Development of Appropriate Investment Models for Multimodal Transport Terminals in Sri Lanka

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Research submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in Supply Chain Management

Department of Transport and Logistics Management

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DECLARATION OF ORIGINALITY

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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STATEMENT OF THE SUPERVISOR

The candidate has carried out research for the MBA in Supply Chain Management in the Department of Transport and Logistics Management of University of Moratuwa under my supervision.

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ABSTRACT

Though Multimodal Transport Terminal is a novel infrastructure development experience to Sri Lanka; the concept of "Multimodal Transport" is not. Nowadays the concept has become much popular than ever since it has been playing major role in international and local transportation in both passenger and cargo movements. The Government of Sri Lanka (GOSL) have taken necessary measures to introduce Multimodal Transport Terminals (MTTs) to the country's transport family as it has been identified as a major solution to streamline the infected transport systems in the country. But no scientific research has been conducted yet to identify the best fit Ownership, Facility Management and Terminal operation models for the introducing MTTs in Sri Lanka. This is the gap that has been bridged by this research project.

The project consists of three main objectives;

1) To identify the existing ownership, facility management and terminal operation models that are successfully practiced in transport terminals in the global context.
2) To examine the existing ownership, facility management and terminal operation models that are successfully practiced in different disciplines (including transportation) in Sri Lankan context.
3) To develop the best fit ownership, facility management and terminal operation models for multimodal transport terminals in Sri Lanka.

The identification of existing ownership, facility management and terminal operation models that are successfully practiced in transport terminals in global context have been done covering all three main transport modes; maritime, aviation and land transportation and several scenarios are discussed with the different institutional structures applied including their successes and failures. Different models were introduced representing most of the components in Public Private Partnership (PPP) spectrum. Thus it has been concluded that most of the global scenarios with mega investments that have followed PPP frameworks have become successful. Further the PPP model provides the enough freedom for the private partners to improve their efficiencies and public sector influence

helps to keep them on the correct track until it reaches the expected socio economical outcomes and the partnership always pushes the project to reach its maximum outcomes.

The examination of the existing ownership, facility management and terminal operation models that are practiced in different disciplines (including transportation) in Sri Lankan context have been carried out by analyzing the scenarios across all three sectors maritime, aviation and land transportation and non-transportation disciplines. It has been concluded at the end of the analysis that there are several government owned and partially government owned models that are already practiced in Sri Lanka even without properly established direct legal support from the legislature. The government's intention on future infrastructure projects is to invest with partially government owned structures with the participation of private partners as it allows them to concentrate more on social oriented projects where in others parties are not interested. PPP initiatives are not novel to the country; but they have been developed case by case as fulfill the requirements of the partners at that particular point. Unlike other countries with well-established PPP frameworks; Sri Lanka lacks common PPP framework adopted by government which is crucial for infrastructure development projects that bears a commercial value and to attract potential private partners.

Having analyzed all the scenarios from global and local contexts mentioned in the first two objectives the solutions for the main research problem have been developed based on two structural formations.

I. Public Models
II. PPP Models

Seven optional models have been introduced at the end of the analysis including four public models (GGG, GGP, GPG, GPP) and three PPP models ([G+P]PG, ([G+P] PP, ([PPP]+G) that can be applied successfully with in Sri Lanka. It has been highlighted that the current socio political environment of the country is yet not mature enough to bear the weight of some of the models introduced.

Further, having considered the existing environment of the country; an especial implementation process for the proposed models has been introduced and it is suggested to initiate the application of the proposed models with "Public Models" (like GGP or

GPP) and evaluate the progress of them and then move towards the “PPP Models” which have been concluded as the best fit sustainable models for MTTs in Sri Lanka.

If it is the “PPP Models” that are most sustainable to the country; a well-established PPP framework is a must for the success of the MTT projects. This research has formulated “Final Draft of the PPP framework for MTTs in Sri Lanka”. And it is recommended as a future research opportunity which is a necessity before implementation the best fit models.

(Key Words: Multimodal Transport, Ownership Models, Facility Management, Terminal Operations, Public Private Partnership, Framework)

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W.S.N. Indika

LIST OF ACRONYMS

GOSL	Government of Sri Lanka
MTT	Multimodal Transport Terminal
PPP	Public Private Partnerships
SLPA	Sri Lanka Ports' Authority
AASL	Airport and Aviation Services Limited
RDA	Road Development Authority
SLR	Sri Lanka Railways
SLTB	Sri Lanka Transport Board
CAA	Civil Aviation Authority
NTC	National Transport Commission
SCPD	Strategic Cities Development Project
WB	World Bank
ADB	Asian Development Bank
JCT	Jaya Container Terminal

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1 INTRODUCTION

1.1 Introduction

"Multimodal Transport" can be defined as the usage of two or more different modes to complete trips between origins and destinations where the traveler/ freight has to make a transfer (Nes, 2002). A "Terminal" may be defined as any facility where passengers and freight are assembled or dispersed. More specifically; any location where freight and passengers either originates, terminates, or is handled in the transportation process (Slack & Rodrigue, 2017). A multimodal transport facility has to be governed by the best possible Ownership, Management and Operation models that suits to the particular context in order to generate the near perfection outcomes. This ideology leads to the Development of the Ownership, Facility Management and Terminal Operation Models for Multimodal Transport Terminals in Sri Lanka.

Sri Lanka's current transport networks including their infrastructure facilities have been developed at different times in history for different purposes. In ancient times, especially from 6-7 B.C to 14 A.D; the chronicles such as Mahawansa and Deepawansa mention about the road networks and transport facilities which were catered to the agricultural economy and the basic needs of intra and inter zonal transportation requirements and also the international trade requirements which came through the silk route. After the invasion of the Europeans in 15th century the transportation plans were influenced by the rulers' perception on economic and political requirements and territorial transport plans were created. But after 1815, the British Government connected different locations all over the country through a road and rail transport network/ facilities and their main objective was facilitating the plantation based economy (coffee, tea, rubber, cinnamon, and other spices) and improving the accessibility to the main regional governing bodies. Because of these factors Colombo developed as the commercial city and Kandy developed as the second major city in the country. Port of Colombo and Trincomalee developed as the main ports and the canals were developed as a way to bring their tradable goods from the hinterland.

After 1948, though Sri Lankans had their own Parliament, it was unable to develop transport systems holistically and to build new network and facilities catering to the

modern and future requirements. The governments maintained the same rail and road network used by the British. Then during next three decades, the land (road, rail), water and air transport systems and facilities were developed only ad-hoc but not in an integrated manner. Because of this some of the modes completely went out of the networks (canal transportation, tram cars, etc.). Further after 1980s the terrorism caused further reduction of existed rail, road and air networks and their infrastructure facilities making numerous adverse effects to the economy and the development of transport systems.

With the emergence of the peaceful environment in 2009, the country's economy was getting started to boost and it has clearly proved by both local and international institutes such as Central Bank, World Bank and ADB. To improve the momentum of that growth, all existing systems such as road, rail, public, air and water should be developed not in the way that they had developed in the past, but in a holistic manner. Asian Development Bank's sector paper "Sri Lanka Country Assistance Program Evaluation: Transport Sector" (Bestari, Assistance, & Evaluation, 2007) has clearly identified this problem as an issue to be considered at their development plans too.

Since country's transport systems have been developing in isolation; the required legal and policy formations for multimodal transport terminals have to be crafted or re-formed as it encourages Multimodal Transportation. For an instance; being a government department Sri Lanka Railways legally cannot sign in with another entity regarding their operations for the purpose of financial benefit. This conventional legislation directly discourages the modern multimodal transportation concept. This has become a barrier to create a multimodal transport terminal in all three aspects (Ownership, Facility Management and Terminal Operations) that forms through public private partnership. Though many developing and developed countries have designed different kind of models for their own Multimodal Transport Terminals; they are not directly applicable to the Sri Lankan context due to numerous reasons such as regulatory and policy mismatches. The final models presented at the end of this research will be a primary platform to overcome these barriers related to Sri Lanka.

1.2 Problem Statement

During last few centuries Sri Lanka's transport systems have been developing individually with less integration with other transport modes available. Especially in past, they were developed mostly based on the socio economic requirements then and there but without a proper future overview. Therefore, the compatibility of those networks to the present context is questionable. Though, the new constructions of transport infrastructure have taken place, the absence of integration between different transport systems and lack of holistic outlook was there. Also it is questionable whether the existing transport systems and facilities really address the derived demands created by the present socio economic patterns and future development plans. Thus during last few years; "lack of holistic approach" issue has been addressing with the introduction of "Multimodal Transport" aspects to the existing, developing and planning transport networks by the respective government bodies with the consultation of industry experts. Development of the compatible "Multimodal Transport Terminals" that any location where freight and passengers either originates, terminates, or is handled in transportation process is paramount to gain the near perfection outcomes expected from the designed Multimodal Transport Networks. This research intends to research and identify the best fit models; namely ownership, facility management and terminal operation models to a Multimodal Transport Terminal that can be applied in the Sri Lankan context.

1.3 Research Objectives

There are three research objectives which are to be accomplished at the end of the project.

1) To identify the existing ownership, facility management and terminal operation models that are successfully practiced in transport terminals in the global context.
2) To examine the existing ownership, facility management and terminal operation models that are successfully practiced in different disciplines (including transportation) in Sri Lankan context.
3) To develop the best fit ownership, facility management and terminal operation models for multimodal transport terminals in Sri Lanka.

Identification of the existing Ownership, Facility Management Concession and Terminal operation Models that are successfully practiced in Transport Terminals in global context can be accomplished by an extensive literature survey to study the real world applications in different scenarios. It reveals the applicability of different models if different contexts. The investigation on different established structures in different organizations in different fields including field visits will direct to examine the existing ownership, facility management and terminal operation models that are practiced in different disciplines (including transportation) in Sri Lankan context. Having understood the both existing world and Sri Lankan scenarios, it is expected to develop and test the best fit models for Multimodal Transport Terminals in Sri Lanka.

1.4 Research Methodology

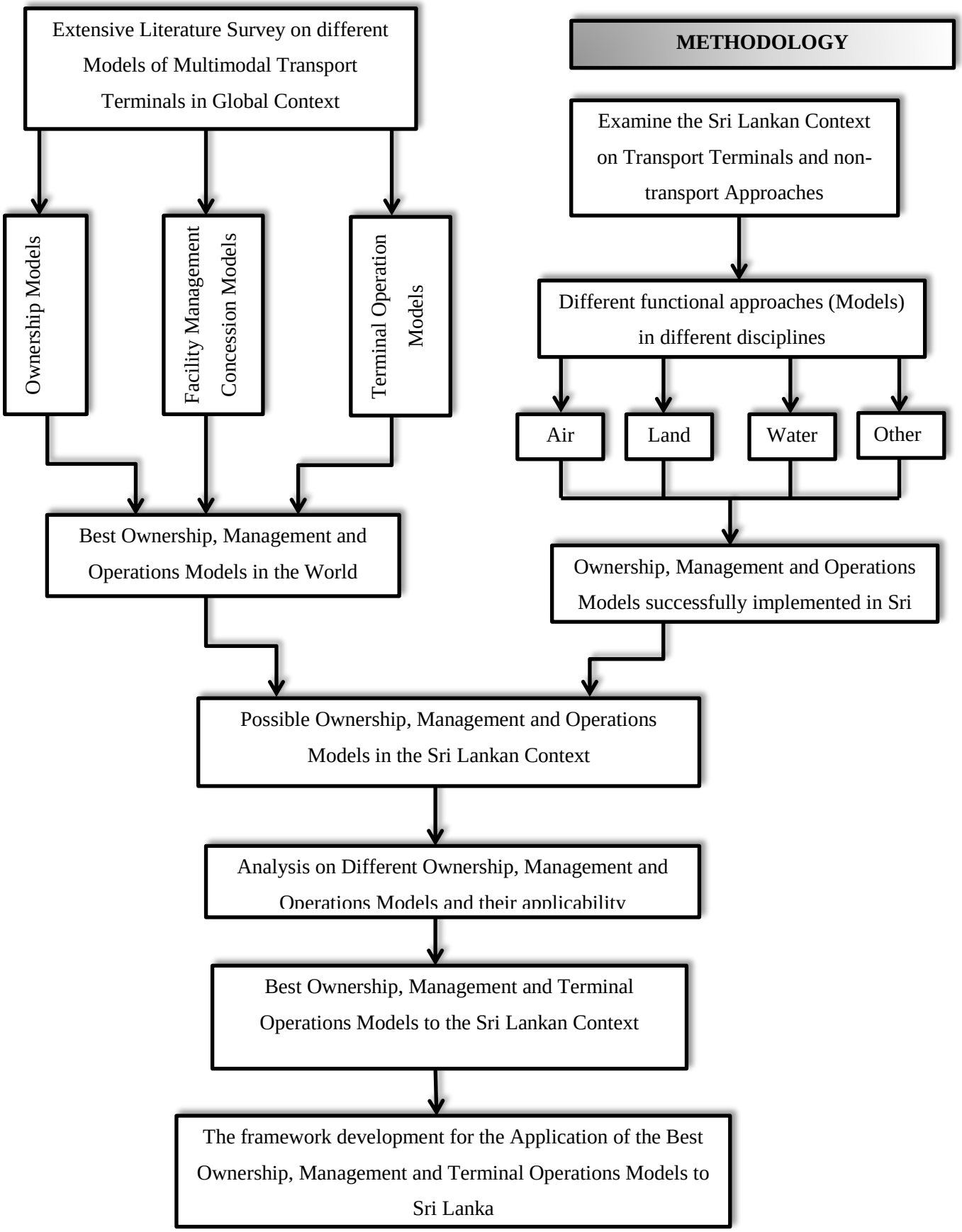

Figure 1-1: Research Methodology

1.5 Scope of Research

The main focus of this research project is to develop the ownership, facility management and terminal operation models for Multimodal Transport Terminals that are to be constructed in Sri Lanka following the emergence of the Multimodal Transport Networks consists of different transport systems in the country. The ownership model reflects the composition of the ownership of the multimodal terminal and the facility management concession model uncovers the management structures of the facility in different aspects. Terminal operation model reveals the best way and standards that the terminal should be operated to maximize the efficiency, the resource utilization and the revenue generation. The three models; the final outcomes of the research are expected to be applied in all the multimodal terminals that have been drafted to be implemented all over the island with appropriated changes based on the particular context. Further the final models may take different formation based on the type of the terminal handlings; whether it is passenger or cargo or both.

1.6 Chapter Plan

The Chapter breakdown will be as follows;

1) Chapter 1: Introduction
2) Chapter 2: Literature Survey
3) Chapter 3: The Global Context
4) Chapter 4: The Sri Lankan Context
5) Chapter 5: Research Methodology
6) Chapter 6: Research Analysis and Discussion
7) Chapter 7: Conclusion and Future Directions

All most all the activities of the research project can be included in to above main chapters and necessary sub topics has to be defined according to the functions and different areas addressed in different aspects.

2. LITERATURE REVIEW

2.1 Introduction

This section provides an overview to the research project and the topic by elaborating the definitions of different kind of terminologies, concepts and theories related to Multimodal Transportation and the development of the Ownership Facility Management and Terminal Operation models. The next two chapters are the chapters that provide the real inputs for the first two objectives of the project but the strong foundation for the basic concepts are done through this chapter.

2.2 Multimodal Transport

"Multimodal Transport" can be defined as the usage of two or more different modes to complete trips between origins and destinations where the traveler/ freight has to make a transfer (Nes, 2002). The report Implementation of Multimodal Transport Rules prepared by United Nations Conference on Trade and Development (UNCTAD Secretariat, 2001) the most authoritative definition is provided in article 1 (1) of the United Nations Convention on International Multimodal Transport of Goods 1980 which reads as follows:

"International multimodal transport" means the carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract from a place in one country at which the goods are taken in charge by the multimodal transport operator to a place designated for delivery situated in a different country..."

World Free Zone Convention-IZMIR, International Conference defines multimodal transportation in their paper named Overview of Trends in Multimodal Transport (Al-Muhaisen, 2005) as;

"The chain that interconnects different links or modes of transport -air, sea, and land in to one complete process that ensures an efficient and cost-effective door-to-door movement of goods under the responsibility of a single transport operator, known as a Multimodal Transport Operator (MTO), on one transport document".

All the above definitions basically discuss about the multimodal freight transportation between different countries and its procedure which is accepted by the international community at the conference of United Nations. But the required essence of it is the way that the UN has defined the term "Multimodal Transportation". This definition also implies the usage of number of modes to reach the final destination which was highlighted in the premier definition. Nes (2002) defines multimodal transport in the thesis named "Design of Multimodal Transport Network, A hierarchical approach" as that two or more different modes are used for a single trip between which the traveler has to make a transfer. The World Bank's report on Multi-modal Transport Networks and Logistics (Gwilliam, Multi-Modal Transport Networks and Logistics) reveals multi-modal transportation as below;

"A multi-modal transport network comprises a set of modal links joined together at nodes with modal transfer facilities."

These all definitions have been created based on two major concepts; "Multi-modalism" and "Inter-modalism". Multi-modalism refers to multiple modes of transportation which enhances the capacity across the modes. Inter-modalism refers to interconnection between multiple modes which is mainly access and destination-oriented (Oberstar Forum). These two core concepts can be easily identified in any multimodal transport network in anywhere in the world.

Like any other transport system, Multimodal Transport System focuses on both passenger and freight transportation. Basically as mentioned earlier the term "International Multimodal Transport" refers to international freight transportation which is known as international trade but not for people transportation. This occurred at the beginning of the development of the concept of multimodal transportation. In 1950's the multimodal concept developed mainly because of the invention of the container by Malcom Mc Lean. Since then, certain important developments have influenced the modern development of multimodal transport (Barghout, 2008). In 1980 the international community together with the United Nations held a convention (UNCTAD) and prepared a set of rules on multimodal transport of goods which was not in earlier. Earlier there were several rules related to carriage of goods by sea (Convention on the Carriage of Goods by Sea), train (Uniform Rules Concerning the Contract for International Carriage of Goods by Rail (CIM)), road (Convention on the Contract for the International Carriage

of Goods by Road (CMR)) and air (Conventions for the Unification of Certain Rules Relating to International Carriage by Air) which were considered as uni-mode transport systems.

Though the international goods transportation has been developing in a multimodal perspective, the passenger transportation has not been developed such because of the people's concentration on uni-mode transportation in international travelling. Passenger transportation has got a multimodal formation mostly in locally. Most countries have developed their own multimodal transport systems for people depend on the country's requirements. So there are no internationally accepted tight rules and regulations or policies and procedures for the formation of local multimodal transport systems and they are unique from country to another. Any country where transportation plays a crucial role as one of the key economic drivers should have a national multimodal transport system which creates synergetic effect to its economic growth. It facilitates not only for the economic growth but also for the improvement of public and environment health, security and safety, social cohesion, recreational linkage as well (Community Design: Multimodal and Intermodal). These ideologies have led to the development of the concept of a national multimodal transport networks in Sri Lankan context as well.

2.3 Transport Terminals

A "**Terminal**" can be defined as any facility where passengers and freight are assembled or dispersed. More specifically; any location where freight and passengers either originates, terminates, or is handled in the transportation process (Slack & Rodrigue, 2017). Passengers have to go to terminals (bus, train, ports or airports etc.) first, where they are "assembled" in loads to reach their final destinations where they are dispersed. Freight has to be consolidated at a terminal (air/ sea port, rail, yard, cargo village etc.) before onward shipment. Terminals may also be points of interchange involving the same mode of transport. Transport terminals, therefore, are central and intermediate locations in the movements of passengers and freight.

In a nutshell a Terminal is where;

"Any location where freight and passengers either originates, terminates, or is handled in the transportation process. Terminals are central and intermediate locations in the

movements of passengers and freight. They often require specific facilities and equipment to accommodate the traffic they handle"

Terminals may be **points of interchange** within the same modal system and which insure a continuity of the flows. This is particularly the case for modern air and port operations with hubs connecting parts of the network. Terminals, however, are also very important **points of transfer** between modes. Buses and cars deliver people to airports, trucks haul freight to rail terminals, and rail brings freight to docks for loading on ships. One of the main attributes of transport terminals, international and regional alike, is their **convergence function**. They are indeed obligatory points of passage having invested on their geographical location which is generally **intermediate** to commercial flows. Thus, transport terminals are either created by the centrality or the intermediacy of their respective locations. In some cases, large transport terminals, particularly ports, confer the status of **gateway or hub** to their location since they become obligatory points of transit between different segments of the transport system (Slack & Rodrigue, 2017).

2.4 Gateways and Hubs:

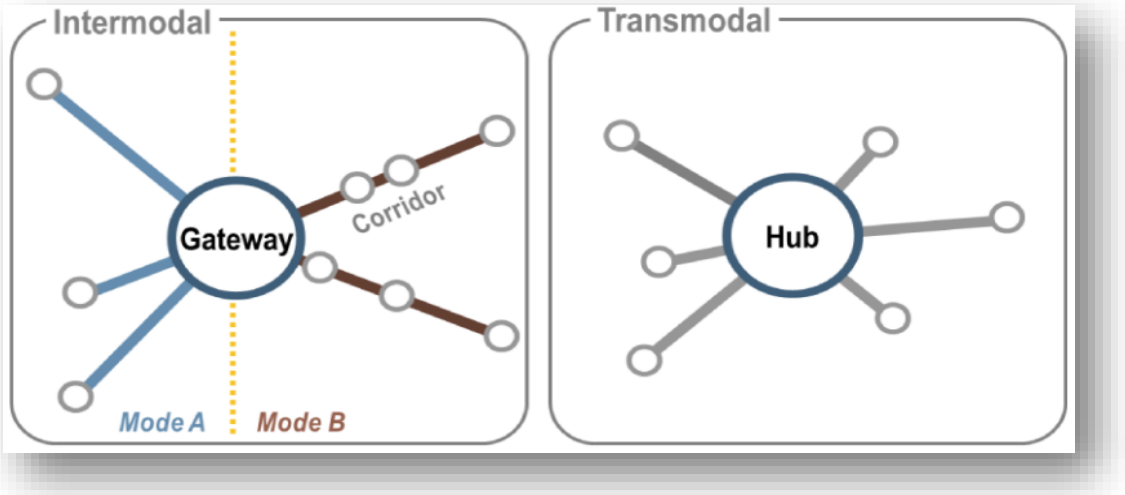

Figure 2-1: Gateways and Hubs

Gateways and hubs are locations where flows converge and the foremost expression of global connectivity. However, they differ in terms of the nature of their connectivity. While a hub is a central location in a transport system with many inbound and outbound connections of the **same mode**, a gateway commonly implies a **shift from one mode to the other** (such as maritime / land). A gateway is performing an intermodal function (between modes) while a hub is mostly trans-modal (within a mode). Transport corridors

are commonly linking gateways to their hinterland. Gateways tend to have a temporal stability as they often have emerged at the convergence of inland transport systems and through the long term accumulation of infrastructure and investments.

2.5 The Functions of Transport Terminals

A transport terminal is composed of a set of intermodal infrastructures taking advantage of a geographical location, conferring a higher level of accessibility to local, regional and global markets. Depending on the mode being considered, terminals are bound to various degrees to the site. For instance, maritime transportation terminals are particularly dependent on local conditions, especially for large port activities which can be accommodated in a limited number of locations. Airport terminals are more flexible in their locations, but still bound to specific locational constrains.

Terminals fulfill three general functions within transport systems:

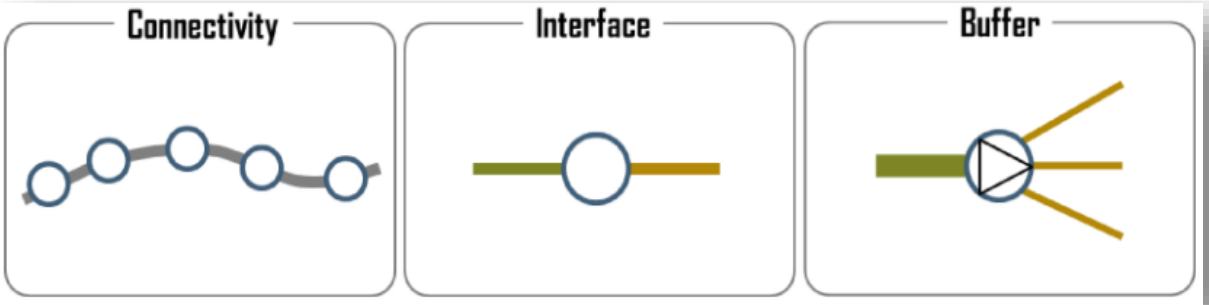

Figure 2-2: Three General Functions within Transport Systems

I. **Connectivity:** Transport terminals provide connectivity within a transport network as they are the only locations where a network can be entered or exited. For instance, subway stations are the connecting nodes of a transit network while ports and airports are the connecting nodes of maritime and air networks.

II. **Interface**: Transport terminals provide an interface between transport modes enabling passengers and cargo to transit. A port or an airport are points of interface between maritime or air and land transport systems.

III. **Buffer**: Transport terminals provide a buffer between the different capacity and frequency of the transport modes they connect, such as a port does for the maritime and land transportation systems. A containership may call a port once every two days while trucks carrying containers may come in and out of the

terminal every few minutes. A similar analogy applies to airports that act as buffers between the various levels of service of land transport systems and the scheduling of air services.

2.6 Passenger Terminals

Passenger terminals require relatively little specific equipment with one exception (Aviation). This is because individual mobility is the means by which passengers access busses, ferries or trains. Certainly, services such as information, shelter, food and security are required, but the layouts and activities taking place in passenger terminals **tend to be simple**. They may appear congested at certain times/ period of the day, but the flows of people can be managed successfully with good design of platforms and access points, and with appropriate scheduling of arrivals and departures. The amount of time passengers spend in such terminals tends to be brief. As a result, bus terminals and railway stations tend to be made up of simple components, from ticket offices and waiting areas to limited amounts of retailing than other complex modes.

Airports are of a complete different order. They are among the **most complex of terminals**. Moving people through an airport has become a very significant problem, not least because of security concerns. Passengers may spend several hours transiting, with check-in and security checks on departure and baggage pick up and in many cases customs and immigration on arrival. Planes may be delayed for a multitude of reasons, implying a complex management of gates and scheduling of flights. The result is that a **wide range of services** have to be provided for passengers not directly related to the transfer function, including restaurants, bars, stores, hotels, in addition to the activities directly related to operations such as check-in halls, passenger loading ramps and baggage handling facilities. At the same time airports have to provide the very specific needs of the aircraft, from runways to maintenance facilities, from fire protection to air traffic control.

Measurement of activities in passenger terminals is generally straightforward. The most common indicator is the number of passengers handled, sometimes differentiated according to arrivals and departures. **Transfer passengers** are counted in the airport totals even though they do not originate there, and so airports that serve as major transfer facilities inevitably record high passenger totals. High transfer passenger activity has

been enhanced by the actions of many of the leading airlines adopting hub and spoke networks(Slack & Rodrigue, 2017).

2.7 Freight terminals

Freight handling requires specific loading and unloading equipment. In addition to the facilities required to accommodate ships, trucks and trains (berths, loading bays and freight yards respectively) a very wide range of handling gear is required that is determined by the kinds of cargoes handled. Freight transport terminals have a set of characteristics linked with core (terminal operations) and ancillary activities (added value such as distribution). The result is that terminals are **differentiated functionally** both by the mode involved and the commodities transferred. A basic distinction is that between **bulk, general cargo** and **containers**.

2.8 Terminal Costs

Because they jointly perform **transfer** and **consolidation** functions, terminals are important economically because of the costs incurred in carrying out these activities. The traffic they handle is a source of employment and benefit regional economic activities, notably by providing accessibility to suppliers and customers. **Terminal costs** represent an important component of total transport costs. They are fixed costs that are incurred regardless of the length of the eventual trip, and vary significantly between modes. They can be considered as:

I. **Infrastructure costs**: Include construction and maintenance costs of structures such as piers, runways, cranes and facilities (warehouses, offices, etc.).

II. **Transshipment costs**: The costs of loading and unloading passengers or freight.

III. **Administration costs**: Many terminals are managed by institutions such as port or airport authorities or by private companies (e.g. terminal operators). In both cases administration costs are incurred.

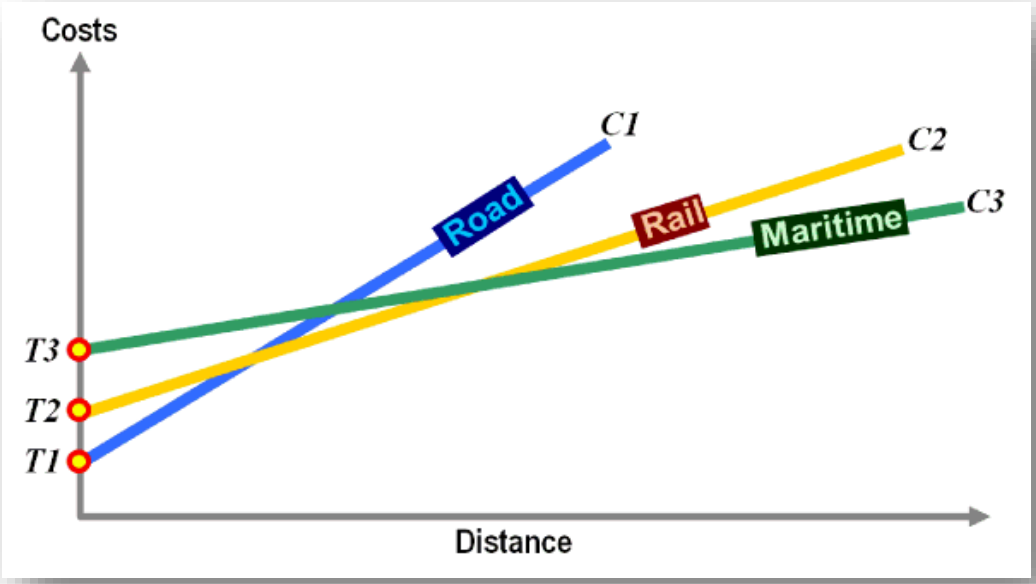

Figure 2-3: Cost and the Distance

Because ships have the largest carrying capacities, they incur the **largest terminal costs**, since it may take many days to load or unload a vessel. Conversely, a truck or a passenger bus can be loaded much more quickly, and hence the terminal costs for road transport are the lowest. Terminal costs play an important role in determining the competitive position between the modes. Because of their high freight terminal costs, ships and rail are generally unsuitable for short-haul trips.

The above graph represents a simplified assumption concerning transport costs for three modes; road, rail and maritime. The cost functions all begin at some point up the cost axis, which represents terminal costs. Because of terminal costs, maritime shipping (T3; port costs) and rail (T2) have significant disadvantage compared to road (T1) over short distances (Slack & Rodrigue, 2017).

Competition between the modes is frequently measured by **cost comparisons**. Efforts to reduce transport costs can be achieved by using more fuel-efficient vehicles, increasing the size of ships, and reducing the labor employed on trains. However, unless terminal costs are reduced as well, the benefits would not be realized. For example, in water transportation, potential economies of scale realized by ever larger and more fuel-efficient vessels would be negated if it took longer to load and off-load the jumbo ships.

Over the last decades, very significant steps to reduce terminal costs have been made. These have included introducing **information management systems** such as EDI (electronic data interchange) that have greatly speeded up the processing of information and removing delays typical of paper transactions. The most significant development has been the mechanization of loading and unloading activities. Mechanization has been facilitated by the use of units of standard dimensions such as the pallet and most importantly, the container. The container, in particular, has revolutionized terminal operations. For the mode most affected by high terminal costs, ocean transport, ships used to spend as much as three weeks in a port undergoing loading and loading. The much larger ships of today spend less than a couple of days in port. The rail industry too has benefited from the container, which permits trains to be assembled in freight yards in a matter of hours instead of days. Many mechanized terminals are now being automated, which further expands their productivity and lowers their labor costs. Still, automation involves significant capital expenditures(Slack & Rodrigue, 2017).

Reduced terminal costs have had a major impact on transportation and international trade. Not only have they reduced over-all freight rates, and thereby re-shaping competition between the modes, but they have had a profound effect on transport systems. Ships spend far less time in port, enabling ships to make many more revenue-generating trips per year. **Efficiency in the airports, rail facilities and ports greatly improves the effectiveness of transportation as a whole** (Rodrigue and Slack 2017)**.**

2.9 Multimodal Transport Terminal Management

Simply, the Multimodal Transport Terminal is the Facility that all the multimodal transport functions mentioned above are taken place. This major infrastructure has to be governed and managed as it generates the highest expected outcomes. The target outcomes of the MTTs in Sri Lanka have thoroughly explained in the analysis chapter.

Through the SCPD project; it has been identified that this facility has to be governed and managed through a particular institutional structure as it separates in to three distinct layers namely;

I. Ownership Layer
II. Facility Management Layer

III. Terminal Operation Layer

2.10 Ownership Model

This layer consists of all the owners of the facility. It may be pure public, partially public or pure private ownership. It completely depends on the strategies of the government. The Sri Lankan strategy have been clearly elaborated in next chapters.

2.11 Facility Management Model

The facility management can be clearly demarcated from the ownership and generally this is the main revenue source of the MTT. It has to be highly efficient and always the investors/ owners are willing to have the control over this layer. The Sri Lankan approach has been revealed in the next chapter.

2.12 Terminal Operation Model

The main purpose of the MTTs is lying with this layer and all different kind terminal operators are included in this. The target users directly perceive the service of this layer and thus it has to be very smooth and efficient. The local context on this regard is explained in next chapters.

2.13 Why Three Layers?

An institutional structure like MTT basically have owners who owns the facility and take all most all the strategic decisions in order to make the project a reality deliver the expected outcome to the general public. Further it requires managers who can utilize/ optimize the asset MTT and crop the maximum benefits out of it as it can sustain with substantial commercial value. Most importantly there should be highly skillful professionals equipped with state of the art technology and technical competency to deliver the utmost quality transport services to the target market whilst retaining the above mentioned commercial margins. These three functions have become the three layers of the model since they are the ultimate pillars of a sustainable structure.

The institutional structure is a key for the success of the project and the crucial strategic decision has to be taken whether the ownership and other models are kept in pure public or pure private or in between formats. This spectrum has to be studied in depth and the next entire section of the chapter has been dedicated for this purpose. The entire ownership spectrum has been elaborated with the PPP initiative which is paramount for the entire research project.

2.14 Public-Private Partnerships (PPP)

2.14.1 Introduction to Public-Private Partnerships (PPP)

There is no universally accepted definition of PPPs and there is a wide variety of definitions of PPPs as mentioned below. PPPs may refer to informal and short-term engagements of nongovernmental organizations, the private sector and/or government agencies that join forces for a shared objective; to more formal, but still short-term private sector engagements for the provision of specific services, for example, annual outsourcing arrangements for janitorial services for a school or operations of the school cafeteria; to more complex contractual arrangements, such as build, operate, transfer regimes, where the private sector takes on considerable risk and remains engaged long term; or to full privatizations(Coleman & Gfroerer, 2012).

2.14.2 Selected PPP Definitions

(*Sources:* IMF 2004; OECD 2008; McKinsey 2009):

- **International Monetary Fund –** An arrangement where the private sector supplies assets and *services that traditionally have been provided by the government*. In addition to private execution and financing of public investment, PPPs have two other important characteristics: there is an emphasis on service provision, as well as investment, by the private sector; and *significant risk is transferred* from the government to the private sector.
- **Organization for Economic Co-operation and Development (OECD) –** An agreement between the government and one or more private partners (which may include operators and financiers) according to which the private partners deliver

a service so the *service delivery objectives of the government are aligned* with the profit objective of the private partners and the effectiveness of the alignment depends on a *sufficient transfer of risk to the private partners*.

- **European Commission** (EC, 2004): A forms of co-operation between public authorities and the world of business which aim to ensure the funding, construction, renovation, management and maintenance of an infrastructure of the provision of a service.

The Reference Guide for Public-Private Partnerships-Version 2.0 (PPPIRC, 2014) takes a broad view of PPP, as:

"A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance"

This definition encompasses PPPs that provide new assets and services, and those for existing assets and services. It can include PPPs in which the private party is paid entirely by service users, and those in which a government agency makes some or all of the payments. The project functions transferred to the private party such as design, construction, financing, operations, and maintenance may vary from contract to contract, but in all cases the private party is accountable for project performance, and bears significant risk and management responsibility.

2.14.3 Core Attributes for PPPs

"Core attributes" for PPPs have the following characteristics (World Bank, 2012):

I. A long-term agreement between a government entity and a private company, under which the private company provides or contributes to the provision of a public service.
II. The private company receives a revenue stream which may be from government budget allocations, from user charges, or a combination of the two that is dependent on the availability and quality of the contracted service. The agreement therefore transfers risk from the government entity to the private company, including service availability or demand risk.

III. The private company must generally make an investment in the venture, even if it is limited, e.g., to working capital.

IV. In addition to budget allocations, the government may make further contributions, such as: providing or enabling access to land; contributing existing assets; or providing debt or equity finance to cover capital expenditures. The government may also provide various forms of guarantee that enable risk to be shared effectively between the government and the private company.

V. At the end of the PPP contract the associated assets revert to government ownership.

2.14.4 The Spectrum of PPP

There can be many variants of PPP schemes depending on the separation of asset ownership and risk-bearing between the public and private sector actors (Roehrich, 2014). Below figure presents variations of PPPs in terms of distribution of responsibilities between the public and private sectors, asset ownership and the associated degree of public sector risk.

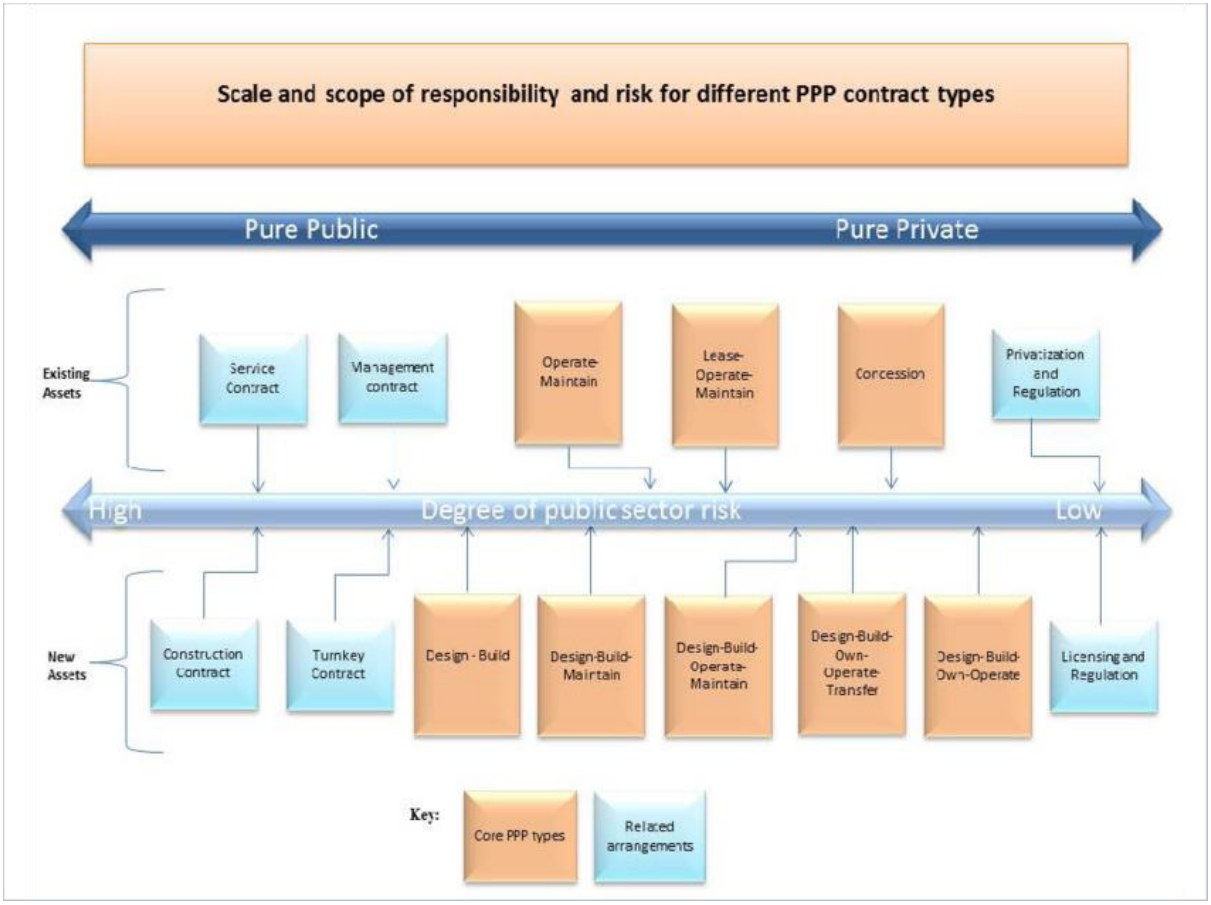

Figure 2-4: The Spectrum of PPP

Sources: Based on World Bank (2012) and Roehrich et al (2014)

Above and below figures illustrate these core types of PPP along a risk sharing dimension. Other forms of private sector involvement, located on the left side of the risk sharing spectrum for example, short-term outsourcing arrangements without incentives or private capital at stake would not fall under this evaluation; nor would construction (design-build) contracts for a new road. On the right side of the spectrum, fully privately owned licensed/regulated businesses would not meet this definition of core PPP arrangements either.

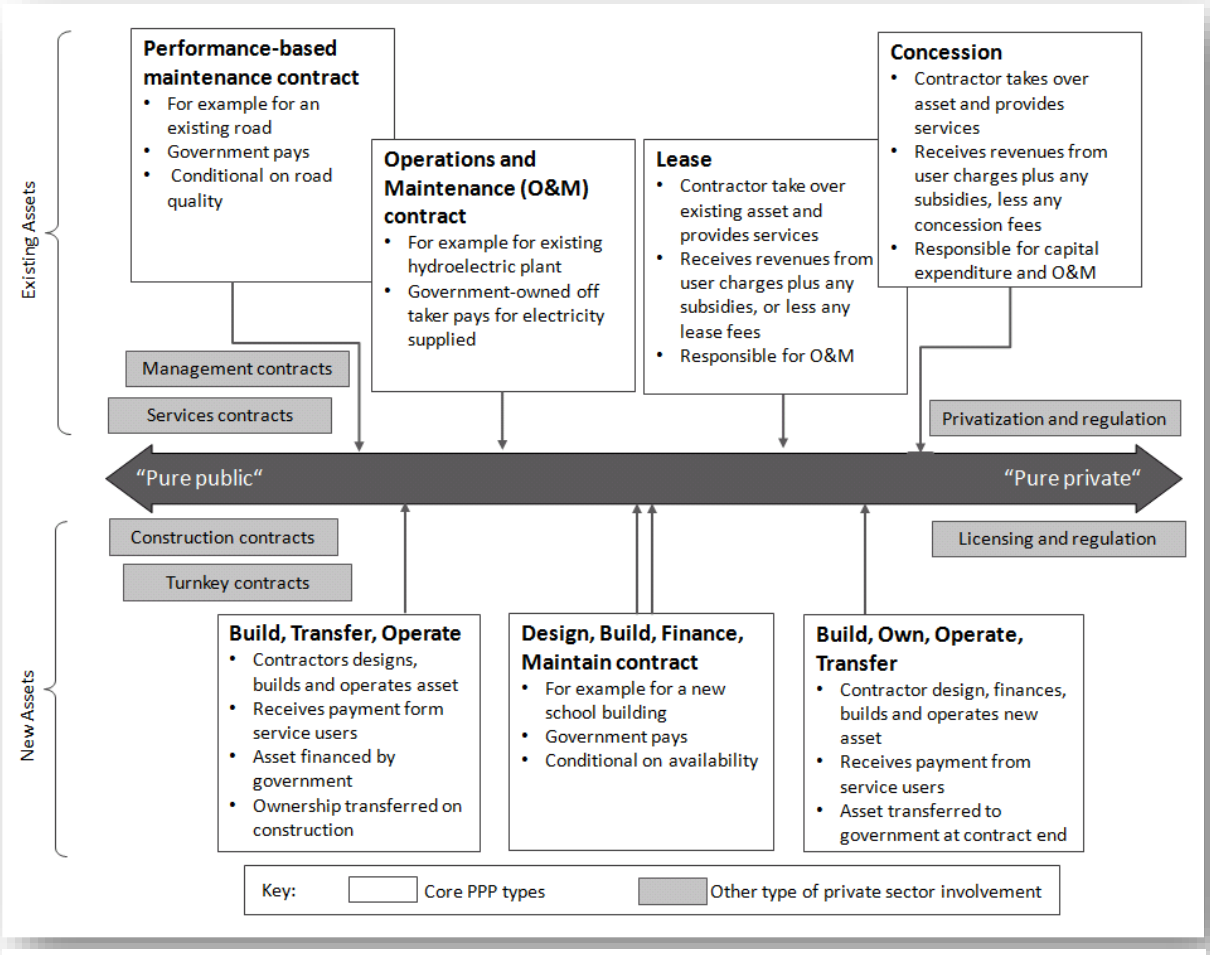

Figure 2-5: Pure Public Vs Pure Private

Sources: WBI 2012; World Bank Institute and Public Private Infrastructure Advisory Facility 2012

Conceptually, PPPs can be seen as an instrument to respond to market failures while minimizing the risk of government failure. As a general rule, private ownership is preferred where competitive market prices can be established. Under such circumstances, the private sector is driven by competition to sell goods and services at a price consumers are willing to pay and by the discipline of the capital market to make profits. However, various market failures (natural monopoly or externalities, and so forth) can justify government ownership, for example, in roads or water distribution. At times, government ownership may also be a policy choice, in particular, in the case of merit goods; these goods, for example, education, would be under-consumed as the average consumer makes decisions based on an individualistic assessment of benefits and within a short-term horizon. But governments which deliver these services because of *market failure* or positive externalities in the first place may subsequently struggle, as they may have

difficulties operating efficiently or containing the costs, or may lack the capability to achieve a desired quality standard, or both. In other words, **government failure can simply substitute or may follow market failure**. These arguments can be used to motivate PPPs as an instrument that combines the relative strength of government and private provision in a way that responds to market failure but minimizes the risk of government failure(Coleman & Gfroerer, 2012).

2.15 Definitions for different types of partnerships

The **National Council for Public-Private Partnerships** (NCPPP – located in 2020 K Street, NW, Suite 650 Washington, DC 20006) defines the different types (total of 18) of partnerships as mentioned below and clearly highlights the fact that;

"Public-Private Partnerships come in a variety of forms and no two PPP projects are exactly alike"(National Council for Public-Private Partnerships, 2016)

Table 2-1: Different Types of PPPs

No.	PPP Type	Description
1	O&M	Operations and Maintenance
2	OMM	Operations, Maintenance & Management
3	DB	Design-Build
4	DBM	Design-Build-Maintain
5	DBO	Design-Build-Operate
6	DBOM	Design-Build-Operate-Maintain
7	DBFOM	Design-Build-Finance-Operate-Maintain
8	DBFOMT	Design-Build-Finance-Operate-Maintain-Transfer
9	BOT	Build-Operate-Transfer
10	BOO	Build-Own-Operate
11	BBO	Buy-Build-Operate
12	DF	Developer Finance
13	EUL	Enhanced Use Leasing or Underutilized Asset
14	LDO or BDO	Lease-Develop-Operate or Build-Develop-Operate
15		Lease/Purchase

16		Sale/Leaseback
17		Tax-Exempt Lease
18		Turnkey

2.16 Rationale for Supporting PPPs

The rationale for the World Bank Group's support to PPPs is based on the claim that PPPs have the potential to close the infrastructure gap by leveraging scarce public funding and introducing private sector technology and innovation to provide better quality public services through improved operational efficiency. Improving the provision of infrastructure and social services through higher levels of efficiency and quality contributes directly to growth and poverty reduction. (Coleman & Gfroerer, 2012).

However, countries and markets need to be sufficiently mature to apply the concept of PPPs wisely. Success in PPPs is contingent on certain arrangements:

(i) Clear and stable market rules;
(ii) Sound and predictable legal and regulatory environments; and
(iii) Well-designed projects, including appropriate risk allocation.

This implies that government authorities need to be sophisticated enough to develop sector reform policies, assess fiscal risks associated with PPPs, base their decision of public procurement versus PPP on comprehensive value for money assessments, and have impartial transaction advisory at hand to make PPP deals bankable and sustainable. In contrast, markets also need to be sufficiently liquid, that is, having enough potential investors with adequate regional experience in bidding for PPPs in an economy with available long-term capital. The World Bank Group, with its private and public sector arms, can potentially play a crucial role in "readying" countries to use PPPs and in assisting in specific PPP transactions(Coleman & Gfroerer, 2012).

2.17 The Public Sector Finance Perspective of PPPs

Contrary to intuition, PPPs generally do not provide additional resources for the public sector. Governments can finance their public infrastructure investments just as well as private firms. Only when governments are credit constrained and thus cannot

borrow, may private finance be superior. When governments do not have credit constraints, the primary effect of private finance in PPP arrangements is that the investment becomes more affordable within annual authority budgets and better matches user benefits, allowing governments to realize infrastructure investments earlier. PPPs mobilize private sector resources to cover the capital expenditure costs up front (or at least most of it) and make the public sector pay during delivery of the services, either through availability payments or usage payments (shadow toll) or a combination thereof (see figure below). Only if PPPs introduce fees for actual end users do they effectively increase total government revenues and funding. Hence the primary advantage PPPs may offer over traditional public procurement is potential efficiency gains that privately led construction and maintenance may bring, partly offset, however, by higher capital costs of the private investor.

Sources: PricewaterhouseCoopers Advisory Services 2005; World Bank 2012b; Klein 2012.

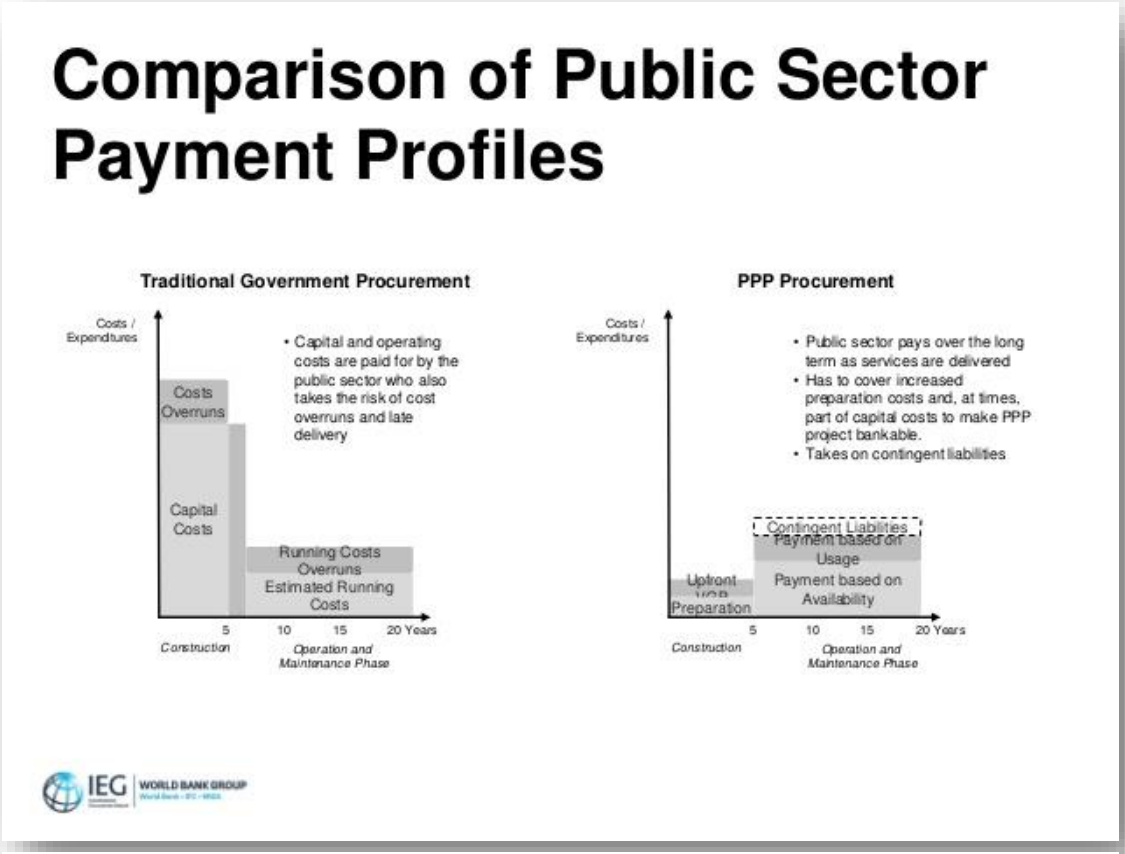

Figure 2-6: Comparison of Public Sector Payment Profiles

Note: VGP = viability gap funding.

2.18 PPP Risk-Reward Curve and Compensation Models

Given that public-private-partnerships allocate certain risks to the private partner, the private entity must be compensated for assuming these risks. The greater the risk, the greater the required return (Partnerships Kosovo Ministry of Finance and Economy, 2014).

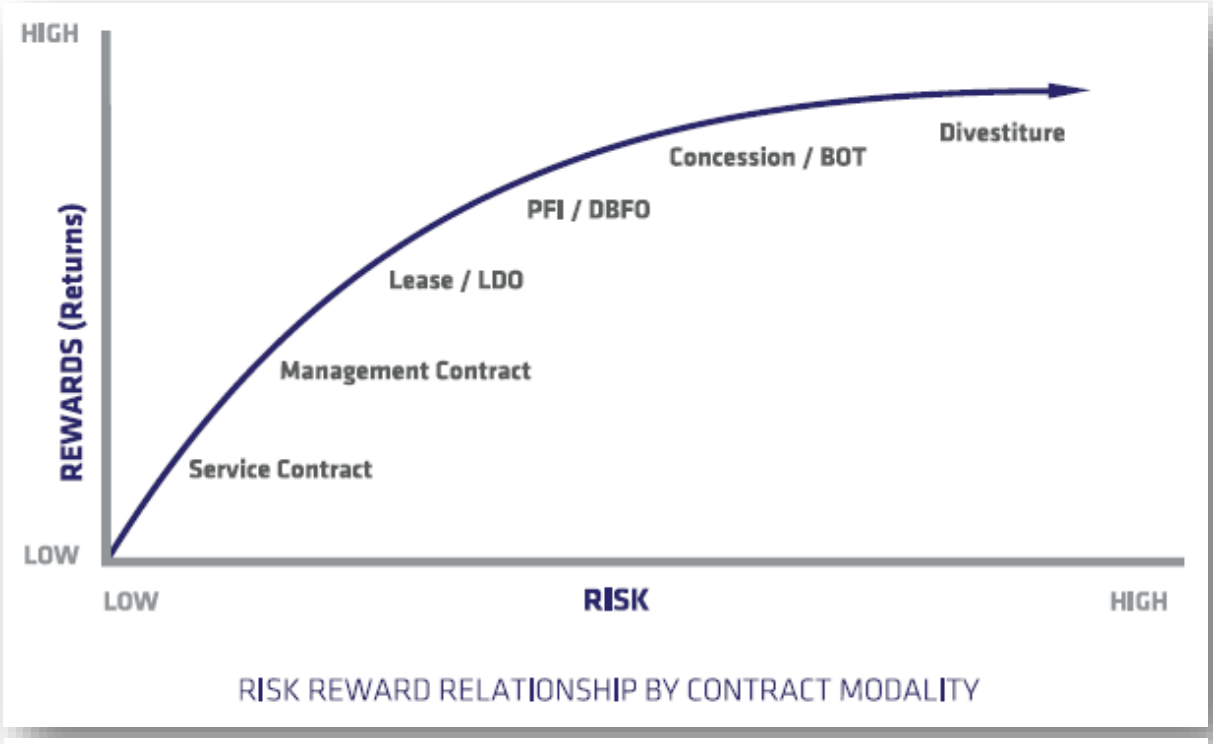

Figure 2-7: PPP Risk-Reward Curve and Compensation Models

In PPP arrangements, the private partner is typically compensated through either:

- User-based payments (i.e. toll roads, airport charges, etc.);
- Availability Payments from the public authority (i.e. PFI, PPA, WPA, etc.); or
- A combination of the above.

Often in the case of user-based payment structures, the government or public authority will need to provide some financial support to the project in order to mitigate specific

risks, such as demand risk, or to ensure that full cost recovery is compatible with affordability criteria and the public's ability to pay. Government support mechanisms can take many different forms, such as contributions, investments, guarantees and subsidies, but should be carefully designed and implemented so as to ensure an optimal risk allocation between the public and private sectors. When government supports are present, the objective is to maximize private capital mobilization per unit of public sector contribution.

2.19 Benefits and Challenges of PPP

It is unlikely that public-private-partnerships will ever entirely replace the traditional public sector model of public service delivery. PPP are just one tool, amongst many, available to governments and public authorities for the development of infrastructure and services.

PPP have shown their potential for addressing infrastructure shortages and achieving good value for money. Some obvious benefits of PPP include:

- **Speedier implementation of infrastructure projects:** Due to the fact that payment is tied to infrastructure and service delivery, PPP have a solid track record of completing construction on time or ahead of schedule.
- **Budget Leveraging / Additional Capital:** By shifting financing responsibilities to the private party, public-private-partnerships result in an infusion of private capital into public infrastructure and services. This mobilization of additional capital allows governments to increase the overall level of investment in infrastructure development.
- **Optimal risk sharing:** PPP shift specific life-cycle risks to the private partner, thereby creating incentives for better and more cost-effective service delivery.
- **Customer Service Orientation:** Given the use of performance based incentives, PPP have a proven track record of improving quality and service levels. Specialist private service providers offer improved expertise, while private sector innovation facilitates the provision of quality services.

- **Improved Efficiency and Cost Savings:** Private sector efficiency, coupled with an optimal risk allocation, can create significant cost savings in the delivery of public infrastructure and services. Cost savings from PPP typically materialize in the form of lower construction costs, reduced life-cycle costs, improved efficiency, and lower costs of associated risks.
- **Generation of Additional Revenues:** Innovation and the private sector profit motive can create incentives for the private partner to develop new and creative sources of revenue from public infrastructure.
- **Private Sector Development / Investment Opportunities:** As the cornerstone of any modern economy, the private sector is constantly in search of new investment opportunities. PPP provide stable, long term investment possibilities for the private sector, as well as the opportunity to enter into service sectors previously monopolized by public authorities.
- **PPP Allow the Public Sector to Focus on Strategic Functions and Outcomes:** By liberating the public sector from the direct provision of non-strategic services, governments can focus their scarce resources on their core mission.

Despite their potential, however, PPP are not a panacea. Public-Private-Partnerships do entail some unique challenges, which need to be recognized (Partnerships Kosovo Ministry of Finance and Economy, 2014):

- PPP are complex and relatively inflexible structures.
- PPP procurement and implementation can be lengthy and costly, making it unsuitable for some projects.
- PPP place additional responsibility on the public sector, which must be prepared to act as a competent counterpart and regulator.
- PPP may lead to higher user charges once implicit or explicit subsidies are removed. This is not necessarily a direct consequence of PPP, but the public may perceive the increased rates and charges as a consequence of the private partner's required return on investment.
- PPP do not achieve absolute risk transfer. The public sector will retain some risks.
- Not all projects are suited for PPP.

Indeed, although PPP hold significant benefits as an infrastructure delivery tool, when done incorrectly, PPP can generate considerable problems. For this reason, governments

and public authorities should look to experts to ensure that PPP programs and projects achieve their intended objectives, while maximizing value for money.

2.20 PPP Framework development

According to World Bank PPP framework development is essential to country that is willing to implement PPP projects due to the proper structural approach that is given for the project initiation and implementation process. Below it has been forwarded the sequential approach for the framework development.

3. GLOBAL SCENARIOS FOR THE OWNERSHIP, FACILITY MANAGEMENT AND TERMINAL OPERATION MODELS OF DIFFERENT DISCIPLINES IN TRANSPORTATION

3.1 Maritime Transport Scenarios

3.1.1 Different Port Administration Models

Over the years four main categories of ports have emerged and they can be classified in to four main models (World Bank, 2001).

(1) Service Port
(2) Tool Port
(3) Landlord Port
(4) Fully Privatized Port or Private Service Port

These models are distinguished by how they differ with respect for such characteristics as:

- Public, private or mixed provision of service
- Local, regional or global orientation
- Ownership of infrastructure (including port land)
- Ownership of superstructure and equipment (in particular ship to shore handling equipment and warehouses)
- Status of dock labor and management

Table 3-1: Basic Port Ownership and Management Models

Type	Infrastructure	Superstructure	Port Labor	Other Functions
Public Service Port	Public	Public	Public	Majority Public
Tool Port	Public	Public	Private	Public/Private
Landlord Port	Public	Private	Private	Public/Private
Private Service Port	Private	Private	Private	Majority Private

Source: Alternative port management structures and ownership models; World Bank Port Reform Toolkit

Model	Port administration	Nautical management	Nautical infrastructure	Port infrastructure	Superstructure (equipment)	Superstructure (buildings)	Cargo handling activities	Pilotage	Towage	Mooring services	Dredging	Other functions
Public service port	pu	pu	pu	pu	pu	pu	pu	pu	pu	pu	pu	pu
								pr	pr	pr	pr	pr
Tool port	pu	pu	pu	pu	pu	pu	pr	pu	pu	pu	pu	pu
								pr	pr	pr	pr	pr
Landlord port	pu	pu	pu	pu	pr	pr	pr	pu	pu	pu	pu	pu
								pr	pr	pr	pr	pr
Private sector port	pr	pu	pr	pr	pr	pr	pr	pu	pr		pu	pu
								pr			pr	pr

Figure 3-1: Prevailing Service Providers under Different Port Management Models

Source: Alternative port management structures and ownership models; World Bank Port Reform Toolkit

3.1.2 Port Reform Modalities

The term "Port Reform" connotes the changing institutional structure of the port business and the much greater involvement of the private sector in the exploitation and financing of port facilities, terminals and/or services. Port reform, therefore, results in changing relationships between the public and private sectors. Many port managers and government officials believe that the only way to improve the performance of public port organizations is through the process of privatization. They hold this view because they believe that certain characteristics of the private sector are indispensable to achieve commercial success. The term "Privatization" has therefore become synonymous (and confusingly so) with "Port Reform." Privatization, however, more accurately refers to one aspect of port reform; the introduction of the private sector into areas previously reserved to the public sector (World Bank, 2001).

According to the World Bank; governments and port managers can select from among a variety of strategies for improving organizational and operational performance including:

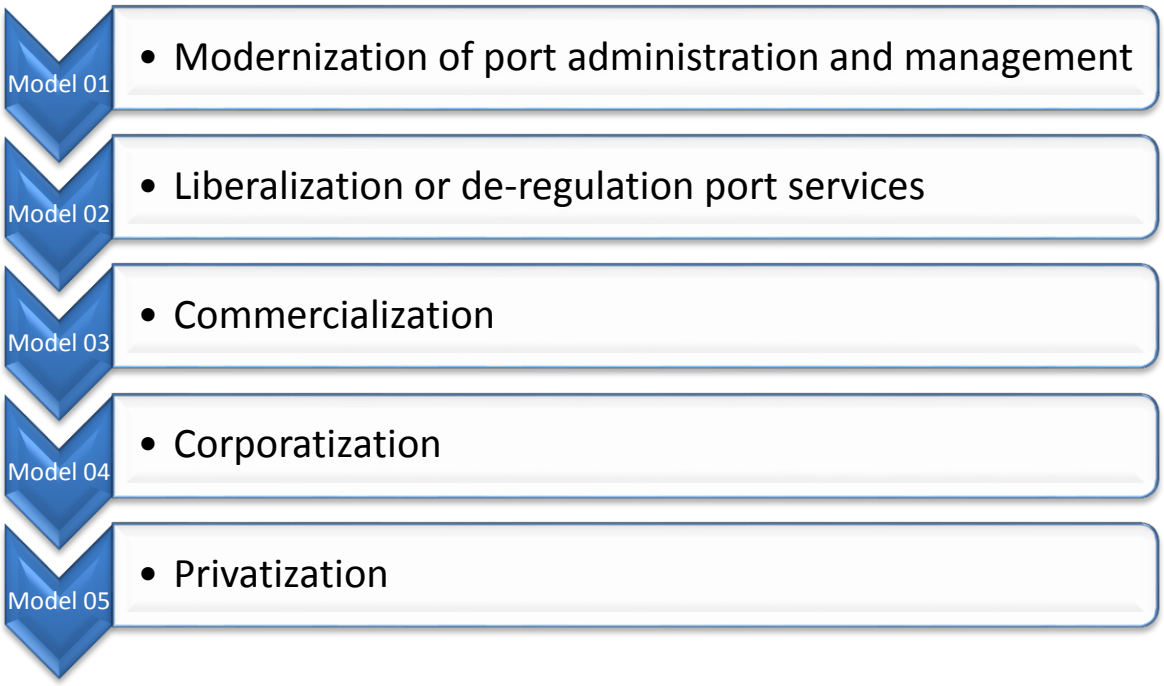

Figure 3-2 Port Reform Modalities

3.1.3 Cases from Maritime Transport

Port of Salalah, Oman:

In 1997 Salalah Port Services (SPS) was awarded a 30 year concession to equip and operate the Port of Salalah in Oman. SPS is a joint venture with 30% foreign investment and 70% Omani Government and public/private investment. The port is operated by Salalah Port Services which is listed on the Muscat stock exchange. The A.P. Moller - Maersk Group is a 30% shareholder, and APM Terminals has been granted the management contract for the port through 2028.The concession contract covers the container terminal, the conventional port, and the Free Trade Zone. The initial capitalization was US $260 million. The Government built the infrastructure.

Investment in the port comprised the following proportions:

Table 3-2: Investment in the Port of Salalah, Oman

Omani Government: 20%	Omani private investors: 19%
Government pension funds: 11%	Public offering: 20%
Sea-Land Services: 15%	Maersk / A.P. Moller: 15%.

The majority of the port's business currently comes from the port's state-of-the-art container terminal. Today the capacity of the container terminal is 5 million TEU. A tender for detailed design of Container Terminal 2 will add 1,350 meters to the existing 2,205 meters of quay wall and 3-4 million TEU. This is a very good example for "Green Field" Ports in different ownership and managements models (Institutional Formats).

Container Terminal at Vadhavan, India:

In February 1997 P&O Ports Ltd. was selected by the Government of the State of Maharashtra to head a consortium to develop a US$ 950 million "green field" deep water oil and container port at Vadhavan (North of Mumbai).

Investment in the port comprised the following proportions:

Table 3-3: Investment in the Container Terminal at Vadhavan, India

Maharashtra Government: 11%	ICICI: 11%
Jakari Terminals: 4%	Meherji Cassinath: 2%
P&O Ports and other private investors: 72%.	

The project was drastically delayed since the Environmental Protection Authority ruled that the project was illegal.

But the much-awaited satellite port at Vadhavan near Dahanu may get started, with the signing of the Memorandum of Understanding (MoU). The new port, which will cost around Rs10,000 crores, is expected to ease congestion at the Jawaharlal Nehru Port, which is close to Mumbai. As per the new plan in 2016 plan, the Jawahar Lal Nehru Port Trust (JNPT) will hold a 74 per cent stake in the proposed port project, while the Maharashtra Maritime Board (MMB), owned by the state government, will hold the rest. "Make in India is a first-of-its-kind event.

Singapore Creates PSA Corporation

The Port of Singapore is a very successful container port and, since 1986, the busiest port in the world in terms of shipping tonnage, most of it containerized transshipment cargo. Singapore was a service port, combining land ownership, statutory functions and cargo

operations within one organization, and one of the few successful public service ports in the world. In 1996, however, the Government of Singapore decided to fundamentally change the management structure of the port.

The Government changed the port's structure by creating a corporatized entity (PSA Corporation) whose structure would be sufficiently flexible to permit it to operate and invest in the region, especially in container terminals located on major shipping lanes. Corporatization of part of the Port Authority's business meant increased financial autonomy and generated greater cash flows. It also enhanced Singapore's position as a hub port and was expected to contribute to the economic development of Singapore and the surrounding region. The PSA Corporation will be listed on the Stock Exchange of Singapore.

Since the PSA Corporation has a monopoly position in Singapore, it is regulated. The Maritime and Port Authority of Singapore was established by an Act of Parliament (The Maritime and Port Authority of Singapore Act 1996) to provide that oversight. The main tasks of the new Authority (MPA) are to promote the use, improvement and development of the port, to control vessel movements and ensure navigational safety, to license and regulate marine services and facilities including conventional cargo terminals, and to regulate the port industry's economic behavior. The Act states that no person shall provide marine or port facilities without a public license or exemption from MPA. The Authority may control and fix the tariffs charged by licensees for handling and storage of origin-destination cargo (i.e., non-transshipment cargo). Transshipment cargo is not regulated because the transshipment business is an international and highly competitive one. The original service port structure has thus been changed into one of a landlord port.

The newly formed PSA Corporation acts as a regulated terminal operator under Corporate Law. It is free to operate as a global terminal operator. The question remains whether MPA will allow other private operators to carry out container operations in the Port of Singapore. The legal possibility exists, but the introduction of intra-port competition has not yet materialized (World Bank, 2001).

3.1.4 Insight in to the scenarios

The below graphical representation (or the map) illustrates the basic factors about the explained PPP case scenarios and provides directions to get insight into the application.

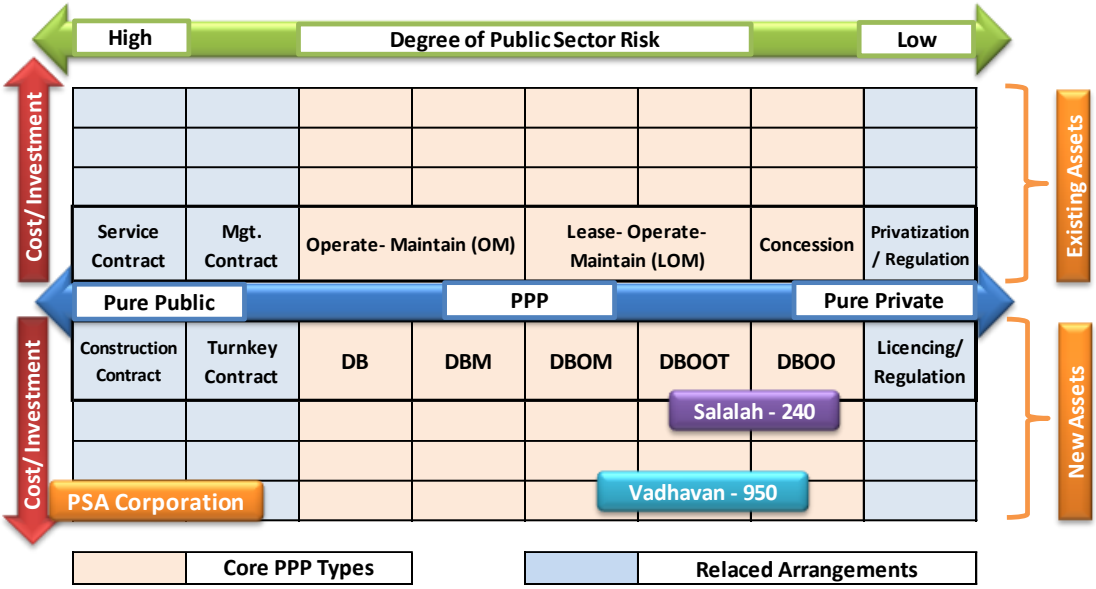

Figure 3-3: Insight in to the Global Maritime Scenarios

Insight in to the Global Maritime Scenarios

❖ **Ownership Model:**

- ✓ Ownerships of all three ports are retained with the Land Lord (Port Authority/ Government).
- ✓ Both Slalah and Vadhavan are BOT contracts and clearly indicate the modern trend of crafting PPPs with external parties to share the cost, risk and rewards in order to maximize the efficiency in order to gain the best for the national development.
- ✓ According the experts; the case of PSA (Port of Singapore Authority) is an exceptional case since their policy on port and airport investments have always been kept with the government's hand. There are very few (less than the fingers on hands) Terminal Operating Port Authorities (including Singapore and Sri Lanka) in the world who are running with considerable profit margins.
- ✓ That was the main reason behind the privatization of most of the ports in UK, USA, Australia and New Zealand by respective Port Authorities (Governments) since they incurred huge loses.

❖ **Facility Management Model:**

- ✓ All the port facilities have been managing by the respective port authorities except the facilities (terminals and related premises) that the ownerships have been transferred through PPP (BOT or similar) contract.

❖ **Terminal Operation Model:**

- ✓ The respective private partner has rights to operate the terminal using whatever the technology or the systems that direct to meet the target efficiency (productivity) levels as long as the core purposes of the agreement are met.
- ✓ For an instance; JNPT invited to two international container terminal operators DP World and PSA to build and operate their next two container terminals, Terminal 3 (Nhava Sheva) and Terminal 4 (Vadhavan) respectively. It is inevitable that the two container terminals would be running with two Terminal Operating/Management Systems; but both would full fill the same requirements. This is very similar to SAGT and CICT in Port of Colombo as well.

3.2 Air Transport Scenarios

The Ownership, Facility Management and Terminal Operation Models that have been widely using in Aviation Sector have been clearly described by the Asian Development Bank (ADB) Report "Developing Best Practices for Promoting Private Sector Investment in Infrastructure; Airports and Air Traffic Control" and the main models summarized as follows;

(1) Pure Public Model

(2) Private Sector Participation (PSP) Models

I. Full Privatization

II. Partial Privatization

a) Concessions or Build Operate Transfer (BOT) projects

b) Strategic partnership(s).

c) Management contract(s).

ADB believes there are significant advantages in expanding the role of the private sector in financing and implementing transport infrastructure and related services other than the Pure Public Ownership in the Developing Member Countries, principally for two reasons (Asian Development Bank, 2000):

- First, private sector participation (PSP) may help to overcome constraints on public sector borrowing, and, equally or possibly even more important, on the public sector's capacity to implement efficiently and cost effectively large scale infrastructure programs.
- Second, the active participation of the private sector in all phases of the project life cycle may secure better value for money in the project than the traditional design build model, where the private sector's role was limited to the project construction phase.

3.2.1 Full Privatization

Full privatization involves the transfer of ownership of airport assets from a public corporation to private investors through a flotation or through a trade sale. Following privatization, the privatized entity is fully responsible for operating the airport facilities, directly or through agents/concessionaires, and for financing investments in airport assets internally, from retained earnings, or externally through the issue of new equity or debt (Asian Development Bank, 2000)

3.2.2 Partial Privatization

The comparative absence of full privatization based on two interrelated factors:

- First, governments' reluctance to cede control over what, at least in the case of major capital city airports, is widely regarded as a vital national asset.
- Second, the lack of an appropriate framework of economic regulation and regulatory governance to balance the interests, short and long term, of consumers

The key features of alternative models of PSP can be summarized as below table.

Table 3-4: Partial Privatization

	Privatization	Partial Privatization		
		Concessions	**Strategic Partnerships**	**Management Contract**
Ownership	Private	State	State	State
Investment	Private	Private/mixed	Mixed	State
Operation	Private	Private/mixed	Private/Mixed	Private/Mixed
Regulation	Independent Regulator	Contract, ownership or independent regulator	Ownership	Ownership
Examples	UK - British Airports Authority plc (BAA)	Colombia - Bogota	Thailand	US - Indianapolis/ Pittsburgh
		Philippines- Manila	South Africa	
	Regional airports Australia	Cambodia - Phnom Penh		Italy-Naples
		Argentina		Malaysia - Kuala Lumpur
	Federal Airport Corporation - (FAC) airports	Côte d'lvoire - Abidjan		

Global cases on air transport scenarios can be found representing all most all the models of the ownership spectrum.

3.2.3 Australian Case

Policy Background:

Following a policy review in 1993, the Australian Federal Government decided to implement a radical airports privatization program. Key features of the privatization policy were as follows:

- In order to ensure that airports continued to be operated as airports, it was decided to sell very long term leases (50 years with an option to renew for a further 49 years) rather than to sell the airport freeholds.
- Airports were offered for sale individually, with cross-ownership restrictions imposed on a limited number of airports, between which it was believed there was some scope for competition.
- In order to encourage competition in downstream (airline) markets, airline ownership of airports was restricted and, in fact, none of the airports offered for sale is airline controlled. Airport operations have also been made subject to economy wide access provisions in order to encourage new airline entrants.
- Airport charges at core airports were regulated via a price cap mechanism. However, non-aeronautical charges will not be regulated.

The Privatization Process:

The privatization of 17 of the 22 airports took place in two phases in 1997 and 1998.

Phase One:-

The first phase involved the sale of the major international gateway airports at Melbourne, Brisbane and Perth, which was initiated in April 1996, and completed, with the granting of licenses on 1 July 1997. The three successful bids totaled A$3.31 billion, far in excess of the A$2.2 billion estimated at the time the sale was announced.

Phase Two:-

Following the success of the first sale, a further 15 airports were offered for sale individually on 1 October 1997. Twenty six consortia were on the original shortlist. The Phase Two airports were divided into two groups 10 Regular Public Transport airports and five General Aviation airports. As a result of the Phase One and Two sales programs, the industry structure was radically transformed, with ownership divided between ten private sector consortia.

Investment Structure:

As part of their bid, each lessee company provided an airport master plan, in which they committed to include major development plans as well as satisfying various building requirements. For Melbourne and Brisbane, these involved new runways, focusing on freight and using airport land to build new hotels and business facilities.

3.2.4 Case of Philippines

Under the provisions of the Philippine BOT law, as amended in 1994, unsolicited bids can be made to carry out financially viable public sector projects on a BOT basis. Proposals were put forward in 1996 by the Asian Dragons Consortium (ADC), a group of Filipino businesses, to construct and operate a third passenger terminal at Ninoy Aquino International Airport (NAIA) to handle international traffic. The airport, a two-runway facility, currently handles around 12.3 million passengers per annum (mppa) (7.8 mppa international, 4.6 mppa domestic) and is owned and operated by Manila International Airport Authority (MIAA), a state-owned corporation created following the separation of airport operations from the Philippine Air Transport Organization, an agency of the Department of Transportation and Communications (DOTC). The Philippine Air Transport Organization had previously owned and operated airport and air traffic control (ATC) assets throughout the Philippines.

The BOT Project:

The ADC proposal envisaged the construction and operation of the new international terminal alongside the MIAA's existing airport operations. The BOT entity would be entitled to receive passenger charges, as agreed between MIAA and DOTC for passengers using the terminal. These charges would increase in line with domestic inflation. It would also receive revenues from commercial activities (retailing, car parking, office rentals) carried on in the terminal for a period of 25 years from the commencement of the concession.

Use of the existing international terminal would be discontinued and all international traffic will be transferred to the new terminal upon its completion. The concession agreement would also commit the Government not to authorize any development of new facilities for international traffic in the region (for example, at Clark Airbase), until international traffic at NAIA had exceeded 10 mppa for three consecutive years.

The concessionaire would pay MIAA a two part (fixed plus variable) concession fee; the variable element would be expressed as a proportion of total revenue generated by the terminal. The concession contract committed the concessionaire to maintain certain service quality standards and to provide specified peak passenger handling capacity through the terminal.

A Competitive Bid:

Under Section 4-A of the BOT law, the government is obliged to seek competitive proposals for unsolicited projects, once financial terms have been negotiated with the bidder. In this case, a competitive bid was received from a consortium including Lufthansa as well as indigenous Filipino organizations. The competitive bid offered significantly better financial terms than the ADC proposal, with a higher fixed fee and a larger proportion of revenue. Had ADC felt able to match these terms, the project would have been awarded to them; however, they did not, and the competitive bid was accepted. ADC subsequently challenged the award of the contract in the Philippine courts.

3.2.5 Case of International Air Terminal 4 at John F. Kennedy Airport

Public Sector Partner: Port Authority of New York and New Jersey

Private Sector Partner: LCOR Incorporated

Area: 1,500,000 square feet on 165 acres

Cost: $1.4 billion construction cost

The new International Air Terminal (Terminal 4) at John F. Kennedy Airport in New York is the largest public-private airport infrastructure development in U.S. history, and marks the first time that a U.S. air terminal has been financed, developed and constructed by non-airline private interests and the project is the 2002 NCPPP Project Award Winner (NCPPP, 2016).

The 1.5-million-square-foot facility is an achievement of JFK International Air Terminal LLC, a private consortium consisting of LCOR Incorporated, a national real estate company specializing in public-private development; Lehman Brothers, the investment bank; and Schiphol USA, the U.S. subsidiary of Schiphol Group, operator of Amsterdam Airport Schiphol. The consortium was selected after a worldwide search by the Port

Authority of New York and New Jersey for a unique public-private partnership to manage the existing terminal while building and operating the new one.

The new Terminal 4 replaced the old International Arrivals Building, erected in 1957 on the same 165-acre site. The new terminal might best be described as a rapid people mover in the midst of an extraordinary retail experience surrounded by astonishing works of art, not the least of which is the building itself. The terminal handles domestic as well as international flights and some six million passengers annually.

Initially, the new terminal has 144 check-in counter positions, 10 gates, 52 INS and 20 U.S. Customs positions, seven baggage carrousels each capable of handling two 747 loads of baggage at once, and two baggage conveyors for skis, golf clubs and the like. Aircraft gates will be increased to 16 when demolition of the old building. Designed as the only 24-hour terminal at JFK, the new Terminal 4 can accommodate 3,200 arriving passengers an hour, compared with 2,000 at the old facility.

The 100,000-square-foot retail concourse spans the length of four city blocks and includes landscaped mini-parks and other areas for relaxation. The $1.4-billion terminal, which opened in May 2001, was financed with tax-exempt special project debt, public investment and private equity. The old terminal operated continuously and profitably during construction of the new terminal; the new terminal opened at 90% occupancy and has generated income since inception (NCPPP, 2016).

3.2.6 Singapore; Upcoming Changi Airport Terminal 5:

The Ministry of Transport (MOT) is rethinking how the upcoming Changi Airport Terminal 5 could be owned and run. Currently, all three existing terminals are built by the Government and run by Changi Airport Group (CAG), a corporate entity set up in 2009.

CAG opened the Terminal 4 at a cost of about $1 billion. From 66 million passengers a year now, Changi will be able to handle 135 million by the time T5 is completely ready. But the Terminal 5 project will be much bigger, and the total development which includes not just the terminal building, but also the cost of building new taxi ways and preparing the reclaimed land, is expected to cost tens of billions.

MOT is exploring if alternative models for the ownership of new airport facilities might better support the national objective of keeping Singapore a competitive global air hub. It has called for consultants to study the issue. However, there are no near-term plans to change the current model.

At full capacity, Terminal 5 will be as large as Terminals 1, 2 and 3 combined. Given the scale of investment needed, the Government set up the Changi Airport Development Fund to help fund the building of Terminal 5.

3.2.7 Insight in to the scenarios

The below graphical representation (or the map) illustrates the basic factors about the explained PPP case scenarios and provides directions to get insight into the application.

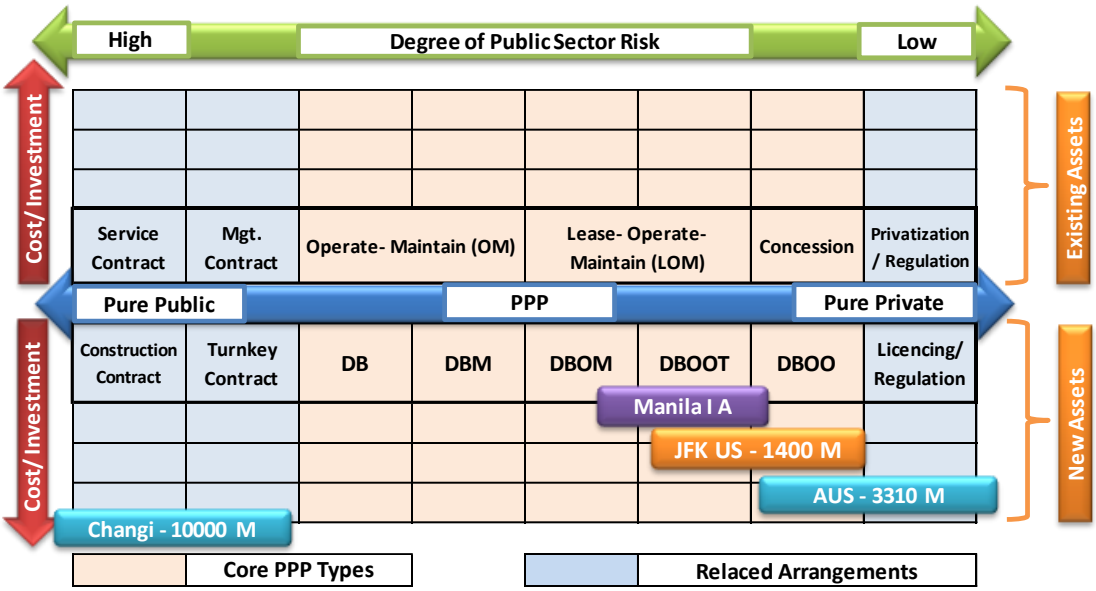

Figure 3-4: Insight in to the Global Aviation Scenarios

Ownership Model:

- ✓ Fully government owned Changi Airport Group (CAG) trying to keep their fully ownership of the new terminal-5 besides huge sunk cost (nearly US $ 10 Billion) they have to be borne whilst the Australian government have already been privatized their all Airports including major three Melbourne, Brisbane and Perth (for a total sales bid of US $3.31 Billion).
- ✓ The third passenger terminal of NAIA had been offered on BOT basis to a consortium including Lufthansa airline by the government of Philippine rejecting

the bid of the Asian Dragons Consortium (ADC) who brought the very first proposal to the new terminal as an unsolicited bid.

- ✓ The terminal-4 of JFK International Airport was the largest public-private airport infrastructure development in U.S. history, and marks the first time that a U.S. air terminal has been financed, developed and constructed by non-airline private interests. The $1.4-billion terminal was financed with tax-exempt special project debt, public investment and private equity.

3.2.8 Facility Management Model:

- ✓ The commercial facilities of all the airports given by the agreement have been managing by the respective concessionaires except the Changi T-5 since it is yet to be finalized and most probably it will be CAG.
- ✓ The concessionaires collect the revenue and pay the annual consideration or the royalty fee to the respective authority.

3.2.9 Terminal Operation Model:

- ✓ As per the contractual terms, terminal operations are being handled by the respective concessionaires to the maximum of their efficiency levels in order to maximize their profits.

3.3 Land Transport Scenarios

Global cases on land transport scenarios can be found representing all most all the models of the ownership spectrum.

3.3.1 Tower City Center Multimodal Transport Terminal - Cleveland, Ohio, USA

This dynamic public-private partnership is an on-going relationship between a private development company, Forest City Enterprises, and its home city, Cleveland, Ohio. The Tower City multimodal project has been successful in revitalizing investment in downtown Cleveland and in saving a historically significant building.

Figure 3-5: Tower City Center

The Greater Cleveland Regional Transit Authority (RTA) is the largest public transit authority in the state of Ohio. It is a publicly-managed agency under the oversight of a board of trustees. The RTA operates two light rail transit lines, a heavy rail line, and approximately 1,000 buses providing fixed route and demand responsive and user-side subsidy service. RTA's service area includes 515 square miles with a population of over 1.6 million. A dedicated one percent local sales tax supports the service. The system has over 100 fixed route bus routes and the total system is utilized by over 60 million annual fixed route passenger trips and approximately a half million annual demand response passengers. The three rail transit lines plus all bus routes that converge on the CBD use the passenger terminal located in the underground and ground level of the Terminal Tower, a Cleveland landmark since it was built in the 1920's.

Forest City Enterprises Inc., a major, vertically integrated national real estate company with headquarters in Cleveland. Recognizing the strategic potential of the Tower City Terminal, the Forest City Enterprises' owners Ratners initially worked with the City on plans to restore the building under the guidelines of the National Trust for Historic Preservation, National Park Service, and Ohio State Historic Preservation Office. Forest City bought the building in 1982 from US Realty and Cleveland Union Terminal companies and moved its corporate headquarters into the Tower City Terminal. Forest City Enterprises is the sole owner of the property.

Modes Included:

Modes using the Tower City Terminal include the three rail transit lines on the underground concourse, buses using the street level transfer facility, taxis, an adjacent parking garage, and downtown pedestrian traffic. The Blue and Green lines provide service to the eastern communities of the Greater Cleveland area. The heavy rail (Red) line provides direct service to the west, with the western-most station located in the Cleveland Hopkins International Airport and to the east side of Cleveland terminating in the suburb of East Cleveland. There is also an underground walkway connecting the Tower City Center with the Gateway Sports Complex.

Total Cost of Project/Cost-Sharing Arrangements: The first phase of the project, the rebuilding and raising of five street bridges leading into the terminal. Cost $16 million. The funding was supported by a Federal Urban Development Action Grant (UDAG), and costs were distributed as follows:

- FHWA/City of Cleveland (matching funds) - $14.3 million
- Federal Transit Administration (FTA) - $ 1.2 million
- Housing & Urban Development (HUD) -$ .3 million
- Tower City Development, Inc. -$ .1 million

The second phase redevelopment of the terminal facilities itself, including the rapid transit station and pedestrian walkways, cost approximately $60 million. Funding distribution for this phase:

- FTA - $42.0 million
- HUD/UDAG - $ 4.5 million
- Ohio Dept. of Transportation (ODOT) -$ 6.5 million
- RTA -$ 7.0 million

The Tower City Center project had a total cost of $388 million, including the bridge repair program, site development and construction, station reconstruction, plus engineering costs. Redevelopment of the building includes 360,000 square feet of shopping space (on three levels), an 11-screen cinema complex. 1.4 million square feet of office space, a 208-room luxury hotel, pedestrian walkways, and transit-related renovations. Also included are 3,150 parking spaces and indoor passageways linking the

Center to Dillards Department Store, the 500 room Stouffer Tower City Plaza Hotel and two additional office building

gs. A portion of the underground walkway to the Gateway Sports Complex cost was paid for by Congestion Mitigation/Air Quality (CMAQ) funds. All of these projects were completed prior to 1995.

Partnership Description:

This partnership between a private land development company and its home city was brought about by the strong civic responsibility ethic assumed by the owners of Forest City Enterprises. A new company was formed, **Tower City Development, Inc.**, primarily to revitalize the Tower building and adjoining buildings, but also to work with the RTA and the city to improve transit service and revitalize the entire downtown area. The approach to the project was as a joint development effort, with commercial space located over a public transportation hub. Several other partners also came together at the different stages of the project.

The Tower City Center redevelopment partnership includes:

- Tower City Development - planning, design, and reconstruction of the Tower City Terminal
- Tower City Development - planning, design, and reconstruction of the Tower City Terminal
- City of Cleveland Economic Development Department-conduit for funding

The highlighted fact from this partnership is that each and every partner is responsible and contributing what they are expertise or authorized at.

In terms of meeting the goals of the RTA, users of the system have shown satisfaction with the improved station facilities. The initial market response was an increased rail ridership by 30 percent following the opening of the new terminal in December 1990. Peak rail passenger usage rose to an average of 30,000 passengers per day. Along with the 60,000 bus rider trips at the terminal, approximately 90,000 people use the terminal daily. Further Most retail tenants continue to exceed their annual sales projections. The fact that retail sales now average over $320 per square foot testifies to the project's success.

The goals that were established for the transit system:

- Improved security
- Improved transfers between rail lines
- Improved efficiency of bus-rail transfers
- Improved pedestrian and vehicle access to the station
- Improved access for the elderly and disabled
- Reduced station operating costs
- Increased system productivity

3.3.2 Grand Central Terminal, New York

Project Location: New York City, New York

Public Sector Partner: Metropolitan Transit Authority

Private Sector Partner: Jones Lang LaSalle, Williams Jackson Ewing, Inc.

Project Summary:

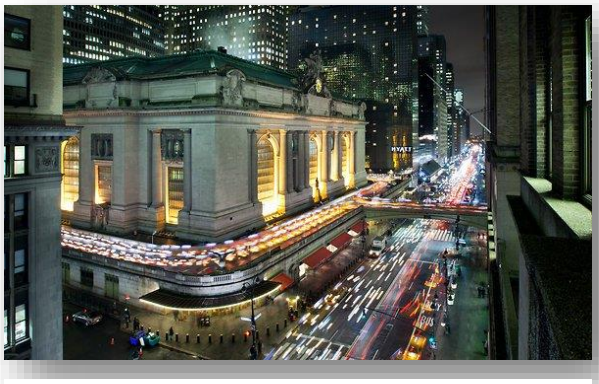

Figure 3-6: Grand Central Terminal, New York

In 1988, the Metropolitan Transit Authority (MTA) undertook a study of Grand Central Terminal to develop a Master Plan for the redevelopment of the retail component to improve the service to transportation users, upgrade the quality of the merchandising, increase the amount of retail space compatible with transportation users and maximize income in order to help pay for the redevelopment and restoration of the historically sensitive aspects of the building. Based on the subsequent plan developed and approved by the Board of the MTA, in 1993 the MTA selected a joint venture of Jones Lang LaSalle and Williams Jackson Ewing to undertake the retail redevelopment of the terminal. Work commenced in April 1994.

National Council for Public Private Partnerships (NCPPP), USA finalized a plan for the retail redevelopment and gained approval from all governmental agencies and organizations, including the Landmarks Preservation Commission and the State Historic

Preservation Office. Further they determined the most favorable method of financing to be Owner funds along with bonds issued by the MTA.

NCPPP oversaw the design, restoration, redevelopment, lease-up and management of the station. The restoration work included cleaning and/or replacement of intricate architectural detailing and new installations compatible with the original architecture. Construction of this $259 million, 860,000 sf. historic restoration and revitalization project took place from April 1994 through the third quarter of 1998. Throughout the course of this massive, high-profile renovation project, the development team accommodated ongoing railroad operations and 500,000 pedestrians per day. Most importantly, Grand Central Terminal has been restored to its rightful status as the greatest train station in the world and one of the greatest public spaces in New York.

3.3.3 Port Authority Bus Terminal

The **Port Authority Bus Terminal** (**PABT**) is the main gateway for interstate buses into Manhattan in New York City. It is owned and operated by the Port Authority of New York and New Jersey (PANYNJ). Colloquially called the **Port Authority**, the bus terminal is located in Midtown at 625 Eighth Avenue between 40th Street and 42nd Street, one block east of the Lincoln Tunnel and one block west of Times Square. It is one of three bus terminals operated by the PANYNJ, the others being the George Washington Bridge Bus Station in Upper Manhattan and the Journal Square Transportation Center in Jersey City.

Figure 3-7: Port Authority Bus Terminal

The PABT serves as a terminus and departure point for commuter routes, as well as for long-distance intercity routes, and is a major transit hub for New Jerseyans. The terminal is the largest in the United States and the busiest in the world by volume of traffic, serving about 8,000 buses and 225,000 people on an average weekday and more than 65 million people a year. It has 223 departure gates and 1,250 car parking spaces, as well as commercial and retail space. In 2011, there were more than 2.263 million bus departures from the terminal.

The PABT, opened in 1950 between 8th and 9th Avenues and 40th and 41st Streets, was built to consolidate the many different private terminals spread across Midtown Manhattan. A second wing extending to 42nd Street was added in 1979. Since then, the terminal has reached peak hour capacity, leading to congestion and overflow on local streets. As it does not allow for layover parking, buses are required to use local streets or lots, or return through the tunnel empty. The PANYNJ has been unsuccessful in its attempts to expand passenger facilities through public private partnership and in 2011; it delayed construction of a bus depot annex, citing budgetary constraints. In June 2013, it commissioned an 18-month study that would consider reconfiguration, expansion, and replacement options.

3.3.4 Development of Alambagh Bus Terminal in Lucknow, India

Figure 3-8: Development of Alambagh Bus Terminal

Development of Alambagh Bus Terminal in Lucknow on a Design Build Finance Operate and Transfer (DBFOT); Concession Agreement between the Uttar Pradesh State Road Transportation Corporation (UPSRTC) and the Concessionaire. The Concessionaire is granted the exclusive right, license and authority to construct, operate and maintain the Bus Terminal and Commercial Complex for 32 years against an Upfront Concession Fee as well as an Annual Concession Fee. The revenue to be earned by the Concessionaire includes mainly a User Fee charged to both public and private sector and the right to exploit the Commercial Complex for economic purposes including the right to sub as well as potential parking fees and advertising revenues (PPIRC, 2016).

The site is located on the busy Lucknow- Kanpur Road and in integral part of multimodal transport system. Lucknow Metro North South corridor (phase 01) connecting main city and airport is planned along this road. Alambagh elevated metro station is very connectivity located in front of the site and connected to the bus station for passenger convenience. As per the master plan by the transport department, the existing facility of 25 bus bays has been upgraded to 50 bus bays and 50 bus parking. This is part of a Build Operate Transfer (BOT) project and commercial complex and a hotel has been planned

as part of this development to make this investment commercially viable (ACE UPDATE, 2016).

3.3.5 The Bus Depot in Rabale, Maharashtra, India

Navi Mumbai Municipal Transport (NMMT) plans to expand its fleet rapidly to serve the increasing demand in the upcoming nodes of Navi Mumbai. This expansion also entails the creation of a bus depot for the parking and maintenance of buses. Navi Mumbai Municipal Transport (NMMT) now has two depots in Asudgaon (near Panvel) and Turbhe. A third depot in Rabale is being planned. The land for the depot in Rabale will have to be procured by NMMT. The project will cost an estimated Rs100 million. NMMT is exploring the PPP option for the development of this bus depot (ADB Tool Kit for India, 2011).

Various interstate bus terminal PPPs in India were studied because bus terminals and bus depots are developed in similar ways. Bus terminal PPPs involve the development of real estate along with the construction of the terminals. Typically, bus depots and terminals are build–operate–transfer projects, with a commercial facility at the site. The private operator develops the facility and leases it to earn revenue, besides operating and maintaining the bus terminal and earning revenue from it.

Bus depots that host intra-city buses generally do not earn revenue from fees and advertising rights, as the buses are parked and maintained outside operating hours. The private operator stands to earn less. Thus, a bus depot developed through PPP is constructed by the private operator and transferred on a turnkey basis to the transport authority, while the commercial facility continues to be run by the private operator in an effort to recoup the capital expenditure.

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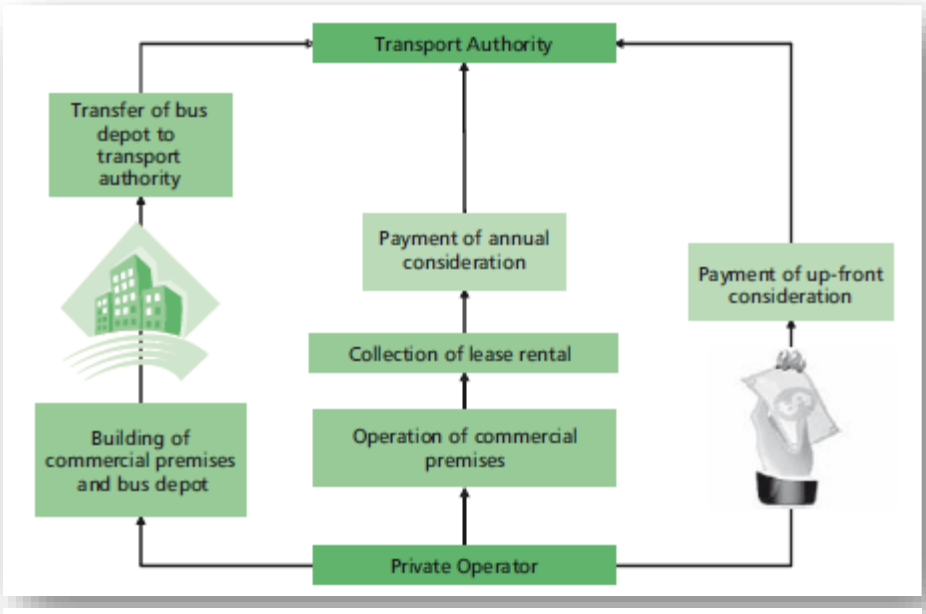

Figure 3-9: Public–Private Partnership Contract Structure for a Bus Depot

The private operator will construct the bus depot and the commercial facility. The choice of the private operator (through bidding) will depend on either one of the following

- Highest up-front payment for the land: In this case the concession period and annuity payments based on revenues are fixed.
- Shortest concession period: In this case the up-front payment for the land is fixed, as are the annuity payments based on revenues.

NMMT will clearly demarcate the space for the bus depot and the commercial complex, and lay down the specifications of the depot. It will transfer the development rights to the private operator once it receives the up-front payment and a performance guarantee. The private operator will also submit payment security as guarantee for its annuity payments to NMMT. The up-front payment for the land will be based on the purchase price to be remitted to City and Industrial Development Corporation (CIDCO). The private operator will submit a detailed project report with its development plans for the project to NMMT for approval, and will develop the bus depot according to NMMT's specifications and hand it over to NMMT.

The private operator will also design, construct, operate, and maintain the commercial facility and collect the revenues from the venture. NMMT will either share in the

revenues or receive a fixed annuity from the private operator. At the end of the concession period, the contractor will transfer back the commercial premises to NMMT, according to the terms and conditions of the agreement (ADB Tool Kit for India, 2011).

3.3.6 Terminal Bersepadu Selatan (TBS), Malaysia

The Terminal Bersepadu Selatan (TBS, English: Southern Integrated Terminal) is the main long distance bus terminal in Kuala Lumpur, Malaysia. It is integrated with the adjacent Bandar Tasik Selatan station (BTS) rail interchange station, forms the TBS-BTS integrated transportation hub. Malaysia's first integrated bus terminal links with other forms of transportation in order to provide fast and efficient connectivity for travellers.

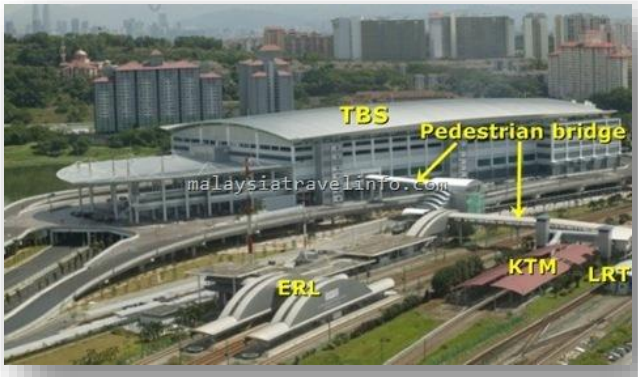

Figure 3-10: Terminal Bersepadu Selatan (TBS), Malaysia

Terminal Bersepadu Selatan (TBS) has started its operation on 1st of January 2011 as a fully integrated hub that connects several modes of transportation. It is located just outside Kuala Lumpur, a short trip to the southThe terminal has 60 bus platforms, 150 taxi bays and 1,000 parking bays. The terminal is fully accessible and equipped with amenities such as ATMs, baby care rooms, luggage trolleys and luggage storage. Shopping and dining options are available. Designed to handle 5,000 bus trips a day at maximum capacity, TBS handled about 1,300 bus trips daily as of October 2015, prior to the shift of northbound bus operations from Pudu Sentral. As of December 2015, the terminal serves 52,000 travellers per day (TBS, 2016).

The terminal ticketing facilities feature: -

- 41 Centralized Ticketing System (CTS) counters manned by staff from the terminal operator Maju TMAS.
- Seven ticket vending machines.

The current operator of TBS is Maju Terminal Management Services Sdn Bhd (Maju TMAS). Maju TMAS is a member company of Maju Holdings Berhad.

3.3.7 Insight in to the scenarios

The below graphical representation (or the map) illustrates the basic factors about the explained PPP case scenarios and provides directions to get insight into the application.

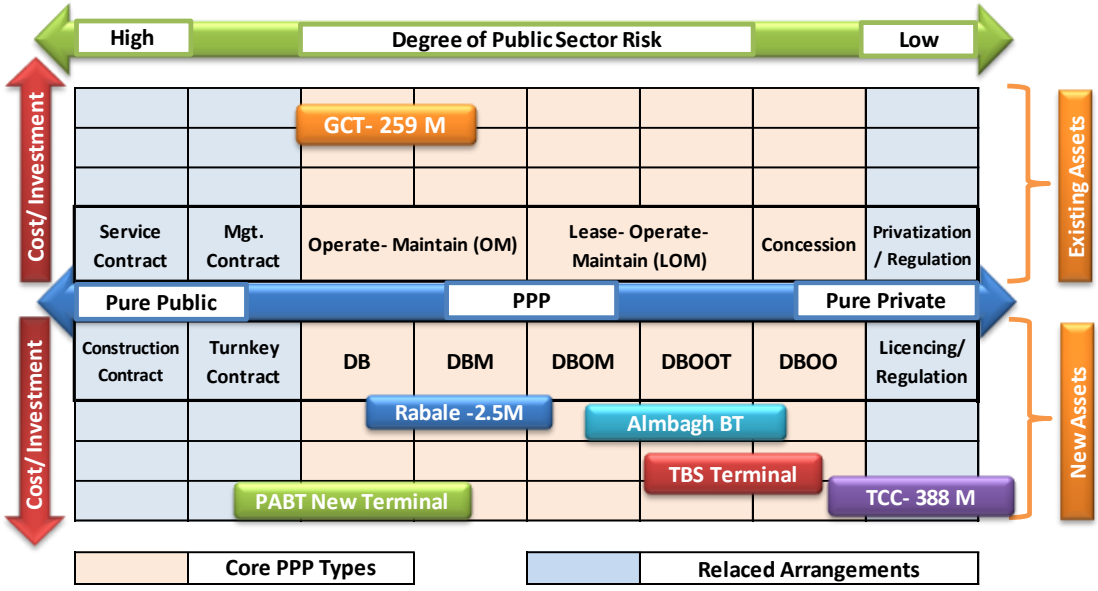

Figure 3-11: Insight in to the Global Land Transport Scenarios

3.3.8 Ownership Models:

- ✓ Grand Central Terminal at NYC is an extraordinary example of PPP concession of an existing asset. Metropolitan Transit Authority (MTA) signed the PPP contract with a Joint Venture (JV) in order to reinstate the greatest train station (historical and architectural value) in the world and completed as same as the expected high standards.
- ✓ Tower City Center development at Ohio becomes unique from the other PPP scenarios since the Tower building premises is owned by the main private party who is also the prime concessionaire of the PPP. The government institutions including Regional Transit Authority (RTA) engaged with the intention of the development of the Multimodal Transport Terminal facility and the down town area. Thus federal grants were received as per the portion of the public assets development. Especially a new company was formed, **Tower City Development, Inc.**, primarily to revitalize the Tower building and adjoining buildings, but also to work with the RTA and the city to improve transit service and revitalize the

entire downtown area. The approach to the project was as a joint development effort, with commercial space located over a public transportation hub. Several other partners also came together at the different stages of the project.

- ✓ PABT is owned and operated by the Port Authority of New York and New Jersey (PANYNJ) which is a government body. The authority is willing to go for PPP for the next capacity enhancement at PABT. The PANYNJ has been unsuccessful in its attempts to expand passenger facilities through public private partnership and in 2011; it delayed construction of a bus depot annex, citing budgetary constraints. In June 2013, it commissioned an 18-month study that would consider reconfiguration, expansion, and replacement options.
- ✓ Alambagh Bus Terminal in Lucknow on a Design Build Finance Operate and Transfer (DBFOT); Concession Agreement between the Uttar Pradesh State Road Transportation Corporation (UPSRTC) and the Concessionaire. The Concessionaire is granted the exclusive right, license and authority to construct, operate and maintain the Bus Terminal and Commercial Complex for 32 years against an Upfront Concession Fee as well as an Annual Concession Fee.
- ✓ Bus Depot in Rabale, Maharashtra will be under DBOM model and private partner will pay an annual fee to the authority.
- ✓ TBS Malaysia forms the TBS-BTS integrated transportation hub. Malaysia's first integrated bus terminal links with other forms of transportation in order to provide fast and efficient connectivity for travelers. It is one of the most successful PPPs implemented in transport sector in Malaysia.

3.3.9 Facility Management Models:

- ✓ Grand Central Terminal commercial facility has been managing by the Joint Venture itself with the cooperation of the MTA.
- ✓ Tower City Development, Inc. (a subsidy of main private partner Forest City Enterprises Inc.) manages all the commercial and other facilities excluding the included to the total project development with the PPP.
- ✓ The commercial facilities all the other facilities of PABT have been managing by the authority.
- ✓ The commercial facilities except the terminal operations of Alambagh Bus Terminal in Lucknow will be done by the private party and pay an annual fee to the government authority.

- ✓ All the commercial premises of Bus Depot in Rabale will be managed by the private party until the concession period gets over and then they have to transfer all the commercial facilities to the authority.
- ✓ The commercial facilities have been managing by the private partner Maju Terminal Management Services.

3.3.10 Terminal Operation Models:

- ✓ At Grand Central Terminal operations are entirely managed by the MTA since they are the experts on that.
- ✓ The Multimodal Transport Terminal has been operating by the RTA since the ownership of the Terminal lies with them.
- ✓ PABT operates the bus terminal under their authority and always maintain great connectivity with other modes of transport available.
- ✓ Terminal operations of both Alambagh Bus Terminal and Bus Depot in Rabale are being handled by the respective state transport authorities.
- ✓ Terminal Operation of TBS is the private partner Maju Terminal Management Services under the guidance of the relevant government authorities.

4. ANALYZING SUCCESSFULLY IMPLEMENTED SRI LANKAN (LOCAL) SCENARIOS FOR THE OWNERSHIP, FACILITY MANAGEMENT AND TERMINAL OPERATION MODELS OF DIFFERENT DISCIPLINES IN TRANSPORTATION AND NON-TRANSPORTATION APPLICATIONS

Though there is no properly enacted National Policy on Public Private Partnerships (which will be discussed in the next chapter in detail); Government of Sri Lanka have been practicing numerous ownership models (other than the fully Government Ownership) that had been discussed in spectrum of PPPs in earlier chapters with the existing related policy and legal frameworks. It is a must to investigate and analyze these different successfully implemented transport and non-transport models in order to craft the best fit Ownership, Facility Management and Terminal operation models for Multimodal Transport Terminals in Sri Lanka. Thus this chapter elaborates the different models in different disciplines with different environments.

4.1 Maritime Transport Scenarios

4.1.1 South Asia Gateway Terminal (SAGT):

Having recorded a double-digit growth during the second half of the 90's, the Jaya Container Terminal the leading container terminal at Port of Colombo owned by Sri Lanka Ports' Authority (SLPA) experienced capacity constraints and could not handle container volumes efficiently, a situation that caused delays mainly for feeder vessels. An important step to improve capacity was reached in 1999 with the establishment of a 30-year concession agreement with a consortium consisting of P&O Ports, P&O Nedlloyd, Evergreen and John Keels Holdings, Ltd. (Sri Lanka). The concession includes the Reconstruction, Operation and Maintenance of the Queen Elizabeth Quay known as QEQ (which previously used to handle break bulk vessels or self-geared container vessels) with a capacity of one million TEUS.

The contract was awarded under the Public Utilities Act that was enacted in 1998, forwarded by Public Utilities Commission of Sri Lanka (the Guidelines on Government Tender Procedure Part II for Private Sector Infrastructure Projects (BOO/BOT/BOOT

Projects) Revised Edition of January 1998). The Land Lord SLPA owns the land and 15% share of the SAGT total shares with rights to appoint two directors to the board.

The BOT concession generated revenue through five means namely;

I. Land Lease (SLPA as the owner/ Regulator/ Shareholder)
II. Navigation Dues (SLPA is the sole Navigator)
III. Royalty (Per box or Revenue Sharing)
IV. Wharfage (only for Import cargo)
V. Dividend (as a shareholder)

The basic infrastructure had been re-constructed (specially the quay wall/pier) and superstructures had been bought by the SAGT and owns and operates the terminal and facility for the period of concession. The emergence of the private competitor filled not only the capacity constraints but the "competition gap" that was there in Port of Colombo and productivity levels were boosted and novel technology had been absorbed to the systems.

The US $ 240 concession opened up not only the port sector to the PPPs, but also the other sectors as well. Though the government terminal JCT was slightly hit at the beginning of the operation of SAGT due to the price wars; after a while all the matters got solved and volumes got balanced and operations went nice and smooth and port of CMB came up of the rankings.

4.1.2 Colombo International Container Terminal (CICT):

Again having recorded a double-digit growth during the first half of this decade Port of Colombo got expanded with the Colombo South Port Expansion project. The basic infra-structures (Breakwater, Entrance Channels, etc.) had been developed by the SLPA with the ADB funds and the first terminal; the south container terminal was awarded to China Harbour Engineering Company Ltd under BOT concession for a period of 35 years. The Land Lord owns 15% shares and all the structures of the agreement are very similar to the SAGT agreement. This had also been very successful and enabled the port of CMB to handle mega carriers. CICT helped CMB to reach the 6 million TEUs mark and lifted the port to the 23rd in world container port ranking through the volume. The total investment was US $ 500 million.

4.1.3 Port of Hambantota (MRMRP – Magam Ruhunupura Mahinda Rajapaksa Port):

Initially the port of Hambantota was 100% SLPA owned private limited company named Magampura Port Management Company (Pvt) Ltd (MPMC) governed by separate board of directors. According to the agreement; the MPMC can retain 40% of its revenue to manage the staff and facility and rest has to be transferred to SLPA. The MPMC is given enough freedom to manage the port facility to its highest efficiency by this initial ownership model. MPMC itself is the terminal operator and the facility manager and the major investments and development were conducted by the SLPA.

But now; the fully public ownership model has been shifted near to the other extreme end of the PPP spectrum that was discussed in earlier chapters; to the long term lease contract. Government of Sri Lanka has formally handed over its southern port of Hambantota to China on a 99-year lease agreement (most probably Lease Develop operate- LDO basis). Two Chinese firms - Hambantota International Port Group (HIPG) and Hambantota International Port Services (HIPS) - managed by the China Merchants Port Holdings Company (CMPort) and the Sri Lanka Ports Authority will own the port and the Chinese Joint Venture owns 70% of the shares and rest lies with SLPA. This is the first ever long term lease contact in transportation sector which opened up doors for the ownership models that are very close to the privatization of public assets. Total estimated construction cost of the Phase 1 of the Port of Hambantota project is US $361 million.

4.2 Air Transport Scenarios

4.2.1 Airport and Aviation Services (Sri Lanka) Limited (AASL):

Airport and Aviation Services (Sri Lanka) Ltd is a fully government owned company with statutory powers to manage and develop civil airports in Sri Lanka. It is one of the leading public business undertakings making a great contribution to the national economy and it is the institutional mechanism of the Government of Sri Lanka (GOSL) through which economic benefits of civil aviation industry are channeled to the nation's coffers. Establishment of the Airport and Aviation Services (Sri Lanka) Ltd. (AASL) took place in 1983 to oversee the overall development, maintenance, administration and

service delivery of the airport. The company is among the top most profit-making blue chip companies in Sri Lanka. The share capital of the Company appears in the Company Accounts and comprises Ordinary Shares of Rs. 100/- each. The shareholding as at December 31, 2016 is as follows (AASL, 2016):

Table 4-1: AASL Shares Distribution

No of shares	Value (Rs.)	Held by
200,000	20,000,000	Secretary to the Treasury
1	100	Secretary, Ministry of Transport & Civil Aviation
1	100	Director General of Civil Aviation
200,002	**20,000,200**	

It is actively involved in the national infrastructure development drive of the GOSL especially in the field of aviation and the construction of the Southern International Airport at Mattala in the Hambantota District is one of such mega project, which is currently on its public works schedule. AASL presently shoulders the challenge of developing and managing four airports namely Bandaranaike International Airport (BIA), Colombo Airport (RMA), Mattala Rajapaksa International Airport (MRIA) and Batticaloa Airport that fall within its purview in executing the statutory responsibilities.

The company has identified the need for doubling the handling capacity at Bandaranaike International Airport within the next five years and construction works necessary for such capacity enhancement are planned to commence in the near future. AASL is being transformed into a marketing oriented blue-chip public company capable of withstanding competition and benefit from competitive advantage. The company is planning to promote domestic aviation using the existing infrastructure at civil aerodromes scattered around the country and spread its wings covering the whole island.

The company structure itself is a great example for successfully implemented ownership models in the country. Further being the aviation land lord; around 22 service level agreements and several duty free concessionaires have been signed with private partners for the successful operation of airports. Multimodal terminals to be developed will have the same elegant features as same as the airport and the expected standards of the facility management should be well met.

4.3 Land Transport Scenarios

4.3.2 Multi Modal Centre (MMC) for Makumbura, Kottawa:

The project is being done on 8 hectares of abandoned paddy acquired by the the Urban Development Authority (UDA). From the 8 hectares 1.2 hectares will be utilized for the construction of the MMC. The remaining land will be used for a mixed development project involving the construction of hotels, shopping complexes, residential and commercial units, cinemas and other public convenience facilities under the Makumbura Interchange Township Development Project (UDA, 2014).

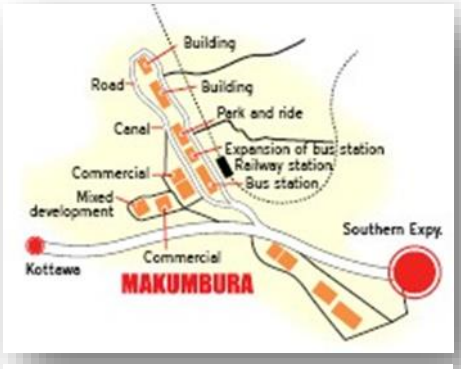

Figure 4-1: Multi Modal Centre, Kottawa

Meanwhile the MMC will consist of an integrated bus terminal and railway station in addition to 'park and ride' faculties, restaurants and rest rooms. The construction of the MMC is funded by a loan of rupees 400 million obtained from the Japan International Corporation Agency (JICA). The project is being done by the Ministry of Defence and Urban Development in consultation with the Ministry of Transport and Sri Lanka Railways. The MMC will take a year to complete while the Makumbura township development will be completed in five years. The facility will be managed by the private company formed under UDA and the terminal operations are done by respective transport authorities.

4.4 Non-Transport Scenarios

4.4.2 Dambulla Special Economic Center (DSEC):

Dambulla Special Economic Centre (SEC) is managed by the Management Trust Board established by the budgetary proposals in 1998, mainly consisting of the government representatives in the district where the SEC is located. Basic organization structure of Management Trust Board is shown in Figure.

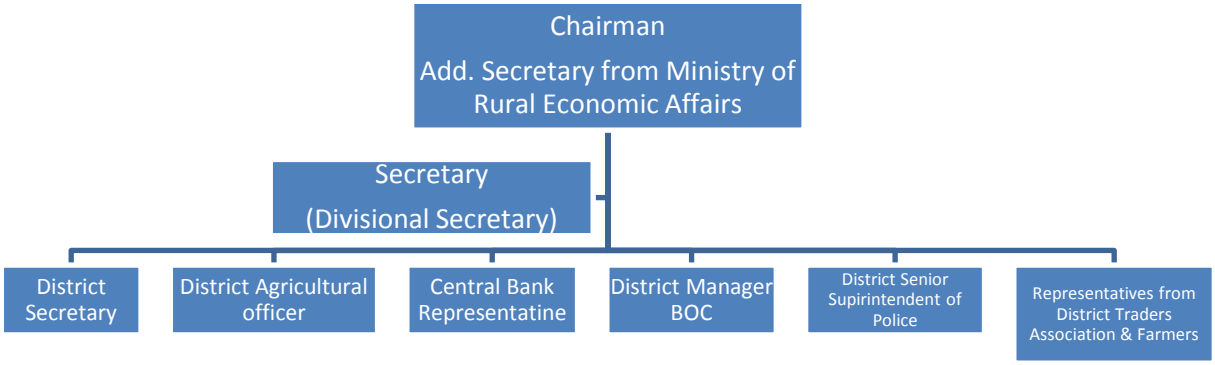

Figure 4-2: Organization Structure of DSEC

Source: (JAICA, 2013)

The office staffs under the manager appointed by the Management Trust Board are in charge of the daily operation of SEC and it is a comparatively flat organization structure. The main roles of the office staff are management of the facility of SEC, collection of rent from the tenants of the stalls, collection of daily price information and sending them to Ministry of Rural Economic Affairs. Trades of agricultural products are completely the business of the private traders, who pay rent of stalls to the DEC. In the case of Dambulla DEC, there are 144 stalls established inside of the facility and which are conducting trading. The initial investment is around SL Rs. 115 Million.

4.5 Insight in to the Local Scenarios

The different models have been discussed in detail above and the graphical representation can be presented as below.

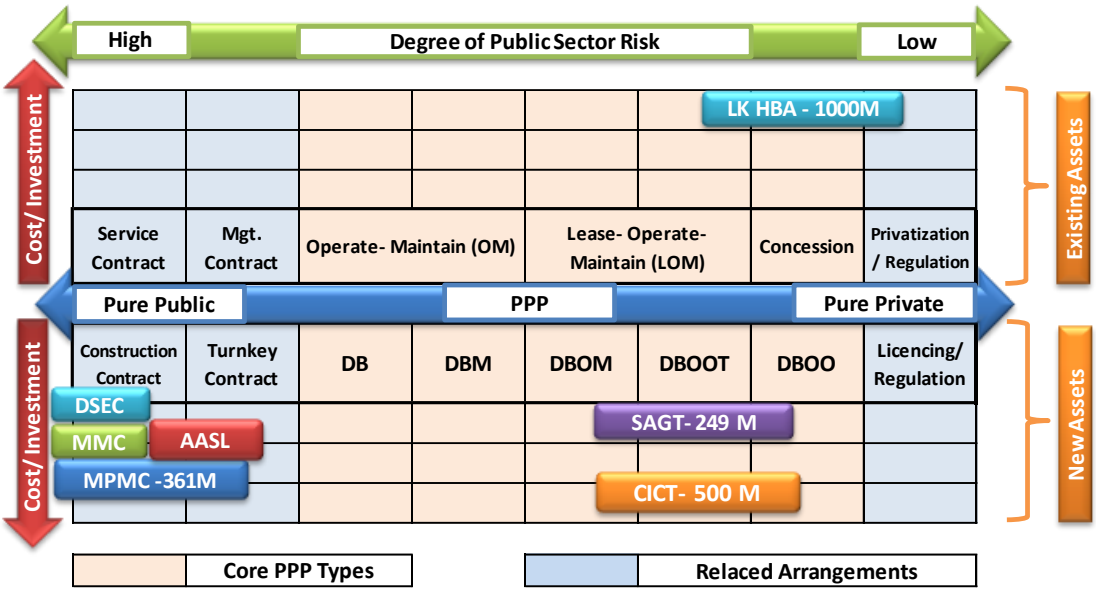

Figure 4-3: Insight in to the Local Scenarios

- LK HBA is the long-leased port of Hambantota existing facility.
- The different models that have been discussed basically fallen in to two categories;
  I. Government Ownership (Pure Public)
  II. Public Private Partnerships (PPP)

Table 4-2:Pure Public & PPP

Pure Public	Public Private Partnerships (PPP)
Government Institutions	Service/ Management Contracts
Authorities/ Boards/ Corporations	BOT or other form of Transfers
Management Trusts	Long Term Lease Contracts
Government Own Companies	Other Concessions

- Nowadays, PPPs have become one of the best options not only to avoid some of the un-efficient, stagnated conventional government institutional frameworks but also to make sure that the key national assets are not fully privatized as it adversely effects to the country's future interest.
- Thus the Government of Sri Lanka (GOSL) has recognized that the private sector can play a dynamic role in accelerating growth and in developing infrastructure projects,

and therefore is committed to promoting PPP in the country (US_AID, 2016). The highlighted main objectives for pursuing PPP in Sri Lanka as follows;

- ✓ Gaining the ability and resources to undertake more projects at the same time as a result of the private sector's funding and executory capacity;
- ✓ Transferring certain risks, such as design, construction, operation, and (sometimes) demand risk, to the private sector, who is better at managing these risks;
- ✓ Acquiring the needed additional funding for infrastructure development, especially considering that the government's budgetary provision for infrastructure sectors cannot be enhanced as needed due to other priority requirements;
- ✓ Benefiting from the technical capacity and capacity building provided by the private sector;
- ✓ Improving the quality of services, including more efficient management and operation;
- ✓ Being able to consider potentially viable and desirable unsolicited infrastructure proposals which are now shelved for the project pipeline (e.g., renovation and operation of 100 km of rail from Colombo east);
- ✓ Using government funds to invest in more socially oriented projects, such as health and education, seeing as the private sector can alleviate budgetary constraints for the more traditional infrastructure projects (such as ports and toll roads); and
- ✓ Engaging with the private sector for projects using pay for availability schemes, in which the users are not directly charged (allowing for projects such as non-toll roads or for potable water).

❖ It is very important to analyze the Past and Current PPP Project Experience of the country in order to develop productive future ownership models that will strengthen the national economy.

4.6 Past and Current PPP Project Experience of Sri Lanka:

- Sri Lanka has a long history of implementing PPPs in their development of main infrastructure. The World Bank Private Participation in Infrastructure Database highlights the fact that between 1990 and 2014 Sri Lanka entered into 73 PPP projects with a total investment of over $6 billion. However, these projects were limited to the three main sectors:
  I. Electricity,
  II. Telecommunications/ICT
  III. Ports
- Though the aggregate number and value of these PPPs is impressive, it should be noted that all the projects (with the exception of two port projects) are either in the electricity or telecommunications sectors. This amount represents roughly about 90% of the total indicated investment.
- The US Aid Report On "Sri Lanka's Current PPP Environment and Recommendations for Future PPP Strategy; Leadership in Public Financial Management II (LPFM II)" clearly reveals that Sri Lanka lacks a strong enabling PPP environment and still requires additional capacity for undertaking PPPs in other critical sectors (roads, water, waste, social services, etc.).
- Total Investment in Electricity, Telecommunications and Ports from 1990 to 2014 is shown below.

Table 4-3: Total Investment

Sector	Project Count	Total Investment (USD M)
Electricity	64	1,438
Telecommunications/ICT	7	3,953
Ports	2	740

Source: The World Bank Private Participation in Infrastructure Database

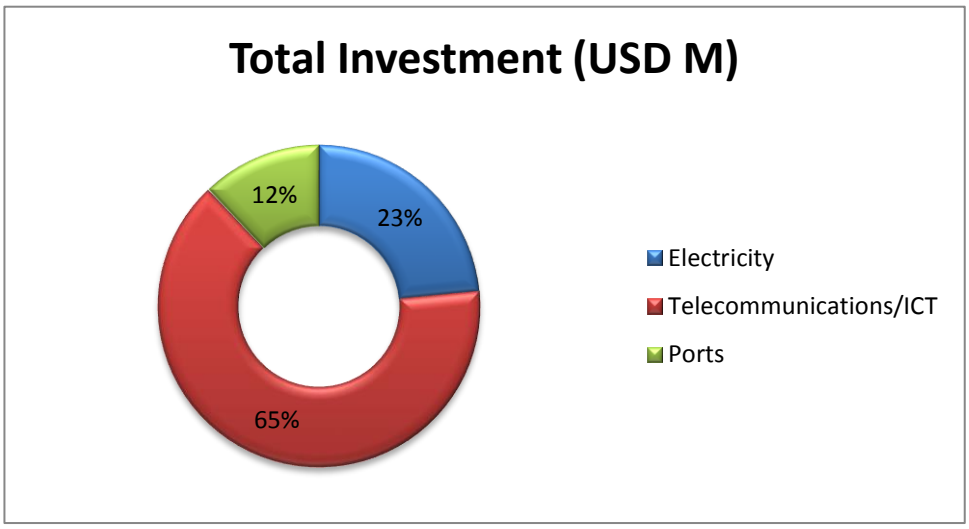

Figure 4-4: Total Investment

❖ Some of the largest projects by investment size during the mentioned time period include:

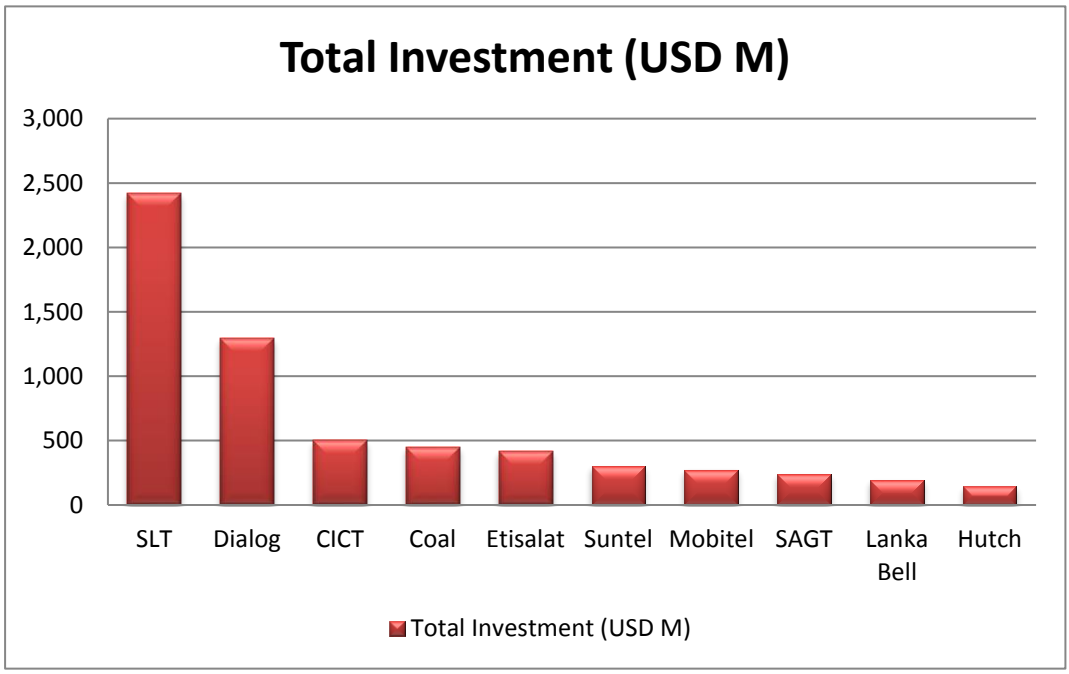

Figure 4-5: Total Investment of Projects

❖ The largest investors in Sri Lanka's PPP projects are listed down below, along with the number of projects they have invested inside the country and the total amount of investment they brought:

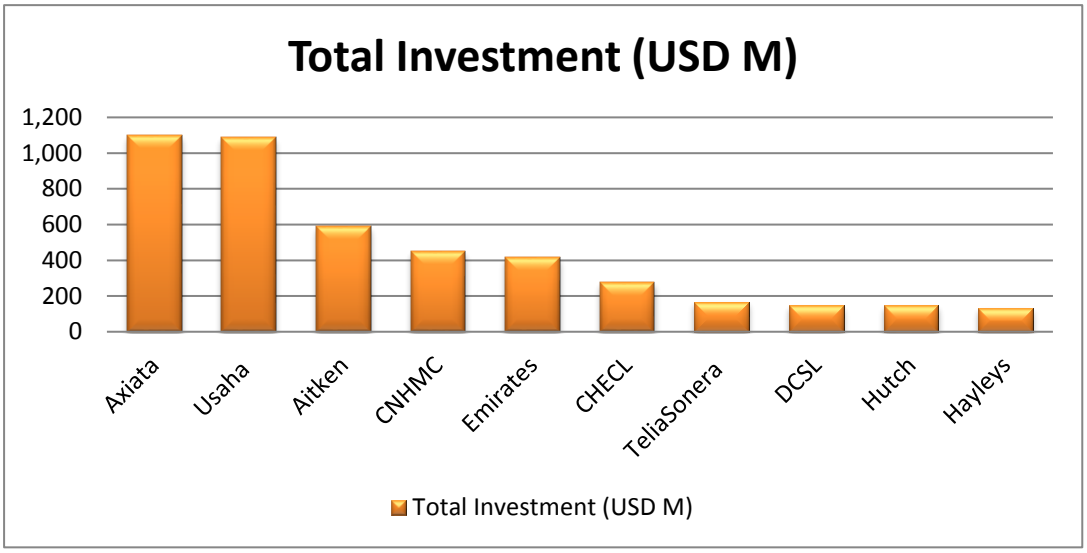

Figure 4-6: Total Investment (USD M)

❖ The Ministry of Megapolis & Western Region Development (MMWRD) has a robust infrastructure project pipeline. In the below figure (see annexes for the table), examples are presented of these infrastructure projects in the pipeline that are expected to be implemented as PPP's.

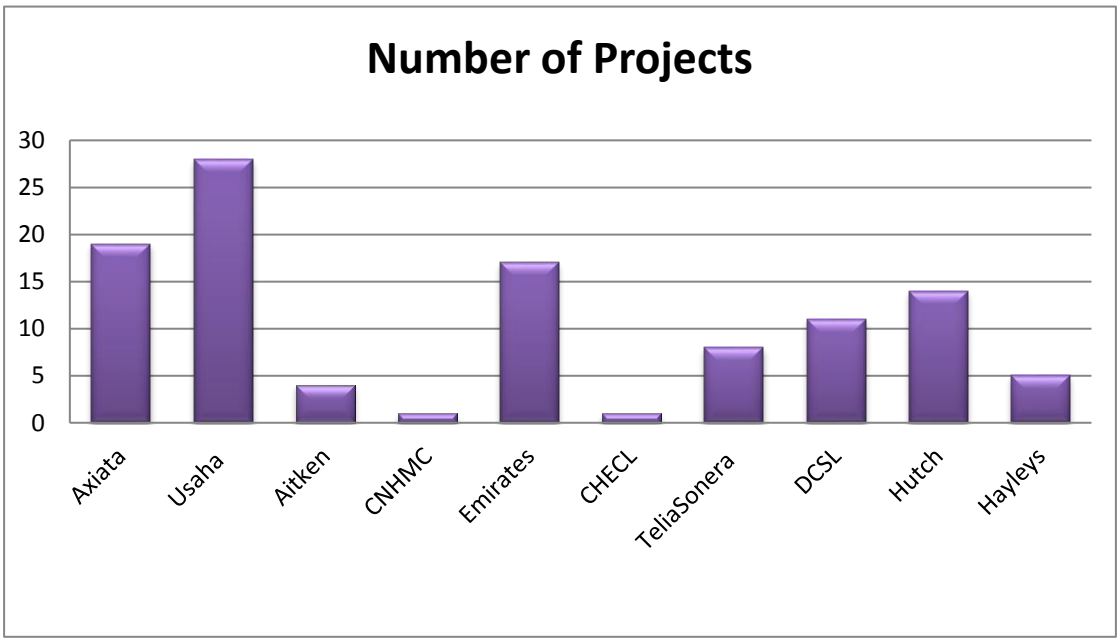

Figure 4-7: Number of Projects

❖ The above figure of infrastructure project pipe line of Ministry of MWRD clearly indicates the GOSL intention towards PPP Projects in future infrastructure developments. Therefore, it can be concluded that; though there are no specific policy or guide lines on PPPs enacted yet (like PPP India), GOSL have already decided to create Public Private Partnerships for all most all the self-sustainable future infrastructure projects since they can concentrate more on socially oriented projects that the external parties are reluctant to focus on.

4.7 Pros and Cons of Existing PPP Environment in Sri Lanka

Table 4-4: Pros and Cons of Existing PPP environment in Sri Lanka

Pros	Cons
Have project experience in several disciplines including transportation	There is no well-established PPP agency to look after or a framework to follow in Sri Lanka
All most all the projects (based on available info.) have become successful	Previous projects have been executed in isolation without a common framework but with unique processes
GOSL is positively move towards PPPs and have included it to the main agenda	Though the existing legislation support PPPs there is no "National PPP Act" enacted yet
Int'l lending agencies are much focusing on PPPs and encourage GOSL to follow	Thus; there are enough loopholes for malpractices and inappropriate influences
The current structure of the country's economy has been creating much room for PPPs to run with required energy	GOSL has not utilized the country's most of the PPP business opportunities yet and the assurance for the private partners' investments should be further strengthen

❖ GOSL has to find out the remedial actions for the mentioned Cons in order to attract best private partners with enough potentials.

4.8 Global and Local scenarios in a Nutshell

Table 4-5: Global and local scenarios in a nutshell

Cases		Pure Public	PPP Options													Pure Private
			O&M	OMM	DB	DBM	DBO	DBOM	DBFOM	DBFOMT	BOT	BOO	BBO	DF	EUL	LDO/BDO	Sale	Turnkey	
Global Cases	Maritime 1 Salalah									*	*								
	Maritime 2 Vadhavan										*								
	Maritime 3 PSA Corporation	*		*															
	Air 4 Australian															*	*	*	
	Air 5 Philippines									*	*								
	Air 6 JFK USA			*				*										*	
	Air 7 Changi	*		*															
	Land 8 TCC, Ohio, USA		*								*	*	*	*	*				
	Land 9 GCT, NY, USA														*				
	Land 10 PABT, NY, USA	*		*														*	
	Land 11 Alambagh, India							*											
	Land 12 Rabale, India						*												
	Land 13 TBS, Malaysia									*	*	*							
Local Cases	Maritime 14 SAGT										*								
	Maritime 15 CICT										*								
	Maritime 16 MPMC	*																	
	Maritime 17 LKHBA															*			
	Air 18 AASL	*		*															
	L 19 MMC	*																	
	O 20 DSEC	*	*																

Altogether 20 global and local scenarios have been analyzed in chapters 3 and 4 and the above table illustrates the summary of the institutional structures of them. Based on the entire analysis carried out related to global and local contexts, it can be concluded that;

1) All most all the global scenarios are followed or intend to follow the PPP structures since they strengthen the projects in every aspect to make it happen in successful manner and to become a self-sustaining entity. Simply the global trend is towards neither pure public nor pure private but PPPs.
2) Though there are enough local applications covering all most all the institutional structures in the ownership spectrum, GOSL highly intend to move with PPPs and have already included it to the main government objectives.
3) The international lending agencies like WB, ADB and JAICA promote the PPP initiatives around the world and encourage governments to develop PPP frameworks due to its higher successful rate.

- So the development of the Ownership, Facility management and Terminal Operation models for Multimodal Transport Terminals in Sri Lanka has to be crafted by following the principles of PPPs.

5. METHODOLOGY

5.1 Introduction

An extensive literature survey has been carried out to identify and examine the existing different models for Ownership, Facility Management and Terminal Operations in both global and local contexts and analyzed them in order to identify the best possible structures that can be applied to the country. Different scenarios covering all the aspects of transportation such as Maritime, Aviation and Land have been identified and critically analyzed basically against the cost/ investment and risk factors. Each scenario's ownership, facility management and terminal operation features have been extracted and investigated for the possibilities of application of them to the local context.

Having analyzed the global and local scenarios; it has been designed several institutional structures that can be implemented in successful manner. Several optional models with different ownership, facility management and terminal operation structures have been introduced and the public and private sector participation for each model have been clearly introduced and explained. All the proposed models and their bond through the contractual agreements and their impact on the users have been elaborated with the strengths and weaknesses of them.

Once the models have been developed it has been finally identified the best fit sustainable model for the Sri Lankan context and the way that the framework should be developed.

The explained research design can be graphically represented as below. It represents all three objectives and the path to reach the final solution for the research problem.

5.2 Research Design

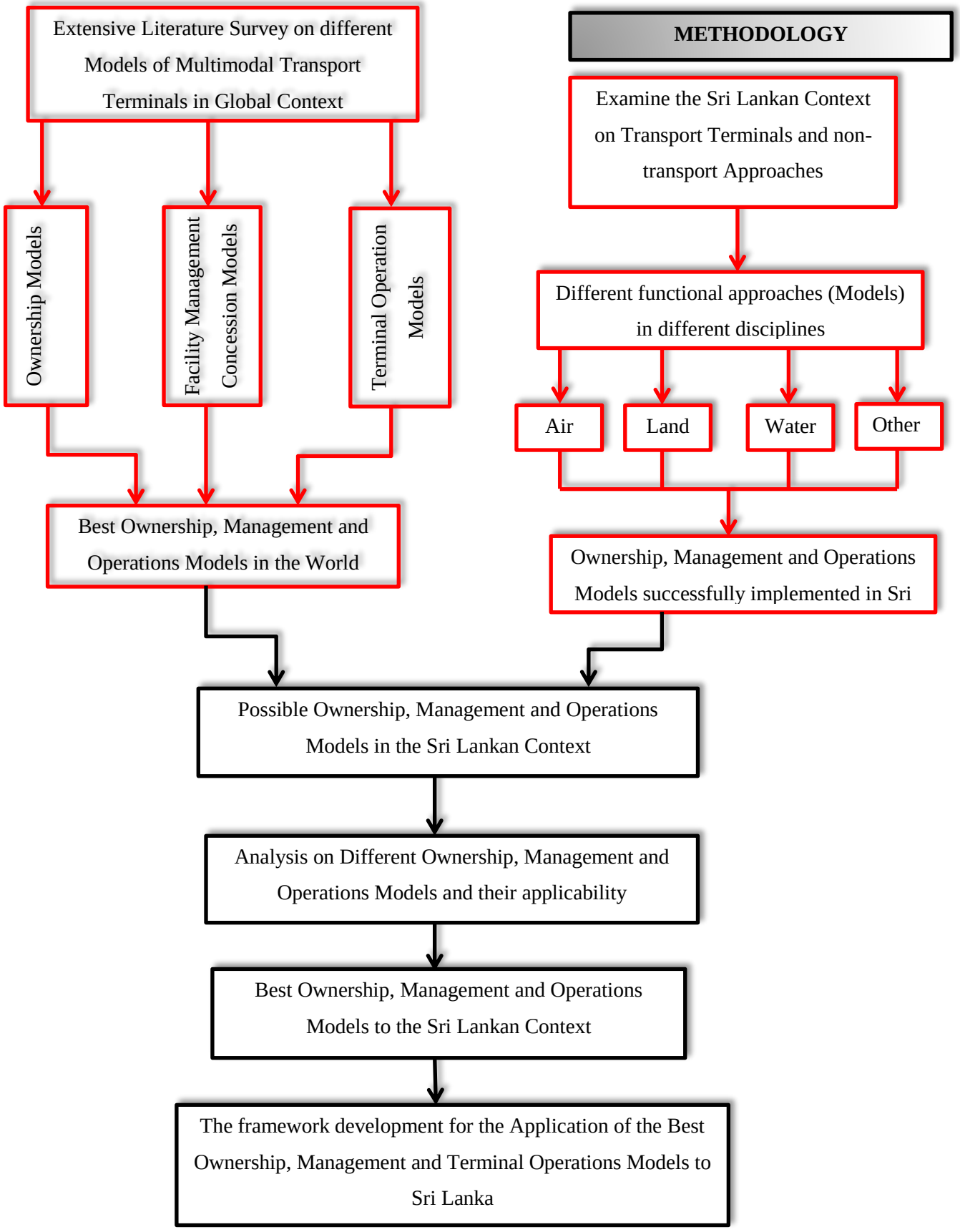

Figure 5-1: Methodology – Research Design

5.3 Data Collection

The type of the research itself does not require numerous data collections since it leads to more descriptive analysis.

5.3.1 Primary Data Sources:

The basic primary data collection was done through direct interviews with the industry experts and respective officials. Experts from land transport, maritime transport and aviation industry had been interviewed directly and collected essential information and ideologies related to different ownership, facility management and terminal operations models. Further the necessary directions were given to develop a best fit model for the socio economic environment of the country.

5.3.2 Secondary Data Sources:

The first two objectives of the research project were highly dependent on large amount of secondary data related to global and local scenarios of different transport sectors. The different institutional structures along the ownership spectrum that have been applied by different parts of the world have been identified through research papers, journal articles, books, conference papers, reports and publications by international institutions like world bank, ADB, JAICA and the local institutions like SCPD, RDA, SLPA, AASL, CAA, NTC, Central Bank, renowned universities and other government and non- government agencies. Though the surveys have not been designed to this type of research project; the extensive surveys done by other local and multinational institutions have been thoroughly used for different analysis and model and framework developments.

Further no specific questionnaire designed for interviews for data collection since the particular subjects are so unique and concentrated on a specific field. Thus the questions were crafted based on the particular interview in particular area.

5.4 Model Development:

Based on the extensive literature surveys done and the experts ideas taken from the interviews and the surveys done by the international organizations; several optional models have been introduced in the analysis chapter and the sequential process for the implementation of these models have also been introduced. Finally, the best fit models

to the Sri Lankan context have been forwarded for the real world applications based on the;

I. Experts ideas taken from interviews
II. Conclusions taken from the global and local scenario analysis
III. The SWOT analysis carried out of the proposed models

5.5 Framework Development:

Once the best fit sustainable models were introduced; it has been developed a draft Public Private Partnership (PPP) frame work for the Multimodal Transport Terminals (MTTs) in Sri Lanka.

6. DEVELOPMENT OF THE OWNERSHIP, FACILITY MANAGEMENT AND TERMINAL OPERATION MODELS FOR MULTIMODAL TRANSPORT TERMINALS IN SRI LANKA

6.1 Multimodal Transport Terminals (MTT) in Sri Lanka

The structure or the institutional framework proposed for the Multimodal Transport Terminals in Sri Lank by the Strategic Cities Development Project (SCPD) is given below.

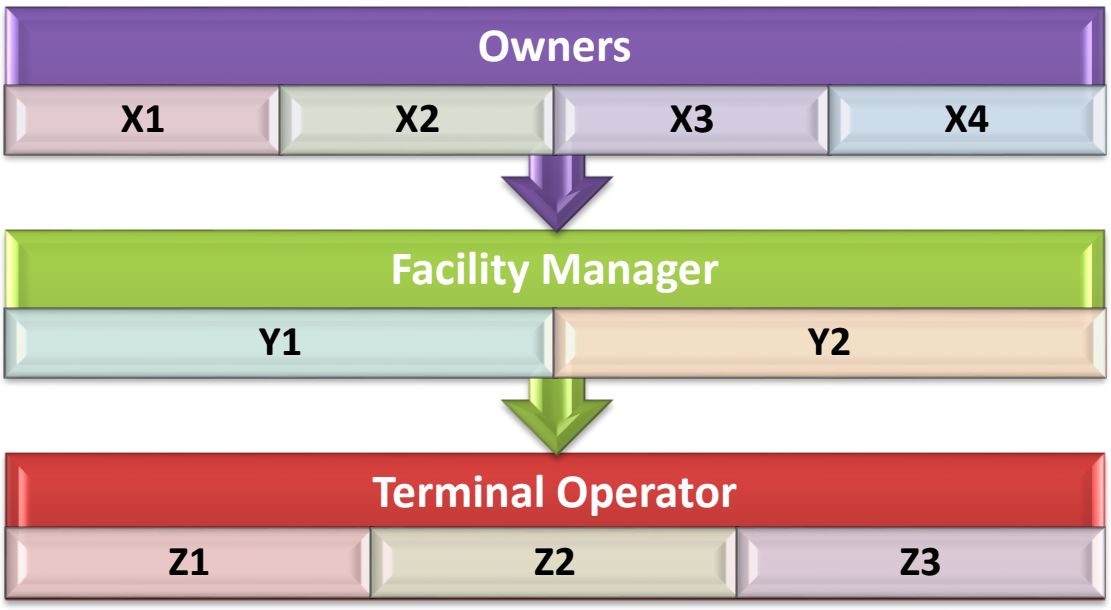

Figure 6-1:Strategic Development Project

6.1.1 Owners:

- The parties that claim the ownership of the MTT are the owners. They are the shareholders or the main stakeholders of the MTT. Whoever the investors; government or private parties that contribute to the construction of the facility can be named as the owners of the facility.
- In the Sri Lankan context, the ownership could be borne by the funding government agencies, the related ministries/ authorities/ regulating or planning institutions since the private parties have not been investing in public transport infrastructure (facility) development yet.

- Most probably all the transport regulatory bodies in all modes of transportation (Land, air and Water) engaged with the MTT would share the ownership.
- The most common transportation modes that are available to actively engage with the local MTTs are buses (all categories), rail and other private land transport modes such as taxis etc. (since air and water transport systems are not used by general public for local transportation).
- It is a prime responsibility of the governing body/ the owners of the facility to declare the expected level of standards it should be operated and the Key Performance Indicators (KPIs) to evaluate the facility management and the terminal operations.
- The owners would be rewarded through the profits/ dividends based on the contribution they make to the construction and the operation of the MTT.
- As discussed in previous chapters, the ownership model will be either Public oriented or Public Private Partnership (PPP) oriented and the proposed models will be discussed in latter sections of the chapter.

6.1.2 Facility Manager:

- The MTT facility consists of the premises, bus and rail terminals/ parks, private vehicle/ taxi parks, commercial areas, public areas and etc. These areas have to be managed, maintained and rehabilitated (if needed) well in order to provide the pre-planned high standard service level for the users.
- Thus the facility itself is the main revenue generator and the manager should be able to gain the maximum commercial benefit out of it whilst maintaining the main purpose of the terminal. The revenue sources are;
  - ✓ Percentage of ticket sales
  - ✓ Parking fees for buses/ taxi/ private vehicles
  - ✓ Rental space in common areas
  - ✓ Rental of commercial space inside the terminal
  - ✓ Marketing activities including advertisements (digital screens, boards, etc.) inside and outside the premises
- Further the manager has to market the MTT to the general public and attract more users to the premises which will enhance the commercial value of the terminal as well. But that has to be planned carefully with the participation of relevant bodies

since some times this may adversely effect to the core purpose of the MTT which is paramount.

- The facility manager is fully responsible to add live and energy to the terminal. It has to be decided who does it better; the public or private manager. The decision is totally depending on the basic structure that is going to be used which will be discussed at the latter part of the chapter.

6.1.3 Terminal Operator:

- This is the core function of the MTT and several terminals such as bus and rail have to be operated.
- It is questionable whether a single operator will be able to handle both the operations in local context since the operations of rail terminals are mandatory to Sri Lanka Railways (SLR). If it is so there would be minimum of two terminal operators for a MTT unless the department regulations will get changed (which will not be happened in near future).
- Whoever the terminal operator is, it is compulsory to use modern technology (TOS- Terminal Operating System or TMS- Terminal Management System) to operate the terminal and should be highly technically competent on the subject matter.
- The expected competency levels and the outcomes of the terminal creates a dilemma whether terminal operation should be kept in government bodies' hands or should be invited to a private party. That will be decided based on the selected model of the MTT.

6.2 Different Optional Models available for the Structure proposed for the MTTs in Sri Lanka

Based on the extensive literature survey conducted and the analysis of the different Ownership, Facility Management and Terminal Operation models that have been practicing globally and locally in successful manner; together with the ideologies of the industry experts, below mentioned optional models can be introduced as the different optional models that can be crafted as the possible structures for the proposed MTTs in Sri Lanka.

The available optional models can be categorized in to two formations;

1) Public Models
2) Public Private Partnership (PPP) Models

(Note: In models introduced below the letters "G" and "P" stands for; G – Government, P – Private)

6.3 Public Models

6.3.1 Pure Public (PP) – Model GGG

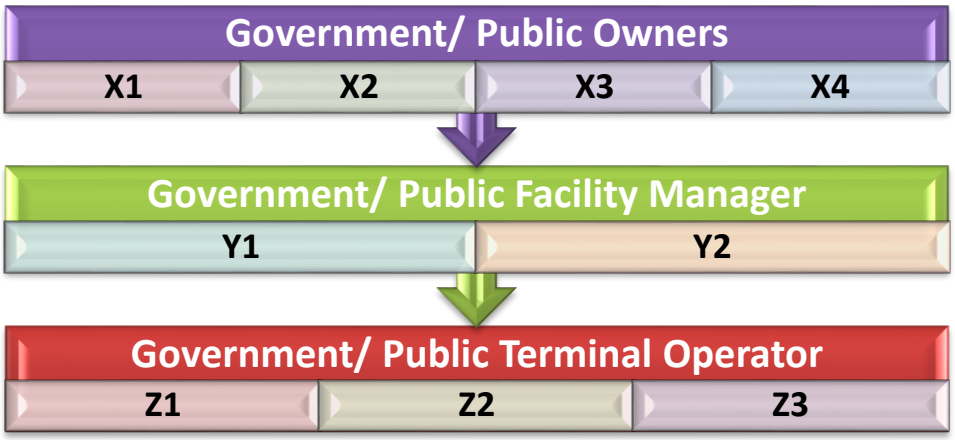

Figure 6-2: Public Model

Ownership:

- All the layers are run by government/ public organizations. The project is funded by the government funds or the funds granted by global financial institution (like ADB and WB) through government; that directs to sole ownership of the government.
- Most probably the owners will be the all transport related government bodies engaged with the MTT such as Ministry of Megapolis and Western Development (MWD), RDA, SLR, NTC, SLTB and other regional transport related bodies (provincial transport authorities, etc).
- All the public owners can come in to a single body and create a single authority/ corporation/ management trust or a fully government owned holding company or joint venture to establish the MTTs island wide. That single institution/ venture will own all the MTTs in Sri Lanka and manage the facilities and the terminal operations at the expected standards as elaborated in above.

- The authority to appoint and dis-appoint the facility managers and the terminal operators is lies with the ownership body and the performances should be evaluated periodically and take necessary actions.
- The equity share for each partner shall be decided based on the contribution they make to the overall final investment of the particular MTT project. Contribution can be in several forms such as land, labor, equipment or machinery or in any other form of capital and it shall be valuated based on the current market price and converted in to a monitory value.
- The profits or in exact term the dividends shall be decided based on the ownership share of each partner.

Facility Management (FM):

- The facility is also managed by the government institution like UDA and the facility manager might be a 100% state own company including experienced parties who have prior engagement in such activities.
- That company is responsible to maintain the entire facility in the highest level of standards as mentioned in above section. The general public who use public transport should feel the real difference of a MTT without any disturbance to their prime requirement.
- It is a responsibility of the facility manager to utilize all the commercial areas available and come up with innovative solutions (other than the revenue generating options mentioned in above section) to maximize the revenue of the facility but with the approval of the ownership body.
- At the end of the year or as the contractual terms with the state own facility management company; the remuneration shall be conducted and rest can be transferred to the owners as the revenue of the MTT.
- All the facility developments and upgrades are planned and executed by the ownership body with their expenditure and facility manager is there only to operationalize, revenue generation and maintain it.

Terminal Operations (TO):

- The terminals operations are handled by at least two parties; SLR and the government terminal operator consist of all the stake holders for.

- ❖ SLR will handle their own related operations that they are legally bound to inside the facility are being constructed according to the master plan. At the end of the contractual period SLR will be given the profit share as a fee or rent or any form that they expect it to be.
- ❖ The other government own terminal operator that consist of all stakeholders will manage all the other terminal operations including all kind of buses.
- ❖ This terminal operator might be a direct subsidiary of the ownership body or a separate team consists of all technical aspects that needed to run a complex operation like MTT who will be bound through a contract with an annual payment but certainly not private party. Simply an expert team from all related government bodies with high technical competencies (may recruit for this very MTT purpose).

Strengths of Model GGG

- ✓ Since the MTTs had not been constructed in such a manner earlier, the government ownership, facility management and terminal operation stabilize the financial status by reducing the risks of being a failure. A private partner does not take the initiative to invest this much amount of money to a totally new market without a clear assurance of being success.
- ✓ Being all the owners/ shareholders are government bodies who are bound with rules and regulations imposed by the government itself; may not create much contradictions each other since they are demarcated very clearly through legal documents unlike contracts with private parties.
- ✓ Whatever the political party who is governing the country will execute the MTT plans without any hesitation since the pure public model generates no public or union stresses at all.

Weaknesses of Model GGG

- ✓ Though the creation of the separate government owned institution for MTTs evades some of the conventional inefficiencies for some extent; government ownership in all three layers generates lots of pitfalls in maintaining the facility and the operations at the expected high standards unless a real tough control is taken place, due to the usual political, anion and other influences.

- ✓ There are very few Sri Lankan government owned institutions (such as AASL and SLPA) that runs with profits and all most all others have very bad financial statements, especially in transport sector. So there is a high potential of being unprofitable and converted in to another burden to the general public unless the proper institutional gap between other transport sector entities is maintained.

Contract Structure for Model GGG

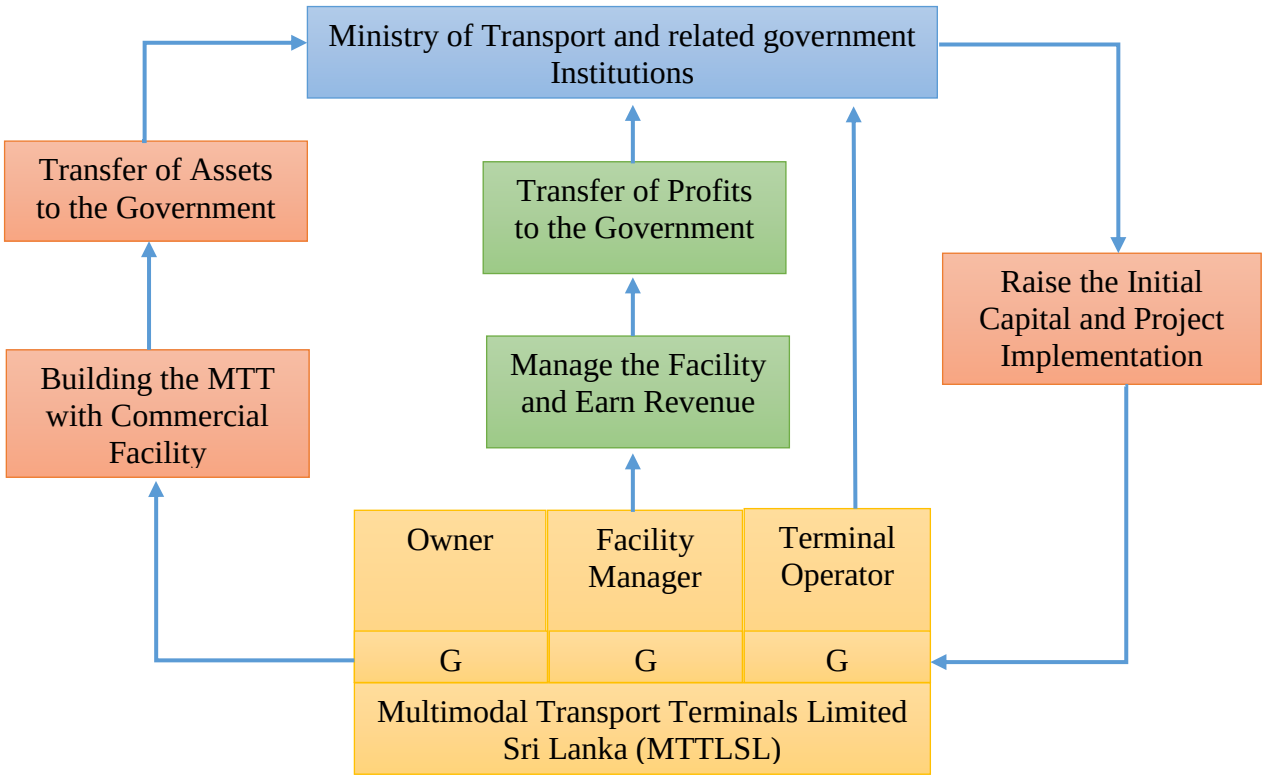

Figure 6-3: Contract Structure for Model GGG

6.3.2 Public Option 02 – Model GGP

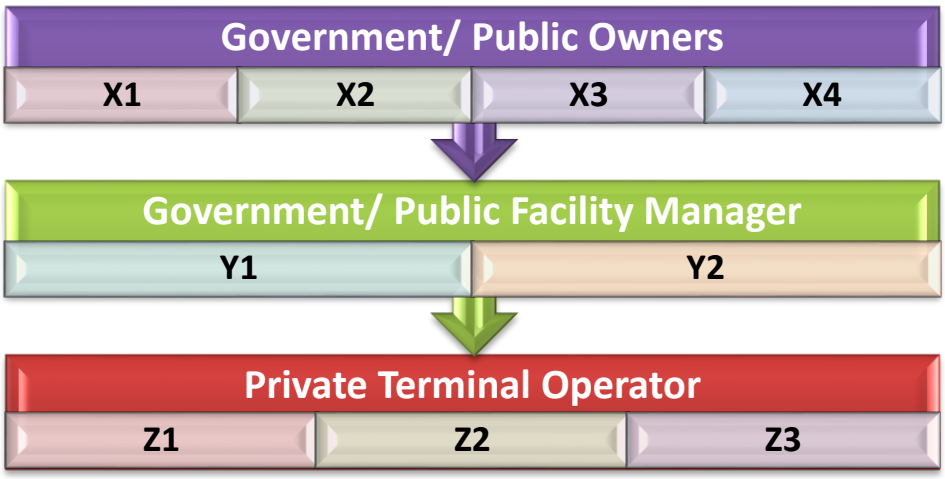

Figure 6-4: Public Option 02 – Model GGP

Ownership:

- Ownership and FM layers are run by government/ public organizations and terminal operation is done by an expert private party. Still the project is funded by the government funds or the funds granted by global financial institution through government; that directs to sole ownership of the government.
- The single entity that comprise of all the government bodies related to MTT owns the entire facility and governing mechanism is same as the pure public model mentioned above.

Facility Management:

- Facility Management is done by the public created as earlier model mentioned above and the roles and the responsibilities are much similar to them.
- The FM is kept with the hands of government since it is the main source of revenue which is crucial for the sustainability of the project. Further the owners may feel that the engagement of a private party to facility management leads to shrink their profit margins keep it with them may give them a better control over commercial aspects.
- Being too much profit oriented is a common feature (a failure in this context) of private parties which can leads to deviate from the main purpose of the MTT that is paramount for the public transport users. This is also a major factor to not considering a private facility manager.

Terminal Operations:

- ❖ Private Terminal Operator is considered due to technical competency and the efficiency in terminal operations excluding Railways. SLR operate the entire rail terminal without any interruption from other parties in order to fulfill their legal requirements.
- ❖ The private terminal operator is selected through a tendering process by the government ownership entity considering all the technical and non-technical parameters other than their price for the service (service cost to the owners) in order to maintain the expected international standards.
- ❖ Since all the basic infrastructures and super structures are provided including the required premises (office space), the terminal operator must maintain smooth terminal operation with the help of TMS installed and the guidance to streamline the processes is provided by the terminal operation committee consist of all stakeholders of the MTT.
- ❖ The private party is bound through a management/ service contract to a particular period of time (mostly for 2/3 years) and the continuation or the cancellation of service is totally depended on the periodic performance evaluation results.
- ❖ The private operator is remunerated through periodical payment by the owners as it documented in the contract.

Strengths of Model GGP:

- ✓ The government ownership provides the required financial stability in order to complete the construction and operational phase of the project since this is the first of this kind in the country.
- ✓ Expert private party in terminal operation adds value to the MTT as it eliminates the conventional state inefficiencies in terminal operation.
- ✓ The expertise in terminal operation helps to maintain the expected high standards that directly helps to attract more public in to the MTT which enhances the commercial value and the earnings too.
- ✓ The terminal operation committee consists of all stakeholders provides clear directions for the operation of all terminals and it minimizes the contradictions among private and public parties.

Weaknesses of Model GGP:

- ✓ The private terminal operator may collide with the government owned the facility manager since there is a direct influence to the passenger flow.
- ✓ Further it is doubtful that whether the private terminal operator may have enough freedom/ room to maximize its performances due to the huge pressure from above governing two tiers of the hierarchy. Most of the times the private party may suffer or they may adjust their operations not to maximize the performance (to satisfy the main customers; the general public) but to retain the business by satisfying the political and other bureaucratic forces.
- ✓ Still the potential threat from political and other influences are there even during selecting the private operator. Those loopholes should be covered with enough legal empowerment.

Contract Structure for Model GGP

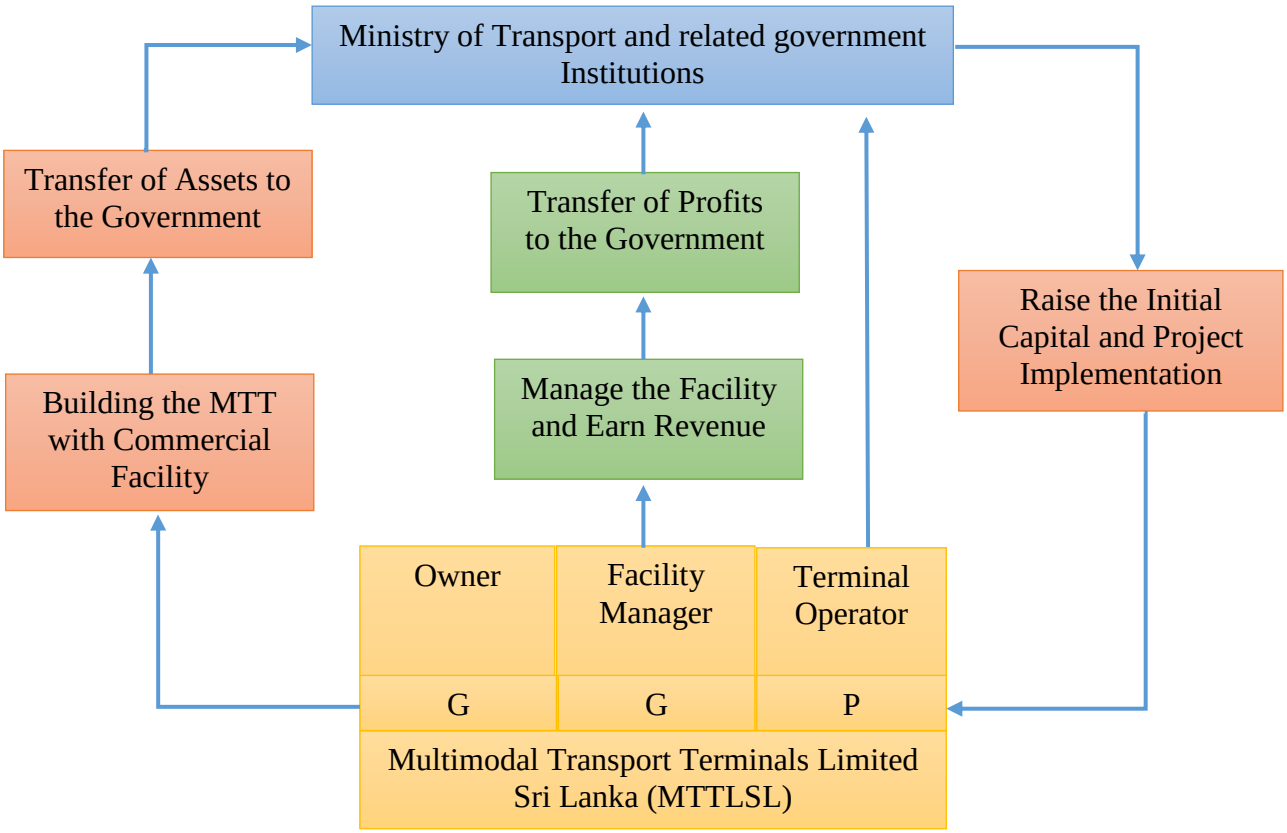

Figure 6-5: Contract Structure for Model GGP

6.3.3 Public Option 03 – Model GPG

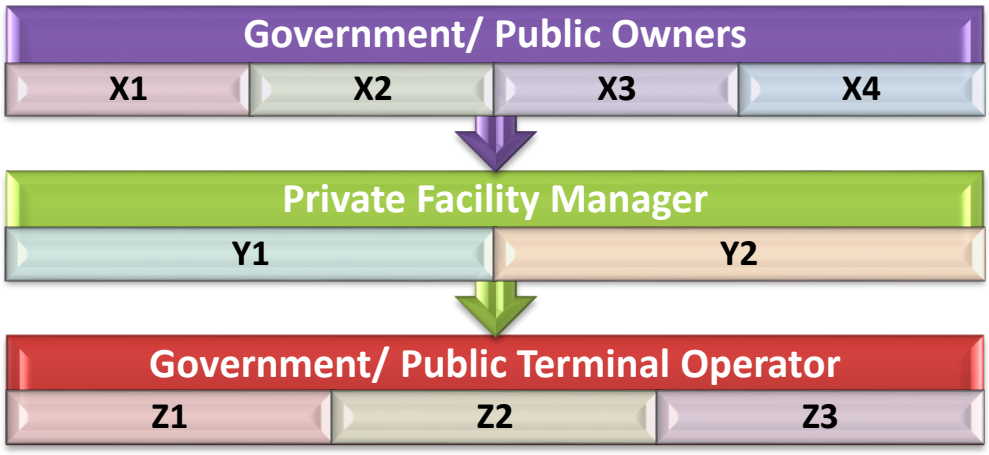

Figure 6-6: Public Option 03 – Model GPG

Ownership:

- Ownership and Terminal Operation layers are run by government/ public organizations and Facility Management operation is done by an expert private party. Still the project is funded by the government funds or the funds granted by global financial institution through government; that directs to sole ownership of the government.
- The single entity that comprise of all the government bodies related to MTT owns the entire facility and governing mechanism is same as the pure public model mentioned above.
- Private facility manager is contracted through service or management contract due to the competency in facility management commercial aspects and is being given target annum to pay back and the rest which basically depend on the performance can be kept as profit.
- The terms and conditions are decided by the fully government owned entity having discussed with the industry experts and then go for the tendering/ competitive bidding process.

Facility Management:

- Facility Manager is the main revenue generator of the MTT and one of the key strategic decisions to make by the owners since success or failure of the entire project is depended on the selection.

- ❖ It is a generally accepted factor that not a single public transport facility (bus/ rail terminals) in Sri Lanka is operated to its higher standards with considerable profit margins due to numerous financial and non-financial reasons. Thus there is a reasonable doubt that whether a government organization can run this facility in expected level of standards with the guidance of fully government own entity. All most all the government institutions in Sri Lanka are very skillful in maintaining legal frameworks but not in running commercial institutions.
- ❖ Therefore, it is decided to hire a private party to give life and enough energy to the facility as it generates the maximum benefits (the cash cow advantage) out of it.

Terminal Operations:

- ❖ Unlike the model GGP, terminal operations are kept with the public sector terminal operator (newly formed state own company including all the partners) due to proper understanding and control over operations.
- ❖ Since the private facility manager is very keen on their quarterly financial statements, government terminal operator would be crucial to maintain the proper service levels that are given to public transport users. This may create a balance situation between facility management and terminal operation which is paramount to prime customers to experience a high standard service.
- ❖ The operations are done at least with the participation of two government owned operators (including SLR) which is similar to model GGG.

Strengths of Model GPG:

- ✓ If the correct, most suitable and competent private party can be selected, the project will be a cash cow to the owners since the private entities are very good in commercial operations than public entities.
- ✓ Maintaining the terminal operations under government would be very positive factor since it would be difficult to a private party to engage and ordinate with all public partners who are even the owners of the MTT.

- ✓ Further the public terminal operator will always keen on the service to the general public than private party and the given service levels would not be compromised what so ever (due to financial factors).

Weaknesses of Model GPG:

- ✓ There is a higher possibility of deviating from the main purpose of the MTT since the private facility managers are much financial oriented rather than the other public priorities which can easily be compromised since the general public are not much aware of them.
- ✓ Still there is enough room for improper influences that can manipulate the whole mechanism.

Contract Structure for Model GPG

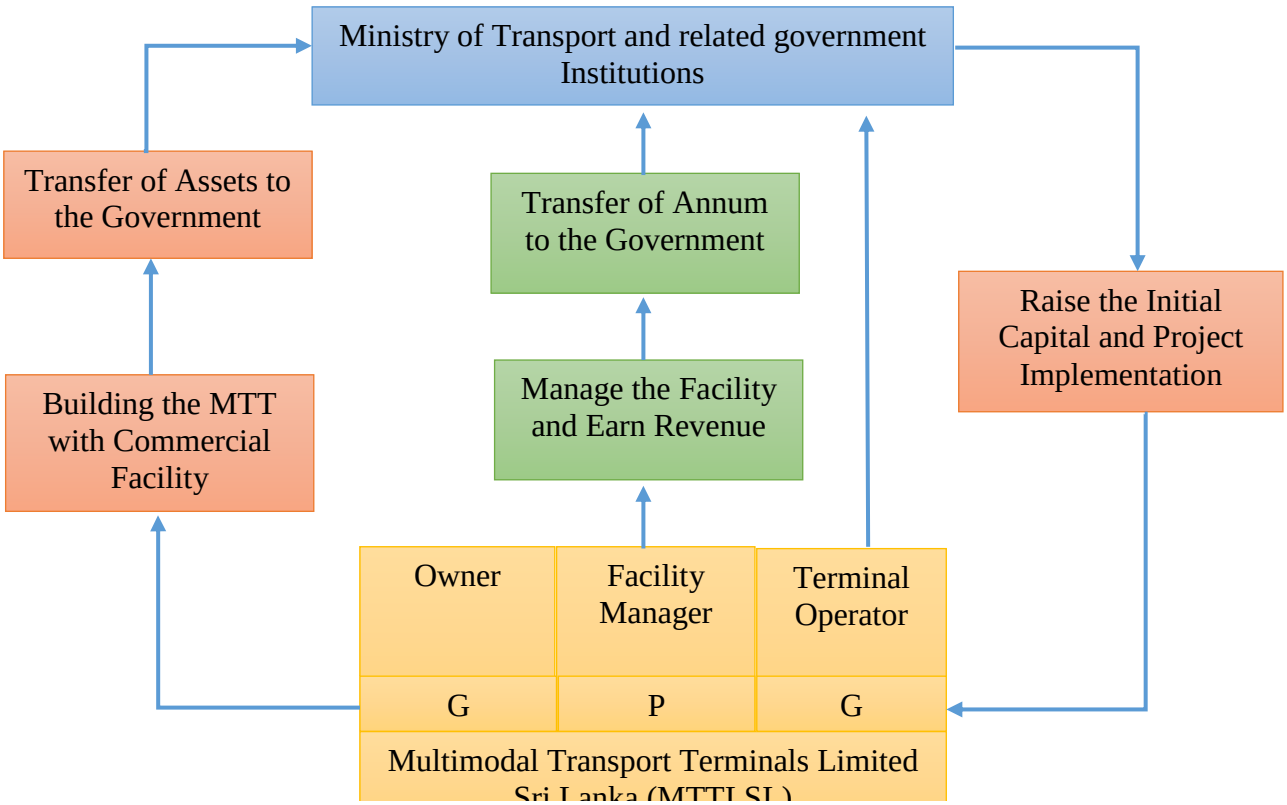

Figure 6-7: Contract Structure for Model GPG

6.3.4 Public Option 04 – Model GPP

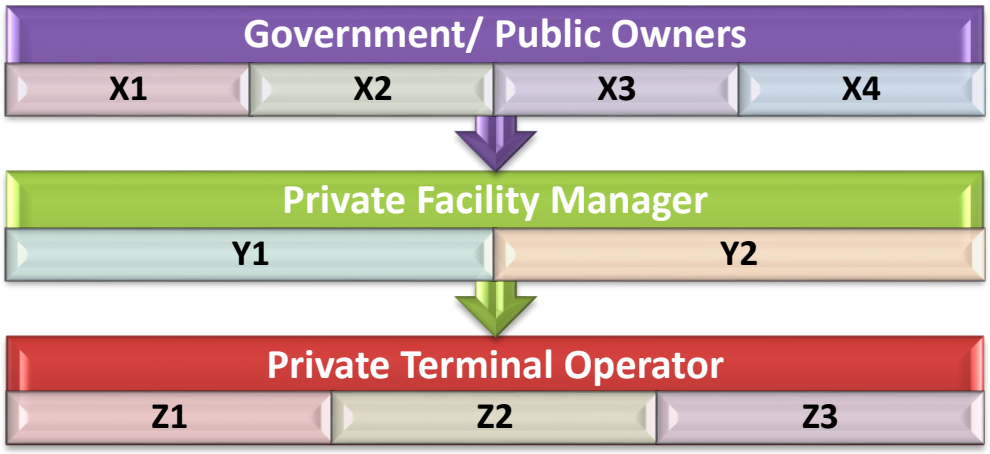

Figure 6-8: Public Option 04 – Model GPP

Ownership:

- Facility Management and Terminal Operation layers are run by contracted private parties and the 100% ownership lies with the government body. Still the project is funded by the government funds or the funds granted by global financial institution through government; that directs to sole ownership of the government.
- Private facility manager and Private Terminal Operator are considered due to the competency in commercial aspects in facility management and technical knowhow and the efficiency in terminal operations. Both are bound through service or management contracts to the sole government owner; not to claim any kind of ownership but to complete the tasks assigned by the contract during the contractual period and get remunerated accordingly.
- The dividends for each shareholder (who are inside the ownership body) is distributed having collected the contractual amounts periodically.
- The governing mechanism is much similar to the models GGP and GPG since the full ownership is still kept with the government.
- This model is same as the model followed by the Airport and Aviation Services Limited (AASL) Sri Lanka that has been explained in the earlier chapter. AASL is the Land Lord of the airport premises and responsible for ground handlings. The

facility management has been outsourced to external agencies and the terminal operation is being conducted by the Sri Lankan Airlines (previously line was owned by the Emirates Air Lines).

Facility Management:

- ❖ Private facility manager is considered due to the competency in commercial aspects in facility management.
- ❖ The role of the private facility manager is very much similar as explained in model GPG and might have better freedom since the terminal operator also a private party.
- ❖ There shall be well demarcated boundaries for the premises management and still the state owners provide necessary guidance and instructions to reach the ultimate goal they want.

Terminal Operations:

- ❖ Private Terminal Operator is considered due to technical competency and the efficiency in terminal operations excluding Railways. As usual railway department carry out their own operation within their boundaries and all the other terminal functions are fulfilled by the contracted private party.
- ❖ The roles and responsibilities of the private terminal operator are very similar to the model GGP.
- ❖ There may be a high possibility of a single private party (organization) having control over both facility management and terminal operations (like in Malaysian case explained in earlier chapter); but situation has to be analyzed deeply and take that strategic decision by the owning body.
- ❖ Sometimes this single private party control over both operations may smoothen the processes but sometimes this can cause unexpected burdens (like too much empowerment of a private party over public asset) to the owners.

Strengths of Model GPP

- ✓ The expected level of international standards and procedures may maintain without any hesitation since the enough room is provided to manage the facility and operate the terminal without much direct inappropriate influences.

- ✓ The periodical evaluation of KPIs given for the private parties may help to deliver the maximum service level that the general public is expected to be felt.
- ✓ All the governing state bodies may act as watch dogs to overlook the facility management and terminal operation efficiency levels.

Weaknesses of Model GPP

- ✓ Too much government interference may still be there which can create malfunctions, malpractices and corruptions in all aspects. Thus higher level of transparency mechanism should be maintained.
- ✓ Again the private parties' too much intention over financial statements may create some disturbances to the main course and has to be well maintained without any deviation.

Contract Structure for Model GPP

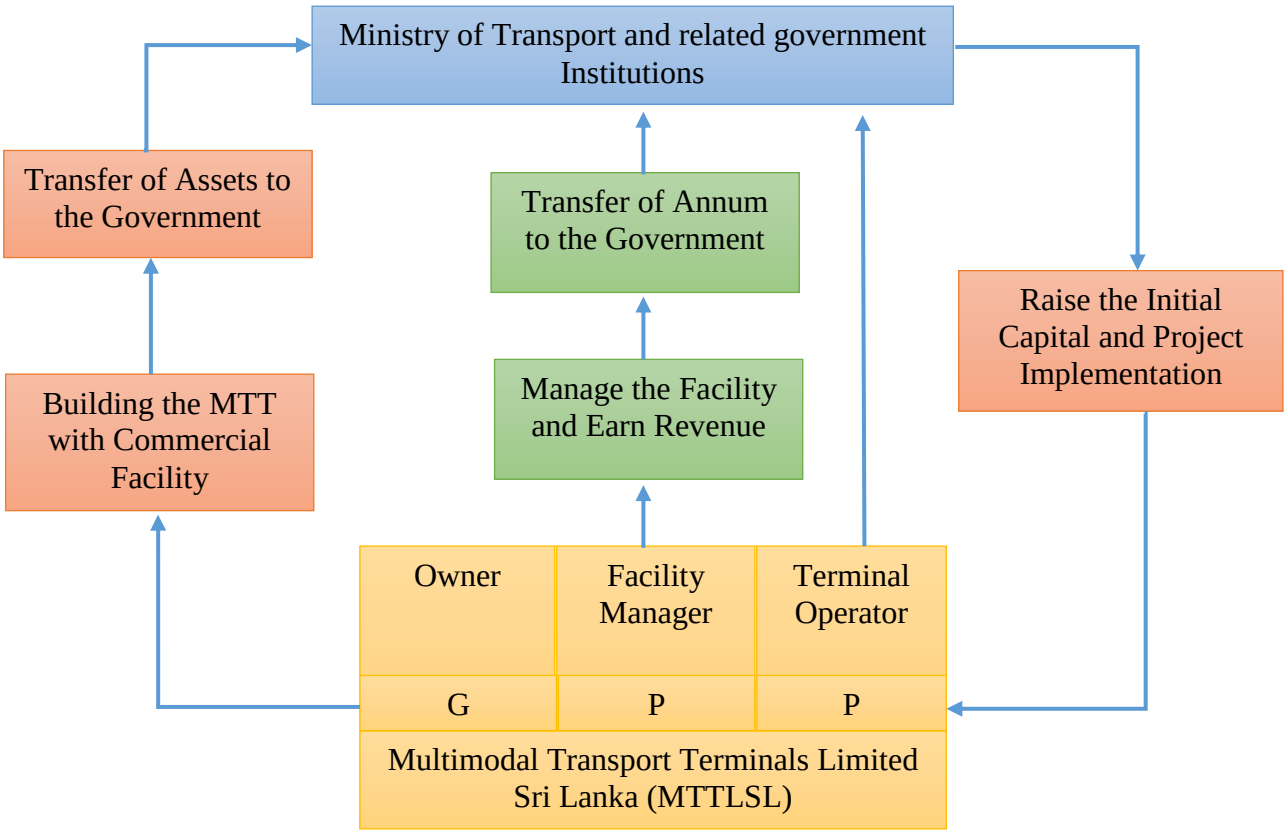

Figure 6-9: Contract Structure for Model GPP

6.4 Public Private Partnership (PPP) Models

In this case a Public Private Partnership is formed between the two parties and all the PPP models that are enacted under the Sri Lankan legislature (the Guidelines on Government Tender Procedure Part II for Private Sector Infrastructure Projects (BOO/BOT/BOOT Projects; Revised Edition of January 1998) are applicable. Any model/ form of PPP which was described in early chapters can be drafted here.

Unlike the four public models described above; the private party is considered as a "Partner" since he directly invests for the property/ asset development and become a legitimate shareholder of the MTT. Generally, in most PPP MTT scenarios (like in India and Malaysia) the private partner always invests more than 50% of the capital investment and take the higher control over the ownership and built the asset, operate it, earn profits and transfer (BOOT) at the end of the period whilst the other partners (shareholders) are given a particular annum as agreed upon the PPP contract. The projects are awarded to potential private partners based on a competitive bidding process which generates the maximum benefits not only for the users but also for the government as well.

The government venture that consists of all state stakeholders who are investing in numerous ways (like land, machinery, etc.) is also a main shareholder (but not the major one) who plays a vital role in governing, evaluating and implementing mechanisms in order to make the project a reality and a successful one. Especially in all most all the cases the private partner who does the major investment would be the facility manager since it is the main revenue generating source in any MTT. But terminal operations can be in the arm of either parties.

The PPP agreement on MTTs that is signed by all public and private partners reveals the clear demarcation between each and every role of the shareholders; the numbers may get differed from MTT to MTT but the content does not. As mentioned earlier these types of PPP projects are not novel to transport sector (Maritime and Aviation) in Sri Lanka but to public transport terminals it is quite new. Authorities like SLPA have gone through several projects but they are unique to that particular context. Thus it is paramount to build up a framework for PPPs in MTTs and it has been initiated at the end of this chapter.

6.4.1 PPP Option 01 – Model (G + P) PG

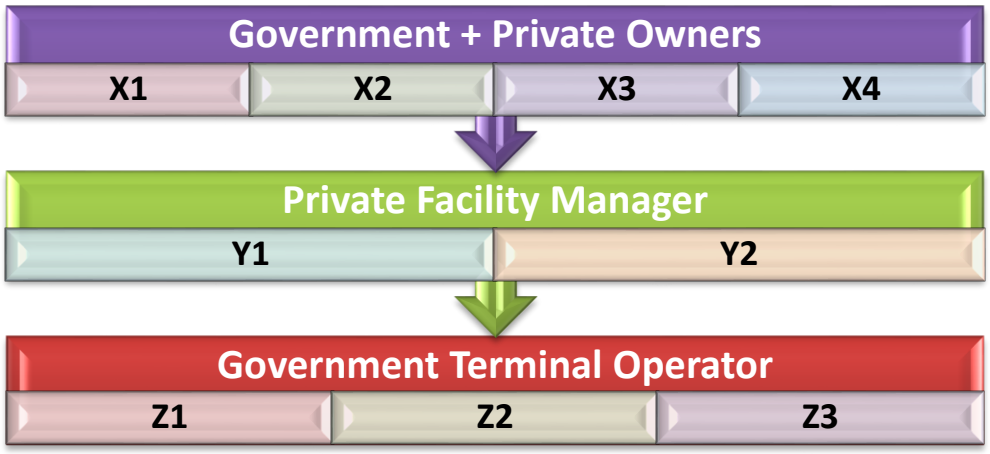

Figure 6-10: PPP Option 01 – Model (G + P) PG

Ownership:

- The ownership is shared between public and private partners based on the PPP agreement and generally the private partner owns the MTT with majority of shares. Usually private partner designs, builds, owns, operates the facility and the state partner is engaged in each and every step of them to provide the necessary consultations and issue required approvals to the private partner.
- At the end of the contractual term (that is decided by the state regulatory bodies), the ownership of the facility will be transferred to the government. Until that an agreed annum is paid to the government partner.
- The separate government institution (holding company/ joint venture/ management trust) which is formed earlier for the government own models can be the government partner in these PPP models as well.
- Since the private partner owns the majority of the shares, MTT is managed and operated with the mission and objectives of the private company. But through the PPP agreement the government has clearly demarcated the boundaries of each function and it is well overlooked periodically.
- Private partner will design the facility with the guidance of the public terminal operators and he can include whatever the aspect that add and enhance commercial

value of the premises. For instance, private partner may add supermarkets, hotels, etc. to attract more public to the facility.

Facility Management:

- ❖ It is inevitable that the private partner always becomes the facility manager since it is the main revenue generator. Innovative marketing and promotional strategies may use to maximize the profit margins and to reach the break even as soon as possible.
- ❖ It is the responsibility of the private partner to sell the commercial spaces to potential merchants and maintain and manage those all ancillary facilities as mentioned in the beginning of the chapter.
- ❖ The other roles of the private facility manager are very much similar as explained in model GPG and GPG and have well enough freedom since the owners are same.

Terminal Operations:

- ❖ In this model the terminal operations have been designed to keep with the public sector terminal operator (newly formed state own company including all the partners) due to proper understanding and control over operations.
- ❖ As usual SLR is not in a position to give up their operations to a private partner which is illegal and hence it is decided to keep all the terminal operations in government hands since they are the regulators too.
- ❖ The private partner is reluctant to take additional burden which has less control over it and less commercial value as well.
- ❖ The government operators are provided all the facilities they require to run the operations. The agreement decides who supplies the technical provisions and who pays for them. However, the terminal operations have to be conducted in the highest possible standards.

Strengths of Model (G + P) PG

- ✓ If the government can select the most suitable private partner with highest potentials; the project will be much successful than the government sole investment since the private parties always keen on return on their investment whilst government is keen

on the value (perceived by the general public and the country) for the money invested to the project.

- ✓ The government involvement in the terminal operation may always keep the private partner on track without derailing from the core value of the MTT.
- ✓ The unnecessary involvements (especially political) to the facility managements (like when the stalls are given away) would be reduced since the ownership lies with the private partner.

Weaknesses of Model (G + P) PG

- ✓ The risk of getting general public being neglected is much higher in this model than any of the above and the government partner has to be very keen on this regard.
- ✓ Some contradictions may arise between the government terminal operators and the private facility manager since their main objectives do not match perfectly.

Contract Structure for Model (G + P) PG

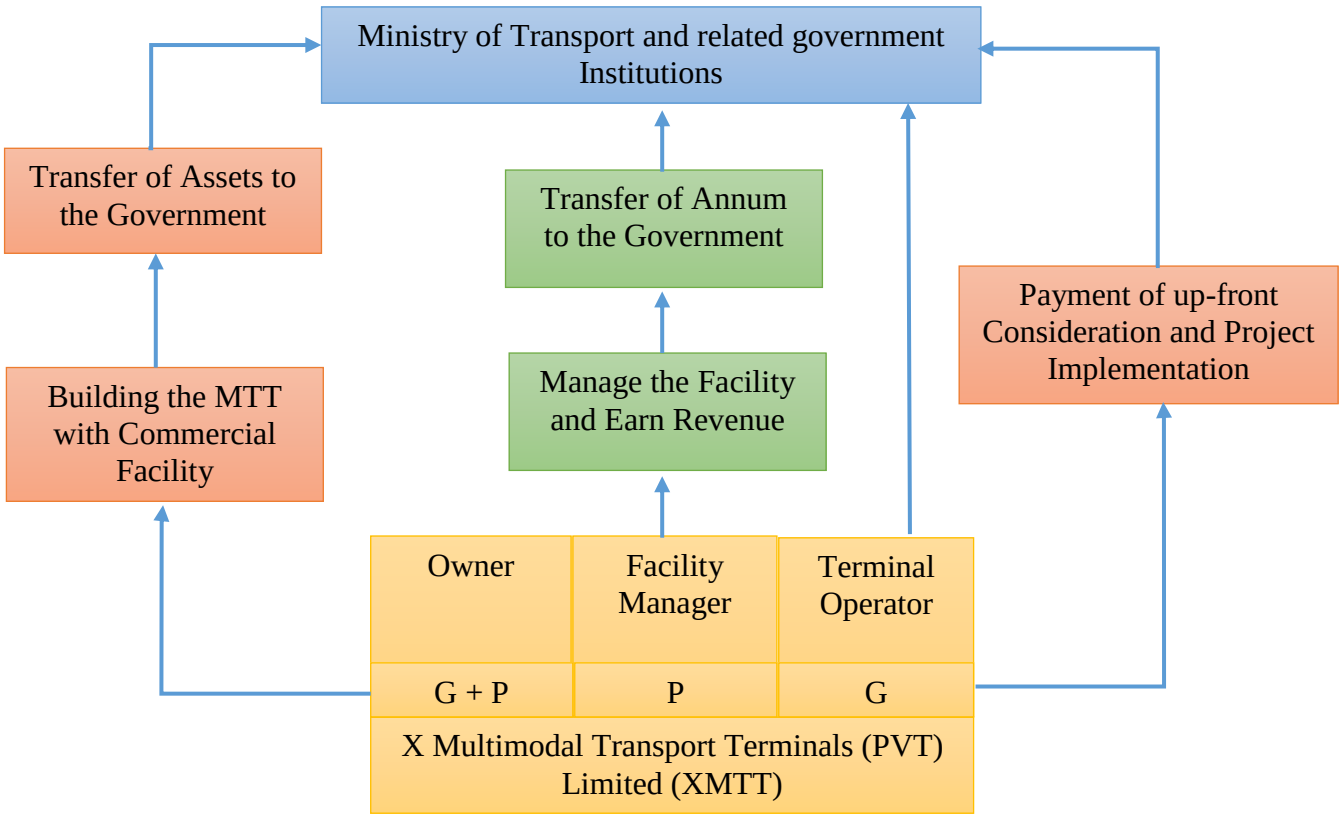

Figure 6-11: Contract Structure for Model (G + P) PG

6.4.2 PPP Option 02 – Model (G + P) PP

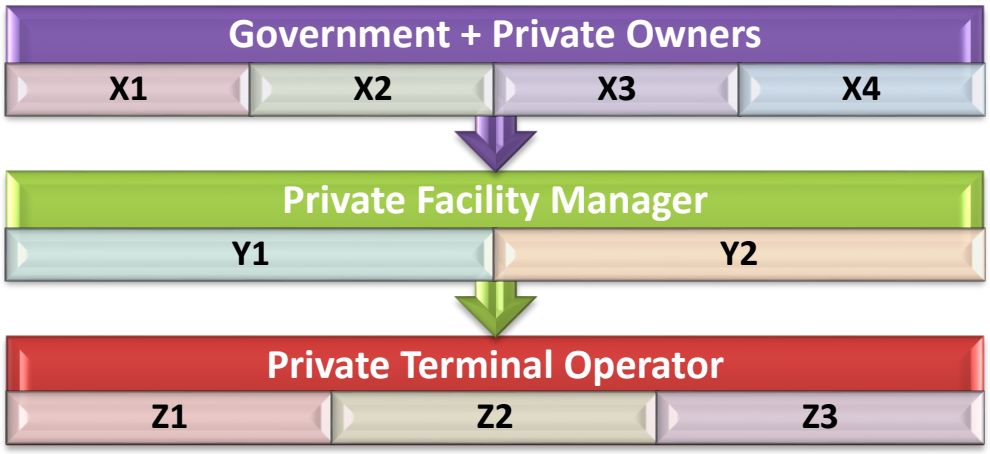

Figure 6-12: PPP Option 02 – Model (G + P) PP

Ownership:

- Unlike the above PPP model the private partner owns the MTT, manages the facility and operates the terminals as well. This is the ultimate form of PPP that any private partner can experience the maximum room for the operation of MTTs up to now.
- This form of model will be applied especially when the private partner is also in transport industry and expert in terminal and commercial operations.
- Most of the times international multimodal terminal operators highly invest on these kind of PPP projects that they want to Build, Own, Operate and finally Transfer the facility once they earn their expected profits during the contractual terms.
- All the ownership factors are similar as the Model (G + P) PG.

Facility Management:

- Similar to previous model, the private partner who owns the MTT manages the facility as well and all the factors discussed there is applicable here as well.
- All most all the staff works inside the MTT except in railway corridor is attached to the private partner.

Terminal Operations:

- Private Terminal Operator is considered due to technical competency and the efficiency in terminal operations excluding Railways. Most probably the terminal

operator would be the owning private PPP partner who might be an international transport terminal operator which is ideal to the purpose.

- ❖ These type of terminal operators are capable of handling any terminal operations including railways if it is given, but that will not happen in near future. So they may be build the facility according to international standards and transfer it to SLR for operations.

Strengths of Model (G + P) PP

- ✓ This model provides the ideal environment for a private partner to come and invest on MTTs and it should be a win-win situation for both public and private partners. Government can ensure that the general public receive the highest level of standard service with minimum government investment whilst the private partner has a legal assurance on return on investment done.
- ✓ Since the entire facility manages and operates under one partner, a smooth and streamlined processes can be expected without severe interruptions from external parties.
- ✓ If the private partner is an international terminal operator; the expected professionalism can be experienced to all the stakeholders which has become a must to this industry.
- ✓ This is the model that provides the highest level of freedom to a private partner in every aspect.

Weaknesses of Model (G + P) PP

- ✓ Since all types (public and private) of buses and government owned SLR is operating under one roof, some conflicts may arise unless they are well addressed prior the operations.
- ✓ All kind of inspections (watch dogs) including governments, general public and etc. should be installed with a proper mechanism to investigate and report any issue in all kind of services to general public.

✓ Highest level of transparency should be included since most of the international investors tend to find shortcuts for most of the situations they face especially in a country like Sri Lanka.

Contract Structure for Model (G + P) PP

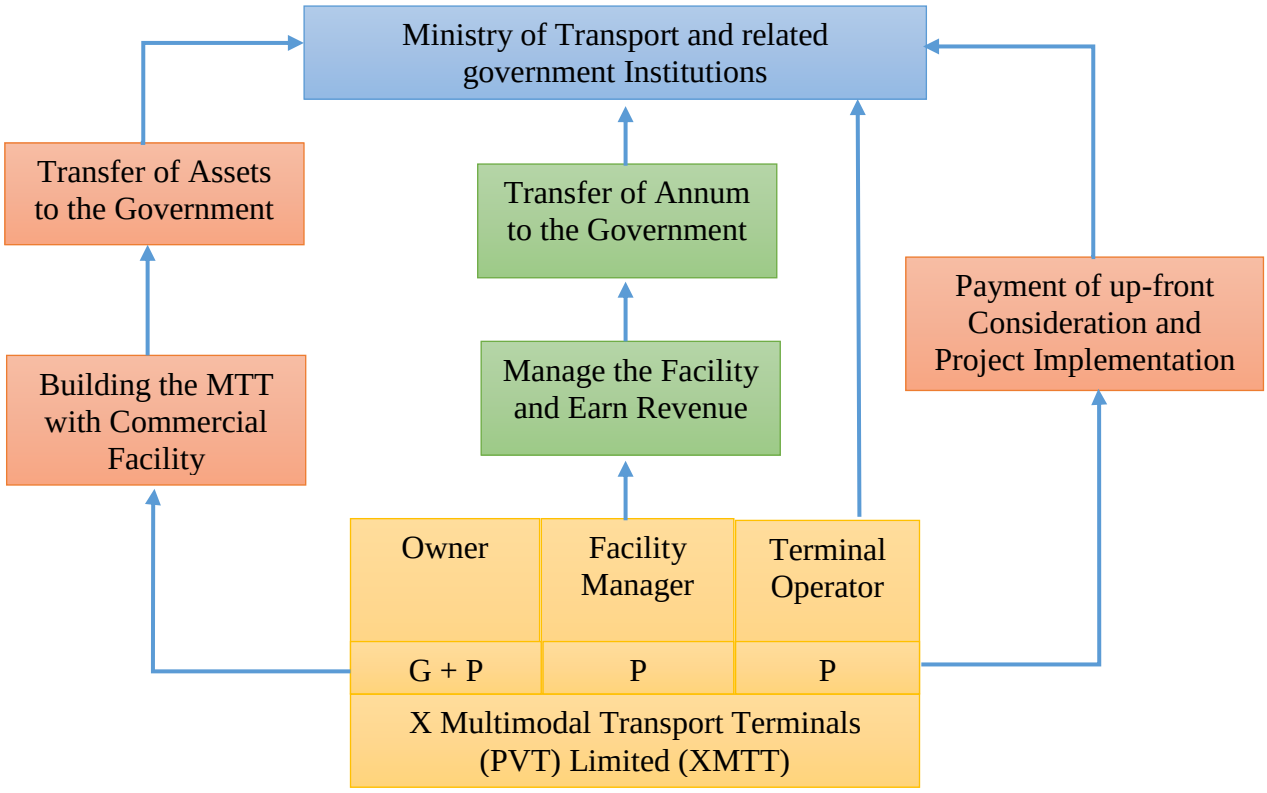

Figure 6-13: Contract Structure for Model (G + P) PP

6.4.3 PPP Option 03 – Model (PPP) + G - Unsolicited PPP projects

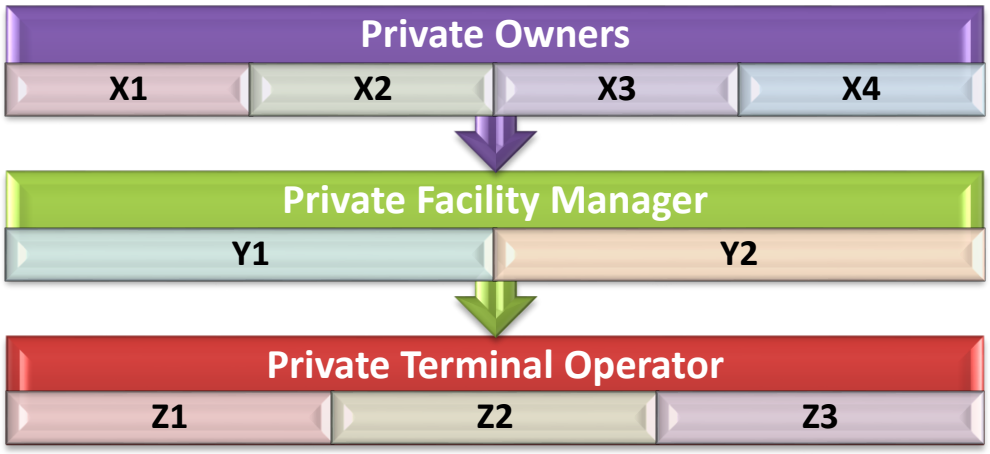

Figure 6-14: PPP Option 03 – Model (PPP) + G - Unsolicited PPP projects

As an alternative approach to originating and developing PPP project ideas, some governments accept unsolicited or privately-initiated PPP projects. By welcoming "privately-initiated" projects, governments can harness information and ideas that private firms have about how to provide services people need. This can be considered as "Towards Pure Private" model where all three layers (ownership, facility management and terminal operations) are governed by the private partner who proposes the unsolicited proposal.

Though these types of projects are legally acceptable (based on the survey done by World Bank related to PPPs in Sri Lanka; see the annexure) in Sri Lankan legislature; it is really difficult to bring them up to an operational level due to several political, socio economic and bureaucratic reasons. Because most of these projects are Design, Build, Finance, Operate, Maintain and Transfer (DBFOMT) PPPs where private partner holds all most all the control over project and government plays the role of authorities, consultants, monitoring and evaluation (sometimes the terminal operations like railway). Unlike the western countries where this model has been very successful, it is well known that Sri Lankan socioeconomic and political culture have not become that matured (transparent or well structured) to accommodate these types of projects yet.

Most of the times the users may have to pay for the services provided by the private partner and private partner may decide the toll/ fee to be recovered from the users having

discussed with the government who does not have much control over financial decisions of the private partner, whose process can be highly rejected by the users; the society, where higher socioeconomic discriminations are available and these scenarios can suppress the government to nationalize these kind of projects where the particular PPP becomes an utter failure. So this model is not practical in current context. But may be very useful in future.

Contract Structure for Model (PPP) + G

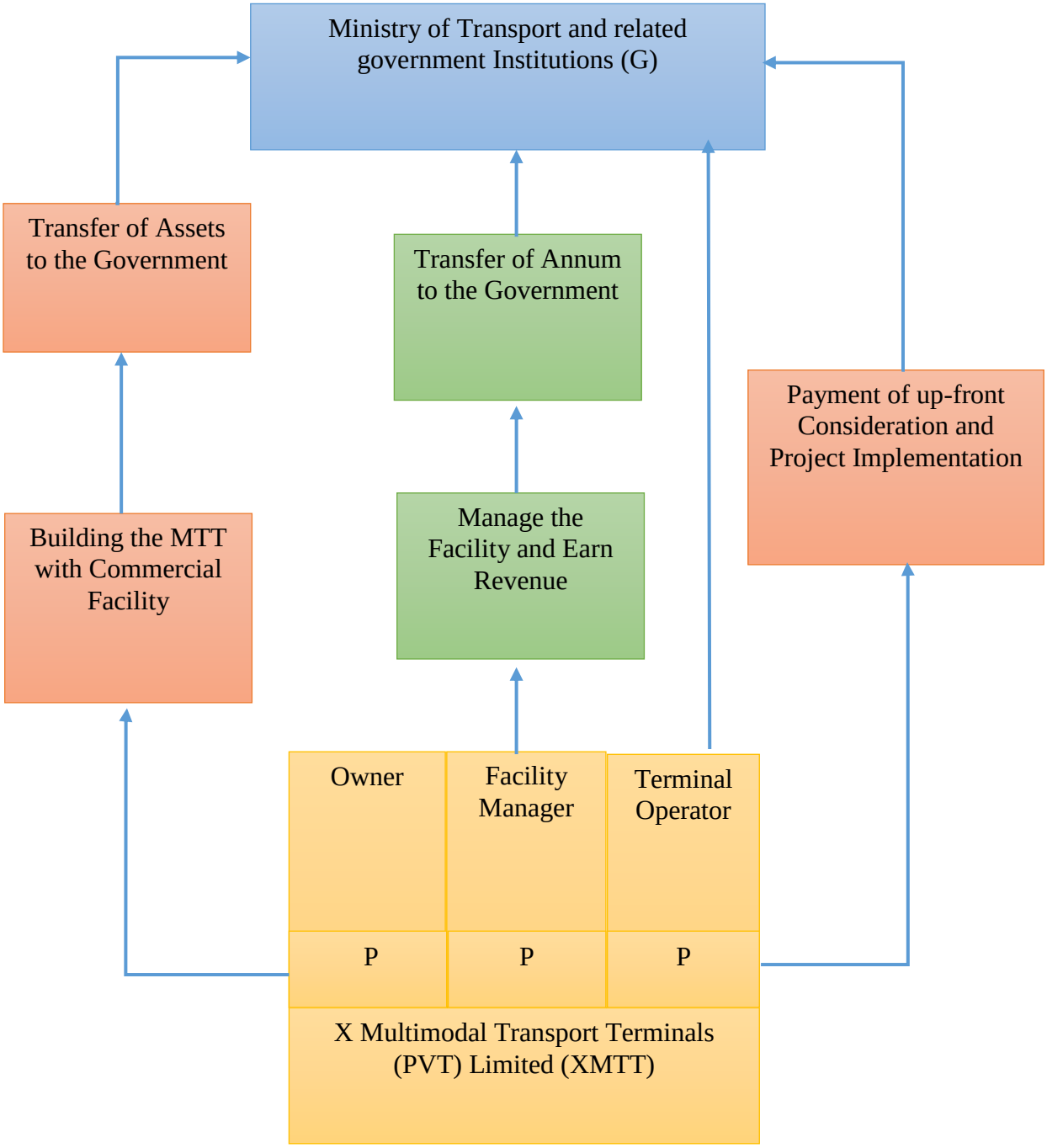

Figure 6-15: Contract Structure for Model (PPP) + **G**

6.5 Insight in to the Seven Models

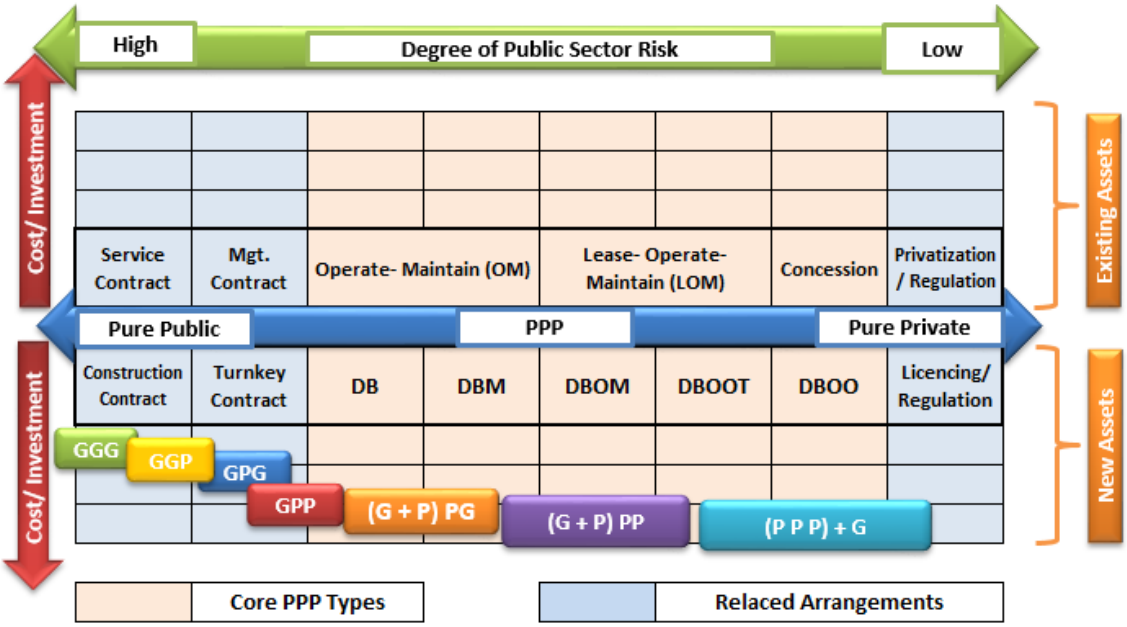

Figure 6-16: Insight in to the seven models

All seven models have been compared against the cost/ investment of the projects and the degree of the public-sector risk assuming all are in to new asset development projects related to MTTs.

- The size of the total investment or the potential bearable cost of the project is increasing along the spectrum from pure public towards pure private initiatives since the margins are much higher for a perfect private partner.
- It is straight forward that the governments are willing accept successful PPP plans since their risk is getting fewer along the spectrum from pure public to pure private. But the government is remunerated as per the contractual annum and society receive what it is essential.
- So, government should keep necessary control over the private partners to make sure that the real users perceive what they actually expected from MTTs and on the other hand the required room for operation should be given to the private partner to run the facility with adequate profit margins.
- The four government models bind with the private party through management or service contracts and three PPP models bind with private partners through PPP contracts.

- Properly structured PPP framework for MTTs is a must to build up sustainable relationships with the public and private partners (stakeholders) that has been sketched at the final part of this chapter.
- Stakeholder management is paramount in these kind of projects and all the related stakeholders for MTTs in Sri Lanka have been listed down below.

Figure 6-17: Stakeholder umbrella for proposed MTT models

6.6 SWOT Analysis for the Proposed Models

Table 6-1: SWOT Analysis for the proposed models

		Factors	Public Models				PPP Models		
			GGG	GGP	GPG	GPP	(G +P)PG	(G + P)PP	G + (PPP)
Internal	1	Financial/ Investment strength	*	**	**	***	****	****	****
	2	Cost sharing		*	*	**	***	***	***
	3	Risk sharing		*	*	**	***	***	***
	4	Complying with Int'l Standards	*	**	**	***	****	****	****
	5	Technical competancy/ Expertise	*	**	**	***	****	****	****
	6	Return On Investment	*	**	**	***	****	****	****
	7	Project sustainability	*	**	**	***	****	****	****
	8	Incompatibility of partners	*	**	**	***	****	***	***
External	9	Government control over ownership	****	***	***	***	**	**	*
	10	Government control over management	****	***	**	**	**	**	*
	11	Government control over operation	****	**	***	**	**	*	*
	12	Transparency	*	**	**	**	***	***	***
	13	External inappropriate influences	****	***	***	**	**	**	*
	14	Legal contradictions	*	**	**	***	***	***	**
	15	Public or Union Stress	****	***	***	***	**	**	*

- ❖ Strengths, Weaknesses, Opportunities and Threats of the proposed seven models those have been explained in detail individually have been summarized in above single table under fifteen factors that directly relate.
- ❖ Black stars represent the positive factors whilst red stars represent negative ones.

6.7 The best possible structure for the Single Government Entity

It has been suggested from the previous sections of the chapter that all the government institutions related to multimodal transportation should gather in to a common forum and form a single entity in order to establish MTTs island wide. The structure of that single entity is vital for the success or the failure of MTTs in Sri Lanka. This section elaborates the best possible formation of the organization structure of that single governing body.

It is inevitable that all the inefficiencies and negative qualities of government sector will be embedded if the structure is same as a fully government own institution. The single entity will be highly affected by the conventional inappropriate political and other influences. So it is not the ownership structure that future demands.

If it is not the 100% owned government institution, then it can be a semi government institution, authority, board or a corporation (like SLPA, CEB, CPC) that governs under the government but through separate chairman and director board which gives much room for decision making and project implementation than 100% owned government institution. This structure is kind of a blend with public and private sector formations and still the possibility of inefficiencies and unwanted influences is there.

Another successful government model that had been discussed with the local scenarios is Management Trusts. Most of the major Economic Centers which are operated by Ministry of Economic Affairs are run through this model and it has been successful even with some small problems identified. But the fact is that all most all the economic centers including Dambulla, are too small investments whilst comparing to the size of the investment for MTTs. It is doubtful that whether the burdens and forces (financial, operational, etc.) generated through MTTs can be borne by the management trust structure particularly in Sri Lankan context. It has been proven in Indian structure that

the management trust formation can bear such kind of investment pressure since the JNPT (Jawaharlal Nehru Port Trust) is running very successfully and having concession agreements with leading maritime terminal operators in the world. There are no such scenarios found in local context.

One of the best structures that delivers a maximum amount of freedom to improve even being under the government umbrella is "Government Own Companies". The expected room for developments that is there in private companies is available under the public ownership which minimizes the political and union pressure of privatizing public assets. AASL (Airport and Aviation Services Limited) which is a government own company with higher annual turnovers and competing with other blue-chip companies in the country is one of the great examples that have been very successful in Sri Lankan context. The management and operation structure of the AASL is much similar to the MTTs too.

Thus having analyzed all the structures mentioned above; it is recommended to form a single government own company (or holding company or joint venture) with the participation of all related government institutions.

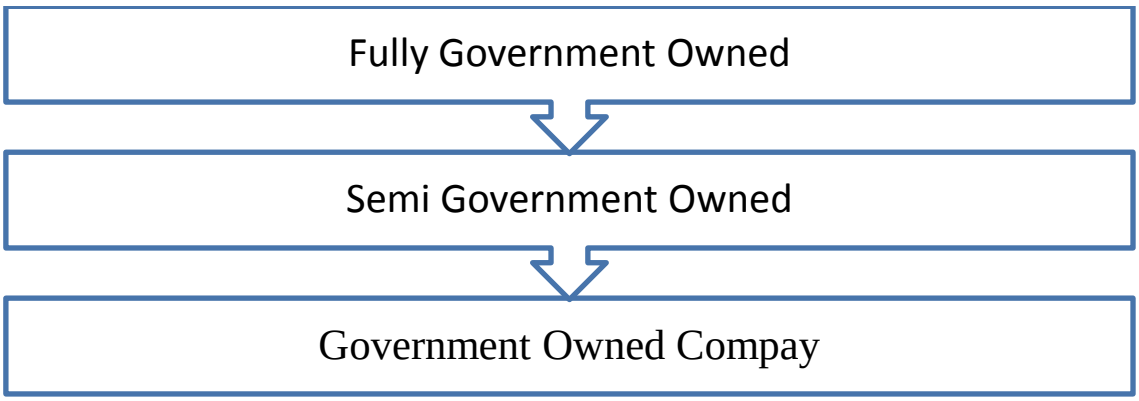

Figure 6-18: Best possible structure for the single government entity

6.8 Implementation process for the different proposed models in Sri Lankan Context.

The in-depth surveys done by renowned international institutions (like World Bank) and the industry experts' ideas confirm that any model from the above elaborated spectrum

can be applied with in Sri Lankan legislature but some critical practical issues may arise with the unsolicited PPP projects. Since these kind of MTT mega projects have not been implemented in local context yet; it is doubtful whether the private partners are willing to invest huge amount of money with much higher potential risks (none of the bus or rail terminals in the country is running with considerable profit margins). Therefore, it is highly recommended to initiate the MTTs projects using one of the first four government own models which can be considered as an example project for the private partners who are willing to invest on partnerships in future. If the government can prove that the MTT can be run with higher positive margins, then it is not difficult to attract potential private partners for the rest of the projects that eases the future financial burden on the government through implementation of PPPs. Further the initiation with a government own structure prevents the potential political and social unrest on privatization of public assets which is very sensitive scenario to be tackled.

Out of four government models namely; GGG, GGP, GPG and GPP it is highly recommended to start the MTT project with model GGP or GPP. The ownership lies with the government own single entity and the facility management and terminal operations (most probably without railway) are done by selected competent private parties who are best at their works. The facility management can be kept with the government entity having analyzed the necessary potentials for the particular job and considered the cost benefit analysis by hiring a private party on that. If the single government entity bears the required competencies (like AASL) there is no harm of managing the facility whilst hiring the private party for terminal operations.

Another major fact to go for GGP or GPP models instead of GGG is that the government's future intention (that was mentioned in previous chapter) to move with more private partners in building commercially viable infrastructure projects (PPPs) rather than government investing money on them. Since the government is very much concern on socially oriented projects (such as health and education) than the traditional infrastructure development projects that can be done with the participation of private sector partners. So the initiation of MTTs engaging with private parties through the models like GPP enhance the enthusiasm of potential future private partners to take part in next MTT projects as major shareholders. The structure itself lays the foundation for the participation of the private partners in construction and operation of future MTTs.

Not only the intention of GOSL but also the major funding agencies like World Bank and ADB have been experiencing the success of implementing MTT kind similar projects with the mechanism of PPPs throughout the world (which have been explained in previous chapters). Therefore, if the proposed PPP models are followed by the MTTs, the projects can be easily funded by those international funding agencies which is paramount for the success of the projects.

Thus, it is highly recommended to initiate the implementation process through a fully government own model with the participation of private parties and then gradually move towards the proposed PPP models having proven that the MTT is a commercially viable entity in Sri Lanka. Once the private partners take part in the MTT projects it will ease the governments investment burden on them and they will play the major regulatory character.

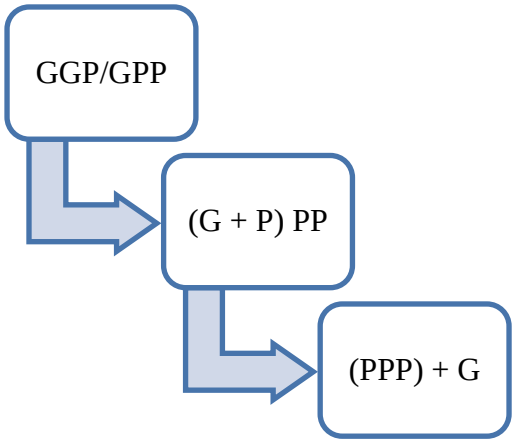

Figure 6-19: The implementation process of the best fit models

6.9 When to move to PPP Models?

If the ultimate sustainable model for MTTs are PPP models; it has to be decided when to move toward the private partners from the government ownership. Once the following requirements are fulfilled; the GOSL can invite private partners to join hands with to implement MTT projects in Sri Lanka.

1) The MTT becomes a commercially viable (profitable) self-sustaining entity when the general public get used to it and whilst the demand for the facility get to an optimum level. Simply when the market is set for MTTs.
2) When the government is well-understood the real application mechanism with the respective private partners.
3) When the legislature is re-crafted to facilitate PPPs for MTTs.
4) When the project can achieve a better value for money than traditional government procurement.
5) When all the stakeholders are ready for it (such as railway).

Finally; based on the global and local scenario analysis done in the previous chapters; and the ideas taken from the industry experts, it can be suggested that the best sustainable formation for the proposed structure for Sri Lankan Multimodal Transport Terminals can be crafted through PPP based models as proposed above.

If it is the PPP model that best sustainable formation for the country, there should be a properly installed PPP framework for that purpose. Since Sri Lanka do not have a properly established framework for PPPs, it has been crafted a path for a "Draft PPP Framework" for the MTTs in the final section of the chapter.

6.10 PPP Framework Development for Multimodal Transport Terminals in Sri Lanka

As discussed in literature review PPP framework should guide governments (relevant authorities) and private partners (investors) through each step in developing a PPP, ensuring that designed projects are well structured and delivered in line with expected outcomes. The PPP framework will achieve this by outlining procedures and decision rules for various institutions (government or other), and by ensuring effective public financial management and oversight. Generally, **the PPP Framework** consists of **Procedures, Decision Criteria and Institutional Responsibilities** is developed by the

respective governments based on their vision and missions on future infrastructure developments and then that broad framework is re-crafted or adjusted to a particular sector (Energy, Transportation, etc.) as it crops the maximum benefits out of it. But as revealed earlier, GOSL is lack of a national policy for PPP and thus a framework for transport sector as well. Therefore, the final section of the final chapter of this research project; "PPP Framework Development for Multimodal Transport Terminals in Sri Lanka" lays down the foundation or provides the "sketch" for the developments of the PPP Framework for Multimodal Transport infrastructure development projects in the country. It has to be clearly highlighted that this is only a "Sketch" which provides directions for the final policy framework for multimodal transport terminals. In a nutshell; this is only **a framework for the "final PPP Framework development"** for the multimodal transport terminals in Sri Lanka.

The World Bank Group emphasizes that PPP framework should aim to promote the effective, efficient and sustainable delivery of the PPP program in the jurisdiction. **A PPP framework is not an end in itself but a means to an end**. It would not make sense for a government/ jurisdiction to develop an elaborate PPP framework if it only planned to do one PPP project. Equally, a government that is doing PPPs to finance a rapid build out of urgently needed infrastructure may design a framework focused on speed and attracting capital. A government using PPPs to improve efficiency and accountability in an already well financed sector would probably develop a different framework (World Bank Group, 2016).

As such, it is important to define PPP program objectives and scope as first and second steps in developing the PPP framework. These objectives and scope will give designers of the framework the direction needed to formulate appropriate processes, decision criteria, and institutional responsibilities. Then the other steps can be followed as mentioned below. The descriptive analysis on each step is transferred to the Annexes.

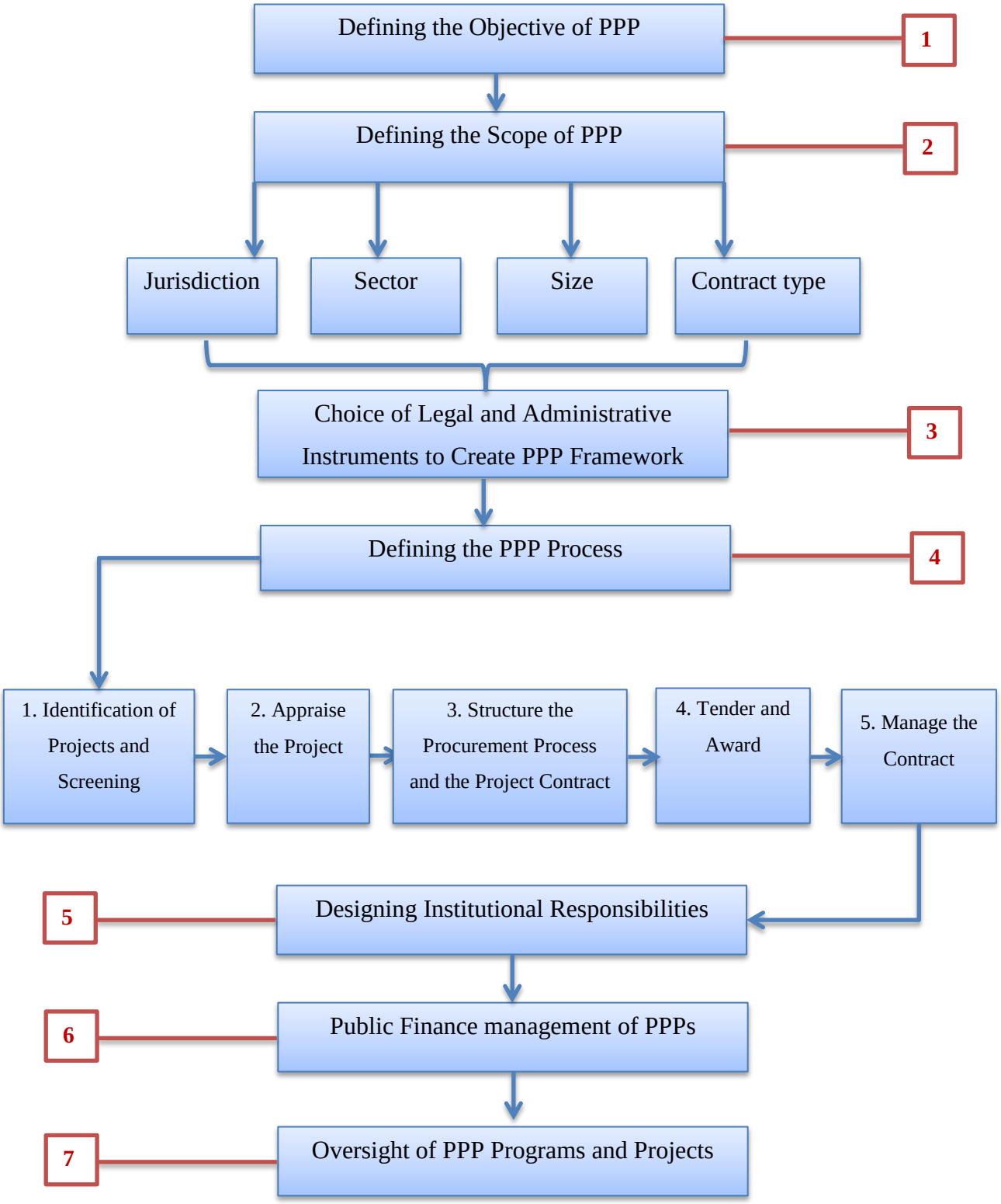

Figure 6-20: PPP Framework

7 CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

7.1 Introduction

The extensive literature survey revealed that the development of the ownership, facility management and terminal operations models can be done along the spectrum of PPP which expands from “Pure Public” to “Pure Private” structures which currently practicing globally both for existing and new infrastructure developments. Further it elaborated that the current trend of developing transportation infrastructure that bears a huge commercial value and potential for a dramatic growth is PPPs where private partners joining hands with public sector and generate a win-win situation both parties and reach the ultimate goals that are generally well defined. Thus the solution for the research problem have been developed based on that prime foundation.

7.2 Conclusion for objective 01

The identification of existing ownership, facility management and terminal operation models that are successfully practiced in transport terminals in global context have been done covering all three main transport modes; maritime, aviation and land transportation and several scenarios are discussed with the different institutional structures applied including their successes and failures. Different models were introduced representing most of the components in PPP spectrum. But it has been concluded that most of the global scenarios with mega investments have followed PPP frameworks except the exceptional cases like PSA (Port of Singapore Authority) and have become successful. . Further the PPP model provides the enough freedom for the private partners to improve their efficiencies and public sector influence helps to keep them on the correct track until it reaches the expected socio economical outcomes and the partnership always pushes the project to reach its maximum outcomes.

7.3 Conclusion for objective 02

The examination of the existing ownership, facility management and terminal operation models that are practiced in different disciplines (including transportation) in Sri Lankan context have been carried out by analyzing the scenarios across all three sectors maritime, aviation and land transportation and non-transportation disciplines. It has been concluded at the end of the analysis that there are several government owned and partially government owned models that are already practiced in Sri Lanka even without properly established direct legal support from the legislature. The government's intention on future infrastructure projects is to invest with partially government owned structures with the participation of private partners as it allows them to concentrate more on social oriented projects where in others parties are not interested. PPP initiatives are not novel to the country; but they have been developed case by case as fulfill the requirements of the partners at that particular point. Unlike other countries with well-established PPP frameworks; Sri Lanka lacks common PPP framework adopted by government which is crucial for infrastructure development projects that bears a commercial value and to attract potential private partners.

7.4 Conclusion for objective 03

Having analyzed all the scenarios from global and local contexts mentioned in the first two objectives the solutions for the main research problem have been developed based on two structural formations.

I. Public Models
II. PPP Models

Seven optional models have been introduced at the end of the analysis including four public models (GGG, GGP, GPG, GPP) and three PPP models ([G+P]PG, ([G+P] PP, ([PPP]+G) that can be applied successfully with in Sri Lanka. It has been highlighted that the current socio political environment of the country is yet not mature enough to bear the weight of some of the models introduced.

Further, having considered the existing environment of the country; an especial implementation process for the proposed models has been introduced and it is suggested to initiate the application of the proposed models with “Public Models” (like GGP or GPP) and evaluate the progress of them and then move towards the “PPP Models” which have been concluded as the best fit sustainable models for MTTs in Sri Lanka.

If it is the “PPP Models” that are most sustainable to the country; a well-established PPP framework is a must for the success of the MTT projects. This research has formulated “Final Draft of the PPP framework for MTTs in Sri Lanka”.

7.5 Future Research Directions

Drafting the final PPP framework for MTTs in Sri Lanka is one of the best research gaps that can be filled hereafter since it is an essential part to the implementation of the best fit PPP models.

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9. ANNEXES

9.1 Further Literature on PPP

9.1.1 Different Dimensions of PPPs

Department of Economic & Social Affairs (DESA) Working Paper No. 148 (ST/ESA/2016/DWP/148) on "Public-Private Partnerships and the 2030 Agenda for Sustainable Development: Fit for purpose?" presents valuable differing conceptualizations of public-private partnerships that helps to identify the different dimensions about the PPPs (Chowdhury et al., 2016).

Different Dimensions of PPPs

Definition	Dimensions
An arrangement between two or more entities that enables them to work cooperatively towards shared or compatible objectives and in which there is some degree of shared authority and responsibility, joint investment of resources, shared risk taking, and mutual benefit (HM Treasury 1998)	➢ Inter-organizational relationship; ➢ Cooperation; ➢ Shared objectives; ➢ Joint investments; ➢ Risk sharing
Public-private partnerships are on-going agreements between government and private sector organizations in which the private organization participates in the decision-making and production of a public good or service that has traditionally been provided by the public sector and in which the private sector shares the risk of that production (Forrer et al.2010).	➢ Risk sharing ➢ Inter-organizational relationship
A legally-binding contract between government and business for the provision of assets and the delivery of services that allocates responsibilities and business risks among the various partners (Partnerships British Columbia, 2003)	➢ Contractual governance; ➢ Risk allocation

The main characteristic of a PPP, compared with the traditional approach to the provision of infrastructure, is that it bundles investment and service provision in a single long term contract. For the duration of the contract, which can be as long as twenty or thirty years, the concessionaire will manage and control the assets, usually in exchange for user fees, which are its compensation for the investment and other costs.(Engel et al., 2008)	➢ Bundling ➢ Service provision ➢ Long-term contract
Partnerships which include contractual arrangements, alliances, cooperative agreements, and collaborative activities used for policy development, program support and delivery of government programs and services (Osborne 2000)	➢ Contractual governance; ➢ Inter-organizational relationship
A relationship that consists of shared and/or compatible objectives and an acknowledged distribution of specific roles and responsibilities among the participants which can be formal or informal, contractual or voluntary, between two or more parties. The implication is that there is a cooperative investment of resources and therefore joint risk-taking, sharing of authority, and benefits for all partners (Lewis 2002)	➢ Inter-organizational relationship; ➢ Shared objectives; ➢ Mutual investments ➢ Risk sharing ➢ Benefit sharing
A relationship involving the sharing of power, work, support and/or information with others for the achievements of joint goals and/or mutual benefits (Kernaghan 1993)	➢ Inter-organizational relationship; ➢ Cooperation; ➢ Power and information sharing ➢ Shared objectives

Source: Roehrich et al (2014)

9.1.2PPP Nomenclature

Different nomenclature can also be used to distinguish different PPP contract structures. The Reference Guide for Public-Private Partnerships-Version 2.0 (PPPIRC, 2014) explains common PPP nomenclature, and how each relates to the description by asset type, functions, and payment mechanisms as below.

PPP Nomenclature

Contract Nomenclature	Overview Description and Reference	Type of Asset	Functions Transferred	Payment Mechanism
Design-Build-Finance-Operate-Maintain (DBFOM); Design-Build-Finance-Operate (DBFO); Design-Construct-Manage-Finance (DCMF)	Under this nomenclature, the range of PPP contract types is described by the functions transferred to the private sector. The 'maintain' function may be left out of the description (so instead of DBFOM, a contract transferring all those functions may simply be described as DBFO, with responsibility for maintenance implied as part of operations). An alternative description along similar lines is Design- Construct-Manage-Finance (DCMF), which is equivalent to a DBFOM contract	New infrastructure	As captured by contract name	Can be either government or user pays

Operations and Maintenance (O&M)	O&M contracts for existing assets may come under the definition of PPP where these are performance based, and long-term (sometimes also called performance-based maintenance contracts)	Existing infrastructure	Operations and maintenance	Government pays
Build-Operate-Transfer (BOT), Build-Own-Operate-Transfer (BOOT), Build-Transfer-Operate (BTO),	This approach to describing PPPs for new assets captures legal ownership and control of the project assets. Under a BOT project, the private company owns the project assets until they are transferred at the end of the contract. BOOT is often used interchangeably with BOT, as **Yescombe** describes. In contrast, a Build-Transfer Operate (BTO) contract, asset ownership is transferred once construction is complete. Ownership rights mainly affect how handover of assets is managed at the end of the contract	New infrastructure	Typically, design, build, finance, maintain, and some or all operations Under some definitions, BOT or BTO may not include private finance, whereas BOOT always includes private finance	Can be either government or user pays

Rehabilitate-Operate-Transfer (ROT)	In either of the naming conventions described above, 'Rehabilitate' may take the place of 'Build' where the private party is responsible for rehabilitating, upgrading, or extending existing assets	Existing infrastructure	As above, but "rehabilitate" instead of "build"	As above
Concession	'Concession' is used for a range of types of contract. In some jurisdictions, concession may imply a specific type of contract; while in others it is used more widely. In the PPP context, a concession is mostly used to describe a 'user-pays' PPP. For example, in Brazil, the 'Concession Law' applies only to user-pays contracts; a distinct 'PPP Law' regulates contracts that require some payment from government. On the other hand, 'concession' is sometimes used as a	New or existing infrastructure	Design, rehabilitate, extend or build, finance, maintain, and operate typically providing services to users	Usually user Pays in some countries, depending on the financial viability of the concession, the private party might pay a fee to government, or might receive a subsidy

	catch-all term to describe a wide range of PPP types for example; all recent PPPs in Chile have been implemented under the 'Concession Law', including fully government-pays contracts.			
Lease or affermage	A lease or affermage contract is similar to a concession, but with the government typically remaining responsible for capital expenditures. 'Affermage' in particular may have a specific meaning in some jurisdictions. The World Bank's explanatory Notes on water regulation describe lease contracts, as well as concessions. Such contracts may or may not come under the definition of PPP, depending on the duration of the contract.	Existing	Maintain and operate, providing services to users	User pays private party typically remits part of user fees to government, to cover capital expenditures
Franchise	'Franchise' is sometimes used to describe an	Existing or new	May include design, build,	May be user or government

	arrangement similar to either a concession or a lease or affermage contract, as described in **Yescombe**.		and finance; or may be limited to maintaining and operating an asset	pays
Private Finance Initiative (PFI)	The United Kingdom was one of the first countries to introduce the PPP concept, under the term 'Private Finance Initiative'. 'PFI' is typically used to describe PPP as a way to finance, build and manage new infrastructure	New	Design, build, finance, maintain may include some operations, but often not providing services directly to users	Government pays

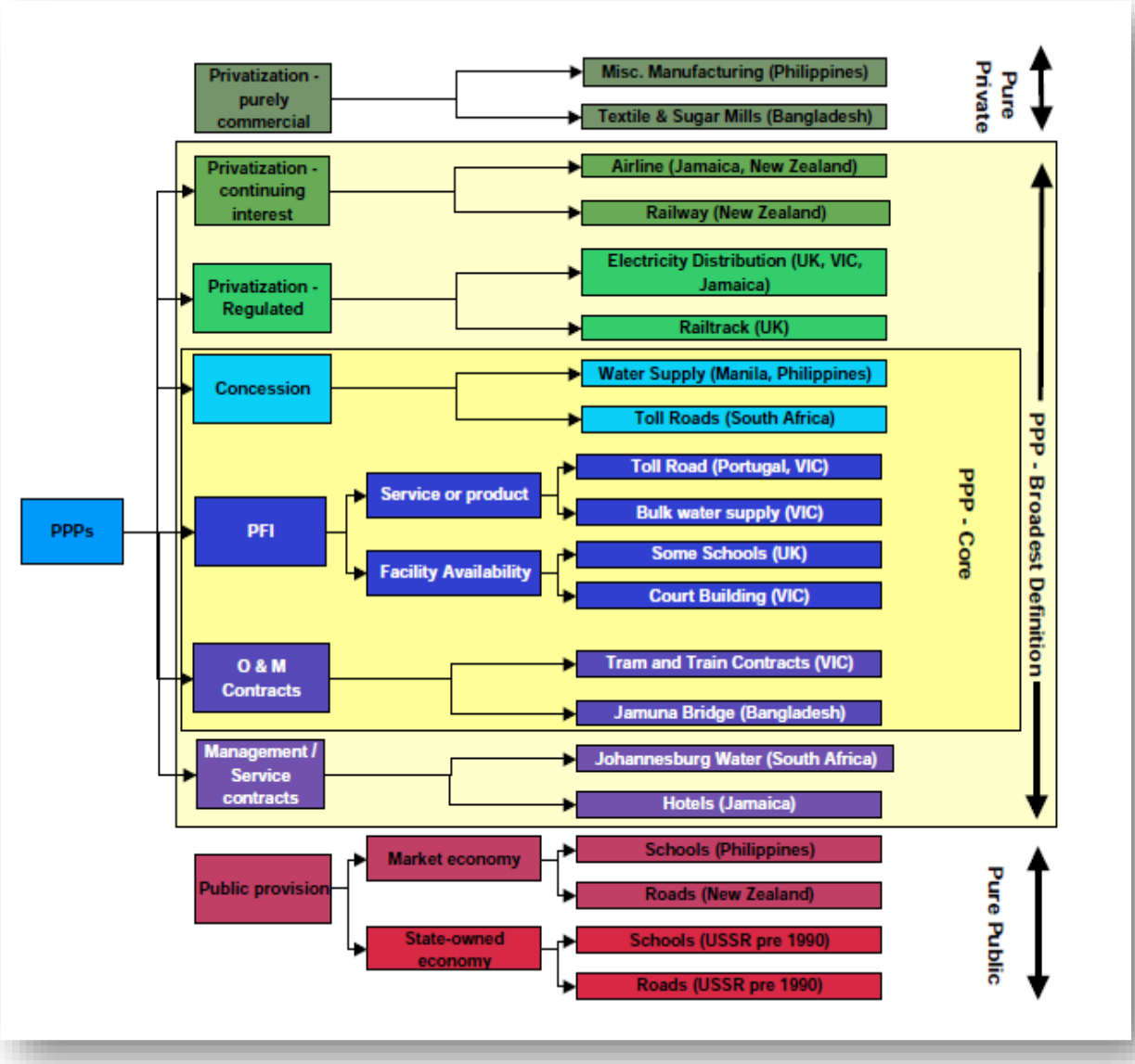

Figure 9-1: PPP Types and Examples

9.2 Analysis of PPP Models

9.2.1 Strengths and Weaknesses of Different Port Ownership and Management Models

Public Service Port

Strengths	➢ Superstructure development and cargo handling operations are the responsibility of the same organization (unity of command).
Weaknesses	➢ There is no or only a limited role for the private sector in cargo handling operations ➢ There is less problem-solving capability and flexibility in case of labor problems, since the port administration also is the major employer of port labor ➢ There is lack of internal competition, leading to inefficiency ➢ Wasteful use of resources and under-investment as a result of government interference and dependence on government budget. ➢ Operations are not user-oriented or market-oriented ➢ Lack of innovation.

Tool Port

Strengths	➢ Investments in port infrastructure and equipment (in particular ship/shore equipment) are decided and provided by the public sector, thus avoiding duplication of facilities.
Weaknesses	➢ The Port Administration and private enterprise jointly share the cargo handling services (split operation), leading to conflicting situations. ➢ Because the private operators do not own major equipment, they tend to function as labor pools and do not develop into firms with strong balance sheets. This causes instability and limits future expansion of their companies. ➢ Risk of under-investment. ➢ Lack of innovation.

Landlord Port

Strengths	➢ A single entity (the private sector) executes cargo-handling operations and owns and operates cargo-handling equipment. The terminal operators are more loyal to the port and more likely to make needed investments as a consequence of their long-term contracts. ➢ Private terminal handling companies generally are better able to cope with market requirements.
Weaknesses	➢ Risk of over-capacity as a result of pressure from various private operators. ➢ Risk of misjudging the proper timing of capacity additions.

Fully Privatized Port

Strengths	➢ Maximum flexibility with respect to investments and port operations. No direct government interference. Ownership of port land enables market oriented port development and tariff policies. In case of redevelopment, private operator probably realizes a high price for the sale of port land. ➢ The often strategic location of port land may enable the private operator to broaden its scope of activities.
Weaknesses	➢ Government may need to create a Port Regulator to control monopolistic behavior. ➢ The Government (be it national, regional or local) loses its ability to execute a long term economic development policy with respect to the port business. ➢ In case the necessity arises to re-develop the port area, Government has to spend considerable amounts of money to buy back the port land. ➢ There is a serious risk of speculation with port land by private owners.

9.2.2 Port Reform Modalities

Model	Description
Modernization of port administration	➢ Assumes that performance can be improved by introducing more suitable systems, working practices, equipment and tools within the existing system of bureaucratic constraints. ➢ The advantage of this strategy is that certain changes in the organization can be made without the requirement to change laws or national policy.
Liberalization/ De-regulation	➢ The reform or partial elimination of governmental rules and regulations to enable private companies to operate in an area where previously only the public sector was allowed to operate.
Commercialization	➢ Although the public port is not transformed into a private company, it is given more autonomy and made accountable for its decisions and overall performance. ➢ It applies the same management and accounting principles as private firms and can adopt private sector characteristics and practices to become more customer-oriented as well as more efficient and profitable. Ex: Creation of Independent Port Authorities in Mexico
Corporatization	➢ A public port is given the legal status of a private company, although the public sector or government still retains ownership. ➢ All assets are transferred to this private company, including land lease rights. ➢ Land ownership usually remains with the Port Authority. Ex: corporatization of the Jaya Container Terminal in Sri Lanka.
Privatization	➢ The most complex form of reform and can be defined as the transfer of ownership of assets from the public to the private sector or the application of private capital to fund investments in port facilities, equipment and systems.

	➢ There are two variations of privatization can be elaborated as; I. Comprehensive privatization: a scheme in which a successor company becomes the owner of all land and water areas as well as of all the assets within the port's domain (this is equivalent to the sale of an entire port to a private company). II. Partial privatization: a scheme whereby only part of the assets and activities of a public port body are transferred to the private sector (such as the sale of existing berths, the transfer of pilotage or towage functions or a concession by a public Port Authority to a private company to build and operate a terminal or a specialized port facility). ➢ Hence; privatization expands the role of the private sector in the ownership and/or operations of existing port facilities and services, as well as in the development of new port facilities. Ex: Most of the UK and New Zealand Ports

3.3.11 Examples of private sector participation at commercial airports worldwide

Table 9-1: Examples of Private Sector Participation at Commercial Airports Worldwide

Country	Plans or actions for airport privatization
Australia	17 airports sold on long-term leases of 50 years, with an option for additional 49 years.
Bahamas	Transferred ownership of Freeport International Airport to a private entity.
Dominican Republic	Transferred ownership of Puta Cana International Airport to a private entity.

New Zealand	Implementing trade sale of Auckland and Wellington International Airports.
United Kingdom	➢ Share offering in British Airport Authority responsible for the operation of seven airports. ➢ Local government sold Belfast International Airport to a private company formed by employees. ➢ UK regional governments have sold East Midlands International airport to a private entity and are planning to sell shares in Birmingham Airport.

9.2.3 Partial Privatization

Concession or BOT Schemes

Country	Plans or actions for airport privatization
Brazil	Plans a contract with a private entity to rehabilitate the terminal at Guarapes International Airport in Recife.
Canada	Private entity implemented to build and operate a third terminal at Pearson International Airport in Toronto on a long-term lease basis.
Côte dIvoire	15-year concession granted for Abidjan Airport.
Germany	Considering contracts with private entities to develop and lease airports, including a major Berlin Airport.
India	Considering contracting with private entity for construction and operation of new airport in Bangalore.
Malaysia	Implemented a BOT contract for a new terminal and a lease-develop-operate contract for non-aeronautical portions of new international airport in Sepang.
Pakistan	Plans BOT scheme for a new terminal at Lahore International Airport.

Strategic Partners/Partial Divestiture

Country	Plans or actions for airport privatization
Austria	Shares sold in Vienna Airport; 47 percent of total shares are privately held.
Hong Kong, China	Implementing a joint development agreement with a private entity for the new Chek Lap Kok Airport on Lantau Island.
Indonesia	Plans a joint development agreement with a private entity for a new airport in Medan.
Macau, China	Implemented a joint development agreement with a private entity to develop and manage a new international airport.
South Africa	A private company was sold a 20 percent stake in the South African Airports company to become a strategic equity partner to improve the company's performance prior to privatization.
Thailand	A strategic partner is being sought to participate in the development and operation of a second international airport at Bangkok and in a regional airports company.

Management Contracts

Country	Plans or actions for airport privatization
Albania	Contracted with a private entity to modernize and expand Tirana Airport.
Chile	Implemented a contract for a private entity to operate the passenger terminal at Arturo Merino Benitez International Airport in Santiago.
Italy	Plans to contract with a private entity to manage Naples Airport.
Hong Kong	Private company awarded management contract of Kai Tak Airport.

9.3 Further Details on PPP in Infrastructure Projects in Sri Lanka

1) Total Investment of Projects

Source: The World Bank Private Participation in Infrastructure Database

Project	Total Investment (USD M)
Sri Lanka Telecom	2,418
Dialog Telecom Ltd	1,295
Colombo South Container Terminal	500
Norochcolai Coal Power Plant	450
Etisalat (former Celltel Lanka)	414
Suntel Pvt Ltd.	301
Mobitel Pvt. Ltd (Merged with Sri Lanka Telecom)	273
Colombo Port (SAGT)	240
Lanka Bell Pvt Ltd.	194
Hutch (former Lanka Cellular Services)	145

2) Largest investors in Sri Lanka

Source: The World Bank Private Participation in Infrastructure Database

Investor/ Operator	Country of Origin	Sector(s) of Focus in Sri Lanka	Total Investment (USD M)	Number of Projects
Axiata Group Berhad	Malaysia	Telecommunications	1,100	19
Usaha Tegas Sdn Bhd	Malaysia	Telecommunications	1,088	28

Aitken Spence & Company Ltd.	Sri Lanka	Electricity and Ports	591	4
China National Heavy Machinery Corporation	China	Electricity	450	1
Emirates Telecommunications Corporation	United Arab Emirates	Telecommunications	414	17
China Harbour Engineering Company Ltd	China	Ports	275	1
TeliaSonera	Sweden	Telecommunications	166	8
Distilleries Company of Sri Lanka Limited	Sri Lanka	Telecommunications	147	11
Hutchison Whampoa Ltd	Hong Kong, China	Telecommunications	145	14
Hayleys Group (Sri Lanka)	Sri Lanka	Electricity	132	5

3) MMWRD Projects

Source: Ministry of Megapolis and Western Development, April 2016

Project	Cost SLR (Mil)	Cost USD (Mil)
Construction of New Expressway	800,000	5,500
Bonded Highway for Logistics Corridor	150,000	1,000
Development of Multimodal Transport Hubs and Centers	32,000	220
Development of Off-Street Parking and Metering	6,000	42

Improve Traffic Flow, Stop Light & IT Based Traffic Management System	16,000	110
Supply of CNG & Electric Charging Facility (50 Centers)	3,500	25
Energy		
Sapugaskanda Oil Refinery Expansion & Modernization	282,000	1,945
600 MW Natural Gas Combined Cycle Power Plant, Kerawalatpitya	64,000	440
Water		
Variety of water projects, including treatment, reservoirs and supply	410,000	2,800
Solid Waste and Wastewater		
Solid Waste Management – Colombo and Suburban Area	30,000	210
Wastewater Collection, Treatment & Disposal Negombo Township	16,500	115
Wastewater Collection, Treatment & Disposal Kelaniya-Peliyagoda	13,000	90
Wastewater Collection, Treatment & Disposal Sri Jayawardenapura Kotte	40,000	280
Wastewater Collection, Treatment & Disposal Ja-Ela,/Ekala& Ratmalana	15,000	100
Wastewater Collection, Treatment & Disposal Gampaha Municipal Council	18,000	125
Wastewater Collection, Treatment & Disposal Horana Industrial Zone	15,000	100
Wastewater Collection, Treatment & Disposal Mirigama Industrial Zone	12,000	80
Ports and Airports		
Cruiser Lines & Yachts – Colombo Port	7,200	50
Construction of West Container Terminal 1 – Colombo Port	85,000	585

Extension/Expansion Breakwater & Development of West Container Terminal 2 – Colombo Port	113,000	780
North Port Development Project	324,000	2,230
Project	**Cost SLR (Mil)**	**Cost USD (Mil)**
Establishment of Cargo Village	1,000,000	6,890
Industrial, IT & Incubator Parks		
Industrial Township Development – Meerigama	36,000	250
Industrial Township Development – Horana	45,000	310
Eleven Industrial Parks	10,000	70
Business Incubators	1,000	7
Malabe Science City	44,000	300
Tourism and Spiritual Developments		
Tourism Development & Expansion – Negombo Township	35,000	240
Senior Recreation & Care Villages	6,000	40
Relocation of Government Offices		
Relocation of Government Offices from CBD to Government Park in Colombo Outskirts	8,000,000	55,000

9.4 Discussion on PPP Framework Development for MTTs in Sri Lanka

9.4.1 Defining the Objectives of PPP for MTTs in Sri Lanka

The objectives of PPP for MTT are totally depending on the main objectives of the government for pursuing PPPs in Sri Lanka. The highlighted main objectives for pursuing PPP by the GOSL have been discussed in detail in previous chapter and the basic elements/ requirements of proposed structure for the MTT have to be blended well with those main objectives in order to create a successful framework. The proposed objectives of PPP for MTT in Sri Lanka through this research project can be listed down as below.

The Seven Objectives:

I. Harnessing private sector efficiencies in infrastructure development, facility management and terminal operations.
II. Create guarantees for protection of public assets and for effective management of public funds upon the implementation of PPP.
III. Providing focus on a lifecycle approach for development of a MTT project, involving asset creation (construction) and maintenance (facility management) over its lifecycle.
IV. Creating opportunities to attract innovation and technological improvements.
V. Facilitating affordable and improved services to the users in a responsible and sustainable manner.
VI. Ensure the principles of transparency, free and fair competition, non-discrimination, equality and proportionality.
VII. Stimulating growth and development in the country.

The risk that PPPs are used for the wrong reasons should be reduced through the objectives of the properly designed PPP framework. A good PPP framework always ensures that PPPs are used to achieve substantial benefits, and not to manipulate accounting results.

9.4.2 Scope of the PPP Framework for MTT in Sri Lanka

The scope of the PPP framework indicates or defines the types of projects for which the framework will apply. Scopes are generally defined by four categories such as; jurisdiction, sector, size, and contract type. It is good practice for designers of a framework to consider each of the mentioned dimensions, and to be explicit in the framework about its scope. These aspects related to MTT in Sri Lanka are revealed and explored in the remainder of this section.

(i) Jurisdiction:

The scope of any PPP framework will be limited by the jurisdiction of the government that crafts and promulgates it. Generally, the policies and procedures are enacted by the national governments as it can apply to entire country as a whole. But when it reaches to provincial or local governments; the objectives may get contradicted since the scenarios (projects) are influenced by several external (political, cultural, social, etc.) factors. World scenarios provide enough evidence that the problems arise when it comes to different levels of governments.

In this case; since the MTTs in Sri Lanka are national level transport infrastructures that directly funded, planned, constructed, operated, monitored and governed through National Government the jurisdiction lies with the acts, policies and procedures enacted by the GOSL (all government bodies related to transport) and there may not be any considerable contradiction with the rules and regulations imposed by the provincial or local governments. Simply, the jurisdiction of the MTTs in Sri Lanka lies with the national government.

(ii) Sector:

It is no doubt that this PPP framework would be dedicated to "Transport" sector. This can further be categorized in to "Transport Infrastructure" or even only for "Multimodal Transport Terminals (MTTs)" in Sri Lanka. World Bank provides enough evidences for such dedicated PPP frameworks for niche market areas. South Africa created a PPP framework explicitly for highways (as well as a separate, more tailored framework for other PPPs). The Philippines created a special regime for privately-financed power plants (The World Bank, 2016). Since the government plans to establish MTTs in most of the

transport hubs around the country, it will be perfect to have a separate PPP framework for MTTs as they can attract enough investments in future.

(iii) Size:

According to world bank, many governments define a minimum size or value for different PPP projects implemented under their PPP framework. The reason is relatively high transaction costs of implementing a PPP project can make PPPs below a certain size unviable. A size limit reflects that some PPP type contracts cannot be used for smaller projects. For instance, Singapore's PPP policy (2004) states that, initially, PPPs will be pursued only if they have an estimated capital value of over US$50 million. Brazil's PPP law (Law 11079 2004) sets a minimum size of 20 million reals (US$11.7 million equivalent) for individual projects (The World Bank, 2016).

For the MTTs in Sri Lankan context the minimum range may lies between 20 to 30 US$ millions and have to be decided whilst finalizing the final framework.

(iv) Contract Type:

Generally, the legal establishment of the country will influence the type of contract for which the PPP framework will apply to what project. In practice the two main categories of contracts are:

a) 'Government pays' Contracts
b) 'User pays' or Concession Contracts

a) Government pays' Contracts: The government agrees to pay the private party on the basis of the availability and, in some instances, the performance of the service over a period of time. The scope of the UK's Private Finance Initiative (PFI) program has been predominantly 'government-pays' contracts, with minimal 'user-pays' elements(The World Bank, 2016).

b) 'User pays' or Concession Contracts: These contracts are designed to allow the private sector to lease a government asset, to deliver public services, and to generate an income from supplying the service. The French PPP framework was originally framed around concession contracts(The World Bank, 2016).

Since the MTT infrastructures development is novel to Sri Lankan context it is better to initiate with fully government funded project or the 'Government pays' contract until it is proven that MTTs are commercially viable for Concession Contracts. But as the models elaborated in the initial part of the chapter the government can keep the ownership of the asset whilst the facility management and the terminal operations are done by private parties and collecting annum or share of profits from them.

Once it is proven that the MTTs are commercially viable; government can invite private parties (through BOT or similar concessionaires) to invest on MTTs and operate them and earn profits whilst maintaining the minimum user pay aspect for the general public who use public transport as the private investor can look for many other revenue generating aspects like mentioned very first in this chapter.

9.4.3 Choice of Legal and Administrative Instruments to Create PPP Framework for MTTs in Sri Lanka.

Historical Succession:

PPP frameworks are needed to be documented in order to make them effective. They also have to have some enforcement mechanisms. Governments require to make the following decisions (The World Bank, 2016).

a. How will the PPP framework be made binding on government officials?
b. How will the PPP framework be communicated to all stakeholders?
c. What will give legal force to PPP agreements?

How different frameworks are documented and given force through Legal and Administrative Instruments varies widely based on the particular jurisdictions. In some global cases, PPP frameworks are enacted as laws. In others, they are put in policy documents and manuals which the relevant government commits to follow. Just as importantly, PPP frameworks do not stand alone: they build on, and incorporate, many pre-existing public sector management frameworks. These are typically included in to public procurement and financial management frameworks.

Countries with "Common Law" legal systems tend to rely on policy documents and administrative guidance materials. Countries with "Civil Law" legal systems are more likely to enact the PPP framework in statute law, and spell it out in detailed rules and

regulations with legal force. Civil law countries have used concession contracts and similar arrangements for the private provision of public services for over 200 years. In contrast, most common law countries do not have a tradition of concession contracts, instead using fully private ("investor-owned") companies to provide infrastructure services, generally under government regulation. But then Common law countries then developed the "Government-pays" PPP model. In the early 1990s, with most of the user-pays infrastructure having been privatized, the Conservative government in Britain looked for ways to bring private finance and operations into the services which were publicly funded. Health and education were the most important of these. The model chosen was to have private companies construct and maintain the capital intensive facilities such as school and hospital buildings. It was termed the "Private Finance Initiative" (PFI) (The World Bank, 2016).

The different legal traditions interact with different types of PPPs are clearly mentioned in below table.

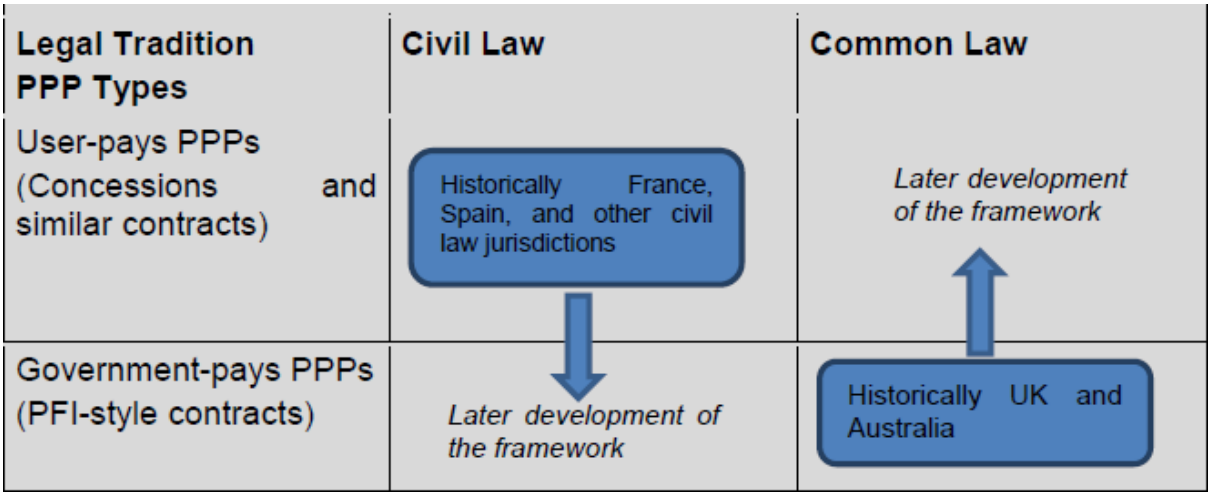

Figure 9-2: Legal Traditions of PPPs

In summary; Concession contracts have a long history in civil law countries and then later they developed frameworks for "Government-pays" PPP models similar in Common Law. But in common law jurisdictions, initially investor-owned utilities provided user-pays infrastructure services and then developed the "government-pays" PPP model for private sector participation.

The Sri Lankan Context:

Since Sri Lanka were a part of British Colony, all most all the rules and regulations, policies and procedures were enacted based on Common Law or commonly known as British Law. Thus concessions and similar contracts were not generally used at the beginning. Rather similar to other commonwealth countries, private companies raised capital and built infrastructure, which they then operated and charged people to use. The right to operate and manage the infrastructure did not need to be 'delegated' by the state/ government (as was done in civil law countries). These private utilities, bus and railway companies were generally granted licenses to operate, and they were regulated (meaning that in economic substance they were quite similar to concessions). However, the legal framework was different, and such operations were considered to be fully private, and not PPPs.

Common law countries like Sri Lanka do not generally need laws to establish PPP frameworks. In many common law countries, policy statements and administrative documents are the best approach. Australia and Britain; two of the world's most experienced PPP jurisdictions do not have PPP laws. Doing PPPs under a policy framework, rather than a law, also works in emerging market and developing economy (EMDE) countries such as Jamaica (The World Bank, 2016).

For instance, In Britain, the HM Treasury has the responsibility for setting PPP policy for England; this responsibility is devolved in Scotland, Wales and Northern Ireland. The treasury publishes key policy, guidance, and statistics on PPPs/PFIs and provides advice to departments wishing to undertake PPP/PFI projects. Each government department is responsible for the implementation of PPP policy, and they must take into consideration any legislation regarding procurement. The HM Treasury's focus is on ensuring that public sector asset and service investment programs maintain momentum, provide Value for Money, sustain market confidence, and deliver improved operational performance of projects. Most probably, this is the framework that has been following in Sri Lanka as well.

Though Sri Lanka had not been enacted a specific PPP policy/ law similar to "PPP Cell" in India yet; the existing regulatory framework in the country allows procuring PPPs. That existing regulations which facilitates PPPs can be listed as below;

A. The Guidelines on Government Tender Procedure Part II for Private Sector Infrastructure Projects (BOO/BOT/BOOT Projects) revised edition of January 1998 (the "PSIP Guidelines")
B. The Procurement Guidelines and Manual of 2006 (respectively the "Procurement Guidelines" and "Procurement Manual") issued by the Ministry of Finance (successor to the National Procurement Agency).

At present these regulations enable PPPs in Sri Lanka and provide guidance to relevant government bodies and potential Private Investors who are willing to bind through PPPs. But these regulations do not completely act as a PPP framework that guides the PPP process step by step as mentioned above. A comprehensive analysis about the existing regulations and its pros and cons against a complete PPP framework have been presented at the end of this PPP framework development chapter based on a survey done by the World Bank. It has been proven that there are enough loop holes in the existing regulations against a complete PPP framework and recommends to have a separate PPP Policy framework to enhance the efficiency and the effectiveness of the processes.

So it is inevitable to develop a PPP framework for MTTs as well to maintain a smooth establishment and operation and maintenance of the infrastructure. Though there are existing regulations to support PPPs in the country there is no harm in common law jurisdictions to create PPP laws to make it complete. This is often to override existing laws that would otherwise restrict or make unnecessary delays in PPP projects. Another reason for putting the framework into a statute is to provide: increased accountability and transparency of the program, greater policy stability (since laws take longer to change than policies), and a signal to investors and funding agencies which may perceive a law as a stronger commitment than a policy statement. Against these advantages must be weighed some disadvantages, including the longer time it takes to pass a law, the loss of flexibility in updating the framework in response to new situations and lessons learned, and the difficulty of coordination between the legislature and the executive (which may create inconsistencies or bottlenecks in the framework).

In common law jurisdictions that pass PPP laws, the legal instrument that governs the PPP is still a private law contract, adjudicated and enforced through the courts or contractual arbitration (The World Bank, 2016). Then it same for the Sri Lankan context as well.

How PPP frameworks Build on and Incorporate Pre-Existing Government Frameworks like in Sri Lanka:

Regardless of the tradition within which a PPP framework is constructed, it is not constructed in isolation. Rather, it builds on, incorporates, and modifies the pre-existing frameworks for contracting, procurement, and financial management in government (The World Bank, 2016). It makes sense to use the existing frameworks as much possible and to ensure that whatever is added that is specific to PPPs merges with existing systems. The following laws are typically found among these pre-existing systems and it is for Sri Lanka as well:

I. **Administrative law:** Government agencies are governed by administrative laws that control their functions and decision-making process.

II. **Procurement law:** The transaction process for a PPP must typically comply with public procurement law and regulations, unless PPPs are specifically exempt.

III. **Public financial management law:** Institutional responsibilities, processes, and rules established in public financial management laws and regulations can contribute to the PPP framework. For example, this could include project approval requirements, fiscal limits, budgeting processes, and reporting requirements.

IV. **Sector laws and regulatory frameworks:** PPPs are often implemented in sectors that are already governed by sector level law and regulatory frameworks (like transportation sector). These may constrain the government's ability to contract with the private sector, or provide rules for doing so.

V. **Other rules affecting the operation of private firms:** These also apply to PPP companies, and they should be taken into consideration when defining PPP projects and processes:

- Environmental law and regulations.
- Laws and regulations governing land acquisition and ownership
- Licensing requirements, particularly for international firms.
- Tax rules.
- Employment law.
- Accounting standards and etc.

As long as the crafting PPP framework comply with the existing (scattered) legislations above; it is easier and faster to enact the policy as a separate law. Simply it is a good practice to review the legislative and administrative context to ensure that it is not incompatible with key elements of the objectives of the crafting PPP framework for MTTs.

Other than the acts and national level transport policies enacted by the parliament/ national government and the ministry; there are rules and regulations imposed by the transport related regulatory bodies, institutions, authorities, commissions and provincial and local government bodies to be comply with.

9.4.3 Defining the PPP Process for MTTs in Sri Lanka.

The framework should provide guidance on each stage of developing and implementing a PPP project from initially identifying candidate projects, to managing PPP contracts throughout the project lifecycle until comes to an end. Governments need to ensure that only 'good' PPP projects are developed. These are PPPs that, amongst other things, are cost-benefit justified, provide better Value for Money than traditional public procurement, financially viable and fiscally responsible, and will attract market interest. Further it elaborates the process that should be followed by the MTT PPPs to filter the best fit projects that delivers the maximum benefit to the stakeholders.

As mentioned at the beginning of this section; the PPP process consists of five main steps. This section introduces the key decision criteria, procedures, and institutional responsibilities that should be considered across those each step of the PPP process. This section focuses simply on the features of the process that need to be considered when putting together a PPP framework. The five steps are;

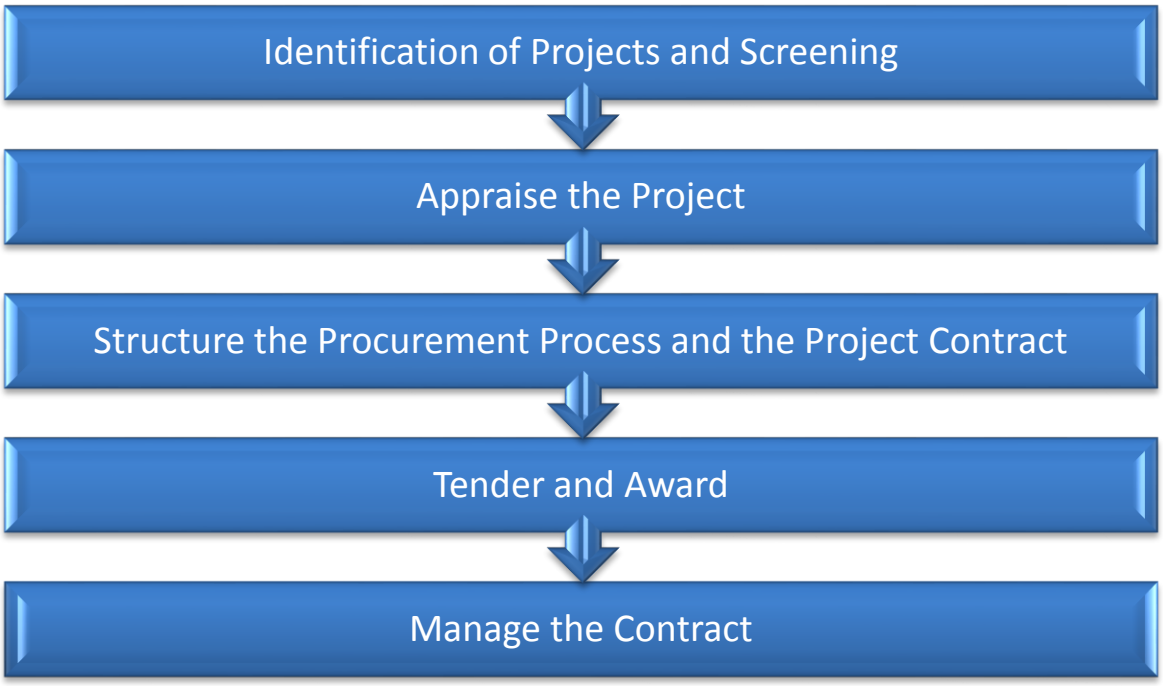

Figure 9-3: Defining the PPP Process for MTTs in Sri Lanka

The key decision criteria, procedures, and institutional responsibilities that should be considered across those each step of the PPP process can be tabulated as below.

Table 9-2: The key Decision Criteria, Procedures, and Institutional Responsibilities

Steps	Key Decision Criteria	Procedures
Identify projects and screening	✓ Does the project fit in with a broader plan for the Transport sector? ✓ Is the project economically feasible and fiscally responsible? ✓ Does the project meet MTT PPPs program objectives?	✓ Prepare pre-feasibility or initial scoping study. ✓ Seek confirmation that the project contributes to a broader sector plan. ✓ Seek confirmation that the project is economically feasible and fiscally responsible. ✓ Submit project documentation for approval.
Appraise the project	✓ Is the project economically, technically, environmentally, and legally feasible? ✓ Is the project affordable? ✓ Is the project suitable as a PPP? (Commercially feasible and	✓ Prepare a comprehensive appraisal which provides evidence of the project's economic, commercial, technical, environmental, and legal feasibility, as well as its affordability.

	bankable, and likely to deliver Value for Money as a PPP?) ✓ Is there an appropriate procurement strategy?	✓ Conduct a Value for Money assessment of the suitability of the project as a PPP. ✓ Prepare procurement strategy. ✓ Submit project documentation for approval by relevant agencies.
Structure the procurement process and project contract	✓ Does tender documentation reflect the procurement strategy? ✓ Have risks been identified and allocated to the most appropriate party? ✓ Are management plans in place for risks allocated to the government? ✓ Have contracts been drafted to reflect the risk matrix?	✓ Prepare tender documentation, including qualification criteria, evaluation criteria, and proposal requirements. ✓ Prepare risk matrix and allocate risks. ✓ Develop risk management plans. ✓ Draft contracts. ✓ Seek approval for contracts. ✓ Refine and finalize procurement strategy. Obtain approvals.
Tender and award	✓ Has the procurement process been competitive? ✓ Have qualified private partners been informed about the PPP? ✓ Have qualified private partners been given ample opportunity to express their interest and develop proposals? ✓ Has the selection criteria ensured a Value for Money private partner is selected?	✓ Market the PPP. ✓ Undertake qualification/ prequalification. ✓ Qualify (and, if necessary, shortlist) qualified firms. ✓ Issue Request for Proposals (RFP) and receive bids. ✓ Evaluate bids. ✓ Select the proposal that offers the greatest Value for Money. ✓ Sign the contract and reach financial close.
Manage the contract construction, service delivery and hand back	✓ Are there issues with project delivery that need attention? ✓ Should the contract be terminated or altered?	✓ Manage the contract, including the delivery of the service against the agreed performance metrics/key performance indicators (KPIs). ✓ Communicate issues to central agencies if risk status escalates.

All steps have to be well followed whilst defining the PPP process for MTTs in Sri Lanka and key decision criteria and procedures have to be well finalized once the final framework is crafted.

Importance of Engagement and Communication with Stakeholders throughout the Process

Without giving due consideration to stakeholders and their ability to influence the project, the viability of a PPP project may be compromised. If the contract is designed in a way that is not acceptable to the private sector and its lenders, the potential private sector may not participate in the procurement process. In absence of limited and continued public support, a project may be cancelled by the next elected government which has become very common in Sri Lankan context. Thus in order to reduce the likelihood of such risks, the PPP framework can include a policy/ procedures on stakeholder engagement. This should address the following concepts and principles that has been introduced by the International Finance Corporation (2007) Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets.

- **Stakeholder Identification and Analysis:** How to determine who PPP project stakeholders are, and their key groupings and sub groupings. For MTTs in Sri Lanka, it has been mentioned in the very first part of the chapter.
- **Information Disclosure:** How information should be made accessible to interested and affected parties in a manner that is understandable.
- **Stakeholder Consultation:** How a two-way process of dialogue between the project and its stakeholders should be undertaken in order to initiate and sustain constructive external relationships over time.
- **Negotiation and Partnerships:** How the government will reach agreement on a specific issue or set of issues.
- **Grievance Management:** How to respond when grievances surface. For projects with environmental and social impacts, grievances will not be avoidable, but how they are managed can have significant implications on the project's performance.
- **Stakeholder Involvement in Project Monitoring:** How and when to engage project affected stakeholders in monitoring the implementation of mitigation measures or other environmental and social programs.

- **Reporting to Stakeholders:** How to report on the stakeholder suggestions that have been taken on board, what risk or impact mitigation measures will be put in place to address their concerns, and how project impacts are being monitored.
- **Management Functions:** How stakeholder engagement can become systematic and integrated into the PPP process, including how to identify critical points in the life of the PPP process where stakeholder engagement will be needed and who will deliver these actions.

Without inclusion of the above factors; the probability of becoming a MTT PPP project a reality is very low and this is a must for these kind of mega projects.

Unsolicited or Privately-initiated PPP projects:

As an alternative approach to originating and developing PPP project ideas, some governments accept unsolicited or privately-initiated PPP projects. By welcoming "privately-initiated" projects, governments can harness information and ideas that private firms have about how to provide services people need. At the same time, allowing firms to promote their own project ideas is tricky. If the idea is then put out to competitive tender, firms may feel there is no point in volunteering good ideas since they cannot benefit from doing so. On the other hand, not putting the idea out to competitive tender could allow a firm to charge more than the cost for a service, leading to allegations of favoritism. The challenge for a PPP framework is to steer a middle course so that private firms are encouraged to offer good ideas and still retain their intellectual property, while also including some competitive element to keep costs down and ensure a sense of fair play.

The PPP framework needs to strike the right balance between several factors: providing incentives to private proponents to submit high-quality project ideas, deterring poor quality proposals, ensuring competitive tension, and demonstrating transparency.

A well-defined process to assess, approve, and bid on a project originating in an unsolicited proposal is illustrated in below figure based on Based on Hodges and Dellacha (2007) Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency.

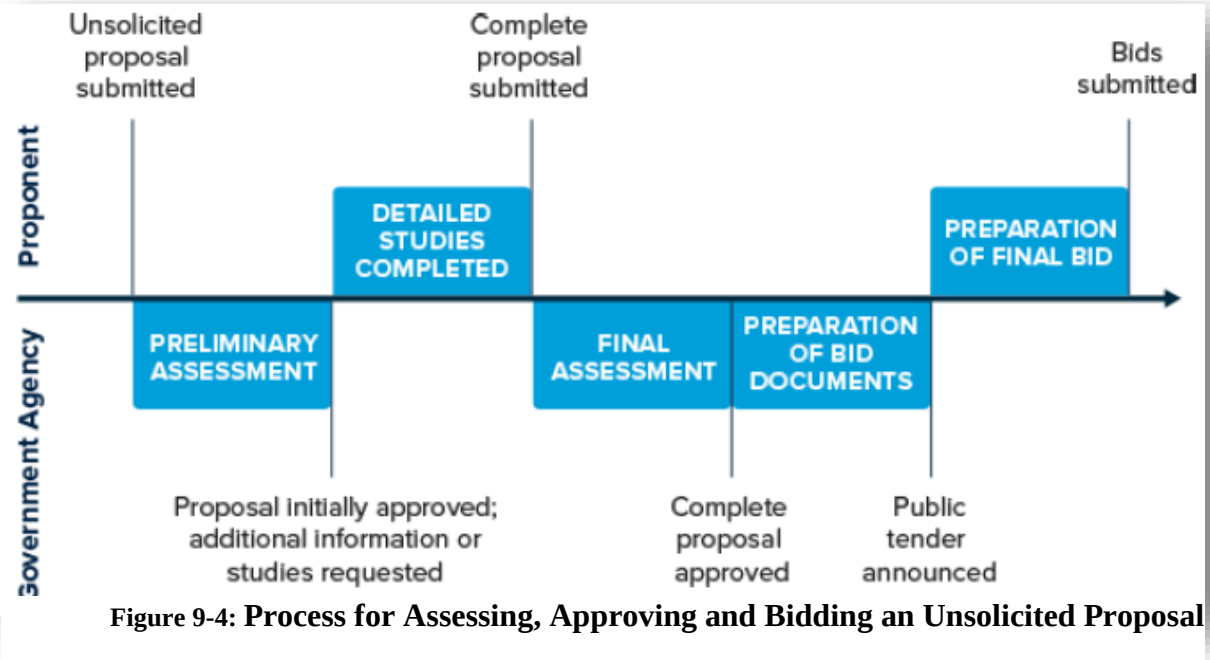

Figure 9-4: Process for Assessing, Approving and Bidding an Unsolicited Proposal

First, a private company submits an unsolicited proposal, following clear content and presentation requirements. This proposal is screened, often following a similar approach to that described in previous table as the solicited proposals. If the proposal passes the initial screening, the proponent is invited to complete any necessary studies before the proposal is assessed against the standard PPP criteria. If approved, any developer's fee or bonus that will apply is often agreed at this stage. The responsible government agency then prepares the bid documents, based on the final proposal, and conducts a tender process. Proponents may or may not have an opportunity to respond to the bid documents and submit a final bid.

It is worth considering specifying time periods within which each of these steps will be taken. On the one hand, specific deadlines within which the government will deal with proposals can be helpful to provide assurance to the private sector that their proposal will not languish in the process. On the other hand, some countries introduce tight limits on the time allowed for competing proposals, which can deter competition.

9.4.4 Designing Institutional Responsibilities

In developing a PPP framework for MTTs in Sri Lanka, it is useful to consider the main responsibilities and identify an existing transportation or non-transportation institution, if available, that is suitable for each one. The main responsibilities include the following.

- **Identifying and procuring projects:** Driving forward the PPP project: identifying potential projects, appraising, structuring, drafting the contract, bidding on it, and finally managing the contract after it is signed.
- **Ensuring coordination and best practice approaches:** Ensuring that the correct processes are followed, that analysis of a proposed PPP is complete, that all the agencies that need to comment or give their go ahead do so, and that the body with approval authority receives all the information it needs to make a sound decision.
- **Public financial management:** Making sure that there is sufficient fiscal space to fund direct liabilities and also deal with situations where risks allocated to the public sector do crystallize into fiscal expenditures.
- **Approving projects:** Giving the go ahead for the project to proceed. As shown in process table approvals may be needed at several stages of project development.

It has to be expressly decided and documented that which responsibilities are being borne by which transport or non-transport institution or government or non-government party. Institutional responsibilities should be carefully designed for each model that had been introduced by this research project at the initial stage of this chapter.

9.4.5 Public Financial Management of PPPs for MTTs in Sri Lanka

Public financial management of PPPs relates to how fiscal commitments under PPPs are controlled, reported, and budgeted. Public financial management aims to reduce the risk of PPPs costing the government more than expected amount or placing undue burden on future generations in numerous ways.

Public Financial Management of PPPs can be elaborated under six sub headings:

Types of Fiscal Commitment to PPPs:

Fiscal commitments to PPPs can be payments for services, capital contributions, or subsidies to reduce costs for users, or a means to share risk. The wide range of fiscal commitments can usefully be divided into the following categories.

Direct liabilities: known payments that must be made if the PPP proceeds (although there may be some uncertainty regarding the value).

Contingent liabilities: payment commitments whose occurrence, timing and magnitude depend on some uncertain future event, outside the control of government.

Liabilities of government owned off-takers: if a commercial but government owned entity (such as a facility manager) contracts with a private service provider, there are two levels of liability.

Identifying and Quantifying Fiscal Commitments to a PPP Project

A government's fiscal commitments both direct and contingent will be established by the PPP contracts. The value of direct liabilities will be relatively simple to quantify. In many cases its value will be explicitly expressed in the contract. Valuing contingent liabilities is more complicated and requires a good understanding of both the size of the potential liability and the likelihood of its occurring.

Direct liabilities: Estimated payments in each year/ Net present value of payments

Contingent liabilities: Scenario analysis/ Probabilistic analysis

Ensuring Fiscal Commitments are affordable

Affordability means the "ability to be accommodated within the inter-temporal budget constraint of the government". Due to the long-term and contingent nature of PPP costs, it is not easy to decide whether they are affordable. In practice, affordability is assessed by considering the medium-term (typically three years or longer) expenditure framework, and then the annual budget constraint.

Budgeting for Fiscal Commitments

Budgeting for PPPs involves making sure that money is appropriated and available to pay for whatever cost the government has agreed to bear under its PPP projects. Because such costs may be contingent or occur in the future, PPP budgeting can be hard to manage in traditional annual budget cycles. Nevertheless, credible and practical budgeting approaches are needed for good public financial management, and to assure private partners that they will be paid.

Budgeting for direct commitments to PPPs
Budgeting for contingent liabilities in PPPs

Accounting for, and Reporting on, Fiscal Commitments

Governments need to account for and report on their financial commitments, including those under PPP contracts. Fiscal reporting on PPPs needs to be consistent with fiscal reporting generally. There are three main types of fiscal reporting.

Government finance statistics: These are summary statistics on the state of a government's finances, which are intended to be internationally comparable.

Government financial statements: Most governments publish audited financial statements. There are internationally recognized standards on what should be in those financial statements, although in practice few governments meet those standards.

Budget documentation and reporting: Most governments prepare reports on financial performance as part of budget preparation and reporting. These are not subject to any international standards, although there are international guidance materials that promote transparency.

Controlling Aggregate Fiscal Exposure to PPPs

In addition to considering fiscal exposure on a project by project basis, some governments introduce targets or rules limiting aggregate exposure. Given the difficulties in deciding whether a particular PPP commitment is affordable, limits on aggregate exposure can be a helpful way to ensure the government's total exposure to PPP costs and risks remain within manageable limits.

9.4.6 Oversight of PPP Programs and Projects

PPP projects are usually implemented by the Executive branch of government. The processes and responsibilities described aim to create checks and balances within the executive branch as to how those decisions are made. This step describes the broader governance of the PPP program how other entities and the general public participate in the PPP process, and how they hold the executive accountable for its decisions and actions.

The entities and groups outside the executive with a role to play in ensuring good governance of the PPP program can include:

A. **The legislature:** The legislative branch of government often defines the PPP framework by passing PPP legislation. In some cases, the legislature may be directly involved in the PPP process, approving PPP projects. Legislators also exercise ex-post oversight, scrutinizing reports on the government's PPP commitments.

B. **Auditing entities:** Many jurisdictions have independent audit entities. These entities may consider PPP commitments as part of their regular audit responsibilities. They may also review PPP project performance, investigate particular points of concern, or review the Value for Money of the program as a whole.

C. **The public:** The public can directly participate in PPP project design. This can be done through consultation processes and in monitoring service quality, if provided with channels for feedback. The transparency of the PPP process as a whole, and an active media, can inform public opinion and if the issues are serious enough influence elections.

D. **Other mechanisms:** There are some additional mechanisms that can be used to ensure good governance of the PPP process. Probity advisors can be engaged at each stage to identify and minimize any real or perceived conflicts of interest. Public procurement watchdogs can monitor the procurement process.

9.5 Promoting Procurement and Good Governance, and Reducing Corruption:

High value transactions attract the risk of corruption. Private players may attempt to improperly influence transactions and public officials may attempt to extract private profit from public office. Corruption in PPPs can be minimized using the mechanisms outlined above clear processes and criteria, clear assignment of responsibilities, oversight of the legislature and Supreme Audit Bodies, and transparency of information and public involvement.

9.6 Draft Contracts for PPP Projects

Due to the lack of a clear and well-defined PPP legal framework, the PPP Contract in Sri Lanka currently serves as the legally-binding document for all PPP projects. As a short-term solution, the GoSL should draft a sample PPP Contract to be included in bidding documents and slightly adjusted as necessary per the terms of the project in question. By including the contract in the bidding documents, it allows for bidders to ask for further consultation on different aspects of the contract, thus making the process more transparent. Based on international best practices, the draft contract should include the following provisions:

I. Technical Parameters
II. Concession Period
III. Concessionaire Rights and Obligations
IV. Government Rights and Obligations
V. Concession Fee
VI. Risk-Benefit Allocation
VII. Project Implementation
VIII. User Fee
IX. Construction
X. Operations and Maintenance
XI. Right for Substitution
XII. Force Majeure
XIII. Termination
XIV. Monitoring and Supervision
XV. Government Support and Guarantees
XVI. Dispute Resolution