGs, reach-stackers, empty lifters, forklifts, container chassis, prime movers etc.)</li> </ul> | <ul style="list-style-type: none"> <li>• Container handling and storage</li> <li>• Container stripping and stuffing</li> <li>• Break-bulk cargo handling and storage</li> <li>• Bulk cargo handling and storage</li> <li>• Customs inspection and clearance</li> <li>• Container light repairs</li> <li>• Freight forwarding and cargo consolidation services</li> <li>• Banking / insurance / financial services</li> </ul> | <ul style="list-style-type: none"> <li>• Line-haul: Rail (most), Road (some) and IWT (some)</li> <li>• Local feeder: Road</li> <li>• Inland Water Transport (where applicable)</li> </ul> |

Besides the facilities and equipment listed above, a dry port requires capital investment in utilities and infrastructure including rail heads and internal/external rail links that would be used by the private sector partner for smooth operation and management of the facilities and equipment. List of such utilities and infrastructure including rail heads and internal/external rail links is given in the Table below.

**Table 3: Dry Port Utilities and Infrastructure**

| <b>Utilities and Infrastructure</b>         |                                  |   |
|---|----------------------------------|---|
| Power infrastructure including sub-stations | Water supply and sewerage system | Solid Waste Management (SWM) system                             |
| Drainage network                            | Internal roads                   | Telecommunication infrastructure (including OFC / Mobile Tower) |
| Street lights                               | Green / Open area                | Rail heads and internal/external rail links <sup>2</sup>        |

Provision of facilities and equipment along with development of necessary utilities and infrastructure including rail heads and internal/external rail links requires huge investments. The cost of development of a green-field dry port including the rail infrastructure can be huge. In most dry port PPP projects, the entire investment is made by the private sector partner except for the land. In the Moorebank Intermodal Freight Precinct project, the private sector partner would invest around \$ 1.5 billion (total investment ~ \$1.87 billion) over 10 year besides contributing 83 hectare of land. Similarly, Niger Dry Port project envisages a total investment of \$ 78 million by the private sector partner in equipment and civil works. Details about the project are provided in Box 2.

#### **Box 2: Case of the Niger Dry Port Project<sup>3</sup>**

Niger is a landlocked country entirely dependent on neighbouring countries for maritime access for its imports and exports. Transport costs are frequently prohibitive and constitute a major obstacle for development. Therefore, the Government of Niger (GoN) decided to structure and implement a dry port project in Dosso and Niamey Rive Droite for the country to: (i) facilitate and process international trade through strategic investment in multi-modal transportation assets and promote value-added services as goods move through the supply chain, (ii) speed up the flow of cargo between ships and major land transportation networks, which could carry goods to the rest of the country, (iii) reduce red tape and transportation costs for users in Niger, and (iv) move the time-consuming sorting and processing of merchandise inland, away from the congested seaports in Benin, Togo, Ghana, and Côte d'Ivoire, its main accesses to the sea.

GoN created a new Dry Port Authority in 2014. This new Authority will act as the conceding and monitoring Authority of the concession and the main interlocutor of B.A.L. (the Concessionaire). The dry port is expected to be multimodal with a connection to the new railways project between Benin (Port of Cotonou) and Niger. Construction of the railways is ongoing and the Dosso dry port platform is expected to be the largest multimodal cargo handling center for merchandise imported from Benin.

IFC proposed a transaction structure based on a 20-year concession agreement to invest in and manage the two platforms in Dosso (corridor of Benin) and Niamey Rive Droite (corridors of Togo, Ghana and Côte d'Ivoire). The concession included provisions to balance risk and protect the rights of both parties, as well as other stakeholders, including a minimum mandatory investment of \$50 million divided in four phases (BAL is offering additional social investment for a total capex up to \$78 million).

<sup>2</sup> Responsibility for development of internal railway tracks and rail heads may be given to the private sector partner who can outsource the work. Responsibility for connecting the dry port with a sea port through sufficient capacity railway links shall be given to the public sector.

<sup>3</sup> Source: [www.ifc.org](http://www.ifc.org)

The winning bid of Bolloré Africa Logistics included an upfront fee of \$2 million and a fixed fee (land lease) payable by Sq.M. and variable fees payable per ton of cargo for an estimated minimum \$48 million over the life of the concession. The concession agreement was signed on October 28, 2014. Through this Concession, the Authority would be able to leverage between \$50 to \$78 million in private investments in operating equipment and civil works.

Capital investments can also be shared between the public and private partners as illustrated by the Inland Container Depots (ICDs) in the Republic of Korea, for which details are provided in Box 3 below.

### **Box 3: Case of the Inland Container Depots in the Republic of Korea<sup>4</sup>**

Inland intermodal freight terminals are currently operating at five locations throughout the Republic of Korea. They are referred to as “Inland Logistics Depots” and have the dual functions of an ICD (Inland Container Depot), which handles foreign trade containers, and cargo, and an Integrated Freight Terminal (IFT), which handles domestic cargo. Five terminals are located at Uiwang, Yangsan, Sejong, Chilgok, and Jangseong. The first ICD was constructed at Uiwang, 25 km southwest of Seoul over the period 1992-1996. The remaining four facilities were constructed over the period 2003-2012.

All operate under Public Private Partnership (PPP) contracts with public and private shareholdings of 25% and 75% respectively. Ownership of the land under the terminals is vested in the public sector partner (Korean National Railroad Network Authority), which then leases the land at less than commercial rates to the private partners who operate the terminals. The private partners are logistics companies and road haulers.

The public sector partner is responsible for investing in the road and rail accesses to the terminals, while investment in infrastructure and handling equipment within the boundaries of the terminals (including CY paving, rail sidings and internal roadways) is the responsibility of the private partners. The latter investment is provided under a 30 year Build-Operate-Transfer (BOT) concession in the case of the Uiwang Logistics Depot and a Build-Own-Operate (BOO) concession in the case of the other four facilities.

Investments in a dry port are risky for the private sector partners and uncertainties are so high that many investors are unwilling to invest in these projects. Successful operation of a dry port depends on coordinated efforts from other components in the supply chain. Without well working rail heads or internal/external rail links and road connectivity, competitiveness of a dry port reduces drastically. Moreover, high investment costs of a greenfield dry port can lead to a challenging situation where the dry port investment is not bankable for the private sector partner. Therefore, investors who are willing to invest in a dry port project would be looking for a higher rate of return, thereby making compromise on value for money for the project.

Investments on facilities and equipment alone are very high and are of recurring nature due to shorter life of equipment. Hence, it is recommended that the public sector at least make investments into utilities and infrastructure including development of rail heads and connecting them to the main railway link. This structure would not only reduce the investment burden on the private sector partner but also reduce the uncertainty by guaranteeing well working rail heads or links, thereby increasing value for money for the project and making the project lucrative for the investors. Table below summarizes pros and

<sup>4</sup> Source : Report on trends in the development of inland ports and policies underlying their development in selected countries of the UNESCAP region by UNESCAP

cons of both the options – Only Private sector partner Investment and Combined Capital Investment.

**Table 4: Assessment of Capital Investment Options**

| Option                                 | Pros  | Cons  |
|--|---|---|
| Only Private sector partner Investment | <ul style="list-style-type: none"> <li>• No financial burden on the public sector</li> <li>• Lesser liability on the public sector</li> </ul> | <ul style="list-style-type: none"> <li>• Higher risk for the private sector partner</li> <li>• Less value for money</li> </ul>                      |
| Combined Capital Investment            | <ul style="list-style-type: none"> <li>• Less riskier project</li> <li>• Better value for money</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Some financial burden on the public sector</li> <li>• Better planning and coordination required</li> </ul> |

Hence, the Draft heads of agreement for a dry port PPP project should have clauses reflecting upon the “Combined capital investment” structure. Some of the key consideration in the Draft heads of agreement regarding the “Combined capital investment” structure could be:

- ▶ Private sector partner shall plan and design the project facilities and equipment as well as the utilities and infrastructure including rail heads and internal/external rail links.
- ▶ Public sector shall finance and develop the utilities and infrastructure including rail heads and internal/external rail links as per the approved plan. Alternatively, responsibility for development of internal railway tracks may be given to the private sector partner.
- ▶ Public sector shall be responsible for investment and development of transport linkages to the dry port including rail heads and feeder roads.
- ▶ Operation and maintenance of the utilities and infrastructure including water supply, sewerage, drainage and street lights created by the public sector shall be the responsibility of the private sector partner.
- ▶ Operation and maintenance of the rail heads shall be the responsibility of the private sector partner.
- ▶ Operation and maintenance of external railway links shall be the responsibility of the public sector and authorized government agency.
- ▶ Private sector partner shall finance and develop facilities and utilities as per the approved plan and then operate and maintain those facilities and utilities throughout the concession period.
- ▶ Ownership of the projects facilities and equipment shall remain with the public sector.



## 2.3 Demand Risk, Tariff Determination, and Revenue Rights

### 2.3.1 Demand Risk

The demand risk is particularly strong in the case of greenfield projects, where the absence of historical data complicates demand estimates. Demand risk in a transportation project is related to the pricing or tariff through the price elasticity of demand. In port projects, demand risk becomes a central issue for all the stakeholders including the public sector, the private sector partner and the project sponsors. How this risk is to be allocated/shared amongst those parties will underpin project's attractiveness to investors and the bankability of any proposed structure. Location, standard and capacity of facilities, efficiency and pricing are the base factors in attracting the usage which is expected from domestic and international markets. In projects where the public sector is investing in infrastructure, they expect the private sector to assume the entire demand risk. Demand risk can be shared between the public sector and the private sector partner by guaranteeing minimum traffic to the private sector partner. In the Nhava Sheva International Container Terminal (NSICT) project, demand risk is borne by the private sector partner. However, the private sector partner mitigated the demand risks by having long term cargo commitments from users. Similar arrangements could be worked out for a Dry Port project. Details about the NSICT project are provided in Box 4.

#### **Box 4: Case of the Nhava Sheva International Container Terminal (NSICT) Project<sup>5</sup>**

The Nhava Sheva International Container Terminal (NSICT) is India's first private container terminal and one of the most modern container terminals in India. The terminal is located within the Jawaharlal Nehru Port across from the island of Mumbai. The concession agreement was for the development, operation, maintenance and management of the container terminal on a Build, Operate and Transfer (BOT) basis for a period of 30 years, expiring in 2027. The project was awarded on the basis of highest Net Present Value (NPV) of royalty offered.

NSICTPL was required to pay royalty to JNPT for guaranteed traffic in the event of not achieving the minimum traffic indicated. The ownership of the land, reclaimed sea and water in the licensed premises remained with JNPT. With regard to pricing, the licensee had to collect prescribed rates and charges not exceeding the minimum rates published in the JNPT Port Tariff Schedule and Scale of Rates as approved by the Government of India. Market risks are high due to competition but guaranteed minimum cargo in the form of long term cargo commitments from users have mitigated these risks.

In the Inland Container Depot (ICD) at Dadri, demand risks are shared among partners of the Joint Venture. Details about the ICD Dadri project are provided in Box 5.

#### **Box 5: Case of the Inland Container Depot at Dadri, India Project<sup>6</sup>**

Northern India today is one of the fast growing and emerging markets. Over a period of time, now the trade operating in the geography has option of sending their cargoes to ports other than Jawaharlal Nehru Port Trust (JNPT). To address the logistic imbalance, Container Corporation of India (CONCOR), launched Asia's largest Inland Container Depot (ICD) at Dadri, the plan of which began in 1997 as an ideal hub point for link with spokes avoiding Delhi. The Indian National Rupees 313

<sup>5</sup> Source: Detailed case studies section on [toolkit.pppinindia.com](http://toolkit.pppinindia.com) website

<sup>6</sup> Source: [www.cilog-park.com/](http://www.cilog-park.com/)



Crore facility has been conceived more as a modern intermodal logistics hub than an ICD. ICD Dadri is spread over 110 hectares as compared to ICD Tughlakabad' area of 42 hectares. Adding to its lure are better facilities and its capability to handle more than one million TEUs.

Railway PSU CONCOR (Container Corporation of India Limited) has leased approximately 27.5 hectares of the CFS area to various private sector partners through Joint Venture agreements with Albatross Inland Ports Pvt. Ltd., CMA-CGM Logistics Park (Dadri) Pvt. Ltd., Allcargo Logistics Park Pvt. Ltd., and APM Terminals (Star Track Terminals Pvt. Ltd.). Container handling and storage as well as the loading/unloading of trains is the responsibility of CONCOR, but the facility incorporates 4 container freight stations (CFSs) which are operated as joint venture undertakings between CONCOR and private logistics companies. Shares in these undertakings are: 51 per cent logistics companies and 49 per cent CONCOR. It is the responsibility of CONCOR to provide land and infrastructure and of the logistics companies to provide handling equipment (if any) and to operate the CFS with their own staff. CFS areas, including covered warehouses, are leased to the logistics companies for 30 years.<sup>7</sup>

Generally, there are three options for structuring demand risk in a PPP contract – 1) Borne by the public sector, 2) Borne by the private sector partner, and 3) Shared between public sector and the private sector partner. Table below summarizes pros and cons of all the three options.

**Table 5: Assessment of Demand Risk Allocation Options**

| Option  | Pros   | Cons  |
|---|--|---|
| Borne by the public sector                                  | <ul style="list-style-type: none"> <li>Revenue rights lie with the public sector</li> </ul>  | <ul style="list-style-type: none"> <li>Less incentive for the private sector partner to improve services</li> <li>Less growth in traffic volume</li> <li>Investment or annuity payment burden on the public sector</li> </ul> |
| Borne by the private sector partner                         | <ul style="list-style-type: none"> <li>Better services provided</li> <li>Increased traffic volume</li> <li>Shared investment or investment by the private sector partner</li> </ul>  | <ul style="list-style-type: none"> <li>Revenue rights lie with the private sector partner</li> <li>Less attractive to the private sector partner</li> </ul>   |
| Shared between public sector and the private sector partner | <ul style="list-style-type: none"> <li>Better services provided</li> <li>Increased traffic volume</li> <li>More attractive to the private sector partner and lenders</li> <li>In most cases, investment by the private sector partner</li> </ul> | <ul style="list-style-type: none"> <li>Revenue rights lie with the private sector partner</li> </ul>  |

<sup>7</sup> Source: Report on trends in the development of inland ports and policies underlying their development in selected countries of the UNESCAP region by UNESCAP

In Option-1 where entire demand risk is borne by the public sector, growth in traffic volume would be lesser when compared to other two options because the public sector is not best suited to manage the risk. Further, there would be lesser incentive for the private sector partner to improve services in a project, thereby affecting the traffic volume. Between Option-2 and Option-3, the private sector partner would like to prefer Option-3 because demand risks get shared in this case by means of minimum guaranteed traffic. However, the public sector would be willing to provide such guarantee only when it has not given any additional support to the private sector in form of grant, subsidy or infrastructure investment for the project. For a dry port project, it is envisaged that the public sector would invest in creation of utilities and infrastructure including rail heads and internal/external rail links and the private sector partner would invest in facilities and equipment. Therefore, it is recommended that Option-2 be followed i.e. the private sector partner undertake entire demand risks.

### 2.3.2 Tariff Determination

Pricing of the services or tariff is a crucial factor on which volume of traffic in a dry port depends. Lesser the tariff rates more will be the traffic volume and vice versa. Responsibility for setting tariffs and charges in a dry port project determines the attractiveness of the project to investors. A project would be more attractive to investors if the private sector partner has the rights to set tariffs and user charges for services provided by them. In India, only minor ports have the flexibility to determine tariff for their respective ports. Tariff for major ports in India is governed by the Tariff Authority of Major Ports regulations. Pros and cons of both the options are discussed in the Table below.

**Table 6: Assessment of Tariff Determination Options**

| Option   | Pros  | Cons   |
|--|---|--|
| Tariff determination by the public sector          | <ul style="list-style-type: none"> <li>• Less chances of monopoly</li> <li>• Low fluctuation in prices</li> </ul>       | <ul style="list-style-type: none"> <li>• Less attractive to the private sector partner due to uncertainty over tariff</li> </ul> |
| Tariff determination by the private sector partner | <ul style="list-style-type: none"> <li>• More attractive to the private sector partner who bears demand risk</li> </ul> | <ul style="list-style-type: none"> <li>• Chances of monopoly</li> <li>• Prices might be highly fluctuating</li> </ul>            |

Based on above assessment, it is recommended that the private sector partner have the flexibility to set various tariffs and user charges for services to be provided by the dry port. This is more so required when the private sector partner is taking the entire demand risk.

### 2.3.3 Revenue Sharing

There are several options for allocation of revenue rights in a PPP project. In one approach, revenue rights entirely lie with the private sector partner whereas in another approach, revenue rights entirely lie with the public sector. In later case, public sector bears the demand risks and makes a fixed periodic payment to the private sector partner. However,

between these two extremes, lie two approaches designed to share revenue risk, namely revenue-sharing model and least present value approach. Advantages and disadvantages of the two options for revenue sharing with respect to a dry port project are discussed in the Table below.

**Table 7: Assessment of Revenue Sharing Options**

| Option                                    | Advantages   | Disadvantages   |
|---|--|---|
| Revenue sharing approach                  | <ul style="list-style-type: none"> <li>• Demand risk borne by the private sector partner</li> <li>• Revenue sharing with the public sector - avoid excessive returns for the private sector partner</li> </ul> | <ul style="list-style-type: none"> <li>• Less administrative control on the project by the public sector</li> </ul>   |
| Least present value approach <sup>8</sup> | <ul style="list-style-type: none"> <li>• No windfall gain by the private sector partner in case of increased traffic during contract period</li> </ul>   | <ul style="list-style-type: none"> <li>• Least attractive to the private sector partner</li> <li>• No incentive for the private sector partner to improve service levels</li> <li>• Difficult to estimate and may lead to disputes</li> </ul> |

Revenue sharing approach is prevalent in most dry port projects. Box 6 provides few examples of ongoing or completed port projects in India that has adopted revenue sharing approach.

**Box 6: Revenue sharing in Port projects in India<sup>9</sup>**

*1. Development of standalone container handling facility at Nhava Sheva International Container Terminal (NSICT) Terminal*

The work order issued to M/s DP World Pvt Ltd on December 31, 2012 at 28.09% Revenue Share. The concession agreement was signed on June 19, 2013.

*2. Construction of Deep-draught coal-berth at Paradip Port Trust for handling coal on Build Operate and Transfer (BOT) basis*

Concession agreement has been signed on November 10, 2009 with M/s Essar Paradip Terminal Ltd with 31% revenue share to Paradip Port Trust.

*3. Conversion of berth no- 8 as Container Terminal at Chidambaranar Port Trust (Tuticorin)*

Letter of Award (LOA) issued to M/s Dhakshin Bharath Gate way Terminals Pvt Ltd on August 7, 2012 with a revenue share of 55.19%. Concession agreement signed on September 4, 2012. Work is in progress.

*4. Development of NCB-IV for handling thermal coal and copper concentrate at Chidambaranar Port Trust (Tuticorin)*

Letter of Award issued in favour of M/s Transstroy OJSC Consortium at a revenue sharing of 30%.

<sup>8</sup> **Least present value approach** – In this approach, the PPP contract will end when the project company has received a certain amount of revenue from users.

<sup>9</sup> Source: Indian Ports Association website [www.ipa.nic.in/deve.htm](http://www.ipa.nic.in/deve.htm)

Special Purpose Vehicle (SPV) formed in the name of M/s Transstroy North cargo Berth III Port Pvt Ltd. The concession agreement signed on February 7, 2014.

In revenue sharing approach, the private sector partner enjoys the revenue rights of the project and will be incentivized to improve service levels in a project. At the same time, this approach ensures that the public sector is also benefitted to some extent in case of excessive returns from the project. This approach works well for both the public sector and the private sector partner. A variant of this approach is revenue share along with some fixed payment to the public sector. Fixed payment could be the lease rentals of the land or any amount fixed by the public sector based on its assessment of the project. This approach ensures that the public sector at least receives the fixed amount in worst case scenario. Hence, it is recommended that the dry port projects be implemented on revenue sharing approach with fixed lease rental.

Based on above assessments about demand risk, tariff determination and revenue sharing, the Draft heads of agreement for a dry port PPP project should have clauses reflecting upon following key consideration:

- ▶ Private sector partner shall operate and maintain the project assets till termination of the contract as per the service level requirements agreed in the contract.
- ▶ Private sector partner shall bear the demand risks of the project.
- ▶ Private sector partner shall have the rights to establish tariff in accordance with the applicable laws and customer contracts if any in such a manner that tariffs are competitive with other dry ports in the region.
- ▶ Private sector partner shall have rights over revenue generated from the project assets.
- ▶ Percentage of revenue sharing will be the bid parameter and the private sector partner with highest revenue share shall be selected as the preferred bidder. Selected private sector partner shall pay – i) fixed amount as lease rentals as decided by the public sector and ii) fixed percentage of revenue share as quoted by him in its proposal.

## 2.4 Number of Operators

A dry port generally provides wide variety of services to its customers. Generally, services include container handling and storage, container stripping and stuffing, break-bulk cargo handling and storage, bulk cargo handling and storage, customs inspection and clearance, container light repairs, freight forwarding and cargo consolidation services, and banking or insurance or financial services. All these services require separate set of infrastructure, facilities, and equipment, which could be managed by a single private sector partner or multiple private sector partners.

Multiple concessionaire model is widely used in brownfield projects that requires expansion or addition of facilities and equipment. For example, Jawaharlal Nehru Port Trust (JNPT) awarded separate PPP contracts for container handling facility and 4<sup>th</sup> container terminal to M/s DP World Pvt Ltd and PSA Bharath Investment respectively. Similarly, V.O. Chidambaranar Port Trust (Tuticorin) awarded separate concessions for various components including 1) Conversion of berth no-8 as Container Terminal, 2) Construction of Shallow draft berth for handling cement, 3) Development of NCB-IV for handling thermal coal and Copper concentrate, and 4) Development of NCB-III for handling thermal coal and rock phosphate.

In a greenfield project, Single concessionaire model is preferred. Niger dry port project which was awarded to Bolloré Africa Logistics (BAL) for a 30 year concession period is an example of Single concessionaire model. Advantages and disadvantages of the two models for a greenfield project are discussed in the Table below.

**Table 8: Assessment of Single or Multiple Operator Options**

| Model                         | Advantages   | Disadvantages   |
|-------------------------------|--|---|
| Multiple concessionaire model | <ul style="list-style-type: none"> <li>• Easier to terminate contract of non-performing assets and substitute its private sector partner</li> <li>• More number of bidders for each component/project as less investment and demand risk</li> <li>• Increased revenue share</li> </ul> | <ul style="list-style-type: none"> <li>• Huge efforts required in awarding of contracts</li> <li>• Increased expenses due to multiple transactions</li> <li>• Different concession period coupled with coordination issues amongst private sector partners may hinder smooth operation and maintenance of the project</li> <li>• Contract management will be extremely difficult tasks for the public sector</li> <li>• Concern of public sector regarding security of Dry Port premises due to involvement of multiple stakeholders</li> </ul> |
| Single concessionaire         | <ul style="list-style-type: none"> <li>• One time effort required in awarding of contract</li> </ul>   | <ul style="list-style-type: none"> <li>• Less number of bidders for the project as more investment and</li> </ul>   |

| Model | Advantages   | Disadvantages   |
|-------|--|---|
| model | <ul style="list-style-type: none"> <li>• One time transaction cost for the public sector</li> <li>• No coordination issues</li> <li>• Easier to monitor and manage the contract</li> </ul> | <ul style="list-style-type: none"> <li>• demand risk for the private sector partner</li> <li>• Huge dependency on single private sector partner, resulting in monopoly</li> <li>• Termination of contract would have larger financial implications on the private sector partner</li> </ul> |

It can be observed from above assessment that Single concessionaire partner model is not only simpler and cost effective for the private sector partner but also result in smooth operation and maintenance of the project over its life cycle. Hence, it is recommended that Single concessionaire model be adopted for a greenfield dry port project.

## 2.5 Customs Clearance Responsibility

Every dry port has a dedicated customs examination area where containers and bulk goods are placed for examination by the customs. The basis function of a dry port is to receive import containers arriving on trains, to unload and stack them, inform the importer, carry out the customs examination, and after completion of the paperwork, load the container onto a road vehicle for delivery to the importers' premises. For exports, containers usually arriving by road vehicle are stacked and upon completion of export customs formalities, are dispatched by rail to the sea port with a combined transport document (CTD) issued by the shipping line or multi-modal transport operator. All paperwork is completed at this point and the exporter or importer needs to do nothing at the sea port.<sup>10</sup>

Traditionally, when goods crossed territory of one or more states in the course of international carriage by road, the customs authorities in each state applied national control and procedures. These varied from state to state but frequently involved inspection of the load at each national frontier and imposition of national security requirements, resulting in considerable expenses and delays. Multi-modal transport system in a dry port aims at reducing transit time and cost. However, potential benefits of multi-modal transport system will not be realized until customs procedures are simplified.

The basic custom transit procedures is the national procedure which is subject to national law and involves the use of national documentation and national guarantees to ensure payment or any import duties and taxes chargeable. Customs inspection is necessary for national security reasons. Therefore, it is suggested that responsibility of customs procedures in a dry port remains with the public sector due to security and other concerns. Private sector partner, on behalf of the public sector, should be responsible for levying and collection of any duties, tariff or charges for customs clearances as per country's law and regulations. Revenue from customs fees/charges shall remain with the public sector.

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<sup>10</sup> Source: Handbook on the Management and Operation of Dry Ports by UNCTAD

## 2.6 Fiscal Incentives

Trade logistics contribute a lot to the economy of a country. In developed economies, trade logistics costs account for less than 10% of the GDP whereas its contribution is even more in developing economies. For example, trade logistics in India account in excess of 13% of the country's GDP.<sup>11</sup>

Reduction in logistics costs by any means would result in huge amount of savings for a nation. Dry port plays a critical role in reducing logistics cost through multi-modal transport system. Governments can encourage the establishment of dry ports through a range of incentives designed to attract private sector investment, including provision of low cost land, subsidized infrastructure development, tax holidays or waivers, and provision of preferential freight rates. Incentives such as provision of low cost land and subsidized infrastructure development are normally under the public sector's (the Authority's) control. However, incentives such as tax holidays or waivers and preferential freight rates for key commodities shall be applicable as per rules and policies of the government at a higher level in country. In some countries, incentives of industrial park or Special Economic Zones (SEZs) are also applicable to a dry port area.

It has been already proposed that the public sector shall provide land and develop utilities and infrastructure including rail heads and internal/external rail links for the dry port projects. It is suggested that the public sector endeavor to keep the fixed lease rental for the land as low as possible. This will incentivize the private sector partner and would increase value for money of the project. Further, the Draft heads of agreement should state that the private sector partner shall be eligible for all other incentives for the project as available from time to time for the dry port project. However, the private sector partner shall not seek any grant from any authority in the country.

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<sup>11</sup> Source: Essay on Dry Ports by Gujar Girish Chandrakant



## 2.7 Termination Provisions

Termination provisions (TPs) in a PPP contract are critical to success of the project. TPs are at the heart of the risk sharing arrangement between the public sector and its private sector partner, and are important value for money drivers for the public sector. Without clear cut TPs, it would be extremely difficult to attract any investor (i.e. private sponsor, equity investor and lender) for a PPP project. Normally, there could be three situations in which a PPP contract can be terminated – i) Public sector's default and voluntary termination, ii) Private sector partner's default, and iii) Force Majeure events.

### A. Public Sector's Default and Voluntary Termination

Under a PPP contract, the private sector partner should have the right to terminate if the public sector defaults on one of its key obligations. After studying practices and provisions in European countries, European PPP Expertise Centre (EPEC) has provided certain guidelines that need to be followed while drafting TPs of a PPP contract in case of public sector's default and voluntary termination. To reduce uncertainties and future contractual disputes, TPs should have an itemized list of the public sector's event of default including catch-all provision. In most European countries except in Belgium, Bulgaria, Netherlands, Poland and Spain where broader definition is used, itemized list approach is adopted. Further, the public sector's defaults should be qualified by materiality tests<sup>12</sup> and be subject to cure periods<sup>13</sup>. Specifically, project in which the public sector has to pay the private sector partner, the private sector partner would need assurance of termination compensation in case event of default arises due to inability of the public sector to pay. TPs should be in such a manner that voluntary termination can't be exercised easily, otherwise frequent exercise of voluntary termination will lead to low confidence of the private sector partner in a PPP market. In addition to above discussed provisions, TPs should have provision for the termination compensation. Amount and timing of the termination compensation should be such that the private sector partner is neither better off nor worse off as a result of the early termination. In most European countries, either of the two approaches is adopted while determining termination compensation in case of the public sector's default and voluntary termination – Book value compensation or Financing-based compensation. There are advantages and disadvantages in both approaches and careful assessment should be done before adopting anyone of the two approaches. Box 7 explains the method of estimating termination compensation under the two approaches.

<sup>12</sup> Materiality tests or thresholds are typically applied to the events in an itemized default list.

<sup>13</sup> Cure period means the period of time granted to a defaulting party to cure a default before termination of the PPP contract occurs. In this case, it would mean the time available to the public sector to rectify the default, where possible, before contract termination effectively takes place.

**Box 7: Termination Compensation in Public sector's default and Voluntary termination**<sup>14</sup>

**1. Book value compensation** – In this case, the investment costs incurred for the PPP project are used as the basis for calculating the compensation. A distinction is typically drawn between termination during the construction phase and termination during the operational phase. During construction, the calculation is based on the investments effectively incurred at the date of termination by the Private Partner for the construction of the PPP assets. During operation, the value of the assets is reduced to take account of depreciation; and

**2. Financing-based compensation** – In this case, compensation is defined by reference to the financing raised by the Private Partner for the project, typically senior debt, subordinated debt and equity.

Except in Bulgaria, Italy and Spain where Book value compensation approach prevails, most other European countries have adopted Financing-based compensation approach. While choosing any approach, simplicity and objectivity in calculation should be given preference because it provides greater certainty. 'No better no worse' principle should be followed. Table below summarizes pros and cons of both the approaches.

**Table 9: Termination Compensation Approaches for Public Sector's Default and Voluntary Termination**

| Option                       | Pros  | Cons  |
|------------------------------|---|---|
| Book value compensation      | <ul style="list-style-type: none"> <li>Simple approach</li> <li>Easy to calculate compensation amount</li> </ul>                    | <ul style="list-style-type: none"> <li>Compensation calculation may be problematic because accounting rules may change over time</li> <li>Risk of underpayment or overpayment</li> </ul>  |
| Financing-based compensation | <ul style="list-style-type: none"> <li>No risk of underpayment or overpayment</li> <li>No dependency on accounting rules</li> </ul> | <ul style="list-style-type: none"> <li>Public sector needs to have a good understanding of financing arrangement before financial closure</li> <li>Public sector may have to pay for additional costs such as hedging cost</li> </ul> |

Since lenders prefer Financing-based approach and the public sector bears no risk of underpayment or overpayment, it is recommended that Financing-based compensation approach be adopted in case of the public sector's default or voluntary termination. Although straightforward in principle, achieving fair compensation is complicated in practice, particularly for equity investors. For lenders, compensation should cover outstanding debt along with interest due, any penalty or unpaid fees and breakage costs. However, different approaches are adopted for different project while calculating compensation to equity investors. Three methods that are commonly used for determining the quantum of equity compensation are discussed in the Table below.

<sup>14</sup> Source: A 2013 report on "Termination and Force Majeure Provisions in PPP Contracts" by EPEC

**Table 10: Public Sector's Default and Voluntary Termination – Compensation for Equity Investors**

| <b>Approaches for Determination of Termination Compensation for Equity Investors<br/>(in case of public sector's default and voluntary termination)</b> |   |  |
|---|---|--|
| <b>Approach</b>   | <b>Advantages</b>   | <b>Disadvantages</b>   |
| Original return approach <sup>15</sup>  | <ul style="list-style-type: none"> <li>• High degree of certainty and simplicity</li> </ul>   | <ul style="list-style-type: none"> <li>• Doesn't take into account actual project performance till termination date</li> <li>• Poses risk of Voluntary termination by the public sector in case of high performing projects</li> </ul> |
| Market value approach <sup>16</sup>   | <ul style="list-style-type: none"> <li>• Fairer than Original return approach as it takes into account actual performance of the project till termination date</li> </ul>       | <ul style="list-style-type: none"> <li>• May lead to disputes as establishing a market value can be a difficult process</li> <li>• Less certainties to the contracting parties</li> </ul>  |
| Future return approach <sup>17</sup>  | <ul style="list-style-type: none"> <li>• Relatively straight forward to implement</li> <li>• Takes into account the actual project performance till termination date</li> </ul> | <ul style="list-style-type: none"> <li>• In case of over performance before termination date, private sector partner will be deprived of its benefits</li> </ul>   |

Though Market value approach is fairer than any other approach for calculating equity compensation, it is very difficult to implement in a less mature market. Therefore, this approach should not be adopted for a dry port project in Asia-Pacific region. For a dry port project in Asia-Pacific region, termination compensation in case of the public sector's default and voluntary termination should be as per the Table below.

<sup>15</sup> **Original return approach** – Compensation amount which when added with all the amount already paid to the equity investor provides an IRR over project life cycle equal to that agreed at financial close in the original base case cash flow projections.

<sup>16</sup> **Market value approach** – Compensation is based on the amount for which the equity could have been sold to a willing buyer at the date of termination.

<sup>17</sup> **Future return approach** – Compensation is derived using the equity return projected in the original base case but only for the period from the date of termination to the end of the PPP contract term. Sometimes, this approach may be referred as Fair-value method.

**Table 11: Public Sector's Default and Voluntary Termination – Proposed Compensation**

| <b>Termination Compensation – Public Sector Default and Voluntary Termination</b> |   |   |
|---|---|---|
| Party to be Compensated   | Lenders   | Equity Investors  |
| Amount Calculation  | i. the loans outstanding at the date of the prepayment;<br>ii. interest due up to the date of the prepayment;<br>iii. any delayed interest, penalty on late payments and unpaid fees; and<br>iv. Breakage costs associated with the hedging agreements and fixed-interest rate loans minus any profits due to early termination of hedging agreements | Net Present Value (NPV) of the investor's future equity cash flows projected in the base case cash flow projections agreed at financial close |
| Remarks (if any)  | In budgeting / accounting for the PPP project, the public sector should take breakage costs into account as contingent liabilities  |   |

In addition to compensations to the lenders and equity investors for the PPP project, the public sector should also compensate for any cost incurred by the third parties due to early termination. However, the public sector should define the precise scope of compensation to the third parties meanwhile putting a cap on the compensation amount.

Timing of compensation is also a very important consideration for the public sector in a PPP project. The public sector can opt to make payments as a lump sum or over a period of time. The public sector will often prefer to pay compensation amounts overtime due to budgetary constraints whereas the private sector partner will prefer to get a lump sum amount. Since a dry port project requires huge investment, termination compensation would be very high. Moreover, there are no payment obligations on the public sector in most dry port projects across globe. Both these situations demand that the public sector can make termination compensations in tranches. However, less the compensation payment duration better it is for the public sector because hand over of assets will be earlier.

## **B. Private Sector Partner's Default**

Under a PPP contract, the public sector should have the right to terminate the contract if the private sector partner defaults on one of its key obligations. After studying practices and provisions in European countries, European PPP Expertise Centre (EPEC) has provided certain guidelines that need to be followed while drafting TPs of a PPP contract in case of private sector partner's default. To reduce uncertainties and future contractual disputes, TPs should have an itemized list of the private sector partner's event of default including catch-all provision. In most European countries except in Belgium where broader definition is used, itemized list approach is adopted. Private sector partner's events of default should be qualified by appropriate materiality tests and be subject to cure periods. In almost every European country, PPP contracts typically contemplate some level of compensation payment following termination for the private sector partner's default. However, approach for

calculation of compensation varies from country to country. Market value approach has been adopted in England, Netherlands, and Belgium whereas Book value approach has been adopted in Italy, Germany, and Spain. France and Turkey has adopted Debt approach to calculate the compensation in case of the private sector partner's default. Recently, United Kingdom has adopted a more balanced approach known as "Fair value compensation" approach. Advantages and disadvantages of the four approaches mentioned above are discussed in detail in the Table below.

**Table 12: Private Sector Partner's Default – Compensation Approaches**

| <b>Approaches for Determination of Termination Compensation<br/>(in case of private sector partner's default)</b> |  |   |
|---|--|---|
| <b>Approach</b>   | <b>Advantages</b>  | <b>Disadvantages</b>  |
| Market value approach <sup>18</sup>   | <ul style="list-style-type: none"> <li>• In-principle the fairest approach</li> </ul>  | <ul style="list-style-type: none"> <li>• Re-tendering to find market value will be costly affair</li> <li>• Volatile market may yield unfavourable results</li> </ul>   |
| Book value approach <sup>19</sup>   | <ul style="list-style-type: none"> <li>• Relatively simple to apply and entails minimal cost</li> </ul>  | <ul style="list-style-type: none"> <li>• Compensation calculation may be problematic because accounting rules may change over time</li> <li>• Risk of underpayment or overpayment</li> <li>• Estimation of rectification cost may lead to disputes</li> </ul> |
| Debt approach <sup>20</sup>   | <ul style="list-style-type: none"> <li>• More attractive to lenders</li> <li>• No dependency on accounting rules</li> <li>• Relatively simple to apply and entails minimal cost</li> </ul> | <ul style="list-style-type: none"> <li>• Public sector may have to pay for additional costs such as hedging cost</li> <li>• Doesn't take into account actual project performance till termination date</li> </ul>   |
| Fair value approach <sup>21</sup>   | <ul style="list-style-type: none"> <li>• Takes into account the actual project performance till termination date</li> </ul>  | <ul style="list-style-type: none"> <li>• Estimation of future cash flows complex and may lead to disputes</li> </ul>  |

<sup>18</sup> **Market value approach** – Compensation is driven by the market value of the contract at the point of termination.

<sup>19</sup> **Book value approach** – Compensation is based on the actual investment costs incurred for the construction of the project.

<sup>20</sup> **Debt approach** – Compensation is calculated by reference to the senior debt outstanding at the time of termination.

<sup>21</sup> **Fair value approach** - Compensation is determined through the net present value of the future cash flow of the PPP contract over its remaining life (to which "rectification and other such costs" are deducted). This is another form of Market value approach in case there is no liquid market for the project.

| Approaches for Determination of Termination Compensation<br>(in case of private sector partner's default) |  |   |
|---|--|---|
|   |  | <ul style="list-style-type: none"> <li>In case the NPV of future cash flows is sufficient to pay senior debts, senior lenders will have less incentive to rescue an ailing project</li> </ul> |

Though Market value approach is fairest approach for calculating compensation amount, it is very difficult to implement in a less mature market. Therefore, this approach should not be adopted for a dry port project in Asia-Pacific region. Next fairer approach, the Fair value approach may lead to disputes. Considering the lenders confidence in a less mature market, Debt approach in which compensation is calculated by reference to the senior debt outstanding at the time of termination should be adopted for a dry port project in Asia-Pacific region. In case of the private sector partner's default, the public sector pays the termination compensation only to the senior debtor. No compensation is paid to the equity investors. For a dry port project in Asia-Pacific region, termination compensation in case of the private sector partner's default should be as per the Table below.

**Table 13: Private Sector Partner's Default – Proposed Compensation**

| Termination Compensation – Private Sector Partner's Default |   |
|---|---|
| Party to be Compensated                                     | Lenders (Only Senior lenders)   |
| Amount Calculation  | i. the loans outstanding at the date of the prepayment;<br>ii. interest due up to the date of the prepayment;<br>iii. any delayed interest, penalty on late payments and unpaid fees; and<br>iv. Breakage costs associated with the hedging agreements and fixed-interest rate loans minus any profits due to early termination of hedging agreements |
| Remarks (if any)  | In budgeting / accounting for the PPP project, the public sector should take breakage costs into account as contingent liabilities  |

Lenders' step-in rights are important provisions for the bankability of PPP projects. They give the lenders the ability to rescue a project if the private sector partner has defaulted on one of its key obligations by taking remedial action before the public sector terminates the contract. In doing so, lenders will aim to protect their loan. Step-in typically involves the appointment of a suitable substitute private sector partner. In most European countries including England, lender's step-in rights are provisioned in the PPP contracts.

### C. Force Majeure

Under a PPP contract, both the public sector and the private sector partner should have the right to terminate the contract in case of force majeure events. In a PPP project, the occurrence of a force majeure event will raise two important issues: the extent to which the private sector partner is compensated during force majeure events and whether the PPP contract should be terminated if a force majeure event persists for a significant period of time. To reduce uncertainties, PPP contracts should have itemized list of force majeure events including catch-all provisions. Compensation amount in case of force majeure should

take into consideration the debt services obligations of the private sector partner under the financing agreement and any insurance coverage. Further, if the force majeure exists for a prolonged duration, TPs should give opportunity to both the parties to terminate the contract. In most jurisdictions it is considered that force majeure is neither party's fault and, therefore, the financial consequences resulting from a force majeure event should be shared. Hence, it is recommended that the termination compensation in case of force majeure event should cover sums owed to the senior lenders (e.g. debt outstanding, unpaid interest, hedging breakage costs), the equity contributions paid in by investors minus insurance cover.

Based on above assessments, the Draft heads of agreement for a dry port PPP project should have clauses reflecting upon the "Termination Provisions" structure. Some of the key consideration in the Draft heads of agreement regarding the "Termination Provisions" structure could be:

- ▶ Public sector's default
  - Key events of default shall include:
    - Public sector body gets dissolved by the Government under any law
    - Expropriation or compulsory acquisition by any public sector of the Project/Project Facilities or part thereof
    - Default under escrow arrangement in providing funds for the mandatory capital works by the public sector
    - Failure to perform or discharge any of its obligations under the Contract including financing and development of utilities and infrastructure including rail heads and internal/external rail links
    - False or misleading representations or warranties
    - Public sector commits a breach of a material provision of the Contract
  - Compensation amount shall be determined as below:
    - For lenders – debt outstanding, interest due, any penalty or fees, and breakages costs
    - For equity investors – NPV of investor's future equity cash flows projected in the base case cash flow projections
- ▶ Private sector partner's default
  - Key events of default shall include:
    - Private sector partner becomes insolvent or bankrupt
    - Change in shareholding in deviation from the provisions under the contract
    - Failure to maintain Performance Security<sup>22</sup> for a period more than 30 days
    - Failure to achieve Commercial Operation Date (COD) on or before COD long-stop date<sup>23</sup>

<sup>22</sup> Performance Security is a type of guarantee sought by the public sector from a financial institution which assumes liability in the event that the private sector partner breaches an obligation under the PPP contract and is unable to rectify the default itself.

<sup>23</sup> COD long-stop date means the date after scheduled COD by which the private sector partner must start the commercial operation of the PPP project.

- Failure to maintain Hand over Performance Guarantee within stipulated time
  - Default under escrow arrangement
  - Failure to pay lease fee and revenue share (if any) for any term and 30 days has elapsed
  - Failure to perform or discharge any of its obligations under the Contract including meeting operational standards specified in the Contract
  - False or misleading representations or warranties
  - Private sector partner commits a breach of a material provision of the Contract
- Compensation amount shall be determined as below:
    - For lenders (senior lender) – debt outstanding, interest due, any penalty or fees, and breakages costs
    - For equity investors – Nil

► Force Majeure

- Itemized list of the “Force Majeure” events: acts of God, accidents, wars, act of wars, invasions, acts of public enemies, hostilities (whether war is declared or not), restriction on trade or other activities imposed by any sovereign nation or state, embargoes, blockades, revolutions, riots, civil commotions, acts of terrorism, sabotage, industry-wide strikes, fires, explosions, earthquakes or any other natural disasters, epidemics, public health emergencies and any similar cause
- In case of Force Majeure during construction period, a reasonable extension shall be given to the Concessionaire for achieving Commercial Operation Date (COD)
- During operation period, if a Party fails to perform its obligations under the contract continuously for more than 12 (twelve) months as a result of any Force Majeure event, the either party may terminate the contract by issuance of Termination Notice
- Upon termination, the public sector shall return the performance security to the private sector partner and compensate the project sponsors in following manner:
  - (Debt outstanding, unpaid interest, hedging breakage costs for senior lenders) plus (equity contribution without any return) minus (insurance cover)



## 2.8 Hand-back Provisions

For a long-term contract, the public sector is concerned about hand-back provisions because conditions of the asset at the end of the contract would have financial implications on the public sector that has to operate and maintain the facility after handover. Private sector partner may not have sufficient incentive to invest in maintenance and capital improvements at the end of the contract. In most PPP projects, public sector has recognised this risk and has used various strategies including hand-back audit, letters of credit, and maintenance reserve fund to mitigate the risk. Sometimes, an alternate strategy is adopted in projects with revenue sharing arrangements. Just prior to termination, a portion of the revenue (apart from revenue share) for specific duration before termination is locked in the escrow account as a security for hand-back investment by the private sector partner as per the requirement. At the end of the contract or upon early termination, the private sector partner has to handover project assets and facilities to the public sector in good condition subjected to normal wear and tear.

Hand-back provisions are necessarily project specific because of the types of assets and specific project characteristics involved in each agreement. In a dry port projects, there are two types of assets – utilities and infrastructure and facilities and equipment. As recommended earlier that utilities and infrastructure including rail heads and internal/external rail links shall be provided by the public sector and facilities and equipment shall be provided by the private sector partner, there could be two options for transfer of assets upon termination – 1) Complete handover, and 2) Partial handover. In complete handover, entire assets will be handed back to the public sector whereas in partial handover, the private sector partner shall have the rights to withdraw the facilities and equipment at the end of the contract. There are advantages and disadvantages of both the options as discussed in the Table below.

**Table 14: Assessment of Hand-back Options**

| Hand-back Options |  |   |
|-------------------|--|---|
| Option            | Advantages   | Disadvantages   |
| Complete handover | <ul style="list-style-type: none"> <li>• Simple and tried approach</li> <li>• More attractive for the private sector partner</li> <li>• Better value for money for the public sector</li> <li>• Smooth operation during handover period</li> </ul> | <ul style="list-style-type: none"> <li>• Handover process would be more time taking as it would involve entire assets</li> </ul>  |
| Partial handover  | <ul style="list-style-type: none"> <li>• Better maintenance of facilities and equipment as it would offer more incentive for the private sector partner</li> </ul>   | <ul style="list-style-type: none"> <li>• Less attractive for the private sector partner</li> <li>• Costlier affair for the public sector as large investment would be required in new facilities and</li> </ul> |

| Hand-back Options |  |   |
|-------------------|--|---|
|                   |  | <p>equipment</p> <ul style="list-style-type: none"> <li>• Dry port operations may get adversely affected</li> </ul> |

Though partial handover would ensure better maintenance of the project assets, it is undesirable by both the public sector and the private sector partner due to different reasons. Moreover, there are high chances of operations getting affected in partial handover. Therefore, complete handover is recommended for the dry port PPP project.

Hence, the Draft heads of agreement for a dry port PPP project should have clauses reflecting upon the “Complete handover” structure. Some of the key consideration in the Draft heads of agreement regarding the “Complete handover” structure could be:

- ▶ Private sector partner shall hand back the peaceful possession of the dry port area including entire project assets (infrastructure and utilities and facilities and equipment) in good condition subjected to normal wear and tear to the public sector upon termination of the contract.
- ▶ Private sector partner upon its cost shall transfer any rights, titles, and interests in any project asset to the public sector and execute such deeds and documents as may be necessary for the purpose.
- ▶ Public sector shall not have any obligations to the third party including any compensation obligations.
- ▶ Public sector shall appoint an independent expert sufficiently in advance of the termination date to perform hand-back inspection, estimate hand-back investment requirement, prepare hand-back program, monitor the activities of the private sector partner and issue a hand-back certificate to the private sector partner.
- ▶ Revenue rights shall remain with the private sector partner during hand-back period.
- ▶ Private sector partner shall adhere to the hand-back program and shall be responsible for investment.
- ▶ Failure to make required hand-back investment shall result in forfeiting of the Performance Security upon in case of termination due to natural expiry of the contract. In case of termination due to event of default, hand-back investment shall be deducted from the termination payments.

### 3 Summary

Table below summarizes the chapter by capturing key issues and recommended alternative for development of dry port project on PPP mode.

**Table 15: Summary of Key Issues and Recommended Alternative**

| Issue                             | Recommended Structure / Alternative  |
|-----------------------------------|--|
| Land ownership                    | “Public sector land ownership” option (single ownership by the public sector) is recommended   |
| Capital investment                | <p>“Combined Capital Investment model” is preferred (Utilities and infrastructure including rail heads and internal/external rail links by the public sector and facilities and equipment by the private sector partner)</p> <p>Alternatively, in case of rail heads and internal/external rail links, responsibility for development of internal railway tracks and rail heads may be given to the private sector whereas responsibility for connecting the dry port with a sea port through sufficient capacity railway links shall be given to the public sector.</p> |
| Demand risk                       | To be borne by the private sector partner  |
| Tariff determination              | To be determined by the private sector partner   |
| Revenue rights and Profit sharing | Revenue rights to lie with the private sector partner, however the public sector entitled to a fixed percentage of revenue share during the operation period   |
| Number of operators               | “Single concessionaire model” is recommended   |
| Customs Clearance responsibility  | Responsibility should remain with the public sector, however duties or charges shall be levied and collected by the private sector partner on behalf of the public sector  |
| Fiscal incentives                 | As per applicable laws and policies in a country   |
| Termination provisions            | <ul style="list-style-type: none"> <li>Public sector’s default – lenders (outstanding debts, interests, etc.) and equity investors (NPV of future equity cash flows as per base case)</li> <li>Private sector partner’s default – senior lender (outstanding debts, interests, etc.) and equity investors (nil)</li> </ul>   |
| Hand-back conditions              | “Complete handover” model is recommended   |

Based on recommendations on various issues discussed in this volume, Draft heads of agreement / Model Agreement has been prepared and submitted as Volume-II of the Final report.

