



PPP Manual for Nigeria

Infrastructure Concession Regulatory Commission

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1. INTRODUCTION TO PPP

This section of the manual provides a brief overview of the Public-Private Partnership (PPP) concept; the different models available for implementation of PPPs; the rationale for using PPPs – its advantages and disadvantages; the challenges and pitfalls in PPP procurement; and the characteristics of PPP projects. Finally, the section concludes by giving a case analysis of some of the projects implemented through the PPP route, both domestically and internationally.

1.1. What are Public-Private Partnerships (PPP)?

The backbone for the development of any nation is the status of its infrastructure facilities. Developing nations across the globe have a great need for expanded infrastructure, as their economies undergo rapid development and urbanisation. Physical infrastructure, such as roads and bridges; power generation plants; power transmission and distribution; water and sanitation networks; ports; airports; and transportation systems like railways have to be put in place for the benefit of the public. These infrastructure projects are highly capital-intensive in nature and exert a strain on the public purse. Developing nations generally have limited resources at their disposal and experience a greater pinch when it comes to providing the required infrastructure facilities.

Due to the large investment requirements of infrastructure projects and the scarcity of available resources to provide adequate infrastructure facilities essential for development, the Governments and the public sector authorities in developing countries are constantly on the lookout for alternative sources of funds. One such source is investment by the private sector through the PPP route.

A public–private partnership describes a government service or private business venture which is funded and operated through a partnership between a government and one or more private sector companies. These partnerships are commonly referred to as PPPs.

As per the **National Policy on Public-Private Partnership** of the **Federal Government of Nigeria**, a PPP is defined as a contract, whereby the private sector is engaged by the public sector to manage some public services, and to design, build, finance and operate some infrastructure to enhance efficiency, broaden access, and improve the quality of public services. The role of the public sector is to plan and structure projects, while the private sector directly implements the projects.

Public-private partnerships (PPPs) are increasingly being used by governments and public sector authorities throughout the world as a way of increasing access to infrastructure services for their citizens and economies at a reduced cost. PPPs are also a way to increase private sector involvement in the delivery of public services.

PPPs provide a framework to facilitate private sector participation for the implementation of projects while at the same time structuring the role of the Government Procurement Authority, ensuring that social obligations are met and successful sector reforms and public investments are achieved.

The PPP arrangement seeks to allocate the tasks, obligations, and risks among the public and private partners in an optimal way such that the risks associated and the costs incurred are minimized and the quality of the infrastructure and the services provided is improved. The public

partners in a PPP are government entities, including ministries, departments, agencies, municipalities, or state-owned enterprises. The private partners can be local or international entities and may include businesses or investors with technical or financial expertise relevant to the project.

A PPP is structured in a manner that allows both the public and private sectors to enjoy certain advantages relative to each other while performing their specific tasks. The government's contribution to a PPP may take the form of capital for investment, a transfer of assets, or other commitments or in-kind contributions that support the partnership. The government also provides social responsibility, environmental awareness, local knowledge, and the ability to mobilize political support. The private sector's role in the partnership is usually to make use of its expertise in commerce, management, operations, and innovation, to run the project efficiently. The private partner may also contribute investment capital depending on the form of the contract.

The objectives of a PPP are to increase the availability of infrastructure services, and to do so with greater efficiency (lower cost for the level of services provided) than could be achieved using the traditional public sector approach.

These objectives can be achieved as:

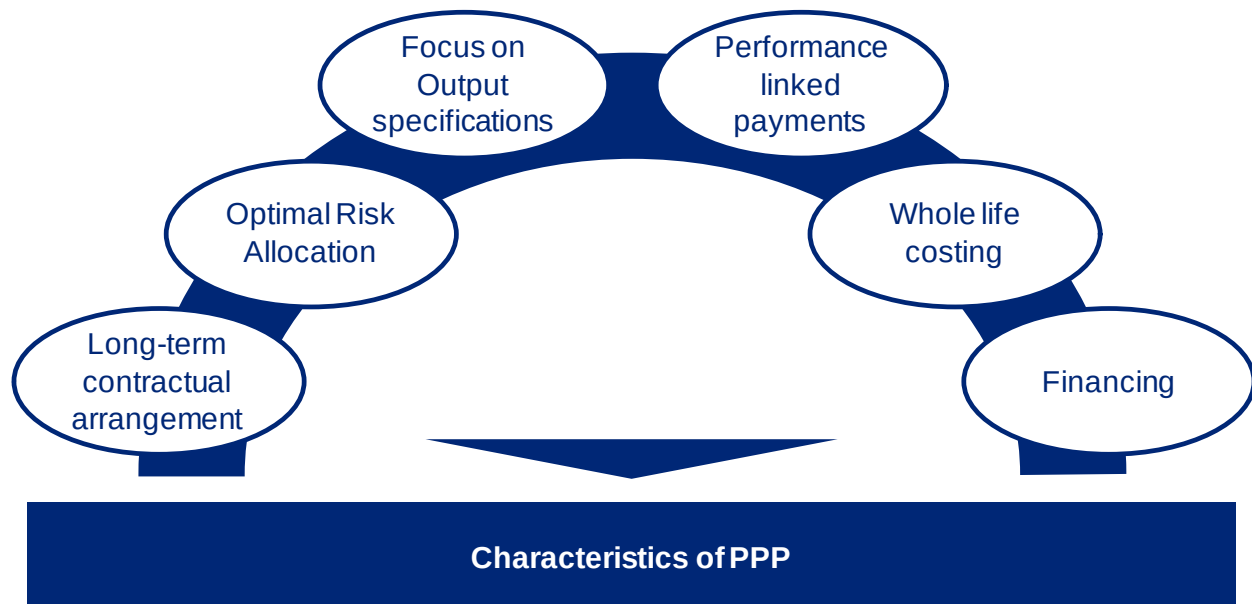
- PPPs allow access to the substantial financial resources of the private sector.
- PPPs enable the public sector to benefit from private sector technical expertise, experience, and efficiency.
- PPPs enable the public sector to transfer project-related risks to the private sector.

To conclude, a PPP brings the public and private sectors together as partners in a contractual agreement, often for a long period of about 15-30 years (called the Concession Period), which matches the life of the infrastructure assets used to provide the services. The private partners (investors, contractors, and operators) undertake the implementation of the project, assume substantial risks associated with project execution, and provide specified infrastructure services. In return, the public sector either pays for those services as long as they are in line with the performance standards agreed, or grants the private partner the right to generate revenue from the project. This allows the government to provide an improved quality of infrastructure services to the citizens in a cost-effective manner resulting from the efficiencies brought in by the private sector partner. It also allows the private sector partner to participate in large infrastructure projects, primarily in the public domain, and generate the required returns from these projects.

1.2. Characteristics of a PPP Project

A public-private-partnership (PPP) involves a contract between a public sector authority and a private party, in which the private party provides a public service through a well-defined project and assumes substantial financial, technical, and operational risks in the project. The characteristics of a PPP project are depicted in the figure below.

Figure 1: Characteristics of PPP



The characteristics of a PPP project can be classified into two categories, namely contractual characteristics and financial characteristics. These are elaborated below.

1.2.1. Contractual Characteristics

1.2.1.1. Long-Term Contracts

PPP projects are generally long-term in nature, typically ranging from 15 to 30 years or more, though in particular cases, the project term could be only five to seven years. The tenure of the contract is such that it typically covers the entire economic life of the asset. This ensures that the private sector partner takes a whole life-cycle view for the development of the asset. The asset is then designed, constructed, operated, and maintained such that the whole life-cycle cost of the project is minimized. The private sector operator ensures that the asset is well-maintained throughout its entire economic life.

1.2.1.2. Special Purpose Vehicle (SPV)

Given the capital-intensive nature of infrastructure projects and the risks associated with them, the private sector partner, when implementing such a project on a PPP basis, forms a separate entity called the Special Purpose Vehicle (SPV). The reason for taking up each project through a separate entity is that the risks associated with a project are quite different from those associated with other projects, and the partners for implementing the projects may differ. The SPV also allows the private sector partner to raise limited recourse funding restricted to the SPV without affecting the other projects being implemented by the private sector partner. Accordingly, each infrastructure project which is routed through PPP is typically implemented by an SPV.

When a government tender goes to market for infrastructure services, private sector bidders will pool skills and finances in a consortium that will form the basis of the SPV. The consortium produces a bid which takes into account the whole-life cost of the asset, incorporates the proper level of repairs and maintenance, and reflects the cost of the services provided and the cost of private finance. Competition between bidding consortiums during the procurement process, designed to select the PPP provider, helps to ensure value for money.

1.2.1.3. Allocation of risks and sharing of responsibilities

The key factor to achieve successful implementation of a PPP project is the optimal sharing of risks and responsibilities between the public and private sector. The guiding principle adopted in identifying and allocating responsibilities is that the party best able to manage a particular activity should be responsible for that activity and receive the rewards or losses associated with changes related to that activity. If a party is assigned the responsibility for activities over which it has no control, it will not be able to implement that activity effectively and will increase the contract costs to the government, resulting in poorer value for both the government and the private sector. The allocation of responsibilities in PPP projects vary depending on the nature and objectives of the project.

In a PPP, the responsibilities typically assigned to the private sector include designing and construction of the physical assets; financing the project components and operations; and maintenance of the assets so that they remain in good condition over the Concession period and comply with the standards and specifications agreed with the public sector agency.

The responsibilities which might be required to be retained by the public sector in a PPP include management of costs related to inflation, acquisition of land from public and private land owners, and management of risks that are out of the realm of private sector expertise.

In addition to the responsibilities retained by the public sector as mentioned above, there are certain responsibilities which may or may not be transferred by the public sector to the private sector depending upon the terms of the PPP contract. Based on the structure of the PPP, these might include obtaining planning permission for the facilities to be developed; ensuring that demand/usage of the services match planned levels; and managing the increase in costs resulting from changes in legislation.

1.2.1.4. Output Standards and Specifications

Output specifications form a vital part in encouraging innovation in PPP projects. Producing effective output specifications involves defining the ends without being prescriptive about the means for meeting these outputs. The public agency concerned clearly states the public service requirements for the facilities and services, while leaving room for the private sector to produce innovative, cost-effective solutions. The output specifications detail what needs to be achieved and not how it is to be achieved.

In a PPP project, ideally the public agency concerned makes payments to the private sector based on whether the outcome/output specifications have been met. Therefore, it is vital that both the public and private sectors have a clear understanding of how performance against these outcome/output specifications are measured and monitored. Performance measurement is usually linked to an agreed set of standards or key performance indicators, which will generally relate to the quality, amount, and frequency of service provision. There is usually an agreement

within the PPP contract on how such performance is to be measured and monitored since the payments to the private sector are based on these performance specifications being met.

1.2.1.5. Performance-based payment mechanism

A PPP can be structured in such a manner that the contract includes a performance-based payment mechanism, whereby the public sector only pays when services are delivered by the private sector. Moreover, the recurrent payment varies depending on whether the services provided meet the specified performance standards. The contract can be structured to facilitate incentives or benefit-sharing arrangements, to encourage the private sector to raise the performance above the specified standards. However, if the private sector consistently fails to meet the required performance requirements, the public agency can ensure that service levels are restored by imposing deductions and penalties on the payments to be made to the private sector, by stepping in to take over the operations and delivery of the services, or even by terminating the contract due to private sector default.

1.2.1.6. Whole-Life Costing and a flexible contract with mechanisms for variations over the life of the contract

The PPP contract should be structured in such a way that the operations and maintenance component is included in the contract so that the private sector focuses on the whole life-cycle cost of the project and not just the upfront capital costs. Adoption of a whole life-cycle costing approach encourages a more efficient design, resulting in the reduction of operating costs.

The PPP contract should also have a provision for changing some aspects of the service requirements or service delivery methods, subject to agreement by the public agency and the private provider on cost implications. There is a need for such a provision as there may be a need for changes to the service delivered over the Concession period.

1.2.2. Financial Characteristics

1.2.2.1. Private Financing

In a PPP structure, the responsibility of financing the project assets may or may not rest with the private sector partner, depending on the service delivery model adopted. However, in the models which involve funding the project assets by the private sector, the private sector partner raises project finance through equity and debt finance. The SPV is usually owned by one or more equity investors. Some of these shareholders may be contractors to the consortium, who undertake to carry out construction, design or management of facilities. Others may be pure financial investors. Debt finance, in the form of bank loans or bonds, is also raised to part-finance the construction and operation of the project. Both providers of equity and debt play important roles in the overall success of the PPP project.

1.2.2.2. Viability Gap Funding (VGF)

The PPP route may be judged not viable for a project if the business model does not generate the desired rate of return for the private sector (given the project cost and the high cost of funding), which is responsible for financing the project's assets. Under such circumstances, the public sector may provide a capital subsidy to part-finance the project cost, to reduce the financial burden

faced by the private sector and thus make the project more attractive to the private sector. This capital subsidy, usually provided as a percentage of the project cost, is called Viability Gap Funding (VGF). VGF may also be used to provide an annual subsidy instead of a capital grant. The PPP can be structured to accommodate such VGF to generate private sector interest in the project.

1.2.2.3. Contribution of the public to fund PPP projects

In a PPP, although the private sector may provide the capital funding for the project, this is ultimately recovered from the public by means of charges imposed on users, charges recovered from the public sector budget or charges recovered partly from the sponsoring government department and partly from users.

To conclude, a PPP typically has the following characteristics:

- The private sector is responsible for carrying out or operating the project and takes on a significant portion of the associated project risks.
- Often, though not always, the private sector will contribute the majority of the project's capital costs.
- The private sector's costs may be recovered in whole or in part from charges related to the use of the services provided by the project (user fees) or may be recovered through payments from the public sector budget.
- Public sector payments are based on performance standards set out in the contract.
- During the operational life of the project, the public sector's role is to monitor the performance of the private partner and enforce the terms of the contract.
- PPP projects often focus on outputs and services rather than assets to encourage efficient use of public resources and improved infrastructure quality.

1.3. Overview of the PPP Delivery Models

Public-private partnerships (PPPs) can be of various types encompassing various role players, ownership arrangements, and allocations of risk between private and public partners. These different types of partnerships are called PPP models. The choice of a PPP model depends on the objective of the government such as improving service efficiency, transferring investment risk, maintaining service control or improving the quality of service. The table below presents the different types of PPP models and their corresponding characteristics.

Table 1: Different types of PPP Delivery Models

Nature of contract (Duration)	Characteristics			Nature of service & Payment to contractor
	Asset ownership	O&M	Capital Investment	
Service Contract (1-3 years)	Public	Public & Private	Public	Public
				A definitive, often technical type of service, fee paid by government for service

Nature of contract (Duration)	Characteristics				Nature of service & Payment to contractor
	Asset ownership	O&M	Capital Investment	Commercial Risk	
Management Contract (3-8 years)	Public	Private	Public	Public	Manage the operation of a government service; fee paid by government for service and a performance-based incentive
Lease Contract (5-10 years)	Public	Private	Public	Private	Manage, operate, repair and maintain a public service to specified standards and outputs. All revenues, fees or charges are recovered from consumers or the users of the service; the service provider pays the government rent for the facility.
Concession (25-30 years)	Public	Private	Private	Private	Manage, operate, repair, maintain and invest in public service infrastructure to specified standards and outputs. All revenues are sourced from consumers for the provision of the service; the service provider pays a Concession fee to the government and may assume existing debt.
BOT/BOO/ Others (15-25 years)	Private & Public	Private	Private	Private	Construct and operate, to specified standards and outputs, the facilities necessary to provide the service. The Government mostly pays the service provider on a unit basis.

A brief description of each of these PPP delivery models is given below.

1.3.1. Service Contracts

Under a service contract, the government (public authority) hires a private company or entity to carry out one or more specified tasks or services for a period, typically one to three years. The public authority remains the primary provider of the infrastructure service and contracts out only portions of its operation to the private partner. The private partner must perform the service at the agreed cost and must typically meet performance standards set by the public sector. Governments generally use competitive bidding procedures to award service contracts, which tend to work well, given the limited period and narrowly defined nature of these contracts.

Under a service contract, the government pays the private partner a predetermined fee for the service, which may be based on a one-time fee, unit cost or other basis. Therefore, the contractor's profit increases if it can reduce its operating costs, while meeting the required service standards. One financing option involves a cost-plus-fee formula, according to which costs such as labor are fixed, and the private partner participates in a profit-sharing system. The government is responsible for funding any capital investments required to expand or improve the system.

Advantages include:

- Service contracts provide a relatively low-risk option for expanding the role of the private sector.
- Service contracts have a quick and substantial impact on system operation and efficiency.
- Service contracts provide a means for technology transfer and development of managerial capacity.

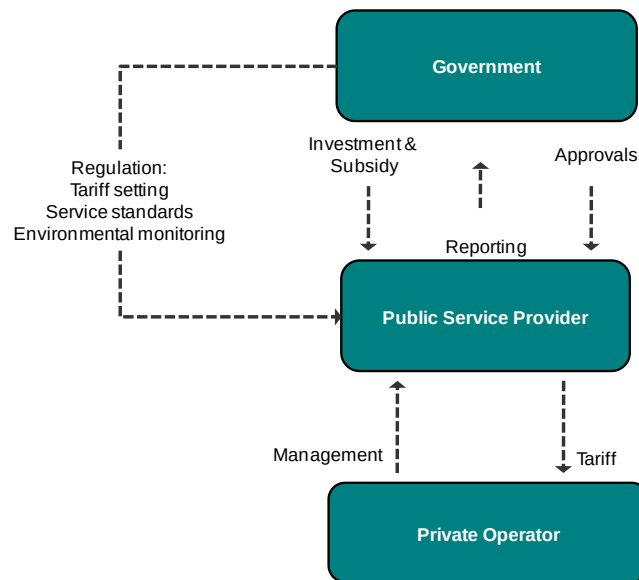
Disadvantages include:

- Service contracts require the public sector agency to administer multiple contracts and require strong enforcement of contract laws. This increased responsibility needs to be fulfilled by the public sector diligently to extract the maximum benefits from private sector participation.
- In a service contract, the private partner is not under an obligation to provide financing. Hence, service contracts are unsuitable if the main objective is to attract capital investment. The effectiveness of the private partner may, in fact, be compromised if other sources of financing (from government or donors, for instance) do not materialize.
- The private partner's activities are discrete and segregated from the broader operations of the company. So, there may not be a broader or deeper impact on the system operations, resulting in only discrete and limited improvements.

1.3.2. Management Contracts

A management contract expands the services to be contracted out to include some or all of the management and operation components of the public service (i.e., utility, hospital, port authority, etc.). Although the ultimate obligation for service provision remains with the public sector, daily management control and authority are assigned to the private partner or contractor. In most cases, the private partner provides working capital, but no financing for investment. The figure below illustrates the typical structure of a management contract.

Figure 2: Structure for Management Contracts



The private contractor is paid a predetermined rate for labor and other anticipated operating costs. To provide an incentive for performance improvement, the contractor is paid an additional amount for achieving pre-specified targets. Alternatively, the management contractor can be paid a share of the profits. The public sector retains the obligation for major capital investments, particularly those required to expand or substantially improve the system. The contract can specify the discrete activities to be funded by the private sector. The private partner interacts with the customers, and the public sector is responsible for setting tariffs.

Advantages include:

- Management contracts allow the operational gains resulting from private sector management to be realized without transferring the assets to the private sector partner.
- Management contracts are less difficult to develop and are less controversial than some of the other PPP models.
- Management contracts are relatively low-cost contracts as fewer staff is dispatched to the utility by the private operator.

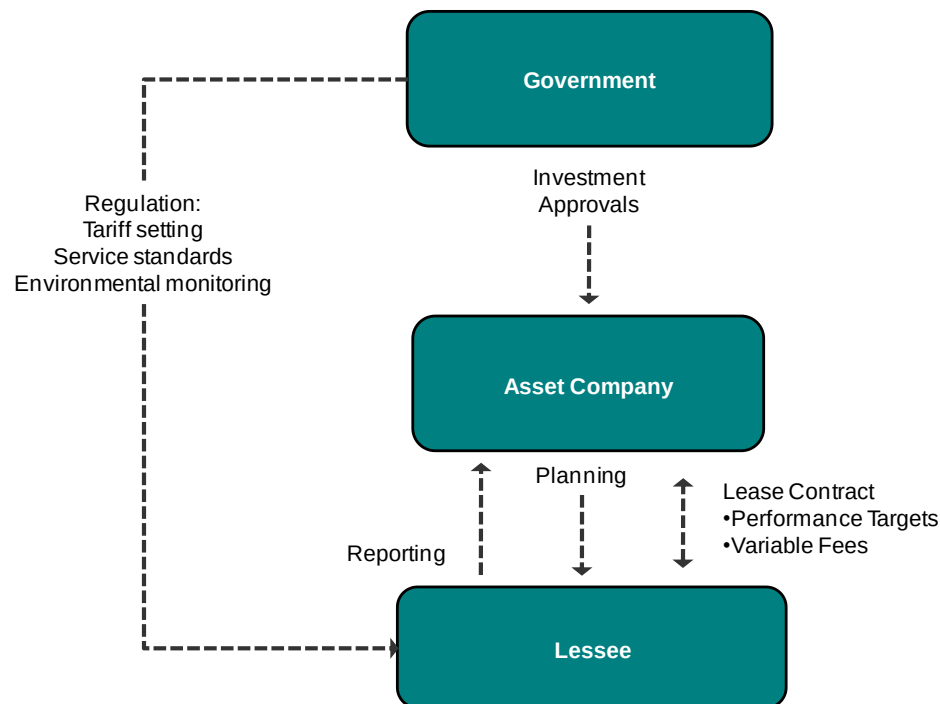
Disadvantages include:

In the case of a management contract, the management contractor does not enjoy the autonomy or the authority (over the labor force, for instance) required to achieve deep and lasting changes. This limits the benefits of involving the private partner in project implementation and management.

1.3.3. Lease Contracts

Under a lease contract, the private partner is responsible for the service in its entirety and undertakes obligations relating to quality and service standards. Except for new and replacement investments, which remain the responsibility of the public authority, the operator provides the service at his expense and risk. The duration of a leasing contract is typically five-ten years and may be renewed for up to 20 years. The responsibility for service provision is transferred from the public sector to the private sector and the commercial and financial risks for operation and maintenance are borne entirely by the private sector operator. In particular, the operator is responsible for losses and for unpaid consumers' debts. Leases do not involve any sale of assets to the private sector. The figure below shows the lease contract's typical structure.

Figure 3: Structure for Lease Contracts



Under this arrangement, the initial establishment of the system is financed by the public authority and contracted to a private company on lease. The private sector pays rent to the public authority for the facilities taken on lease.

Advantages include:

- Lease contracts separate the use of the facilities from the ownership of the facilities allowing the private sector to enjoy the use of the facilities without making any capital investment.
- For the public authority, it results in a stable stream of cash flows by way of rent from the private sector, without having to look after the operations and maintenance of the facilities.

Disadvantages include:

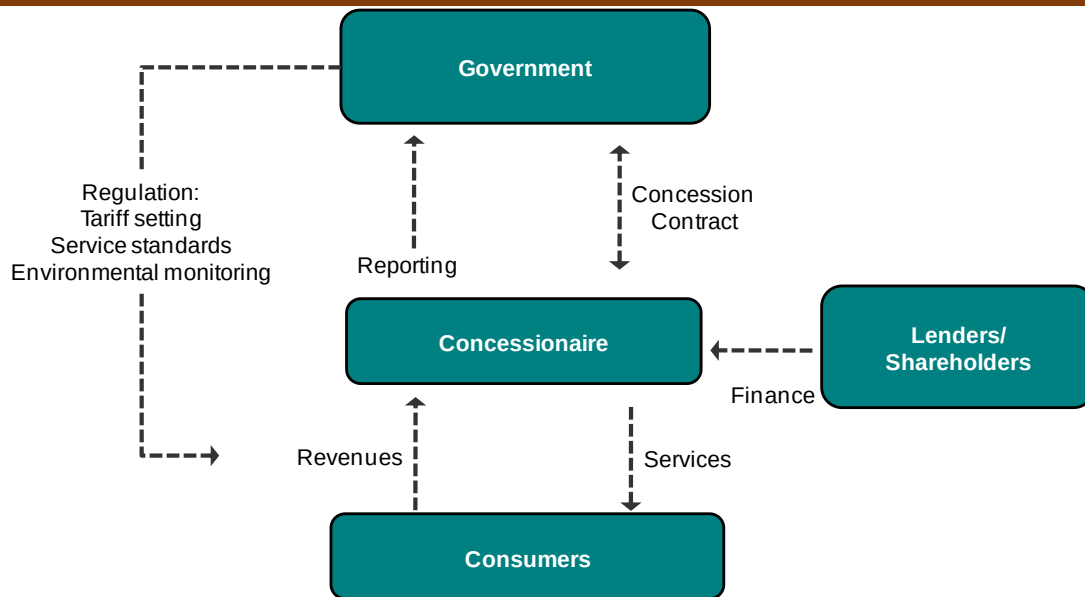
- The key issue with a lease is that the contractors' revenues are derived from customer payments and, hence, may require structuring and revision of complex tariff arrangements. This, at times, may need amendments to be made to the public sector policies and regulations which may be time-consuming or even not practically feasible.
- In addition, the responsibility for capital investment remains with the government and no private investment capital is mobilized.

1.3.4. Concession

A Concession makes the private sector operator (Concessionaire) responsible for the full delivery of services in a specified area, including construction, operation, maintenance, collection, management, and rehabilitation of the system. Importantly, the operator is now responsible for all capital investment. Although the private sector operator is responsible for providing the assets, such assets may or may not be publicly owned during the Concession period. The public sector is responsible for establishing performance standards and ensuring that the Concessionaire meets them. In essence, the public sector's role shifts from being the service provider to regulating the price and quality of service.

The Concessionaire collects the tariff directly from the system users. The tariff is typically established by the Concession contract, which also includes provisions on how it may be changed over time. In certain cases, the government may choose to provide financing support to help the Concessionaire fund its capital expenditures. The Concessionaire is responsible for any capital investments required to build, upgrade, or expand the system, and for financing those investments out of its resources and from the tariffs paid by the system users. The Concessionaire is also responsible for arranging the working capital. A Concession contract is typically valid for 25–30 years so that the operator has sufficient time to recover the capital invested and earn an appropriate return over the life of the Concession. The public authority may contribute to the capital investment cost, if necessary. This can be an investment “subsidy” (Viability Gap Financing) made to achieve commercial viability of the Project. Alternatively, the government can be compensated for its contribution by receiving a commensurate part of the tariff collected. The figure below shows the structure of a Concession contract.

Figure 4: Structure for Concession



Advantages include:

- Concessions are an effective way to attract private finance required to fund new construction or rehabilitate existing facilities.
- Concessions motivate a Concessionaire to achieve improved levels of efficiency and effectiveness since gains in efficiency translate into increased profits and return for the Concessionaire.

Disadvantages include:

- Under a Concession, governments may need to upgrade their regulatory capacity in relation to tariffs and performance monitoring, which could be time-consuming.
- The long-term nature of the contract may complicate the bidding process and contract design, given the difficulty in anticipating events over a 25-year period.
- Yet another disadvantage is that the operator will only invest in new assets where it expects payback within the remaining period of the contract unless provisions for these events are set out in the contract.

1.3.5. Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), and similar arrangements

BOT and similar arrangements are a kind of specialized concession in which a private firm or consortium finances and develops a new infrastructure project or a major component according to performance standards set by the government. The table below shows the variations of BOT-type contracts.

Table 2: Contracts similar to BOT- type arrangements

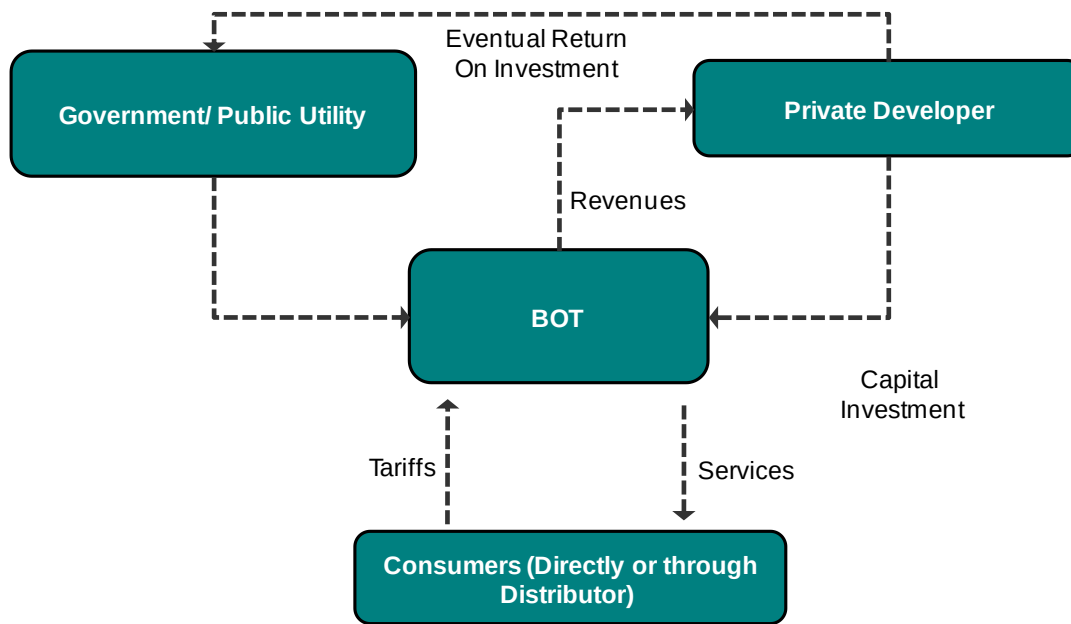
Nature of contract (Duration)	Characteristics			O&M	Financial Responsibility
	Asset ownership	Design	Build		
Design–Bid–Build	Public	Private by fee contract	Private by fee contract	Public	Public
Design–Build	Public	Private by fee contract	Private by fee contract	Public	Public
Build–Operate–Transfer (BOT)	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public
Design–Build–Finance–Operate (DBFO)	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public, Public/Private or Private
Build–Own–Operate (BOO)	Private	Private by contract (Concession)	Private by contract (Concession)	Private by contract (Concession)	Private by contract (Concession)

Under BOTs, the private partner provides the capital required to build the new facility. Importantly, the private operator now owns the assets for a period set by the contract and that is sufficient to allow the developer time to recover investment costs through user charges.

The public sector agrees to purchase a minimum level of output produced by the facility, sufficient to allow the operator to recover its costs during the operation. A difficulty emerges if the public sector has overestimated the demand and finds itself purchasing output under such an agreement (“take–or–pay”) when the demand does not exist. Alternatively, the distribution utility might pay a capacity charge and a consumption charge, thus sharing the demand risk between the public and private partners. BOTs generally require complicated financing packages to achieve the large financing amounts and avail long repayment periods.

At the end of the contract, the public sector assumes ownership, but can opt to assume operating responsibility, contract the operation responsibility to the developer, or award a new contract to a new partner. The figure below shows the BOT- type structure.

Figure 5: Structure for BOT



The distinction between a BOT-type of arrangement and a Concession is that a Concession generally involves extensions to and operation of existing systems, whereas a BOT generally involves large "Green Field" investments requiring substantial outside finance, for both equity and debt. However, in practice, a Concession contract may include the development of major new components as well as extensions to existing systems, and BOTs sometimes involve expansion of existing facilities.

There are many variations on the basic BOT structure including build–transfer–operate (BTO), whereby the transfer to the public owner takes place at the conclusion of construction rather than at the end of the contract, and the build–own–operate (BOO) contract whereby the developer constructs and operates the facility without transferring ownership to the public sector. Under the design–build–operate (DBO) contract, ownership is never vested in private hands. Instead, a single contract is let out for design, construction, and operation of the infrastructure project.

The ownership and the timing of the transfer are generally determined by local laws and financing conditions and the number of possible permutations is large.

With the design–build–finance–operate (DBFO) approach, the responsibilities for designing, building, financing, and operating are bundled together and transferred to private sector partners. DBFO arrangements vary greatly in terms of the degree of financial responsibility that is transferred to the private partner.

Advantages include:

- BOT agreements reduce commercial risk for the private partner because there is often only one customer, the Government.
- An advantage of DBFO projects is that they are financed partly or completely by debt, which leverages revenue streams dedicated to the project.

Disadvantages include:

- Under a BOT, initial capital construction costs may be reduced because of the private sector's expertise and experience in implementing projects. However, private debt may be an expensive substitute for public financing.
- Under a BOT, the benefit of competition is limited to the initial bidding process and these contracts are often renegotiated during their life. Also, the tender documents and processes require careful design and adequate time.

1.4. Pros and Cons of PPP

PPPs offer the public sector potential cost, quality and scale advantages in achieving infrastructure service targets. However, as every coin has a flip side, PPPs also have certain disadvantages. In general, in a well-designed and supported PPP, the advantages will outweigh the disadvantages. The advantages and the disadvantages of implementing projects through the PPP route are listed below.

1.4.1. Advantages of PPP

The major advantages of using PPP as a route to implement infrastructure projects are:

- Access to private sector finance
- Increased efficiency resulting from the use of private sector skills and transfer of risks to the private sector
- Introduction of sector reforms through reallocation of roles, incentives, and accountability

A brief description of each of these advantages follows.

1.4.2. Access to private sector finance

One of the key factors driving the economic growth of any nation is the availability of adequate infrastructure facilities. With the increase in population and the passage of time, there is a constant need for rehabilitation and refurbishment of the existing infrastructure and addition of new infrastructure facilities to meet the growing infrastructure needs of the population. Infrastructure projects by their very nature are highly capital-intensive and require large capital investments. As a result, governments often experience an ever-increasing need to find sufficient financing to develop and maintain the infrastructure, required to support growing populations. Governments are challenged by the demands of increasing urbanization, the rehabilitation requirements of aging infrastructure, the need to expand networks to new populations, and the goal of reaching previously non-served or underserved areas. Furthermore, infrastructure services are often provided at an operating deficit, which is covered only through subsidies; subsidies result in an additional drain on public resources.

Combined with most governments' limited financial capacity, these pressures drive a desire to mobilise private sector capital for infrastructure investment. PPPs help to mobilise this private sector capital. PPP projects involve the private sector in arranging and providing finance. This frees the government from the need to meet financing requirements from its own revenues (taxes) or through borrowings. By taking over the responsibility for raising finance from the government,

PPPs can enable more investment in infrastructure and increased access to infrastructure services.

Using private sector finance also allows the government to move large capital expenditure programs 'off the balance sheet'. This has been a motivating factor for PPPs in countries where the constraint on finance is a government commitment to a borrowing (i.e. public debt).

PPP also provides the private sector with the opportunity to participate in implementing infrastructure projects and benefiting from its capacity and experience in managing businesses (utilities in particular). The private sector seeks compensation for its services through fees for services rendered, resulting in an appropriate return on capital invested.

1.4.3. Increased efficiency resulting from private sector participation

The public sector often lacks adequate skills to utilise the scarce public resources in an efficient manner. The public sector typically offers weak incentives for efficiency and is thus poorly positioned to efficiently build and operate infrastructure. Injecting such incentives into an entrenched public sector is difficult, though not impossible.

The private sector in contrast is exposed to competitive pressures that are difficult to replicate for public agencies. This gives the private sector an edge over the public sector in carrying out the capital (design, construction) and operating phases of the project. Private sector operators have a clear goal of maximizing profits, which are generated, in part, by increased efficiency in investment and operations. Improving the efficiency of services and operations also increases the chances of those services being economically sustainable and their provision at competitive rates, even after satisfying the profit requirements of the private operators.

PPP allows the government to pass operational roles to efficient private sector operators while retaining and improving its focus on core public sector responsibilities, such as regulation and supervision. Properly implemented, this approach should result in a lower aggregate cash outlay for the government and better and cheaper services to the consumer. This should hold true even if the government continues to bear a part of the investment or operational cost since the government's cost obligation is likely to be targeted, limited, and structured within a rational overall financing strategy.

1.4.4. Sector reformation through reallocation of roles, incentives, and accountability

At times, PPP acts as a catalyst to provoke a larger discussion of and commitment to a sector reform agenda. A reform program that includes PPP provides an opportunity to reconsider the assignment of sector roles to remove any potential conflicts and to consider a private entity as a possible sector participant.

Implementing a specific PPP transaction often entails executing concrete reform steps to support the new allocation of sector roles such as the passage of laws and establishment of separate regulatory bodies.

1.4.5. Disadvantages of PPP

The disadvantages of PPPs are described below. Most of these disadvantages can be minimised under certain circumstances and through careful management of the PPP design by the

sponsoring authority. However, public sector capacity (experience and expertise) is required to manage the PPP process.

1.4.6. Difficulty in demonstrating value for money in advance

Ideally, a project should be procured as a PPP on the basis of a clear demonstration that it provides value for money (VFM) compared to public sector procurement. However, it is difficult to demonstrate VFM in advance due to uncertainties in predicting what will happen over the life of the project and due to lack of information about comparable previous projects.

1.4.7. Complex procurement process with associated high transaction costs

The PPP project must be clearly specified, including the allocation of risks and a clear statement of the service output requirements. The long-term nature of PPP contracts requires greater consideration and specification of contingencies in advance. The tendering and negotiation process is a costly exercise, particularly, as transactions advisors and legal experts are required. The tendering costs in PPPs are typically in the range of 1-3% of project value.

1.4.8. Risk of contract renegotiation

PPPs usually cover a long-term period of service provision (for example 25-40 years or life of the asset). Any agreement covering such a long period into the future is subject to uncertainty. If the requirements of the public sponsor or the conditions facing the private sector change during the lifetime of the PPP, the contract may need to be renegotiated to reflect these changes. This entails large costs to the public sector and the benefit of competitive tendering is usually not available under such circumstances.

However, this issue can be mitigated by selecting relatively stable projects as PPPs and by specifying in the original contract terms how future contract variations should be handled and priced.

1.4.9. Enforcement and monitoring

The successful implementation of a PPP project depends upon the ability of the sponsor to monitor performance against standards during the construction and operations period and to enforce the terms of the contract. However, this is usually difficult to attain unless special mechanisms and dedicated monitoring capacity are put in place by the sponsor.

1.5. Challenges and Pitfalls in PPP Procurement

Although PPP projects can be beneficial to the government and the private sector, there are certain areas in which care needs to be taken to ensure that the PPP is implemented successfully with the acceptance of all stakeholders and to the satisfaction of all beneficiaries. Some common pitfalls are described below.

1.5.1. Institutional/ Legislative Framework

The success or failure of PPPs can often be traced back to the initial design of PPP policies, legislation, and guidance. A common pitfall is placing too many restrictions, conditions and

expectations of risk transfer on the private sector, which make it impossible to structure a financially feasible deal.

1.5.2. Clear project objectives

The key factor driving the success of PPPs as a means for timely and successful implementation of infrastructure projects is the clarity of the project objectives and a well-defined scope of work for both the private and the public sectors. For improved performance and greater contribution by the private sector, the public sector may specify the output standards and specifications expected from the public service and allow the private sector the freedom to design the inputs to achieve the specified service. However, within the public sector, officials sometimes lack consensus about the purpose and expected outcomes of the project and, consequently, often try to compensate for this failure by over-specifying the project inputs.

1.5.3. PPP model selected for the project

Selection of an appropriate PPP model, depending upon the characteristics of the project, is the key to ensure successful implementation of a project through the PPP route. The main distinction between the various PPP models is the level and nature of risk shifted from the public sector to the private sector. A common pitfall is the selection of a PPP model that transfers demand risk (the amount of use the infrastructure will receive) to the private sector even when the private contractor has no control over these factors. This almost always leads to project failure.

1.5.4. Internal capacity

The ability of the public sector to understand the project requirements in detail ensures appropriate identification and allocation of risks among the contract partners. To ensure appropriate understanding of its roles, and to get expert guidance at each step of the project implementation, the Government is supported by external advisers. However, many tasks cannot be outsourced, and often the agency does not have the skills internally to manage complex PPPs or the dedicated team required to address the time-intensive upfront structuring needs. This acts as a major challenge for successful project implementation, particularly in new PPP markets.

1.5.5. Value for Money

Ideally, projects should only be implemented on a PPP basis when there is a clear demonstration of value for money (VFM) in comparison to public sector procurement. However, it is difficult to demonstrate VFM in advance due to uncertainties in predicting the entire life of a project and also lack of information about comparable projects. When the borrowing and tendering costs associated with PPPs are not sufficiently offset by efficiency gains, and when the value-for-money test is unclear or impractical, the project may not generate sufficient value for the public sector.

1.5.6. Planning the PPP

Inadequate planning on the part of the public or the private sector leads to unsuccessful implementation of projects through the PPP route. Without taking proper account of the market's appetite in the planning phase, governments may come out with more projects than bidders, thus creating a non-competitive environment. Similarly, too few projects may result in the industry moving on to a more active jurisdiction.

1.6. Myths and Facts about PPP Procurement

Some of the myths and facts about the implementation of projects through the PPP route are described below.

1.6.1. Higher cost of private financing

It can be argued that private sector financing under some PPP models will result in a higher financing cost for the project, since the borrowing rate for the private sector is generally higher than the borrowing rate for a government. The financing cost for the private sector might be higher because lending to the private sector could inherently be riskier than lending to the government. Private borrowing rates also include profit margins that private financiers have to make.

Mitigation measures: The cost of private financing for the project can be controlled by managing the risks of the project. Appropriate risk mitigation measures should be put in place to ensure private financiers of the viability and bankability of the PPP deal. Private financiers could then provide lower borrowing rates to a PPP project sponsor.

With appropriate risk management measures in a win-win PPP deal, the higher private financing costs could be offset by the efficiency gains that private financing can provide, such as better capital investment decisions.

1.6.2. Inflexible long-term contracts

PPP projects generally involve long-term contracts, where the private sector is committed to providing services to the government or the public. The government is also committed to a payment stream over the entire contract period. If no variation provisions are included in the PPP contract, the contract will be too inflexible to handle unforeseen circumstances, such as changes in demand from the public or changes in technology.

Mitigation measures: To avoid this pitfall, particularly in long-term projects, it is important to build a flexible PPP contract to allow for variations in specifications and requirements, with appropriate changes in payment terms to the private sector. The variation provisions should be fair to both the public and private sector. In addition, termination clauses should also be included to allow both parties to terminate the contract under exceptional circumstances, with fair compensation (to either party), where necessary.

1.6.3. Costly and lengthy procurement process

Generally, PPPs may involve a longer procurement period as compared to traditional procurement. PPP bidders also incur higher bidding costs due to the increased complexity. Hence, only large PPP projects can generate sufficient efficiency improvements to offset the higher bidding costs from PPP procurement.

Mitigation measures: PPP should generally be used for projects which involve the development of assets with a capital value above a certain threshold. Public agencies and potential private bidders should also ensure that their project teams have sufficient competencies to understand the implications of the clauses in a PPP contract and also to structure and manage PPP deals effectively.

1.6.4. Service discontinuity if private provider fails

If the private sector were to run into financial difficulties during the contract length, the government might not be able to take over the project functions immediately, which will ultimately affect service continuity. The risk of the private provider failing exists as long as the service is outsourced, regardless of whether a PPP model is used or not.

Mitigation measures: To mitigate the impact of private sector failure on service continuity, the PPP contract should include provisions for the government to step in, to manage the private sector's staff and equipment and to continue delivering the service. There could also be provisions for private financiers to identify other potential providers who can take over the operations, subject to the government's approval, in the event that the original provider fails.

To conclude, when implementing a project through the PPP route, it is important to identify the potential pitfalls and challenges associated with the PPP structure and then structure the deal such that both the public and private sectors benefit, creating a win-win situation. There should be a regular dialogue between the public agency and potential private providers on the best structure of the PPP deal, to ensure delivery of the greatest value to the government while offering sufficient business opportunities for the private sector.

1.7. Case Analysis of PPP Projects Implemented

Implementation of infrastructure projects on a PPP basis has become a widely accepted and practiced phenomenon worldwide, both among developed and developing nations. Many infrastructure projects across the globe have been implemented successfully through the PPP route. Below are some case study examples of PPP experience across the globe.

1.7.1. Case analysis of some of the projects implemented in Nigeria on a PPP basis

This section provides a case analysis of some of the projects implemented in Nigeria on a PPP basis.

Case 1: Domestic Terminal at Murtala Muhammed Airport, Lagos

Sector			
Transport	X	Energy	
Telecoms		Water and Sanitation	
Other			

Sub sector	Airports
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Type of PPP			
Concession		BOO	
BOT	X	Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project involves the design, construction, and operation of a new domestic terminal and ancillary facilities at the Murtala Muhammed Airport in Lagos following the destruction of the old domestic terminal in a devastating fire in 2000. The new terminal, Murtala Muhammed Airport Two (MMA2), has a land area of 20,000m ² . The project comprises an airport terminal building, a multi-storey car park, and an apron.
Procurement details	In 2003, the Ministry of Aviation advertised for bids for the project. Among the bidders were Royal Sanderton Ventures Limited and Bi-Courtney Limited. Initially, Sanderton was awarded the contract. However, after no significant construction had started six months into the contract signing, the government decided to revoke Sanderton's mandate and award the contract to Bi-Courtney following direct negotiations with the company. The contract was awarded for a period of 12 years and subsequently extended to 36 years. The Nigerian contracting entities are the Federal Government, represented by the Minister of Aviation, and FAAN, the Nigerian Airports Authority.
Details on sponsor/ company	Bi-Courtney Limited, a Nigerian firm, is the parent company of Bi-Courtney Aviation Services Limited.
Financing and funding structure for project	The estimated cost of the project is US\$200m for investments in physical assets. The project was part-financed with a loan of US\$150m from a consortium of six banks -- Oceanic Bank International Plc, Zenith Bank Plc, GT Bank Plc, First Bank Plc, First City Monument Bank Plc and Access Bank Plc.
Review of the outcome of project/ 'Value for money' assessment	MMA2 is the first major BOT infrastructure project to be completed by a Nigerian company. While the airport has been in operation since 2007, the project has encountered various difficulties: After being awarded the contract, Bi-Courtney faced significant challenges in securing financing and had to start construction without a long-term financing agreement in place. The company proceeded with the project with support from Oceanic Bank International Plc. It was only in March 2007 that it secured a

	US\$150m part-financing from a consortium of six banks for the completion of MMA2. On the operations side, some airlines were reluctant to move from the International Terminal, and FAAN reopened the old terminal General Aviation Terminal (GAT) for some airlines because the apron at MMA2 was not able to accommodate the growth in domestic services. The parties are in dispute, and Bi-Courtney is reported to be in default on its bank loans. It also claims breach of its contractual rights to provide all domestic services from MMA2 and that the Federal Airports Authority of Nigeria (FAAN), is competing unfairly by being both Party to the concession and operator of the GAT.
Key lessons learned	- The MMA2 case highlights the importance of having an agreed financial model and long term financing in place at the outset of the project. While Bi-Courtney did manage to obtain financial support from a local bank after winning the contract, its inability to lock in long-term financing until 2007 is likely to have put pressure on the project in its early stages. - The initial bidding process also points to the importance of managing politicians' expectations and setting realistic goals regarding timelines. The initial winner saw its contract revoked within six months of signing as the government was unhappy that no significant construction had taken place by then, and claimed compensation for wrongful termination. Revoking a contract and re-awarding it to a different company not only delayed the project but also triggered doubts in private participants' minds about whether such changes were spurred by political rather than economic issues. - The MMA2 case also shows the difficulty of enforcing contractual agreements in some developing countries. While the contract has a clause assuring that all scheduled domestic flights in and out of FAAN's airports in Lagos shall operate from the new terminal during the concession period, FAAN continues to operate the old domestic terminal (GAT). In addition, by charging lower cargo fees, it provides an incentive for the airlines to continue their operations at GAT. This conflict of interest faced by the Government has put significant pressure on the ability of the private sponsor to recover its investments and thus placed the financial viability of the project at risk.

Case 2: Lekki Toll Road Concession Project, Nigeria

Sector			
Transport	X	Energy	
Telecoms		Water and Sanitation	

Other			
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Sub sector	Roads
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Type of PPP			
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Concession		BOO	
BOT	X	Lease contract	
Management contract			

Status			
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Financial close		Construction	X
Operations		Cancelled	
Distressed		Other	

Project concept	The project is proposed to be implemented in two phases. Phase I involves upgrading and maintenance of approximately 50 km of the Lekki-Epe Expressway on a build-operate-transfer (BOT) basis. The Concession period for Phase I is 30 years. Phase II of the project involves construction of approximately 20 km of the Coastal Road on the Lekki Peninsular.
Procurement details	The Concession was awarded to Lekki Concession Company Limited ("LCC")
Details on sponsor/ company	Lekki Concession Company Limited ("LCC") is an SPV formed by the ARM Group of Companies for the execution of this project.
Financing and funding structure for project	The project cost was funded, using a mix of debt and equity with some support from the State and the Federal Government of Nigeria. The various sources of funding included DFI soft loans, Federal Government loans/grants, and private sector finance. The major shareholders in the project include Macquarie Bank and Old Mutual of South Africa through the African Infrastructure Investment Fund. The project was able to raise the first ever 15-year tenured local-currency debt financing in Nigeria from Standard Bank. Support from the State Government of Lagos has been received in the form of a mezzanine loan.
Review of the outcome of project/ 'Value for money' assessment	The UN has forecast a population of 20 million in 2020 for the Lagos State. Given the population of the state, it is estimated that approximately one million motor vehicles are stationed in Lagos today with a daily traffic flow between the Lagos Mainland and the Lagos Island of about 5,000,000 vehicles. The poor condition of the roads in Lagos, characterized by crumbling sidewalks, badly pot-holed road surfaces, non-functional traffic lights, poor signage, and blocked or non-

	existent drainage systems lead to traffic congestion and high journey times, high fuel consumption, and low productivity. Improved road conditions will help in solving all the above-mentioned problems and result in time-saving and increased productivity of the citizens. Fuel would also be saved and thus the costs for both motor car owners and the Government would reduce, resulting in rapid development of the nation.
Key lessons learned	• One of the main lessons arising from this pioneering project was the importance of stakeholder consultation in the early phases of the project (during feasibility study). During the construction phase, communities living along the Lekki-Epe corridor began to protest about having to pay tolls. As a result tolling was suspended. • The need for a strong contract management function within the Government team was also evident. As the project rolled out, there were numerous variations that had contractual and financial implications. Keeping up with the many changes imposed a financial and administrative burden on the Government team, particularly since the concessionaire had a large team of permanent staff (legal, financial, technical) compared to the smaller team within the responsible MDA. • Managing public and investor perceptions during project implementation was also important. The project has been delayed resulting in commuter frustration with the perceived lack of progress. This fed into negative sentiments on the value of the PPP as a whole and of tolling in particular. The State Government has developed a media and communication strategy to allay the concerns of both the public and of the investors to the project.

1.7.2. Case analysis of some of the projects implemented in Africa on a PPP basis

This section provides a case analysis of some of the projects implemented in Africa on a PPP basis.

Case 1: Dar es Salaam Water Distribution Project, Tanzania

Sector			
Transport		Energy	
Telecoms		Water and Sanitation	X
Other			

Sub sector	Water utility with sewerage
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Type of PPP			
Concession		BOO	
BOT		Lease contract	X
Management contract			

Status			
Financial close		Construction	X
Operations		Cancelled	
Distressed		Other	

Project concept	The project involved the leasing of Dar es Salaam's Water and Sewerage Authority's (DAWASA's) infrastructure for water distribution to a private consortium for operation. The private company was responsible for billing, collecting revenues from customers, making new connections, and performing routine maintenance. Ownership of the infrastructure was still in the hands of DAWASA. Alongside the lease contract, there were contracts to install or refurbish pumps at treatment plants, repair transmission mains, supply customer meters, and manage 'Delegated Capital Works.'
Procurement details	Initially, there were three bidders for the project – two French companies and the winning bidder, City Water. While the bid criterion was to be the lowest tariff, the two French companies did not submit their final tender and therefore City Water was awarded the contract. The contract was awarded for a period of 10 years, commencing August 1, 2003. However, it was terminated within two years of operation. The Tanzanian contracting entity was the Republic of Tanzania, represented by DAWASA.

	In addition to the main lease contract, two ancillary contracts for priority works were also awarded to City Water, including the refurbishment of pumps at treatment plants and repairs of transmission mains.
Details on sponsor/ company	The private consortium was led by Biwater, a UK-based water company with a 26% share, along with the Tanzanian local company Super Doll Trailer Manufacturer Company (SDT) with a 49% share and H.P. Gauß Ingenieure GmbH Co, a German company with 26% share.
Financing and funding structure for Project	US\$8.5m of investments in physical assets and payments to the Government under the lease contract. Significant further investment was to be undertaken under the ancillary contracts.
Other stakeholders	The project received multilateral support from the World Bank, AfDB and EIB (total loan amount of US\$140m). DFID also provided support, with the funding of a consultancy contract to publicise the project.
Review of the outcome of project/ 'Value for money' assessment	The contract was cancelled after two years, followed by complex arbitrations between the Government of Tanzania and City Water under the lease contract, and between the Government of Tanzania and Biwater Guaff (Tanzania) under international law. The lease contract arbitration was awarded in favour of the Government of Tanzania, and Biwater's claims for damages under the UK-Tanzania Bilateral Investment Treaty were dismissed. City Water did not perform adequately with the following project outcomes, amongst others: • Revenue collection targets were not met, with City Water collecting even less revenues than its state-run predecessor. At the same time, water bills were also rising. • Improvements to the water distribution system (e.g., introduction of a new billing system) were not introduced. • City Water stopped paying its monthly fee for leasing DAWASA's piping and other infrastructure in July 2004, less than a year into the contract. • There were also internal management problems within the consortium with SDT refusing to put in more equity without a greater share in the management. • City Water had a social obligation to contribute to a fund for first-time connections, which was never created.
Key lessons learned	• The City Water example highlights the difficulty of structuring, developing and implementing PPPs in developing countries, particularly in the water sector, wherein increasing water tariffs to improve the financial viability of a project can be very difficult as it is a major political issue. One of City Water's primary contentions was that they were provided with flawed assumptions from DAWASA in structuring their financial model, which led to the drop

in revenue collections. However, the Government claims that City Water submitted a poorly structured bid and had not anticipated the difficulty of the contract. The overall lesson here is that given the difficult operating environment, considerable care needs to be applied in structuring a PPP transaction, with appropriate risk mitigation measures in place, to ensure the financial viability and success of the transaction. However, the Government and its donors failed to ensure that DAWASA had a capable team of advisors to monitor City Water's performance adequately and to take timely preventative actions. Advisors were appointed, but not with the experience of monitoring complex projects with private sector participation.

- This case study also highlights the disadvantages of non-competitive bidding. With only City Water submitting a proposal at the final tender stage, there was no comparator to evaluate bids on a least cost basis.
- Another emerging lesson is the problems associated with donor organizations providing support conditional on privatization/greater levels of PSP.
- Another related point is that the reality of the contract needs to be viewed against available private expertise for the successful implementation of the contract. In this case, there were assessments suggesting that Biwater did not have the experience of running a huge management operation before and that the project team was inexperienced.
- The negotiations were undertaken in the run-up to the elections in Tanzania, and the Government was under pressure to 'resolve' the contract suitably. Thus, broader political economy issues can greatly impact the outcomes of a transaction.

Case 2: Kenya – Uganda Railways, Kenya and Uganda

Sector			
Transport	X	Energy	
Telecoms		Water and Sanitation	
Other			

Sub sector	Railways
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Type of PPP			
Concession	X	BOO	
BOT		Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project involves the concession of the railway networks in Kenya and Uganda in order to improve their management, operation and financial performance. The concessionaire is responsible for the rehabilitation, operation, and maintenance of the railways, which were previously run by the government (the Kenya Railways Corporation and the Uganda Railways Corporation) as well as to provide freight services in both the countries for the duration of the contract. The private company is also obliged to run passenger services in Kenya for at least five years.
Procurement details	While the two concessions for the Kenyan and Ugandan parts of the rail network are legally separate, the tendering process was undertaken jointly by the two governments and the contracts are substantially identical. The concession was awarded as a result of an international, competitive bidding process and the bid criterion was the highest price paid to the government. From the two groups that bid for the project, the Rift Valley Railways (RVR) Consortium was awarded the concession. The concession was granted for 25 years and the concessionaires took over in December 2006. The Kenyan and Ugandan contracting entities were the national governments.
Details on sponsor/ company	When RVR was first awarded the concession, it was led by South Africa's Sheltam Rail Company (61%), with the remaining participants being Prime Fuels (Kenya, 15%), Comazar (South Africa, 10%), Mirambo Holding (Tanzania, 10%), and CDIO Institute for Africa Development Trust (South Africa, 4%). In order to overcome the substantial operational and legal difficulties the project has encountered since 2007, the private consortium has been restructured such that Sheltam owns 35% of RVR while TransCentury of Kenya has a share of 20%, and Centum Investment, Babcock and Brown Investment each control 10%. In March 2009, ongoing difficulties forced the parties into a further restructuring of the consortium whereby Sheltam's share was diluted from 35% to 10%, and the difference was taken by TransCentury and its partners.
Financing and funding structure for project	The project was expected to cost US\$404m of which US\$4m made for payments to the governments and the remaining balance for investment commitments in physical assets.

	Of the US\$404m, US\$111m was estimated to be the cost for the first five years of the project, of which US\$47m would be contributed to by the consortium in the form of direct equity and internal cash generation. The balance would be funded by loans from international organisations. Overall, the debt-to-equity ratio of the project was envisaged to be about 70:30.
Other stakeholders	The original deal envisaged IFC and KfW providing loans worth US\$32m each. IFC/DevCo and Canarail acted as advisors to the governments of Kenya and Uganda respectively. PwC provided assistance to the concession operators. PIDG provided support to DevCo, and additional grants were also obtained through the Technical Assistance Facility. In addition, the World Bank provided Partial Risk Guarantees (PRG) of US\$45m for Kenya and US\$10m for Uganda. An IDA credit for US\$44m was made to fund labour retrenchment in Kenya.
Review of the outcome of project/ 'Value for money' assessment	The Kenya-Uganda railway concession is a flagship transport sector PPP in East Africa and won Euro money's Project Finance "Africa Transport Deal of the Year" award in 2006. However, the project has run into considerable operational and legal difficulties since then, which have seriously hampered its likelihood of success. Below is a brief list of the issues encountered so far: • Contrary to the conditions governing the concession, the consortium has not undertaken any significant investment in structures or rolling stock. As a result, the US\$64m in loans from the IFC and KfW have not been released in full. • The overall operational effectiveness of the project has also been debatable. For example, in Uganda, the percentage of freight from the Mombasa port has not increased as envisaged. In Kenya, freight traffic increases stipulated in the Concession Agreement were not met in the first 12 months of the concession – instead of going up from 1.5 billion to 1.88 billion net tonne kilometers, the area of freight traffic had declined to 1.4 billion kilometers. • There are also allegations that the operator has recently failed to make quarterly fee payments to the governments. • Substantial funds needed to be spent on labor retrenchment in both countries. While Kenya received donor funding in order to finance the retrenchment of 6,200 employees, the cost of retrenching 1,000 workers in Uganda was borne directly by the government. • The Kenyan Government required the consortium to pay US\$40m as proof of investment capability and threatened the cancellation of the contract should the payment not be received on time. In January 2009, RVR won a court order blocking the termination of its contract, which was overturned by the High Court of Kenya. However, the parties seem to have reached an out-of-court settlement whereby

	RVR will continue to be the concessionaire in exchange for the dilution of Sheltam's shareholdings from 35% to 10%.
Key lessons learned	• This case study highlights the importance of attracting 'competent' private companies for the successful implementation of the contract. In this case, there were concerns that Sheltam lacked the experience of running a complex railway network and therefore was not in a position to enhance cash flows sufficiently, to generate the required investment resources. Indeed, the position of Sheltam as the lead investor became a serious impediment to raising further funds by the consortium. In order to dilute Sheltam's share, an agreement was reached in March 2009 to change the terms of the contract and scrap the requirement that the consortium have a lead investor with a minimum shareholding of 35%. While this may make it easier to raise funds, it is also bound to make it more difficult for the governments to assign the responsibility of performance in the consortium. • While the concessions for the Kenyan and Ugandan parts of the rail network were legally separate, they were practically dependent on each other for operational and logistical reasons. The efficient implementation of the contract demanded that the two governments take similar positions on issues. As problems arose, the Ugandan Government took a more lenient approach whereas the Kenyans were more eager to terminate the contract. This experience points to the political dimension of running a cross-border PPP contract, and the difficulties that may arise in achieving cooperation between the governments involved. • In addition, the governments faced increasing political pressure to build a new gauge railway from Mombasa to Uganda, which may have made them more eager to terminate the current concession contract rather than see it succeed. The lesson to learn from this is that greater political issues may alter the incentives of the parties involved and negatively impact the outcome of a transaction.

Case 3: National Referral Hospital, Lesotho

Sector			
Transport		Energy	
Telecoms		Water and Sanitation	
Other (Health)	X		

Sub sector	Health
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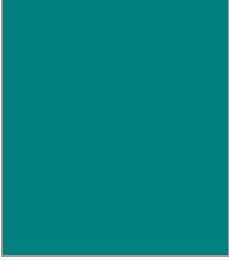
Type of PPP

Concession		BOO	
BOT	X	Lease contract	
Management contract			

Status			
Financial close		Construction	X
Operations		Cancelled	
Distressed		Other	

Project concept	The project involves the replacement of Lesotho's main hospital, Queen Elizabeth II, an ageing facility with derelict infrastructure. The private company is responsible for designing, building, partially financing, fully maintaining and operating the new 390-bed public hospital. The project also features the refurbishment, upgrading and operation of three urban filter clinics.
Procurement details	The Government of Lesotho undertook an internationally competitive bidding process for the project, and selected Tsepong (Pty) Limited, a consortium led by Netcare, as its preferred bidder. The public-private partnership agreement between the Government and the consortium was signed in October 2008, and the contract was awarded for a period of 18 years.
Details on sponsor/ company	The private consortium is led by Netcare (40%), a leading private health care provider that has operations in South Africa and the UK, and is listed in the Johannesburg Stock Exchange (JSE). The consortium also included Excel Health (20%), an investment company for Lesotho-based specialists and general practitioners (GP's); Afri'n nai (20%), an investment company for Bloemfontein-based specialists and GP's; D10 Investments (10%), the investment arm of the Lesotho Chamber of Commerce; and WIC (10%), a Basotho women's investment company.
Financing and funding structure for project	The project is expected to cost US\$100m. 80% of the capital costs will be provided by the Government and the remaining 20% will come from the private sector. The capital structure (excluding the government grant portion) has a debt-to-equity ratio of 85:15. All debt is provided by the Development Bank of Southern Africa (DBSA). 10% of equity is in the form of pure equity (40% provided by Netcare and 60% by the remaining consortium members) while 90% is in the form of loans (40% of which is a Netcare shareholder loan and 60% is a mezzanine loan/bridge finance from DBSA).

Other stakeholders	International Finance Corporation (IFC) acted as lead transaction advisor to Lesotho's Government. In addition, the Government has requested Partial Risk Guarantee (PRG) from the World Bank in order to provide the consortium, at their expense, with partial coverage against the Government's failing to make the unitary payment. The World Bank will also provide support to the Government with contract management. The Global Partnership for Output-based Aid (GPOBA) provided a grant of US\$6.25m, which is payable over the first five years of the project, to augment the unitary payment by the Government.
Review of the outcome of project/ 'Value for money' assessment	• This is a pioneering social sector PPP in Africa, which if successful, will have strong positive demonstration effects for future transactions. • The delivery of the project is still at an early stage. Construction started in March 2009 and is expected to be completed in March 2011. The hospital is expected to open in September 2011. • The project was structured such that the operating costs of the new facility would be roughly equivalent to those at the existing referral hospital, and thus fit into the Government's affordability envelope. • Since the cost of the services remains the same, patients will not need to pay extra to benefit from the higher level of medical services at the new hospital. • The project won the 2008 "Social Infrastructure Deal of the Year" award from media outlet Africa-investor. The prize was awarded because of the pioneering nature of the deal and its ability to be replicated in other African countries, as well as for the project's commitment to supporting local businesses and communities.
Key lessons learned	• This case study highlights the importance of robust political support for attracting competent bidders to a project. The strong support provided by the Government of Lesotho at the highest level is likely to have had a positive signaling effect for potential bidders. As a result, the Government was able to obtain the services of a consortium led by a healthcare provider with international experience of hospital PPP schemes in South Africa and the UK. • The Lesotho hospital example also points to the possibility of structuring a financially attractive deal for the private sector without having to increase the charges imposed on users. In less developed countries such as Lesotho, increases in costs of public services are bound to have a negative impact on welfare and may turn into a political issue. Keeping the charges for the new hospital the same as for its predecessor was essential in getting strong support from the community. • As the Lesotho project shows, the financial deal can also be made more compelling for the private sector by securing risk guarantees



from various institutions against the failure of payments from the Government. This is likely to be particularly important for countries with lower credit profiles.

- There is substantial involvement of local and regional stakeholders in this project as evidenced by the participation of Lesotho-based GPs and specialists, the local Chamber of Commerce and Basotho women's investment company in the winning consortium.

1.7.3. Case analysis of some of the projects implemented internationally on a PPP basis

This section provides a case analysis of some of the projects implemented internationally on a PPP basis.

Case 1: Panagarh-Palsit Highway Project, India

Sector			
Transport	X	Energy	
Telecoms		Water and Sanitation	
Other			

Sub sector	Roads
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Type of PPP			
Concession		BOO	
BOT	X	Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project involves the design, construction, operation and maintenance of a 63km four-lane carriageway between Panaragh and Palsit, which forms part of the Delhi-Kolkata section of the 'Golden Quadrilateral Project' (main highway links between the major cities of India).
	Initially, the National Highways Authority of India (NHAI) shortlisted six bids from a mix of international and domestic companies – Larsen & Toubro, Kvaerner Construction, Road Builder, IJM Bernhard Corp, Reliance Industries, and Gamuda-WCT. The bid criterion was the lowest annuity amount that would be paid semi-annually by the NHAI to the private sponsor. However, the NHAI found the annuity amount quoted by the lowest bidder to be too high and decided to call for fresh bids from all six parties in a second round of bidding.
Procurement details	Only Larsen & Toubro, Road Builder, and Gamuda-WCT participated in the second round. Gamuda-WCT emerged as the lowest bidder and won the contract.

Details on sponsor/ company	The contract was awarded for a period of 15 years, and the agreement between NHA and Gamuda-WCT was signed in November 2001.
Financing and funding structure for project	Gamuda-WCT is a joint venture between Gamuda (70%) and WCT (30%), two Malaysian engineering and construction companies.
Other stakeholders	The project's estimated cost is US\$69m. The financing package has a debt-equity ratio of 2:1. As the annuity payments are considered to be a secure and stable source of funding by the financial community, annuity-based models tend to be financed with higher debt-equity ratios compared to typical toll-based projects.
Review of the outcome of project/ 'Value for money' assessment	Infrastructure Development Finance Company (IDFC) acted as the financial advisor to NHA. IDFC was established in 1997 as a specialised financial intermediary to lead private capital to commercially viable infrastructure projects in India. This was one of the first projects that were undertaken under the BOT-Annuity framework. The construction phase of the project was completed in June 2005, five months behind schedule. The delay was caused by land availability issues and finalization of change of scope orders. The Comptroller & Auditor General of India (CAG) has recently published its report on the BOT road projects undertaken by the NHA. The findings related to the Panagarh-Palsit section are as follows: • Cracks and patch repairs were found to be less than 5% implying good maintenance. • One hundred and thirty-two locations were test-checked for roughness. One location's roughness was within the "desirable" level, and the rest were "acceptable" as per the Concession Agreement. • Deflection values in 10 out of 12 test-checked sections were more than the "acceptable" level stipulated in the Agreement, which indicates that the selected sections of the road are structurally weak and require overlay. • In two out of the five test-checked pits, the combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications.
Key lessons learned	• Private sector participants taking part in toll-based road PPPs normally need to bear significant revenue risks. These risks arise from factors such as difficulty in charging the public for road usage in low-income countries, and the scarcity of demand forecasting for roads. Revenue risks put significant uncertainty on the private sector's ability to recover its investments and may discourage participation in toll-based road PPPs. Under the Annuity Scheme used in this case, the payments from the government to the private participant are fixed at the beginning of the contract. Therefore, the

annuity method removes the revenue risks for the private sector and makes the deal more appealing to the private sponsor.

- On the downside, the annuity payments reflect a transfer of revenue risk from the private sector to the government. If the government encounters difficulties in setting up toll charges, the annuity payments may put a strain on its budget.
- Considerable attention needs to be given to the way the PPP agreement is structured in order to make sure that the private participant is sufficiently incentivized to deliver the project on time. In the Panagarh-Palsit case, the Agreement did not stipulate target dates for individual project milestones and consequent penalty for non-achievement of milestones. That said, under the Annuity Scheme, the NHAI does not begin paying the annuity until the road is constructed, which gives the private operator an incentive to complete the project on time.

Case 2: Cross-Harbor Tunnel, Hong Kong

Sector			
Transport	X	Energy	
Telecoms		Water and Sanitation	
Other			

Sub sector	Tunnel
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Type of PPP			
Concession		BOO	
BOT	X	Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project involved the construction, maintenance and operation of a tunnel connecting Kowloon to Hong Kong Island. The 1.9km Cross-Harbour Tunnel (CHT) was Hong Kong's first underwater tunnel and formed the first road connection between the Island and Kowloon.
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Procurement details	The procurement was done via reverse tender whereby the bids were evaluated on the basis of the lowest public sector subsidy required. On the basis of this criterion, the Cross-Harbour Tunnel Company Limited was awarded the contract. The contract was awarded for a period of 30 years, commencing in 1969.
Details on sponsor/ company	The company is a Hong Kong-based investment holding company with emphasis on transport infrastructures, such as tunnel operation, tunnel management, operation of driver training centres, and operation of electronic toll collection systems.
Financing and funding structure for project	The financing package had a debt-equity ratio of 64:36. Royalty payments amounted to 12.5% of operating receipts.
Review of the outcome of project/ 'Value for money' assessment	• Construction work commenced in September 1969 and the tunnel became operational ahead of schedule in August 1972. It successfully reached the end of its 30-year concession period and its control was transferred to the government in 1999. • CHT is the first BOT project in Hong Kong that did not need to be re-negotiated and is widely considered to be a success story. • Despite facing competition from an effective and cheap ferry service, the tunnel proved to be very popular. It began to make profits four years after its opening, and had repaid all debts by 1977. • At the time of its construction, CHT was at the forefront of tunnel engineering. The harbour's deep waters made a conventional underground tunnel impractical, so engineers devised an estuarine tube tunnel that would sit on the sea bed. It was constructed on dry land in concrete segments, sealed at the ends and towed out to sea, where it was sunk into a pre-dredged trench, backfilled, and the water pumped out. It was at the time the longest immersed tube tunnel ever constructed. • Two more cross-harbour tunnels have been built since CHT became operational but CHT continues to be the most popular, with more than half the cross-harbour traffic passing through it. • The success of the project is due to a number of factors including: - The private company had the necessary skills for undertaking the project, as evidenced by the use of an innovative method for building it. - It was the first cross-harbour tunnel, and hence occupied strategically the best location for harbour crossing. - The concession period coincided with Hong Kong's rapid economic development.

Key lessons learned

- The CHT case highlights the importance of strong political support for successful completion of a project. The tunnel project involved massive effort by the government through the planning and implementation stages. The government started undertaking feasibility studies in the mid-1950s, more than ten years before awarding the contract for CHT.
- The project also shows the importance of structuring the PPP transaction in an appropriate way in order to attract capable private sponsors. The construction phase of the CHT project entailed significant engineering challenges and required the use of innovative building techniques to overcome them. Hence, it was vital for the project's success to have on board capable private sponsors.
- In the CHT case, the government did not provide any guarantees to private participants regarding revenue generation. The government was able to transfer much of the operating risk to the private company by choosing a central location for the tunnel and thus ensuring a steady flow of traffic. This shows that the government does not necessarily have to provide direct guarantees to sweeten the deal for the private sector, and that alternative incentives can be found that make the deal attractive to the private participant without increasing the risk that the government needs to assume.

Case 3: Hamburg International Airport, Germany

Sector			
Transport	X	Energy	
Telecoms		Water and Sanitation	
Other			

Sub sector	Airport
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Type of PPP			
Concession	X	BOO	
BOT		Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project involves the construction of a new terminal with large commercially usable real estate, extension of parking areas, and establishment of connectivity of the Hamburg International Airport to the suburban rail network. The project is an initiative to support further development of airports by extending their capacities in all functions in line with the demand for airport services.
Procurement details	An EU-wide tender procedure was held and the contract was awarded, with the Senate of Hamburg's approval in July 2000, to a consortium -- Hamburg Airport Partners formed by Hochtief AirPort GmbH and Aer Rianta International GmbH, a subsidiary of the Irish airport operating company.
Details on sponsor/ company	Flughafen Hamburg GmbH (FHG) is the company responsible for the operations of the Hamburg International Airport. FHG was originally owned by City State of Hamburg (64%), FRG (26%), and State of Schleswig-Holstein (10%). Post the private sector's ingress, the private sector consortium formed by Hochtief AirPort GmbH and Aer Rianta International GmbH owns 40% stake in FHG and the remaining stake is owned by City State of Hamburg and other states.
Financing and funding structure for project	The construction and the extension of the Hamburg International Airport required capital investment to the extent of €350m. This was funded by means of a 36% stake sale in FHG to the private sector consortium of Hochtief AirPort GmbH and Aer Rianta International GmbH for €296m and through a €220m loan support from EIB, received through a local bank.
Other stakeholders	The project received support from EIB in the form of a loan through a local bank of €220m.
Review of the outcome of project/ 'Value for money' assessment	• The project is one of the first airport projects in Germany to be undertaken through the PPP route. • The capacity augmentation of the Hamburg International Airport has provided quality airport infrastructure, solving the problem of capacity bottlenecks and resulting in higher revenues and increased profitability for all the stakeholders.
Key lessons learned	The Hamburg International Airport case shows that major PPP projects in airport construction can be successfully realized if the needs of all parties are integrated. Airports present particular environmental and social issues but these can be successfully addressed. The case shows that: • Compensations like advanced noise protecting programs or noise quota systems can be established contractually and financially integrated.

- It is possible that private and business customers benefit from sophisticated contractual instruments like price-cap regulations.
- A right of veto in cases of conflict, granted to each of the partners within the partnership agreement, acts as a central instrument of risk management strategy.

Case 4: Point Lisas Desalination Plant, Trinidad & Tobago

Sector			
Transport		Energy	
Telecoms		Water and Sanitation	X
Other			

Sub sector	Utility
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Type of PPP			
Concession		BOO	X
BOT		Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project involves the financing, construction, and operation of an 110,000 m ³ /day capacity desalination plant to service the industrial park at Point Lisas on the west coast of Trinidad. Trinidad's Water and Sewerage Authority (WASA) is the sole purchaser of the treated water. WASA on-sells most of the water to industries located in Point Lisas and pumps the excess into the potable supply.
Procurement details	In 1999, a selection committee acting on behalf of the Government awarded the contract for the plant to a joint venture named the Desalination Company of Trinidad and Tobago (Desalcott). The contract was awarded for a period of 20 years.
Details on sponsor/ company	Desalcott is a joint venture between the local company Hafeez Karamath Engineering Services Ltd. (60%) and Ionics Inc. (40%), a US-based company specialising in desalination, water reuse and recycling,

	and industrial ultrapure water services. Ionics was bought by General Electric (GE) in 2004.
Financing and funding structure for project	The estimated cost of the project is US\$120m.
Other stakeholders	Initially, Desalcott attempted to raise financing for the project through Overseas Private Investment Corporation (OPIC), a US government agency that helps US businesses invest overseas. Eventually, OPIC dropped out of the project as a result of the difficulties in securing government guarantees for the project.
Review of the outcome of project/ 'Value for money' assessment	• The plant became fully operational in 2002 and was subsequently expanded in 2004. • Water from this plant accounts for more than 10% of the total water production in the country. • It is the largest seawater reverse osmosis system in the western hemisphere. • The plant was originally designed for 50% overall recovery but by 2006, it was already operating at around 62% recovery with significantly lower-than-expected chemical consumption. The plant operates extremely reliably with an availability of over 95%. • Despite the positive operational performance, public opinion of the desalination plant has been mixed. The water supply system in Trinidad is quite unreliable and even though the plant has made significant improvements in water supply to the industrial area, there is widespread conviction that WASA is giving foreign-owned companies preferential treatment at the expense of the general public. • Desalcott's financial situation throughout the first five years of the project also contrasted with the operational performance of the plant. After winning the contract, it faced significant challenges in raising financing and had to start construction without a long-term financing agreement in place. Long-term finance was finally secured in 2003, but it required keeping a significant sum in a reserve account, which left little free cash flow to service Desalcott's obligations to Ionics. • The project has also been subject to corruption allegations. The probe began in 2002 after the new Government promised an investigation into the contract which was entered into by the previous administration. It is claimed that the bid process was rigged and that payments to certain Trinidadian officials were made to make sure that Desalcott would be awarded the contract. In 2006, Desalcott's executive chairman Hafeez Karamath was arrested on fraud charges and released on bail.

	There has also been at least one dispute between WASA and the plant owners regarding proposed escalation in the wholesale price of the water produced. The underlying cause of the disagreement in 2006 was the Government's refusal to allow an increase in tariffs according to the formula in its agreement with WASA.
Key lessons learned	- This case shows that operational success does not necessarily guarantee public support, and that it may be beneficial to undertake an effective public relations campaign to inform the general public of the benefits of the project. In the Point Lisas case, the corruption allegations related to the plant has reinforced the public's perception that the project was undertaken to benefit foreign companies as opposed to helping the general public. - As the dispute between WASA and Desalcott shows, implementing PPPs in developing countries' water sector may be particularly difficult as increasing water tariffs tends to be a highly political issue. The inability to increase tariffs may put a serious strain on the financial viability of the project. - The Government's reluctance to grant tariff increase in its agreement with WASA also highlights the difficulty of enforcing the rule of law in some developing countries. The political risk of such violations is likely to deter international companies from taking part in further PPP projects. - During the tender process, significant attention needs to be paid to the ability of the private sector to raise financing for the project. While Desalcott did manage to obtain a bridge loan from a local bank after winning the tender, its inability to lock in long-term financing put significant strain on its finances and threatened the viability of the project in its early stages.

Case 5: Tala Transmission Project, India

Sector			
Transport		Energy	X
Telecoms		Water and Sanitation	
Other			

Sub sector	Power Transmission
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Type of PPP			
Concession		BOO	
BOT	X	Lease contract	
Management contract			

Status			
Financial close		Construction	
Operations	X	Cancelled	
Distressed		Other	

Project concept	The project is to build, operate and maintain five 400kV and one 220kV double circuit electricity transmission lines of approximately 1,200 km, with a maximum load capacity of about 3,000MW. The new transmission system has been undertaken in order to transmit power from the Tala Hydro Project in Bhutan and to carry surplus electricity from North-Eastern India to the power-deficient Northern Indian belt.
Procurement details	As a result of an international competitive bidding process, Tata Power was awarded the contract. The only other pre-qualified bidder was National Grid of the UK. The contract was awarded for a period of 30 years, and reached financial closure in April 2004. The Indian contracting entity was the federal government.
Details on sponsor/ company	The project is undertaken by Tala-Delhi Transmission Limited (TDTL), a joint venture between Tata Power (owning 51% of TDTL) and the Government of India's Power Grid Corporation of India Limited (PGCIL) which owns 49% of TDTL. Tata Power's main line of business is the generation, transmission and distribution of electricity. It is the country's largest private power utility.
Financing and funding structure for project	The estimated cost of the project is US\$269m. The amount will be spent on investments in physical assets. The financing package consists of 30% equity and 70% debt. State Bank of India and IDFC provided term loans.
Other stakeholders	The project received support from the IFC in the form of a US\$75m loan. The Asian Development Bank also extended a US\$62.24m private sector loan to the project.
Review of the outcome of project/ 'Value for	• The Tala transmission project is India's first inter-state transmission project undertaken via PPP. • It is also the first BOT electricity transmission line outside Latin America and the Caribbean region.

money' assessment	The construction phase was completed within schedule and the project has been operating commercially since September 2006. In its first year of operation, the transmission line was able to ensure exchange of about 3,500 million units of surplus energy from the eastern to the northern regions.
Key lessons learned	- The Tala case highlights the importance of structuring the PPP transaction in an appropriate way so as to make the project more attractive for the private sector. In this particular example, interest from private parties was initially limited as the returns on the project were deemed too low due to the tariff structure adopted by PGCIL. As a result of a petition filed by National Grid, the Central Electricity Regulatory Commission (CERC) of India decided to allow private transmission players a 10% mark-up on equity over that offered to PGCIL, which raised the internal rate of return for the private participants by 4.5% on the Tala project. - The Tala case also points to the importance of introducing risk mitigation measures in the PPP structure to secure private sector interest. More specifically, as state electricity boards in India have poor payment records, it was necessary for PGCIL to assure 100% payment to private sponsors for transmitting power to the state boards and making the project financially viable for the private sector. - While the presence of a government-owned shareholder may make it easier to overcome bureaucratic hurdles, it may make private investors worry about the potential balance of power issues. In the Tala case, such concerns were mitigated by both the shareholding structure, which gave the majority stake to the private participant, and the way the management positions were nominated.

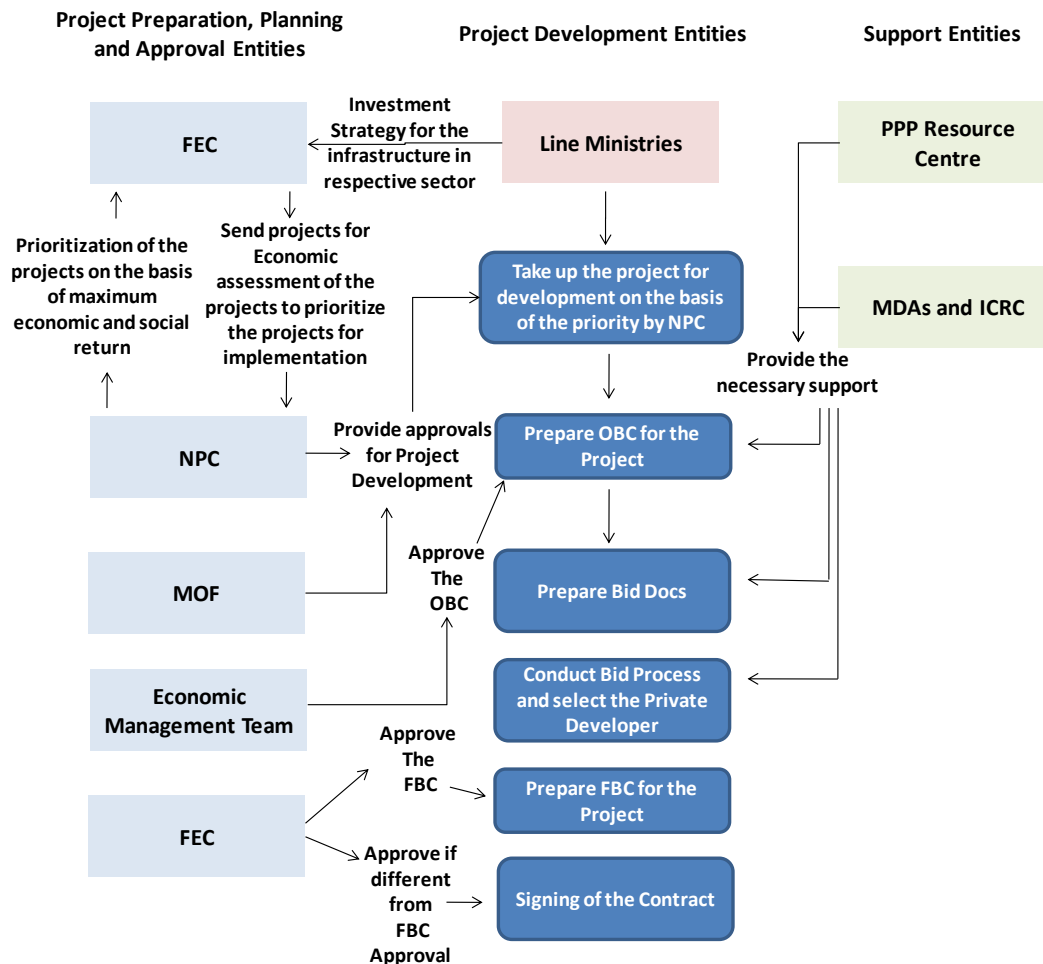
2. PROJECT LIFE CYCLE AND PPP BIDDING PROCESS

This section of the manual provides an overview of the institutional framework governing PPP Procurement in Nigeria and the various stages involved in the development, procurement and implementation of a project through the PPP route. The section first provides an overview of the PPP Project cycle and the Bidding Process and then describes each step in detail. Thereafter, the bid documents issued in the Bidding Process, the negotiations with the Bidders and the process of awarding the contract are described.

2.1. Institutional Framework governing the PPP Procurement in Nigeria

The Institutional Framework governing PPP Procurement in the Federal Republic of Nigeria comprises of the entities as depicted in the schematic below.

Figure 6: Institutional Framework



The institutional framework governing the PPP Procurement allocates specific roles and responsibilities to various MDAs within the Federal Government for PPP project identification, planning, approval, procurement, and implementation. A brief overview of the roles and responsibilities of the various entities involved in the PPP process is given below.

2.1.1. Entities forming a part of the Institutional Framework

The Infrastructure Concession Regulatory Commission (ICRC)

The Infrastructure Concession Regulatory Commission (ICRC) is responsible for developing and issuing guidelines on PPP policies, processes and procedures (including those for concessions), and acts as a national centre of expertise in PPP. It works closely with relevant Ministries, Departments and Agencies (MDA) to identify potential PPP projects, and acts as the interface with the private sector to promote communication on national policies and programmes. ICRC monitors the effectiveness of the Government's policies and processes and provides independent advice to the Federal Executive Council (FEC) on the development of projects through the PPP route. It provides its views to FEC on whether projects submitted for FEC approval meet the requirements of the regulations.

ICRC works closely with States that are developing their own PPP policies to ensure consistency, best practice, and a co-ordinated approach to the private sector supplier market. Although the management of PPP agreements will be for the relevant MDA, as the contracting party on behalf of government, the Contract Monitoring Unit within ICRC monitors compliance with the contractual terms and conditions by both parties. The ICRC maintains a PPP project database and also retains custody of all PPP agreements as required by the legislation.

The PPP Resource Centre

The PPP Resource Centre operates within the ICRC acting as a central PPP unit. It plays an important part in the institutional framework that the Government has created to support PPP Procurement.

The Resource Centre is able to recruit (or second) staff directly from the private sector. It provides a support role to similar units within the States and acts as an effective interface between the public and private sectors in relation to the PPP policy and practice in Nigeria. It also has a role in managing government equity in projects ensuring that the investment decisions of the government are made primarily on commercial grounds.

Another key role played by the Resource Centre is capacity building in the private sector, through publicity, conferences and other meetings. It acts as a bridge between the public and the private sectors and ensures that the PPP programme across the country has sufficient scale and focus

to encourage international players into the market to team up with the smaller and medium sized local contractors.

The major responsibilities of the Resource Centre are:

- To provide advice to the Federal Government on the development of policy for PPP;
- To issue guidance, in conjunction with the National Planning Commission (NPC), on the identification of PPP projects and programmes within the Government's investment strategy;
- To provide advice on the value for money assessment and affordability analysis of infrastructure projects that are being considered for PPP;
- To develop a communications strategy for PPP across the Federation and with all private sector stakeholders;
- To assist MDAs with project appraisal, the appointment of external advisers where required, and the preparation of Outline and Final Business Cases;
- To provide technical assistance to MDAs in the procurement of PPP projects including defining appropriate output specifications, a payment mechanism, risk allocation, evaluation criteria, and draft contractual terms;
- To provide, through the ICRC Board, advice to the Federal Executive Council on the approval of all significant infrastructure projects;
- To support MDAs during the operational phase of projects when required, for example in contract change or refinancing;
- To co-ordinate the PPP policies and programmes of the State and Federal Governments, working with similar units in the States or Ministries to ensure consistency of approach and a steady flow of projects to the market.

The PPP Resource Centre will draw upon various sources of funding for Project Development purposes to support the cost of external advisers for pathfinder PPP projects. Such funding may be drawn from grant funding, or from loan facilities with development partners.

Contract Compliance Centre

The Contract Compliance Centre is responsible for the following:

- Take custody of every concession agreement and monitor compliance with the terms and conditions of such agreement;
- Ensure efficient execution of any concession agreement or contract entered into by the government;
- Develop guidance and procedures for monitoring of such agreements;
- Maintain a database on concessions and other PPP contracts entered into by the Government.

National Planning Commission (NPC)

The National Planning Commission (NPC) is responsible for the preparation of the Federal Government's new National Development Plan, based on the sector plans of the MDAs. This plan will set out the Government's 15-year investment strategy covering all forms of procurement that will be financed in whole or in part from the Federal budget. The investment strategy will match infrastructure needs against predicted financial resources for all sectors, based on the Medium Term Sector Strategies prepared by each ministry. The investment strategy will also identify those infrastructure projects that will be financed by borrowing, as well as those projects that will be financed from current revenues.

NPC acts as a centre of expertise in economic appraisal, developing guidance on procedures and economic assumptions for cost-benefit analysis and discounting, and for assessing whether private or public borrowing will have the lowest economic cost for projects or programmes.

NPC monitors the economic benefits that result from government investment and uses this data to prioritise those projects that offer the highest economic or social return.

Ministries, Departments and Agencies (MDA)

Ministries, Departments and Agencies (MDAs) are responsible for managing public infrastructure and services and also for the management of their own resources. The MDAs prepare long-term plans for infrastructure investment and maintenance which are incorporated into the Government's rolling 15-year National Development Plan being prepared by the NPC. As part of this process, the MDAs identify where PPP is likely to offer better value for money over other forms of public procurement and the same is factored into the Investment Strategy of the relevant MDA. The decisions on procurement options are reviewed as projects, refined and enter the Medium Term Expenditure Framework (MTEF). The MTEF defines the forward programme of projects and allocates resources for their planning and preparation. Following FEC approval of a PPP project, the relevant Accounting Officer of an MDA signs the contract and is accountable for meeting the project objectives.

Federal Ministry of Finance (MOF)

The Ministry of Finance plays an important role in public financial management of PPP projects, and in evaluating and managing fiscal risks that may result from the agreements. The Ministry ensures that the forecast costs for the Government including any subsidies that may be required to make a project viable are affordable over the MTEF, and indeed over the full life of the contract.

Together with the relevant MDA, it also reviews the costs and contingent liabilities as the project design and risk valuations are refined during the project preparation and procurement phases.

Debt Management Office (DMO)

The Debt Management Office (DMO) plays an important role in supervising the financial and capital markets. DMO takes lead in developing a range of financial instruments that are required to manage financial risks in PPP projects. The DMO advises the FEC as part of the approval process for individual projects. The DMO must be consulted in advance before an MDA requests for approvals for the involvement of any multilateral or regional agency to provide guarantees or other financial instruments for funding a PPP project.

Accountant General of the Federation

The Government, through the Office of the Accountant General of the Federation, ensures that funding for payment obligations incurred through a Federal PPP contract is safeguarded to ensure prompt payment.

Bureau of Public Procurement (BPP)

The Bureau of Public Procurement (BPP) plays an important role in the procurement of public works and services. It uses various techniques to ensure that the prices paid for goods and services are fair and reasonable. The Government has set up a Procurement Department in each MDA to ensure due process is observed in all procurement. It is advisable that a member of the MDA's Procurement Department is included on the Project Steering Committee set up within the MDA to manage each project.

Bureau of Public Enterprises (BPE)

The Bureau of Public Enterprises has been responsible for privatisation of many State owned assets since 1999. BPE has used concessions as a means of commercialisation of existing government owned enterprises. The lessons learnt through these concessions, and the skills and capacity developed in BPE are available for implementing PPP and other concession projects under the purview of the ICRC. The BPE may also provide technical support to PPP Project teams along with the External Transaction Advisers that may be procured by ICRC.

The Institutional Framework governing PPP Procurement in Nigeria is supported by a set of legislation, as described in the next section.

2.1.2. Policy and Legislative Framework for PPP in Nigeria

The key legislation governing PPP Procurement in Nigeria is the ICRC Act, 2005 described below. This is further supported by the National Policy on Public Private Partnerships which was issued in July 2009. In addition, the ICRC has the power to issue regulations and guidelines which elaborate the National PPP Policy.

National Policy on Public Private Partnerships

The National Policy on Public Private Partnerships in Nigeria lays down the Institutional, Legal and Financial framework for the implementation of a project on the PPP basis in Nigeria. The policy outlines the roles and responsibilities of the various stakeholders, describes the PPP Process, as well as the funding and the governing mechanisms for PPP Projects.

The key objectives stated in the National PPP Policy of Nigeria are,

- To accelerate investment in new infrastructure and ensure that existing infrastructure is upgraded to a satisfactory standard that meets the needs and aspirations of the public;
- To ensure that all investment projects provide value for money and that the costs to government are affordable after allowing for economic growth;
- To improve the availability, quality, and efficiency of power, water, transport and other public services in order to increase economic growth, productivity, competitiveness, and access to markets;
- To increase the capacity and diversity of the private sector by providing opportunities for Nigerian and international investors and contractors in the provision of public infrastructure, encouraging efficiency, innovation, and flexibility;
- To ensure that infrastructure projects are planned, prioritised, and managed to maximise economic returns and are delivered in a timely, efficient, and cost effective manner;
- To manage the fiscal risks created under PPP contracts within the Government's overall financial and budgetary framework;
- To utilise federal and state assets efficiently for the benefit of all users of public services.
- To ensure balanced regional development;
- To increase access to quality public services for all members of society;
- To ensure that user charges for new or improved public services are affordable and provide value for money;
- To respect the employment rights and opportunities of existing employees and to ensure that any redundancy or other social safety net issues are resolved before final project approval;
- To enhance the health, safety, and wellbeing of the public;
- To encourage the direct or indirect participation of small and medium sized enterprises in PPP projects.
- To protect and enhance the natural environment;
- To minimise greenhouse gas emissions and other pollutants

The ICRC Act, 2005

The Infrastructure Concession Regulatory Commission (ICRC) Act 2005 permits the granting of PPP-type contracts or concessions by any Federal Government ministry, agency, corporation, or body. As per this Act, the term “Concession” does not imply that rights to any revenue stream from user charges are transferred to the private sector operator (defined as the “Project Proponent”). The Act includes an obligation for the Project Proponent to finance the infrastructure. The Act also includes an illustrative list of infrastructure to which it may be applied, but also allows the FEC to approve any other form of infrastructure and development project. It places an obligation on each ministry of the Federal Government to prioritise its infrastructure projects and requires a formal approval of the investment decision by the FEC as set out in the National Policy Statement.

The Act further requires that the approved projects should follow a competitive procurement process that is openly advertised. Moreover, any subsequent guarantee, letter of comfort, or undertaking given by the ministry may only be given with the prior approval of the FEC. The Act therefore provides the statutory basis for the procedures set out in the National Policy for PPP.

2.2. Stages of a typical PPP Project (PPP Lifecycle)

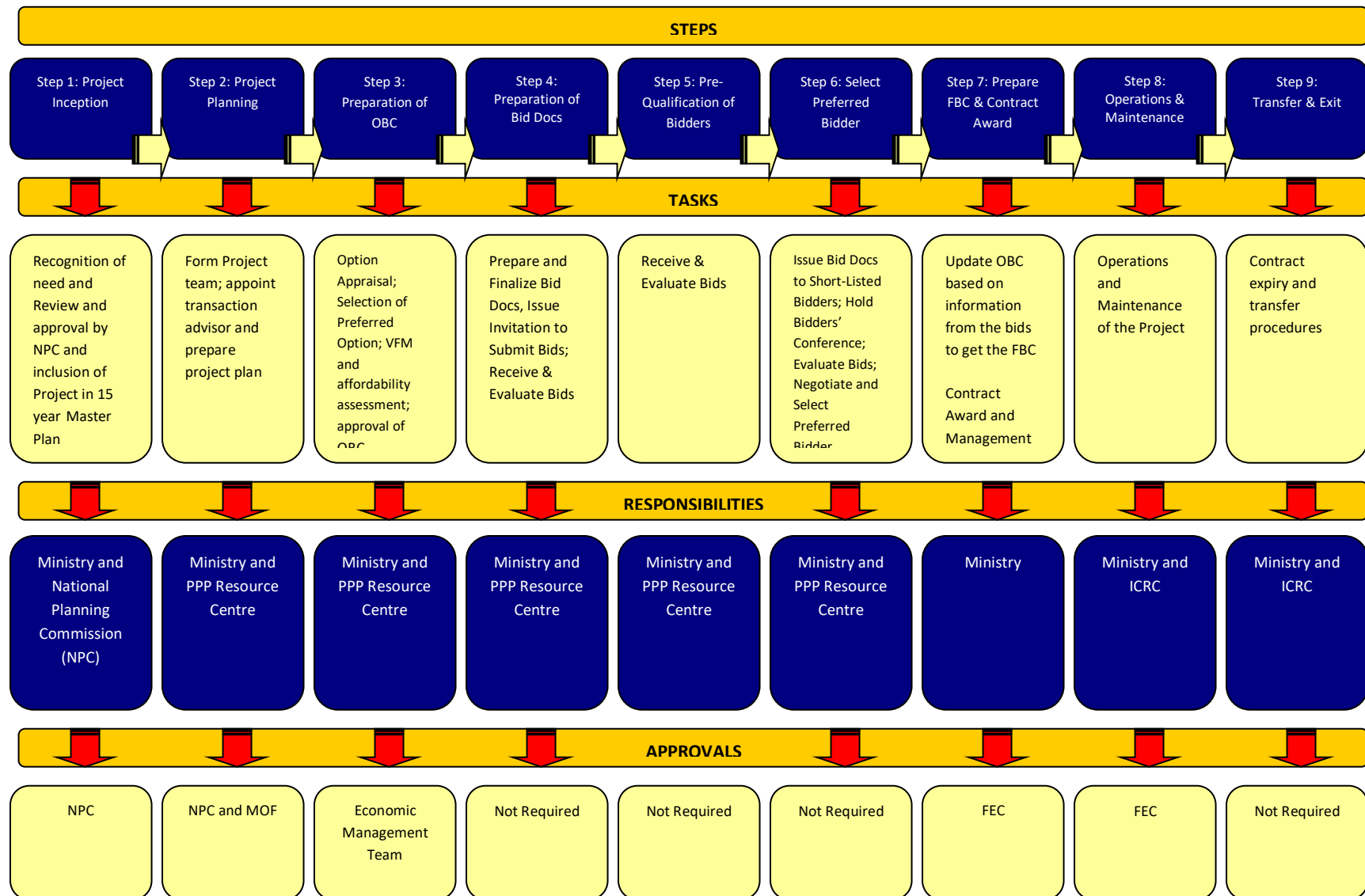
Identifying, developing and implementing a project through the PPP route involves a series of steps. As per the National Policy on Public-Private Partnerships, the PPP project lifecycle in Nigeria consists of the following phases.

- **Phase I: Project Development** – This phase consists of the following steps:
 - ✓ Identification of the need for undertaking the project,
 - ✓ Arriving at the appropriate solution to meet the identified need,
 - ✓ Preparing economic, social and environmental cost benefit analysis, and an Environmental Impact Assessment, if required,
 - ✓ Testing the affordability and the Value for Money (VFM) of the different procurement options,
 - ✓ Preparing the pre-feasibility and full feasibility studies (together called the Outline Business Case) and getting the necessary approvals for this OBC.
- **Phase II: Project Procurement** – This stage consists of the following:
 - ✓ Creation of a project team and management structure,
 - ✓ Preparation of an Information Memorandum and bid documentation,
 - ✓ Market consultation and selection of the preferred bidder through a competitive and transparent Bidding Process,
 - ✓ Preparation and Approval of the Full Business Case; the FBC needs to be approved by the Federal Executive Council prior to contract award.
 - ✓ Award of the contract to the preferred bidder.

- **Phase III: Project Implementation** – This stage involves the following:
 - ✓ Monitoring of the design and construction, and subsequently operation and maintenance of project assets to ensure compliance with the required service standards,
 - ✓ Monitoring the performance of the Concessionaire against the requirements of the Concession Agreement.
- **Phase IV: Project Maturity** - This stage involves the following:
 - ✓ Inspection of the project assets and preparation for the handover of project assets,
 - ✓ Analysis of future service delivery options and further procurement options if required
 - ✓ Closing out the contract.

The lifecycle of a typical PPP Project as per the National Policy on Public-Private Partnerships is as depicted below:

Figure 7: PPP Project Lifecycle



A brief description of the various sub-steps involved in the PPP Project Lifecycle is given below.

Phase I: Project Development

Step 1: Project Inception – The project is usually initiated by the MDA and involves the MDA conceptualizing the project and getting the concept approved by the National Planning Commission (NPC) and the other relevant authorities. If approved, it is included in the 15-year Master Plan set out by the NPC for the Government's investment strategy covering all forms of procurement that will be financed in whole or in part from the Federal budget. The Project Identification, Preparation, Appraisal and Approval process prescribed by the Government for planning and budgeting need to be followed at this stage.

Step 2: Project Planning - The project planning stage is initiated by the MDA and comprises of the following steps:

- Appointment of the project team
- Selection and appointment of Transaction Advisors (A transaction advisor is a firm or group of firms that has access to the professional expertise in financial analysis, economic analysis, legal analysis, environmental impact analysis, contract documentation preparation, tender processing, engineering and cost estimation). The transaction advisor supports the MDA to take a PPP project from the concept stage through public bidding and award to actual execution. The Government may elect to split the advisory role into two distinct phases; first up to OBC and the second up to contract award. Further details on the appointment and management of Advisors are provided in the Explanatory Notes¹.
- Bureau of Public Procurement acts as an independent monitor under the procurement legislation to oversee the process and to ensure the transparency of the project tendering and the budget allocation processes. This oversight role is particularly important for financially large projects. The BPP will monitor the conduct of the participants and the proceedings during the tendering and procurement and contract finalisation stages.
- Preparation of a project plan covering all the stages of the project lifecycle including securing necessary approvals (For example funding allocation, land acquisition, environment impact assessment, social impact assessment, etc.)

The project planning stage requires approvals from the NPC and the Federal Ministry of Finance.

Step 3: Preparation of Outline Business Case (OBC) - An Outline Business Case (OBC) is prepared and submitted to the Government's Economic Management Team for approval. The

¹ For the appointment and management of Transaction Advisors toolkit available at the website <http://www.ppiaf.org/ppiaf/page/toolkits> can be used.

stronger the relationship between OBC preparation and the procurement stages, the greater is the likelihood of achieving genuine value for money.

The OBC is performed in two stages. First, a pre-feasibility analysis is performed which is followed by a detailed feasibility analysis. A pre-feasibility is carried out to establish that the identified project has sufficient merit to be taken forward by the MDA. The MDA may require external technical, legal and financial advice for the preparation of the OBC. Accordingly, the MDA would procure the services of an external advisor through the competitive bidding process. The OBC also serves as a high level check on the suitability of the project being developed as a PPP. The first stage of the OBC (pre-feasibility) covers the following aspects.

- A description of the policy context and business need;
- Cost benefit analysis including non-quantifiable costs and benefits;
- An evaluation of the options for meeting the project objectives;
- Identification of the preferred procurement route based on value for money and the feasibility or desirability of using PPP;
- Analysis of the project risks and mitigation measures;
- Description of the proposed risk allocation and contract terms;
- Value for Money (VFM) and Affordability analysis, including a cash flow model of estimated costs and returns for a PPP contractor and consequent annual payments to or by the authority;
- Sensitivity analysis on the key input variables.

The pre-feasibility provides a strategic view on key areas of focus, in contrast to the full feasibility which involves a more comprehensive and in depth analysis.

Preparation of the OBC involves the collation of available project data and preliminary consideration of the risk allocation within the proposed PPP contract. The OBC involves drafting of key documentation required for the first stage of the procurement phase such as a Project Information Memorandum (PIM) that provides the bidders with the background and objectives of the project and the Prequalification Documents. The full feasibility should cover in detail the following areas:

- ✓ Strategic need assessment (including project's ability to meet institutional objectives), ability of the MDA to deliver project, details of service delivery requirements, and project scoping;
- ✓ Assessment of various service delivery options including those that require development of new assets versus extension and upgrade of existing assets, to determine the most suitable option;
- ✓ Undertaking project due diligence, including technical, legal and environmental review, to resolve any issues that may significantly impact the project;
- ✓ Project value assessment, including an affordability and value for money test;
- ✓ Preparation of a Procurement Plan, including timelines and the process to be followed.

- The OBC, as described above triggers the procurement stage. In shaping the PPP process, the MDA should ensure that,
 - ✓ The technical design allows the private sector to deliver project standards and introduce technical innovations and improvements; minimum technical standards are clearly specified for bid evaluation and performance monitoring; and expectations regarding operation and maintenance arrangements are clearly specified;
 - ✓ The financial design of the projects clearly identifies the scope and implications of financial risks for the parties. Such risks should be identified up-front so that project costs can be properly estimated. The quantification of potential risks enables cost effective risk allocation and early identification of risk management strategies.

The Federal Executive Council (or other relevant authority) must approve the OBC before the project can proceed to the next stage.

Phase II: Project Procurement

The Bidding Process must aim to minimise the complexity, duration and costs of participation to both parties, while facilitating sufficient competition to obtain the best value for money for the Government. The MDA needs to constitute a Procurement/ Tender Evaluation Committee to manage the Bidding Process. The Procurement stage consists of the following steps:

Step 4: Preparation of Bid Documents – The MDA, with the assistance of the PPP Resource Centre initiates the process of drafting the bid documents i.e. RFP, Concession Agreement and any other supporting documents. The drafting process includes:

- Drafting of bid documents (including the evaluation criteria, bid submission formats, draft PPP agreement, output specifications, payment mechanisms, performance requirements, etc.) by transaction advisors;
- Finalisation of the bid documents by the Tender Evaluation Committee;
- Issue of bid documents and invitation of technical and financial bids

No approvals are required to be taken at this stage from any of the authorities.

Step 5: Pre-qualification of Bidders – At this stage, the project is advertised in the press and through other media to invite potential bidders to submit their proposals for the project. A Bidders' conference is subsequently held to provide further background to the project and clarify the doubts of the Bidders.

Step 6: Identification of Preferred Bidder & Negotiations - The proposals submitted by the bidders are evaluated according to the published evaluation criteria by the Tender Evaluation Committee comprising of qualified individuals. The committee should have at least one person

experienced in public procurement. The members of the evaluation committee are drawn from the MDA and the PPP Resource Centre, amongst others. A detailed procedure for evaluating proposals is presented in the Explanatory Notes. After identification of the preferred bidder, a Negotiations Team is formed which initiates discussions with the preferred bidder and finalises the project agreement terms. Key tasks under this stage include:

- Receipt of technical and financial bids from the pre-qualified bidders;
- Evaluation of bids and assessment of actual “Value for Money”;
- Identification and appointment of the preferred bidder;
- Negotiations on project agreement terms; and
- Finalisation of the project agreement

Step 7: Preparation of FBC and Contract Award – The bidding process involves the evaluation of either the initial bids or Best and Final Offers from at least two of the bidders. This involves identifying the “**most technically and economically comprehensive bid**”. The OBC is then updated based on the pricing and other technical information contained in the bid to form the Full Business Case (FBC). The FBC is submitted to the Federal Executive Council (FEC) for approval. Once the FEC approves the FBC, the procedure to close the contract between the preferred bidder and the MDA is undertaken.

The process of closing the contract involves incorporating the bidder’s technical and financial proposals into the contract, and finalising the drafting of minor contractual terms. At the same time, investors carry out their own technical, financial, and commercial due diligence on the project in order to assess the risks involved in financing the project. Any subcontracts between the consortium and separate joint venture companies providing design, construction, or maintenance services are also finalised. These activities are carried out in parallel, and the authority completes the process of gaining legal access to the site and carrying out advance works.

After finalising the project agreement based on the negotiations between the Negotiations Team and the preferred bidder, the relevant Accounting Officer of the MDA signs the contract on behalf of the Federal Government and is responsible for both the project procurement and its implementation. After the Award of the Contract, the Preferred Bidder needs to achieve financial closure of the project within an agreed timeline as per the Concession Agreement.

Phase 4: Project Implementation

Reaching financial close marks the end of the procurement phase. There may be some Conditions Precedent that have to be met (such as draw down of the financing by the contractor, or granting access to the site or providing permits and consents) before implementation can commence. Usually a separate team comprising of the representatives from the Government is formed for the Implementation phase. However there needs to be an effective handover between the two teams. Project Implementation is carried out at two levels. A Project Board comprising

the Accounting Officer and a senior representative of the contractor provides strategic oversight, while a joint Management Board provides day to day management.

Step 8: Project Operation - This stage entails the commencement and construction of the project and ends at the commercial operations date. The project development stage comprises of the following:

- Achievement of financial closure;
- Mobilisation of resources;
- Project Implementation ;
- Monitoring of project construction; and
- Project audit

At this stage of the project lifecycle, the MDAs appoint Independent Engineers, jointly with the developer to review and audit the construction activities. The Independent Engineers ensure that the construction is in conformance with contractual commitments and notify the MDA of any deviations.

After the project begins commercial operations, the MDA, supported by the Contract Monitoring Unit within the ICRC, monitors the performance of the Concessionaire throughout the Concession period. Project operation comprises of the following:

- Service delivery by the concessionaire;
- Fulfillment of obligations to the MDA, including payment obligations, if any, by the concessionaire;
- Project monitoring and financial audit by the MDA or any other government authority.

At this stage, Independent Engineers/ Auditors ensure that the operations of the project facility and provision of the contracted service is compliant with the project requirements.

The Project Implementation stage is predominantly the responsibility of the MDA and the ICRC with no approvals required from any other authorities.

Phase IV: Project Maturity

Step 9: Exit and Transfer - This stage marks the completion of the contract period and leads to the natural termination of the agreement. It comprises of the following:

- Exit from the project by the concessionaire;
- Transfer of land and assets, as specified by the Agreement to the MDA;
- Decision by the MDA on appropriate next steps.

2.3. Procurement Procedure (Selection of a Private Developer)

The key to the successful implementation of a project through the PPP route is the selection of an appropriate private developer that is well qualified for the delivery of the services. The Procurement Procedure is critical towards selecting an appropriate private developer that will partner with the public sector to successfully execute and manage the proposed project.

The Procurement Procedure should enable the MDA to a) shortlist reputable and experienced bidders with **Technical Experience** and **Financial Strength** to execute the project, b) Receive and evaluate Technical and Financial Proposals from bidders, leading to the selection of the Preferred Bidder and c) Enter into a Contract agreement with the Preferred Bidder (or the SPV set up by the Preferred Bidder). In this context, the procurement of a private developer should be done through a Competitive Bidding Process.

A major advantage of Competitive Bidding is the greater transparency inherent in the process. Most of the international lending institutions and grant funding organizations require the use of competitive bidding as a condition for their support. Competition not only provides transparency in the process but also provides a mechanism for selecting the best-value proposal. However, it is important to recognise that the benefits of competition are only realised if there is sufficient interest to generate multiple bidders. Competitive Bidding therefore requires a significantly higher level of preparation by the MDA compared to conventional procurement. To this end, Competitive Bidding should follow a Two-Stage Process as described below.

2.3.1. The Bidding Process

As discussed in the previous section, Competitive Bidding following a Two-Stage Process should be adopted for the selection of the private developer. To this end, in the first stage, applications to qualify are invited against threshold technical and financial criteria specified in the Request for Qualification (RFQ) document. Firms are short-listed based on their Technical and Financial capabilities. The shortlisted firms are required to submit detailed proposals in response to a Request for Proposal (RFP) document. The Proposals are then evaluated as per the conditions of the RFP. The table below provides the indicative steps and timelines in a Two-Stage Bidding process.

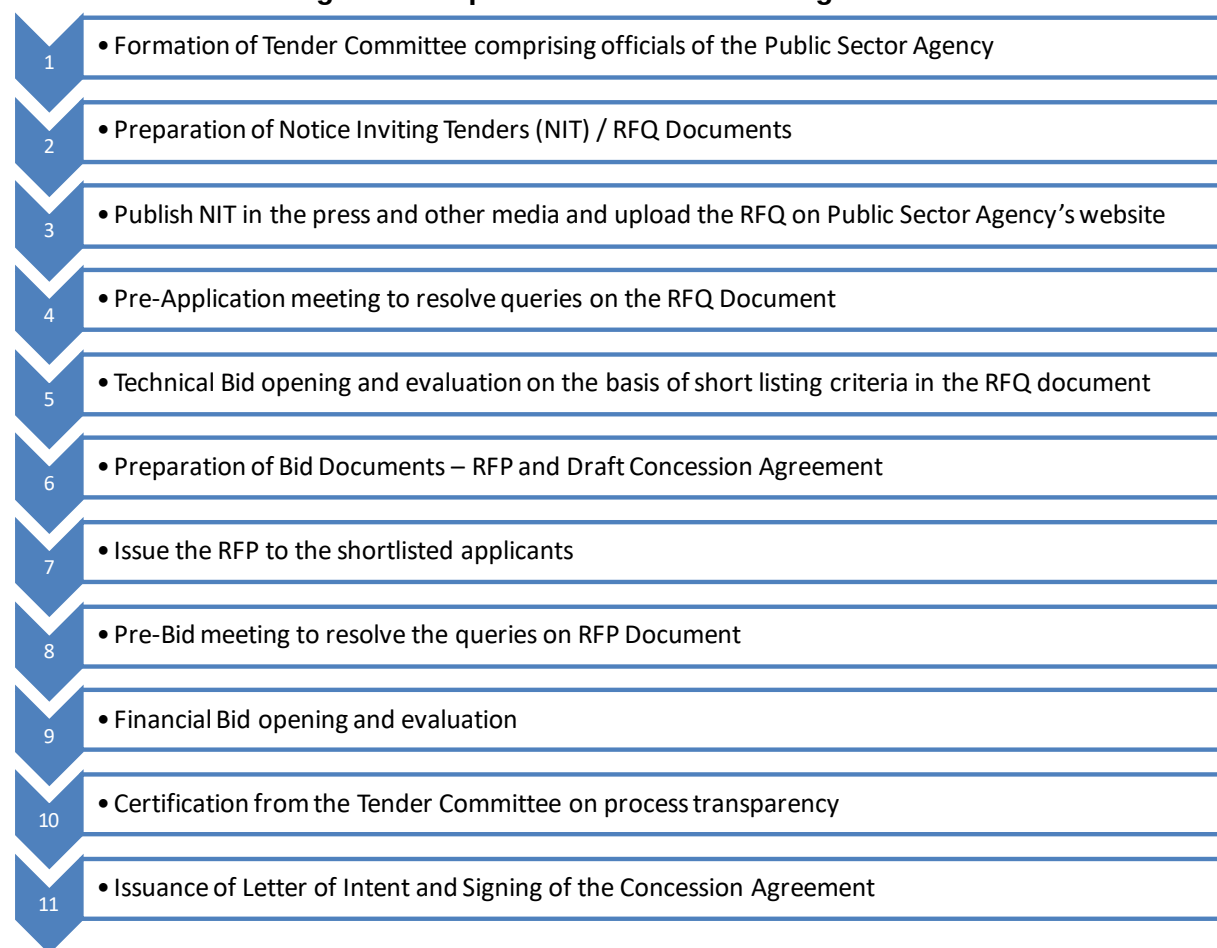
Table 3: Indicative steps and timelines – Two stage bidding

Sr. No.	Event Description	Estimated Date
Stage-1: Pre-Qualification Stage		
1	Publication of RFQ document	Zero Date ("X")
2	Submission of query by the perspective bidders	X + 15 days
3	Pre-bid meeting	X + 20 days
4	Authority response to queries	X + 30 days
5	Application Submission Due Date	X + 60 days
6	Opening of Technical Proposal	X + 60 days

Sr. No.	Event Description	Estimated Date
7	Technical Capability Evaluation & Report	X + 75 days
8	Acceptance of Technical Evaluation Report by the Procurement Committee	X + 80 days
Stage-2: Bid Stage		
1	Sale of Bid/RFP document to short-listed applicants	X + 90 days
2	Submission of query by the perspective applicants	X + 105 days
3	Pre-Bid meeting	X + 110 days
4	Authority response to queries	X + 130 days
5	Bid Submission Due Date	X + 150 days
6	Opening of Bids	X + 150 days
7	Letter of Intent (LOI)	within 30 days of Bid Due date
8	Signing of the Contract	within 30 days of LOI

The figure below is a flow chart showing the steps in a typical Bidding process.

Figure 8: Steps involved in the Bidding Process



A brief description of the various steps involved in the Bidding Process is given below.

Step 1: Formation of a Procurement Committee

A Procurement Committee is formed for overseeing and conducting the Bidding process. Typically, the Committee is formed with one representative from the Finance, Commercial, Legal and User Departments. This committee appoints the co-ordinator if the bid process is to be managed in house, or an external consultant (Transaction Advisor) to manage the bid process. The Co-ordinator or the Transaction Advisor puts forward the evaluation report for approval or seeks guidance from the committee in case of any ambiguities while interpreting the provisions of the RFQ and RFP documents.

Step 2: Notice Inviting Application and Issue of Request for Qualification (RFQ)

The MDA prepares and issues a notice inviting Applications from interested applicants for the proposed project. This notice provides a brief overview of the assignment, the project area and qualification/eligibility criteria, together with the submission deadline. Along with this, the MDA issues a Request for Qualification (RFQ) document that provides details of the Qualification and Eligibility criteria, with instructions for submission of Applications. The Notice inviting Applications is typically published in at least two national dailies and, on the same date, the RFQ is uploaded on the official website of the MDA and of the ICRC.

The RFQ includes the formats for submission of Applications and instructions on how to present proof/testimonials of eligibility and qualification. These include Details of applicant, Power of Attorney, Details of Eligible Projects and their Completion Certificates, Statement of Legal Capacity, Board Resolution, Solvency Certificate, Non-Collusion certificate, and Certificate of Incorporation of entity, in conformity with the qualification requirements.

Step 3: Pre-Application Meeting and Issue of clarifications

A Pre-Application Bid meeting is held to clarify doubts and answer queries from prospective bidders regarding the Project and the RFQ. After the meeting, the RFQ may be modified if deemed necessary, to update any changes to the requirements by issuing an addendum. The revised bid documents are uploaded again on the website.

Step 4: Evaluation of Applications and short listing of bidders

The bids are evaluated based on the technical and financial criteria as per various clauses of the RFQ. At this stage, the evaluation normally focuses on threshold criteria such that all proposals meeting the criteria are shortlisted for the next stage; all other proposals are rejected. Compared

to awarding marks and scoring, a Pass Fail approach is unambiguous and is generally the preferred approach for evaluation of responses to the RFQ.

Step 5: Request for Proposals stage

The RFQ stage culminates in the approval of the shortlisted bidders by the Procurement Committee and issuance of the RFP to the shortlisted bidders. Depending on the type of contract and the local requirements, the bid package can range from a concise set of documents to several volumes of material. Typically, the RFP Document comprises of three parts as described below:

- **Part I Instructions to Bidders (ITB):** This document contains an introduction to the MDA, project scope and objective, instructions for preparing the bid document, different forms to be enclosed in the bid, timelines for the bidding process, and supporting documents to be attached for the bidding.
- **Part II Project Information Memorandum (PIM):** The project information memorandum consists of project details including: Population profile – Density, income group, economic activities in the project area; complete details of the land to be utilised with proof of ownership; report on the existing assets and their use for the proposed infrastructure services ; Contour map of the site with proposed approach road drawing; Annual budget of the MDA including the Balance sheet and Profit & Loss account ; Annual Budget for the infrastructure services to be offered; Revenue from the existing infrastructure services with assumptions on user charges; Construction and O&M guidelines; Environmental guidelines; Manpower deployed; Existing contract for the proposed infrastructure services and any other pertinent information.
- **Part III Draft Contract Agreement:** The Draft Contract Agreement deals with the detailed terms and conditions on which the project is awarded and broadly covers:
 - ✓ Scope of Work, Period of Contract,
 - ✓ Construction period,
 - ✓ Parameters on which contract is to be granted (VGF, Premium, etc.),
 - ✓ Obligations of the PPP service provider and sponsoring authority,
 - ✓ Process of handing over of site to PPP service provider,
 - ✓ Monitoring and supervision details,
 - ✓ Safety requirements,
 - ✓ Support and incentives to be given by the sponsoring authority,
 - ✓ Operations & Maintenance requirements,
 - ✓ Force majeure and Termination payment,
 - ✓ Dispute resolution mechanism, and
 - ✓ Other terms and conditions relevant to the project.

Step 6: Pre-bid conference and Processing of clarifications

Pre-bid meetings are a key element of the communication strategy that helps the MDA build substantial trust and confidence with the bidders and other stakeholders. Key considerations include:

- Adequate time should be provided between the issue of RFQ/ RFP and the date of the pre-bid meeting and deadlines for submissions. Operators should provide their queries in writing within the specified number of days before the pre-bid meeting. However, additional questions may be entertained at the pre-bid meeting.
- The pre-bid meeting should be attended by senior representatives of the MDA together with their advisers on the project.
- The pre-bid meeting may be followed by a visit to the project site or service area arranged by the MDA.
- The deliberations of the pre-bid meetings will be duly documented and all responses and clarifications must be communicated in writing to all bidders. The responses are also published on the MDA's website.

Step 7: Proposal content and evaluation

At the RFP stage, Bidders are required to submit their proposals in two parts, namely, **Technical Offer** and **Financial Offer**. The **Technical Offer** is normally evaluated through a scoring approach with a threshold cut-off score of 70 marks. Financial Offers of only those Bidders scoring above this threshold are opened. A detailed description of the Bid Evaluation criteria is provided below under the Bid Documents for PPP Procurement – Request for Proposal (RFP).

Step 8: Approval by Procurement Committee and Issue of Letter of Intent (LOI)

The Project Coordinator or the Transaction Advisor presents the evaluation reports – Technical and Financial, as per the procurement timeline to the Procurement Committee. This Committee considers and approves the report then issues a certificate of transparency and on this basis, recommends the Preferred Bidder to FEC.

After certification from the Procurement Committee, and approval by FEC, the technical and the financial proposals of the preferred bidder are incorporated in the contract and the OBC prepared by the MDA is updated based on the pricing and the technical information contained in the preferred bidder's bid to constitute the FBC.

A Letter of Intent (LOI) of the bid is issued by the MDA in favour of the Preferred Bidder. The LOI specifies the Conditions Precedent to be completed by the Preferred Bidder. These typically include a) Furnishing the Performance Security and any other Project Development Fees payable and b) Formation of an SPV if required under the RFP. Once the Conditions Precedent to the signing of the Contract Agreement is met, the Agreement is signed between the MDA and the Preferred Bidder.

The key input for the selection of the private developer and for appropriate allocation of the project risks are the Bid Documents which must be drafted with care. The section below provides a description of the Bid documents as a key tool for PPP procurement.

2.4. Bid Documents for PPP Procurement

The Bid Documents will differ depending upon the contract type and the procurement approach being followed for the selection of private developer. Some of the key Bid Documents involved during the procurement of private developer are described below.

2.4.1. Request for Qualification (RFQ)

The RFQ is often the first formal stage in the Bidding Process, although it may follow an EOI when that is deemed necessary. An RFQ is used to make a short list of potential bidders comprised of those who are technically and financially qualified for the project. These shortlisted bidders are then invited to submit bids for the project at the RFP stage.

By reducing the number of bidders, the overall cost of the bid process is lowered for both the bidders and the Sponsor who has to evaluate them. Reducing the group of qualified bidders encourages stronger bids as the selected bidders are better able to assess their chances of winning amongst a smaller group and are likely to invest more effort in the bid process.

There should be rough drafts of the most critical project documents available before issuing the RFQ. These drafts should be prepared before the application for In-principle Clearance. If such drafts have not been prepared in advance, the RFQ process may not run smoothly and there is likely to be a lengthy delay between the RFQ and RFP stages. Project documents are finalised after the qualification stage.

Contents of the RFQ

An RFQ is a more detailed document than an EOI. It includes the following information about the project and qualification procedure:

- Description of key project details including,
 - Description of the project scope and objectives, with a focus on the services to be provided including performance levels;

-
- Skills, expertise and experience required to meet these objectives;
 - Envisaged PPP model and financing mechanism;
 - Envisaged Payment mechanism;
 - Project timeframe and indicative implementation schedule; and
 - A draft of the Concession Agreement can be included as an annexure.
- Details of the qualification requirements and Bidding Process, including:
 - Qualifying criteria for the evaluation and selection of shortlisted bidders;
 - Details of the pre-submission conference or meeting and of other opportunities to ask questions or seek clarification;
 - Process for submitting responses and evaluation;
 - Indicative procurement schedule;
 - Specific legal requirements or restrictions associated with the RFQ or the project;
 - Other general instructions to applicants; and
 - Application forms (as annexure)

The Concession Agreement is usually issued along with the RFP as a Volume II document.

Qualifying Criteria

The qualifying criteria used to evaluate the responses to the RFQ should be:

- Based on the project requirements
- Selected before the RFQ is prepared
- Related to a scoring system
- Clearly stated in the RFQ itself.

The criteria reflect the technical, financial and other requirements of the particular project and are chosen specifically for that project. The requirements' section of the RFQ specifies that the responses should provide all necessary information to meet the qualifying criteria.

Qualifying criteria may include:

- Technical qualifications
 - Experience with similar projects, in terms of service outputs and project size and complexity
 - Experience with PPPs in similar projects and generally
 - Relevant experience locally and internationally
 - Specific technical capabilities of the firm or consortium
 - Experience of working together (if firms are forming a consortium)
- Financial qualifications
 - Ability to raise sufficient funding for the project and in the form required
 - Consortium structure, including minimum equity contribution of lead firm and evidence of binding agreement among the members
- Evidence of no conflict of interest

The RFQ may also request brief comments on the project scope and structure in order to evaluate the firm or consortium's understanding of the requirements.

A **scoring system** is developed to allow the firms to be ranked. The Independent Monitor may review the criteria and the scoring system.

Both the criteria and the scoring system are explicitly stated in the RFQ. This allows potential bidders to judge whether they are sufficiently qualified for the project and allows them to focus their responses on what the MDA wants.

2.4.2. Request for Proposal (RFP)

The RFP, together with the Draft Concession Agreement (CA), comprise the Bid Documents. These are the most important documents in the bidding process. The objective at the RFP stage is to select a preferred bidder based on an objective, comprehensive and transparent selection process. The RFP and CA specify the main terms of the project which are largely non-negotiable at the award stage. It is therefore important that these terms are clear and well understood by all parties. The Concession Agreement also lays the foundation for the contract management process throughout the life of the PPP.

A quality RFP provides bidders with clarity on the requirements of the project and assures them that the public partner is credible and well organised. This makes them more likely to devote resources to bid. It also reduces the likelihood of delays to the bidding process as a result of subsequent changes to the RFP.

The draft Bid documents are finalised based on the details from:

- The project specifications contained in the feasibility study;
- VGF or other grant approval and any added requirements or requested changes; and
- The qualification criteria developed at the RFQ stage

Contents of the RFP

The RFP is the comprehensive request for proposals from the shortlisted firms or consortia. The RFP communicates to the bidders the MDA's requirements. The RFP typically includes several sections detailing the essential aspects of the project and the bid, for example:

- *General instructions to bidders including,*
 - Introduction and overview of the RFP itself, detailing its contents and purpose
 - Instructions to bidders, including details of the minimum submission requirements, required format for financial bids, and submission procedures
 - Details of pre-bid meetings, site visits and data room
 - Requirements for Bid Security or contract performance security
- *Detailed description of the project scope and required service outputs based on the specifications developed in the feasibility study including,*
 - Output-focused specification
 - Site-specific details

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- Financing requirements
 - Environmental and social safeguard requirements
 - *Draft Concession Agreement specifying the commercial framework in legal terms including,*
 - The intended risk allocation
 - Roles, rights and responsibilities of all parties
 - Key schedules to the Agreement, including
 - ✓ Site description
 - ✓ Specifications and standards
 - ✓ Required tests and inspections, and procedures for testing, independent inspections, and reporting
 - ✓ Schedule of user fees/ tariff rates
 - ✓ Financial arrangements, such as performance security and escrow accounts

Criteria for bid evaluation

- The evaluation of bids is based on the following approaches
 - ✓ In the case of projects where the developer is responsible for detailed designing of the facilities, there is flexibility available to introduce innovation and design efficiencies, and a Quality cum Cost Based Selection (QCBS) approach may be used. But where Technical Proposals shall be allotted a specified weight, the Financial/Price Proposal shall carry the residual weight. The actual selection of weights shall be made based on the specific requirements of the PPP project.
 - ✓ In all other projects, Least Cost approach shall be used. Under the Least Cost approach, the financial proposals of all bidders who qualify on technical criteria, are opened and assessed. The bidder quoting the most advantageous financial offer to government is then selected as the preferred bidder.
- The process and evaluation methodology are set out so that bidders take comfort from an auditable process with the necessary checks. The RFP specifies that the technical and financial criteria of the bid will each be scored out of 100 points. The scores achieved shall be combined into the bidder's overall score, using the following formula:

$$\text{Total Bid Score} = X * (\text{Technical Score}/100) + Y * (\text{Financial Score}/100)$$

Where:

X is the weight for technical;

Y is the weight for financial, and this will be 100% in Least Cost approach;

-
- For the purposes of applying the above mentioned formula, 'technical' refers to all project factors under evaluation other than the price elements.
 - The evaluation of the various elements of the technical and price proposal shall be aimed at gauging whether the proposal provides an integrated solution to the service delivery requirement of the MDA. The weights for technical and financial proposals shall vary across projects. The evaluation of the bid is performed from a perspective of an integrated service delivery solution.
 - Where discount rates are used for the assessment of Financial Proposals, such discount rate shall be the Government of Nigeria bond rate adjusted for risk premium (risk associated with the project). The selected government bond should have a similar maturity as the project life.
 - The Selection/Financial criteria for a PPP project may be one or a combination of the following:
 - ✓ Lowest contract value;
 - ✓ Lowest bid in terms of the present value of user fees;
 - ✓ Highest revenue share to the Government;
 - ✓ Highest upfront fee;
 - ✓ Shortest concession period;
 - ✓ Lowest present value of the subsidy or grant;
 - ✓ Lowest capital cost and Operation & Management cost for Projects having a definite scope;
 - ✓ Highest equity premium;
 - ✓ Lowest quantum of State Support solicited in present value terms;
 - ✓ Lowest net value of payments required from the Government;
 - ✓ Such other suitable selection criteria as the Appropriate Approving Authority may approve, allow or prescribe.
 - All clarification sought and responses to the clarification shall be documented and sent to all pre-qualified bidders. The MDA shall maintain a register of bidder notes and meetings and copies of the minutes of such meetings should be circulated among the bidders.
 - The evaluation is conducted by the Tender Evaluation Committee appointed and chaired by the representative of the MDA and includes:
 - ✓ The Transaction Advisor;
 - ✓ Selected members from the MDA;
 - ✓ Representative from the PPP Resource Centre;
 - ✓ Any other member as may be considered necessary for the project.
 - The Tender Evaluation Committee, in turn, could be divided into functional teams to focus on evaluation of specific aspects of the bidders' proposals. For example, the Tender Evaluation Committee could have separate teams for undertaking technical review, legal review, local
-

preference review and financial review. The number of teams may depend upon the complexity of the project evaluation.

- Where applicable, alternate or variant bids submitted by bidders that meet the minimum requirements of the RFP, shall be evaluated subsequent to the evaluation of conforming bids. Each alternate bid shall be evaluated as a stand-alone proposal.
- The evaluation report of the Tender Evaluation Committee along with all supporting scores sheets and notes will be submitted to the PPP Resource Centre and the same will be reviewed for process compliance.
- In the event that no single bidder emerges as the preferred bidder, the Federal Executive Council can recommend a Best and Final Offer (BAFO) process.
- Following this evaluation, the highest ranking bid based on the evaluation criteria shall be declared the preferred Bidder and the MDA shall award the contract to the Bidder who submitted the highest ranking bid.

2.5. Negotiations

Before the award of contract to the Preferred Bidder, there are typically certain negotiations between the MDA and the Preferred Bidder to reach consensus on the terms of the contract, the allocation of risks among the parties and the deliverables of the parties under the contract. This negotiations process must be carefully planned and managed to ensure that it is fair and transparent. It should be carried out in such a manner that the confidentiality of the negotiations is strictly maintained. Such a negotiations process provides the bidder with the opportunity to optimise the value for money of his bid. The key steps in the negotiations stage include:

2.5.1. Preliminary Activity

Prior to entering into negotiations, the MDA appoints a negotiations team, which in turn undertakes the following preliminary activities.

- **Define and articulate the objective of the negotiation:** The objective of the negotiation is to refine the understanding of the terms and conditions of the project and to reach a consensus on a mutually acceptable PPP agreement;
- **Prepare a timeline for negotiations:** This timeline includes the start and end dates of negotiation and is also structured to fall within the period of validity of the bid;
- **Identify a negotiations team:** This involves first identifying the skills set required for negotiations and then matching up qualified persons within and outside the MDA with the defined skill set. A lead negotiator should be identified.

- **Develop a negotiation strategy:** To be able to effectively negotiate, it is important for the negotiation team, in consultation with the project team and transaction advisors, to anticipate the preferred bidder's interests and any potentially contentious issues. The negotiation team develops a negotiation plan which takes into account certain predefined positions of the MDA as well as setting the minimum negotiating parameters.
- **Establish initial contact with the preferred bidder:** A formal written communication inviting the preferred bidder for negotiations is sent. This communication includes the administrative details such as date, time, venue and expected duration of negotiations. It also provides the bidder with the key points of discussion, the approach proposed by the MDA and any additional information required from them. The composition of the bidder's negotiation team is one such requirement.

2.5.2. Initiate negotiations and manage the negotiation process

The actual act of negotiation takes multiple interactions between the negotiating team and the preferred bidder to arrive at a set of mutually acceptable terms and conditions for the project.

The key considerations during this process include:

- Initiating the negotiations with an opening statement on the objective of the project and how it fits into the strategic objectives of the MDA. In this first contact, a clear delineation of role and responsibilities of each member of the respective negotiation teams is clarified so as to create an atmosphere of trust and cooperation
- Predetermination and joint agreement on the agenda of each subsequent meeting
- Carefully document all discussions and interactions during the meetings. The MDA must appoint an assigned drafter to track; number and date all documents being negotiated. The MDA also ensures security of documentation and limits access to documentation as required
- Working towards identifying and suggesting options to resolve issues and situations of stalemate in the discussions
- The negotiating team must produce minutes of the meetings and obtain the written agreement from the preferred bidder that the same are a true and accurate record of the negotiations held.

2.5.3. Formal settlement

The formal settlement between the two parties happens subsequent to them reaching a compromise wherein both parties believe that the settlement is the best possible under the circumstances.

The MDA strives to make the funding agreements unconditional. Conditions precedent in the PPP agreement must be limited as far as possible. This refers to matters that need to be resolved, failing which the agreement, if signed, would not be enforceable. There may be some conditions that may not be met before signing the PPP agreement, but efforts are made to ensure that these are minimised. During the formal settlement, the MDA should:

- Record all details of the negotiation
- Agree on how any potential conditions precedent can be minimized
- Agree to the required follow-up in contract management (of outstanding issues that do not impact on negotiated settlement) and the relevant timeframes.
- Establish a preliminary schedule for signing the PPP agreement.

Once a formal settlement is reached between the negotiations committee and the preferred bidder:

- It is signed by all members of the negotiations team and the representatives of the preferred bidder;
- The negotiations team forwards its recommendations and the signed formal settlement to the Appropriate approving Authority through the PPP Resource Centre for final approval;
- All communication to and from the preferred bidder, all reasons/ justifications for any changes in terms and conditions or reasons for any deviations are attached to the signed formal settlement that is sent to the appropriate Approving Authority;
- The independent monitor directly submits its certificate to the appropriate Approving Authority on the conduct of the proceedings by the negotiations team.

The recommendations of the Negotiations Team may be to:

- Proceed with contract award to the preferred bidder, incorporating the agreements reached during negotiations;
- Revise the negotiation objectives and hold further negotiations, or
- Terminate the negotiation and reject the preferred bidder.

If the negotiations team recommends rejection of the preferred bidder, it may also, where appropriate, recommend inviting the reserve / next ranked bidder for negotiations in the case of competitive bidding. The results of any approved negotiations are specified in a letter of bid acceptance and incorporated into the contract document.

If negotiations are commenced with the next ranked bidder or a new bidder is invited, the MDA would usually not reopen earlier negotiations; and the original preferred bidder is informed in writing of the reasons for termination of the negotiations.

The appropriate Approving Authority reviews the recommendations and then either approves the recommendation, authorizing the MDA to proceed; or may refuse to authorize acceptance and refer the matter back to the MDA with further instructions.

2.6. Contract Award

After finalization of the project agreement between the Negotiations Team and the preferred bidder, a relevant Accounting Officer appointed by the MDA signs the contract on behalf of the Federal Government and is responsible for both the project procurement and its implementation. After the Award of the Contract to the Preferred Bidder, the Preferred Bidder needs to achieve the financial closure of the project within an agreed timeline in the Concession Agreement.

3. OUTLINE BUSINESS CASE

This section of the PPP manual provides an overview of the need and the objective of undertaking an Outline Business Case (OBC) when a project is being considered for PPP procurement. An OBC is also known as a feasibility study. This section also provides a description of the Feasibility Study process and the timing and the uses of such a Study.

3.1. The Rationale for doing an Outline Business Case

The purpose of undertaking an OBC is to develop a comprehensive understanding of all aspects of the project including technical, legal, social, economic and financial aspects. The feasibility study is a critical component and technical working document for project preparation and appraisal. The feasibility study forms the basis of the investment decision for all parties and for obtaining approval from the Economic Management Team and the Federal Executive Council (FEC). Accordingly, the OBC needs to be authentic, accurate and thorough to ensure that all the stakeholders in the project get an appropriate assessment of the technical, social, environmental, legal and financial viability of the project.

The Outline Business Case:

- Ensures that the project is designed in accordance with identified needs and is the most suitable technical solution for those needs;
- Provides information about costs (explicit and hidden), and provides an assessment of financial viability and impact on MDA's budget without disruptions to other activities;
- Allows for the identification, quantification, mitigation and allocation of risks associated with the project life cycle;
- Completes the resettlement plan as well as the ethnic minority plan (if relevant);
- Completes the Consultation Plan;
- Documents all consultation completed for the project;
- Includes the project specific land acquisition; and
- Considers whether or not the project is affordable to the government and or the end user of the services in terms of explicit and contingent fiscal obligations

In addition to this, for the MDA, the OBC would:

- Consider how the project will be structured;
- Contain a financial model establishing key investment ratios and capable of running scenario and sensitivity analyses
- Identify constraints which may cause the project to be halted and
- Ensure that the project is developed around a proper business plan; and has been subject to a due diligence that shows it is legally, technically and socially compliant.

The Project OBC is based on a design of an appropriate level of detail that meets good engineering design practices and the design and construction standards as specified by the

Government or other standards/best practices accepted worldwide. The design should be in accordance with relevant laws, decrees, regulations, ordinances, and circulars of the Government. It is important to point out that the various activities identified at this stage of project preparation can and should be pursued simultaneously to expedite the project preparation process.

The OBC needs to be a “complete” document containing all aspects of the project that can be fully appraised by the MDA, the Federal Executive Council and the Economic Management Team along with the prospective private sector partners. The following sub-sections provide an overview of how to conduct an OBC.

3.2. Conducting an Outline Business Case

The OBC provides critical inputs to the PPP Procurement phase. The stronger the relationship between the OBC and the PPP Procurement phase, the greater the likelihood of achieving genuine value for money PPP. The first stage of the OBC is the pre-feasibility.

A pre-feasibility study is carried out to establish that the identified project has merit to be taken up by the MDA for implementation through the PPP route. Conducting the pre-feasibility comprises of the following broad steps:

- Strategic Needs Assessment
- Analysis of the Service Delivery Options
- Project Due Diligence
- Financial Feasibility
- Economic Feasibility
- Assessment of ‘Value For Money’
- Preparation of Detailed Implementation Plan and Action Steps to be taken
- Compilation of Feasibility Study Report

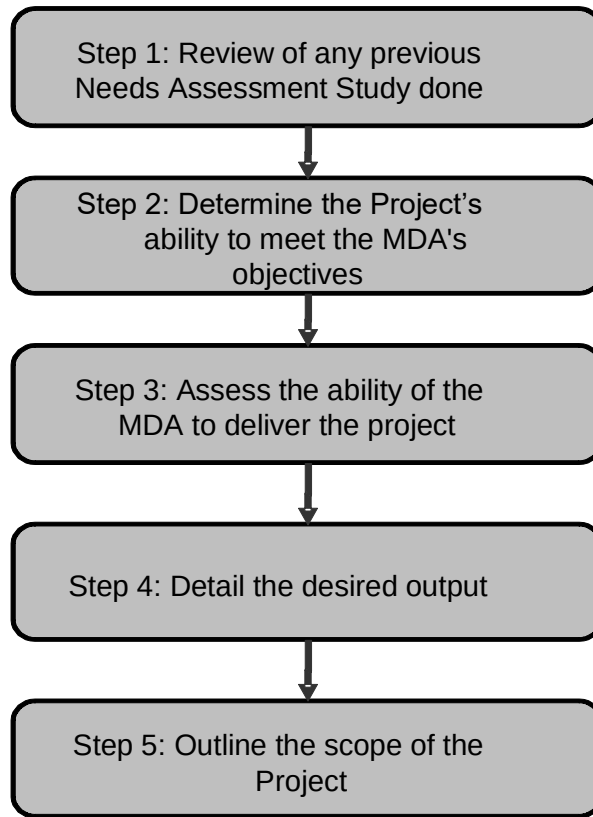
A description of each of the above-mentioned steps is given below. The detailed feasibility covers the same ground but in far greater detail and with a greater level of accuracy for the project costs and financial modelling (typically from an 80% level to a 90% level of accuracy).

3.2.1. Step 1: Strategic Needs Assessment

In this step, strategic needs in terms of output and scope of the project, in line with the objectives and the mandate of the MDA, are delineated. The figure below presents the various steps in this stage.

Figure 9: Strategic Needs Assessment

STEPS



A brief description of the steps involved in this stage is as given below.

Step1: Review of previous Needs Assessment

Review of any of the previous Needs Assessment study done would be the starting point for the Strategic Needs Assessment.

Step 2: Determine Project's ability to meet the MDA's objectives

A project needs to align with the MDA's objectives, policies, and priorities for the MDA to be able to effectively deliver value and meet its social commitments.

So, in this step, a brief review is undertaken of the following:

- The MDA's mission and vision statements, its strategic objectives, and the government policy that determines the MDA's deliverables/ services within the context of the project
- Functions that the MDA performs in the public interest or on behalf of the public service

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- Key elements of the project such as the project contribution to the implementation of government policy; the MDA's ability and capacity to provide the services; the relative size of the project, in terms of its anticipated budget or capital expenditure; the potential cost savings for the MDA; capacity of the private sector to provide the services; complexity of the project; long term view of the project's ability to meet the MDA's needs.

Step 3: Assess the ability of the MDA to deliver project

Critical to successfully meeting the service needs would be the ability of the MDA to manage, evaluate, negotiate and implement the project. In this step, an assessment and review of the MDA's capability would be undertaken.

- Provide information on the MDA's project team and their technical advisors
 - ✓ Project officer and project team – This should include the names of the MDA's project team members; their roles in the project; their relevant skills; brief CVs and the budget available for project management
 - ✓ Technical Consultants – This should include the names of the members of the advisory team; their roles in the project; their relevant skills; brief CVs and the available budget.
- Assessment of organisation issues with respect to service delivery
 - ✓ Lines of decision-making within the MDA, particularly between project officer, senior management and the accounting officer/authority
 - ✓ Existing capacity constraints and limitations in the project team or in the transaction advisory team that may hinder project delivery and a plan for addressing these constraints and limitations during the project lifecycle.
 - ✓ Envisaged process for skills transfer from the transaction advisor to the project team at various stages of the project
 - ✓ Contingency plans for handling various organizational issues
- Identification of key stakeholders and preparing a consultation plan

The effective and efficient delivery of the project by the MDA would depend on a collaborative approach to meeting the service needs. This would include the following sub-steps.

- ✓ *Identify key stakeholders:* The Stakeholder for the service need would include individuals from within the MDA; related government departments; organised labour; third party interest groups and the public impacted by the project directly or indirectly.
- ✓ *Determine the nature of the relationship with each stakeholder and the project's impact on them:* In particular, identify impact on the funding, resources or processes of the key stakeholders. This is important for establishing the sphere of influence and impact of the proposed service and of the project as a whole.

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- ✓ *Prepare a consultation plan:* The plan should detail the timelines and manner of stakeholder consultation during the project preparation period of the project cycle. At this stage, views of any preliminary stakeholder consultations that the MDA may have already undertaken should also be documented.
 - Review and identify the impact of the project on the MDA's available budget.
 - ✓ As affordability is one of the core elements of the feasibility study, a review of the impact of the project on the MDA's available budget MDA should include:
 - ✓ Estimating broadly the future budgetary commitments of the MDA over the project lifecycle
 - ✓ Alternatives for sourcing of funds for the project from other budget lines of the MDA (reallocation of funds)
 - ✓ Impact on other projects on account of financial reorganisation for funding the identified project
 - ✓ Discussion with Ministry of Finance/ Budget Office covering the budgetary and affordability issues of the project.
 - Preliminary Identification of major risks
 - ✓ The MDA should attempt to identify the major risks associated with meeting the service delivery need. Developing an outline of a risk matrix at this stage would aid in the subsequent stages of value assessment.

Step 4: Detail desired output

The detailing of the desired outputs to meet the service needs for a PPP project is made in terms of service delivery requirements. Unlike the conventional procurement process where the output is specified in terms of the asset/ infrastructure to be provided, in the case of a PPP project, the outputs are defined as the services that need to be provided. This output definition helps in better aligning project outcomes with service needs. Additionally, it allows the bidders for the PPP project to provide alternate and innovative solutions to meet the service requirements.

The MDA clearly articulates what it needs to achieve; this includes:

- Description of the services that the MDA needs to deliver
 - Detail the output specifications required to deliver the identified services and assess whether they meet the MDA's ongoing service needs. The output should provide a flexible solution that can be expanded and enhanced over time.
 - Detail the minimum standards for the output to prevent a mismatch between services delivered by the project and the MDA's expectations.
 - Detail the performance measures for the project to undertake effective costing of output specifications
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- Identify service interface expectations by specifying the interface between the project and the MDA's other services.
 - Identify the critical success factors for the identified output.

Step 5: Outline the scope of the project

A clear and concise definition of the project scope is the next step in a detailed options analysis. This takes inputs from the previous steps of the Strategic Need Assessment. The main elements that are covered in outlining the project scope are:

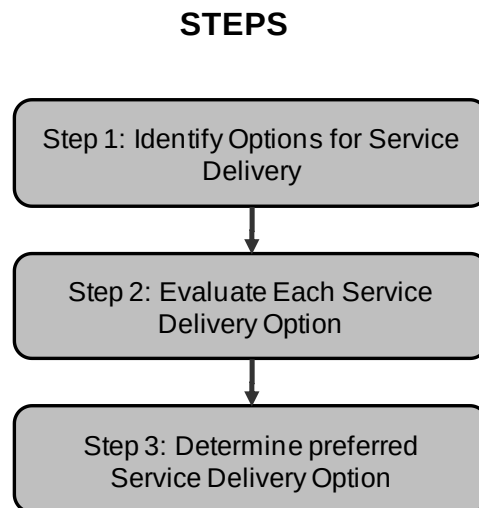
- Brief of the output specifications
- Brief on how project specifications meet MDA's objectives
- List of government assets that would form part of the project
- Potential high level solutions

3.2.2. Step 2: Analysis of the Service Delivery Options

In this stage of the PPP feasibility study, the MDA identifies and evaluates the potential service delivery options for meeting their service delivery needs. The objective of this exercise is to identify and recommend the preferred option and to indicate whether this recommended option can be structured as a PPP project. However, the decision on whether the project should be a PPP is only taken after the value assessment stage of the feasibility study. A PPP is a procurement choice for a recommended service delivery option and not one of the options for service delivery.

The steps in this stage of PPP feasibility study are presented in the figure below.

Figure 10: Analysis of the Service Delivery Options



A brief description of the steps involved under this stage of the feasibility study is as provided below.

Step 1: Identify all potential options for service delivery

In this step, the MDA attempts to identify a complete range of viable service delivery options for meeting the specified outputs of service delivery.

These options can include, among others:

- *Existing asset solutions:* Consider whether existing infrastructure held by the MDA or by another government body might be used. This may involve an upgrade or refurbishment to bring the infrastructure to the required standard and may also bring a cost in the form of revenue forgone if the asset might otherwise be sold;
- *Non-asset solutions:* Service needs may be met without creating additional assets, through reconfiguring the means of service delivery, developing initiatives to manage demand more effectively, or increasing use of existing assets; or
- *New asset-based solutions:* New infrastructure may be developed to provide the required service.

Step 2: Evaluate each service delivery option

Each of the service delivery options identified in the previous step should be evaluated to identify the advantages and disadvantages of each option; examine the associated risks and benefits; potential impacts on government of each option and identify which of these options may be procured as a PPP.

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- *About the Option:* A brief narrative on each of the service delivery options covering the extent to which the option meets output specifications, description of service, alignment of each option to the MDA's strategic plan etc.
 - *Financial impacts:* A preliminary view and discussion on the financial impacts of each option. For example, show the estimated initial capital expenditure, and the likely capital and operational costs over the full project cycle.
 - *Funding and affordability:* This involves identifying the funding source for each of the options and determining the affordability of each of them. It also involves estimating the extent of government contribution required, and obtaining concurrence with the relevant departments/divisions to prevent project delays at later stages in the project cycle. Such funding must come from an existing budget line, as there are strict limitations on MDA's borrowing capacity. Indicate how a PPP procurement of an option is likely to be financed. The payment mechanisms (conventional budgetary, unitary payment, user pays, revenue-generating, hybrid, etc.) that may be possible for each option must also be briefly discussed.
 - *Risk:* Identify the primary risks associated with each option. Specifically identify the risks that may be passed on efficiently to a private party. While it may be difficult at this stage to estimate the consequences and likelihood of all risks associated with an option, there may still be sufficient data to exclude certain options.
 - *Other socio-economic aspects:* Provide a preliminary view on the impact of each option on the other socio-economic targets on which the MDA may wish to deliver in the project.
 - *Service delivery arrangements:* Identify and discuss the service delivery arrangements for each option and analyse implications of each option for optimal interface between existing and proposed services.
 - *Transitional management issues:* Identify and discuss the issues likely to arise in the handover from existing management arrangements for each solution option.
 - *Technical analysis:* A comprehensive technical analysis must be presented for each solution option, including a supply chain/interface analysis. Include an assessment of the proposed technology and its appropriateness for each solution option.
 - *Site issues:* If a solution option involves a physical site, issues around the procurement of land must be identified at this stage, such as: land use rights, zoning rights, geotechnical analysis, environmental issues, relevant national or provincial heritage legislation, and alignment with regional plans. For a PPP procurement to be possible, the resolution of all site issues during the course of the feasibility study phase of the PPP project cycle is a key factor.
 - *Legislation and regulations:* The legislative and regulatory compliance requirements for each of the options should be assessed at a generic procurement legislation and regulations level and at sector specific legislation and regulations level. Certain service delivery options may
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not legally be performed by a private party. At this stage, a brief, high-level analysis of legislative and regulatory compliance should be undertaken.

- *Human resources:* Each service delivery option should be assessed to identify the number of MDA staff impacted by the service delivery option and cost of the same. Undertake a skill and experience audit and identify key human resource issues for the project.
- Design and implement a suitable communication strategy for the MDA to keep staff informed of the project investigations, as may be required by labour law. Assess the following for each option, where relevant:
 - ✓ Relevant legislation and case law
 - ✓ Organised labour agreements
 - ✓ The cost of transferring staff, if applicable
 - ✓ An actuarial study of accrued benefits that may be transferred, and timing thereof
 - ✓ An initial view on potential willingness of both staff and private parties to implement transfers.
- ***Market capability and appetite:*** For each of the options, a preliminary assessment of the level of interest in the project and expectation of commercial viability should be estimated. The key issues to address include:
 - ✓ Ability of private sector to execute the project
 - ✓ Reliability of service delivery through the private sector
 - ✓ Potential for value for money from such service delivery
 - ✓ Potential local parties interest in service delivery option
 - ✓ Market competition for this type of project
- ***Qualitative factors:*** There will be a number of qualitative benefits associated with a particular option, which may not be quantifiable and may not be considered as offsetting costs. While financial considerations are likely to drive the affordability, it is important that these qualitative factors be identified early.
- ***Suitability for a PPP:*** Since not all service delivery options are ideal for PPP procurement, it is useful to consider the potential of various options to deliver value for money as a PPP. The criteria to be used in assessing this potential are:
 - ✓ *Large size of the project:* The net present value of probable cash flows of the project should be large enough to allow both the public and private parties to achieve value for money given the costs associated with the transaction advisor etc. A threshold project size

of USD 1 million could be considered. In case of Partnership Victoria, Australia, a minimum threshold of AUD10 million is considered for PPPs. In Singapore, the PPP policy gives emphasis to projects above S\$ 50 million.

- ✓ *Output capable of being clearly specified:* It must be possible to specify outputs in clear and measurable terms, such that a payment mechanism can be structured.
- ✓ *Opportunities for risk transfer:* The allocation of risk to a private party is a primary driver of value for money in a PPP. Where opportunities for allocating risk to the private party are limited, the potential for a PPP to deliver value for money compared with a conventional procurement choice is reduced.
- ✓ *Market capability and appetite:* The project must be commercially viable, and there must be a level of market interest in it.

Step 3: Determine the preferred service delivery option

Based on the evaluation of each of the service delivery options carried out in the above step, a decision on the preferred service delivery option must be taken. If the preferred option identified in this step can be procured through PPP, the same will be analyzed in greater detail in the subsequent stages of the feasibility analysis. At the end of the feasibility study, if the service delivery option is found to be infeasible, it may be necessary to revisit the options analysis stage again.

If the preferred solution option cannot be procured through a PPP, the MDA should discuss its findings with the relevant treasury for possible funding. It is preferable that only one solution option is chosen, and no more than three.

If more than one option is recommended for which PPPs may be possible, each must be separately assessed for the value delivery.

3.2.3. Step 3: Project Due Diligence

In this step, all major non-financial aspects are carefully analyzed to ensure that the project can be practically implemented from a legal, technical, social, and environmental perspective. The public sector agency may need to appoint consultants, experts and surveyors to undertake surveys as part of project due diligence, depending upon the complexity of the project and the availability of experienced personnel within the public sector agency. The project due diligence involves undertaking a Technical Feasibility Study, a Social and Environment Impacts Study, and a legal analysis of the project.

The potential environmental impacts are assessed in two stages. First, an Environmental Screening is carried out, which is followed by an Environmental Impact Assessment in accordance with Federal Legislation. This process is explained in detail in the technical appendix.

Technical Feasibility Study

A technical description of the engineering and non-engineering aspects of the project should be developed. This should be based on the service definition and sizing in the project scope. This should include,

- Field surveys of the selected project site, which may include (depending on the project) mapping, topographical and geotechnical surveys;
- Analysis of environmental conditions that may impact the technical design; and
- A preliminary technical design of the facilities required to provide the project outputs. This should consider alternative design options, taking into account uncertainty in the demand projections and other site-related uncertainties.

These results would feed into a project implementation program.

The technical specification should offer a least cost solution to meet the projected demand, service standards and other objectives. The preliminary design would also assist the public sector agency in appraising proposals received later at the bidding stage.

At this stage, the technical design is not finalized and is not typically completed to the level of detail required for the final specifications. The focus here is on the project's technical feasibility, determining minimum technical requirements to be specified in the RFP, and on providing a design benchmark for estimating project costs to be used in the economic and the financial analysis.

Based on the technology solution and preliminary design, a detailed estimate of the project cost needs to be carried out. The estimate of the project costs should detail both the capital expenditure and the Operations and Maintenance expenses.

Social and Environmental Feasibility

Infrastructure projects often have significant social and environmental impacts arising from their construction and operation, which can be both positive and negative. The impacts may include spill-over effects beyond the immediate project area and beyond the people directly associated with the project.

Social impacts on communities affected by the project include, for example, requirements for any resettlement and the associated impact on quality of life and livelihoods, and impacts related to environmental alteration (for example on health and livelihoods).

Environmental impacts on the project location and in associated areas (for example downstream, ground water or ambient air) include effects on environmental resources due to alterations or pollutants.

Carrying out assessments of social and environmental impacts is often a mandatory regulatory requirement of an infrastructure project's development process. The scope of social and environmental studies covers the following:

- Quantifiable social and environmental costs and benefits;
- Non quantifiable social and environmental costs and benefits; and
- Options for mitigating adverse impacts and the cost of mitigation

The secondary effects are also included in the assessment. Public consultation can be a part of the social and environmental feasibility process to ensure that the secondary effects are adequately captured.

The analysis identifies the type of social and environmental impact studies that are needed, and the type of permits and licenses required; it takes into account health and safety standards. This information will assist the MDA with the preparation of tender documents if the project is taken to market, and will assist the bidders with the preparation of risk-minimizing bids.

The assessment of environmental and social costs and benefits is an input to the economic analysis of the project. Therefore, in addition to being a requirement from a legal and regulatory perspective, the social and environmental analysis is an important part of the assessment of the project's overall welfare impact, as captured in the economic analysis.

Legal Analysis

A comprehensive legal due diligence must be done to ensure that all the foreseeable legal requirements are met for the development of the project. Although it may be costly to undertake a comprehensive legal due diligence of all aspects of the project in this early phase, it is essential.

Common legal issues pertain to land use rights and regulatory matters. However, the public sector agency's legal advisors should conduct a thorough due diligence on all the legal issues which have a bearing on the project, such as relevant legislation, tax laws, land title, regulatory aspects, and related matters.

3.2.4. Step 4: Financial Feasibility

The next step in the process is to establish the financial viability of the project with respect to the costs involved and the revenue potential. The steps involved in undertaking the financial feasibility of the project are elaborated below.

Step 1: Determination of project cost

The key input for the financial feasibility analysis is project cost. Three broad categories of costs need to be considered including capital costs for project development, operation costs and

maintenance costs which arise during the operation and maintenance of the created infrastructure or asset.

- **Capital costs:** Capital costs are the costs incurred for the creation of an asset. In the case of civic infrastructure, this includes costs of development. These are one-time costs incurred in the process of creation of the specific infrastructure.
- **Operating costs:** Operating costs indicate the expenditure to be incurred for the operation and use of the infrastructure created. These would include expenditure on manpower, electricity charges, chemical costs, and other administrative expenses.
- **Maintenance costs:** Maintenance costs include expenses made towards normal civil works such as repairs made to an asset. In order to ensure that the asset created is made available throughout its intended lifetime, it is critical to ensure that normal wear and tear of the asset is addressed in time. For instance, to avoid corrosion, pipes would need to be painted on a regular basis with a corrosion-resistant lubricant.

Step 2: Determination of project revenues

The next important step which needs to be undertaken as part of the financial feasibility analysis is the estimation of project revenues. Project revenues represent the income that is generated from the provision of services to the users. The revenue sources for various sectors could vary from one sector to another. These could be in the form of user charges levied, fare or toll revenue, revenue from ancillary sources like sale of carbon credits, provision of advertising rights etc. Project revenues may also include direct payments from the Government authority.

Step 3: Preparation of financial model

Once the project costs and revenues are identified, the next stage in the financial analysis is to build the financial model for the project. This task involves primarily two activities, i.e., identifying all the inputs for the financial model and preparing the financial model.

Inputs to financial model

Some basic assumptions and inputs need to be considered when a financial model is prepared. The inputs and assumptions are listed below.

- Project cost as derived from the detailed project report on capital costs, pre-operative expenses (to be capitalised), cost of legal approvals, etc. In addition, the phasing of the capital expenditure also needs to be defined.
- Project revenues include the revenues which have been identified from all the sources, and also income from grants which may accrue to a specific project
- Operations and maintenance costs as derived from the Detailed Project Report as per the demand projections and the estimated operating expenses
- Certain assumptions for projecting the cash flows in the future, for instance, long-term inflation rates, long-term interest rates, income tax rates in the future, etc.

All these assumptions will need to be documented as part of the financial feasibility process.

Preparation of the financial model

The financial viability of any capital-intensive project is largely defined by the returns on investment the project is expected to earn the investors. Therefore, one of the key objectives behind the preparation of a financial model is to estimate the returns that the project can generate in future. These returns are calculated on the basis of project cash flows, which are available for investors to the project (both debt and equity investors).

For the calculation of the project cash flows, key statements would have to be prepared including Projected Profit and Loss account , Projected Balance Sheet, Projected Cash Flow statement (showing calculations of the project cash flows), a statement of the assumptions used across the financial statements and total capital expenditure and its phasing. These five financial statements will together constitute the basic financial model of the project.

Step 4: Conduct a Sensitivity Analysis

A sensitivity analysis is conducted to gauge the financial robustness of the project, i.e., to see how changes in key assumptions impact the financials of the project. The financial model is developed in such a manner as to allow different values for the key model variables.

An indicative list of variables that can be examined in the sensitivity analysis is presented below:

- Changes in construction period, phasing and project duration
- Changes in inflation rate, interest rates
- Changes in construction costs
- Changes in operating Costs
- Changes in market demand

Minimum sensitivity analysis should include the following:

- Increase in investment cost by 10% to 30%;
- Increase in operating costs by 10% to 30%;
- Increasing both investment and operating costs by 10% to 30%; and
- Reduction in revenue by 10% to 30%.

Step 5: Assess the viability of the project

On the basis of the projected cash flows which have been estimated in the preceding step, the next step is to compute the Internal Rate of Return (IRR) of the project. The IRR so estimated would then have to be compared against a benchmark to assess whether the project is commercially viable. The possible benchmarks could be returns that are generated from similar

projects or returns that are assumed to be reasonable by a private developer in the specific service sector.

In case the project returns are not found to be attractive resulting from the projected revenues considered, the possibility of obtaining a capital grant to fund the costs of the project may be explored.

3.2.5. Step 5: Economic Feasibility

The feasibility study also includes an economic analysis of the project. The purpose of economic analysis is to determine whether there is an economic case for the investment decision. An economic evaluation of the project is required for green field projects, capital projects, and projects that warrant an analysis of externalities such as major rail, port, and airport projects. Social infrastructure projects can also be viewed from this holistic perspective. The economic assessment goes beyond the items typically included in a financial analysis. Economic feasibility includes:

- The *economic* benefits from the project
- The *economic* costs of the project
- The balance of these expressed in present value terms (the net economic benefit)

Economic costs and benefits are not always the same as financial cost and benefits. Economic analysis includes project impacts that do not have a market price and positive and negative impacts that are experienced by people who are not the direct users of the project services.

Benefits and costs included in an Economic Assessment

- Market valuations of the inputs (land, materials, labor, etc) to the project, adjusted for any distortions in the market (such as taxes or subsidies)
- The valuation placed on the services by the users. i.e., the amount that the users would be *willing* to pay for the benefit they would receive from the service. This is not necessarily the same as what they would actually be charged
- Secondary or spill-over costs and benefits that have an impact beyond the project itself (sometimes called externalities), for example
 - ✓ Impacts from the project on the broader economy
 - ✓ Valuations of non-market factors from the social and environmental assessment (social and environmental externalities)

The impacts that are considered vary depending on the nature of the project and the sector. For example, a highways, roads or public transport project provides direct benefits to the users of the infrastructure or services provided, but can also provide benefits to other road users if congestion

on existing roads is reduced. Another example of secondary economic impacts is spill-over effect in terms of the efficiency of the economy as a result of improved infrastructure.

Negative environmental externalities from a road project include increased local pollution along the corridor. However, this is assessed in the context of positive effects such as improved vehicle running efficiency due to eased congestion.

The results of the market analysis and scope, technical, social and environmental feasibility, financial cost assessments, and risk analyses are all inputs to the economic feasibility. They provide a set of scenarios (sensitivity ranges on the values assumed in the analysis) that can be tested as part of the economic feasibility in order to get an idea of potential variation in the outcome. Specialist advisors are usually be a part of the team engaged to carry out the economic feasibility.

Measurement of non-market benefits and costs

Usually, some benefits and costs associated with the project do not have an observable monetary value (say a market price). A full quantitative analysis requires the monetary value of such benefits and costs to be estimated. The advisor or analyst who is conducting the economic feasibility study has to propose and justify the valuation. This is based on a strong and defensible methodology as the valuation of non-monetary benefits and costs can be very subjective.

Comparison with a “Do Minimum” Option

Before considering major investments or the provision of new infrastructure assets to meet the desired service level, the MDA should consider whether service delivery could be improved to an acceptable (and possibly temporary) level with minimal infrastructure upgrades. The ‘Do Minimum’ option should represent the best performance outcome that can be achieved through limited expenditure in the absence significant capital investment. It provides the ‘base case’ against which the costs and benefits of alternative investment projects can be evaluated. Such an option might be the choice of last resort if for instance there are severe budget constraints that preclude more preferable but costly options. Establishing the minimum necessary investment also provides a useful benchmark against which to compare other options.

Comparison against the next-best alternative investment option

Part of an economic case for a PPP investment is an assessment of the next best alternative investment or expenditure to achieve a similar result. This is used as a benchmark for setting a minimum value of the output from the investment. Definition and valuation of the next best alternative has to be proposed and justified by the analyst or advisor.

Decision criteria: NPV and EIRR

The final output of the economic feasibility assessment includes the Net Present Value (NPV) of the project’s economic costs and benefits. This captures the present value of the costs and

benefits that will occur over the life of the project. It has the benefit of summarizing a lifetime of project values into a single figure and allowing easy comparison between different projects.

An economic internal rate of return (EIRR) is commonly calculated, which is a similar decision factor to the financial IRR. The EIRR indicates the rate of return at which the present value of the economic costs and benefits of the project are equal. In other words, it is the discount rate for which the net present value is zero.

The EIRR is compared with the socially required rate of return. Projects that are found to have an EIRR that is higher than the socially required rate of return are called economic investments. These are then taken forward for detailed analysis of their viability as PPPs.

The NPV and EIRR give different sorts of information about a project. The NPV provides a decision criterion on whether the project should proceed at all (in general, a project with a negative NPV would not be pursued) and also allows direct comparison of actual value between projects. The EIRR allows a project to be compared against a required rate of return. It gives a yes or no answer about whether the project is economic. However, the EIRR alone does not give enough information to say whether one project should be pursued ahead of another. This is a value comparison best suited to NPV analysis.

3.2.6. Step 6: Assessment of Value for Money (VFM) and Affordability of the Project

The value delivered by a project is measured in relation to the same service being provided by the MDA under conventional procurement methods. This stage in the Outline Business Case is critical as it aids the MDA in identifying the appropriateness of PPP as a procurement choice.

The value of the project and in turn the choice of procurement method should be determined by comparing it to the net benefit that would accrue if the MDA delivers the same service through conventional public procurement benchmark (**Public Sector Comparator**). A PPP is preferred when conventional procurement offers significantly less value compared to procurement through PPP.

For any project to provide best value to the MDA it has to be affordable, provide for transfer of risks and represent value for money.

- *Estimating cost associated with risks:* While risks are intrinsic to all projects, the conventional public procurement method does not typically factor in the costs associated with such risks in the appraisal stage. PPP procurement allows for transfer of some project risks to the private partner, and explicitly factors in the costs associated with these risks when valuing the project.
- *Determining Affordability of a project:* The test of affordability of the project is whether the MDA will be able to fund the entire project cost over the entire project lifecycle, through its budgetary allocations (and any other available funding).

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- *Determining Value for money:* In the case of PPP procurement, value for money arises when the PPP procurement choice provides a net benefit to the MDA in terms of cost, price, quality, quantity, risk transfer or a combination of these factors.

While Value for Money is a necessary condition for PPP procurement, the affordability is the driving constraint in determining the procurement choice. If a project is unaffordable and is pursued by the MDA, it may severely hamper the MDA's ability to deliver other mandated services. Therefore, affordability should be determined as early as possible.

Any comparison of different procurement options must be done on a like for like basis that is each option should deliver the same quality of end service. If conventional procurement is subject to making adequate budgetary provision for maintenance, then realistic values should be used to reflect the standards of performance and maintenance interventions that will be required under a PPP contract. To do this analysis convincingly, the authority will require a robust database of outturn costs for similar projects procured under different contracts.

Usually, conventional public procurement is represented in the form of a Public Sector Comparator (PSC) which is a detailed approximation of the total costs to the MDA of delivering the desired infrastructure asset and related services. The PSC calculation is explained in the Explanatory Notes (Chapter 7, section 7.3). The PSC route of determining Value for Money will be difficult to implement initially in Nigeria. It is unlikely that authorities will be able to reliably estimate ex ante costs for each project under PPP and other forms of contract. There is a paucity of data on maintenance costs and what data there is may lead to underestimation of the true cost of maintaining assets in a fully serviceable condition.

With little experience of PPP on which to draw, there will need to be a more judgmentally based analysis of which procurement route will give the best value for money. This will consider whether the private sector is capable of managing the risks inherent in the project and obtaining finance at a reasonable risk margin, and whether it will be possible to achieve effective competition throughout PPP procurement. Over time, a more evidence-based approach will be adopted on a case by case basis. In the absence of the full PSC calculation, the steps to be followed to create a benchmark against which private sector bids can be compared are provided in Chapter 7, section 7.2.

3.2.7. Step 7: Preparation of Detailed Implementation Plan

A project implementation schedule is developed from the technical specifications. This reflects the timing and the interrelationships of all the major components of the project.

The checklist below shows the stages that are included in a typical implementation schedule. The stages included for individual projects vary depending on whether the project has a capital expenditure or operating expenditure focus and according to the sector. A sample Implementation Plan is provided below.

Table 4: Sample Implementation Plan

SN	Information to be covered in the implementation schedule	Timeline (Weeks)	Start Date	End Date	Responsibility
1	Timeline for obtaining the approvals:				
1a	First draft of tender documents and other key project documents (say Expression of Interest and Request for Proposals)				
1b	Application for clearance for the PPP				
2	Pre-qualification and final document preparation timeline:				
2a	Issue Request for Qualification				
2b	Pre-qualification of bidders				
2c	Final draft of tender documents, and feedback on bid documents from bidders for complex / new sector projects				
3	Application for Final Approval of the PPP				
4	Procurement and award timeline:				
4a	Issue Request for Proposals, allowing adequate time to respond to bidder queries				
4b	Evaluation of bids				
4c	Negotiation and award				
5	Technical and financial closure timelines:				
5a	Detailed technical studies and planning				
5b	Obtaining clearances				
5c	Arranging and finalising finance				
6	Engineering, procurement and construction (EPC) activities and timeline (for projects that involve a capital expenditure component)				
6a	Detailing each major milestone through the EPC process				
7	Post-construction activities				
7a	Such as surveys and commissioning facilities				
8	Expected date for commencement of operations				

SN	Information to be covered in the implementation schedule	Timeline (Weeks)	Start Date	End Date	Responsibility
9	Major milestones in the operating lifecycle of the project				

3.2.8. **Step 8: Compilation of the Feasibility Study Report (FSR)**

The outputs of the feasibility analysis are drawn together into a Feasibility Study Report (FSR), which provides the PPP business case. If the feasibility study is supportive of the investment and procurement by PPP, the FSR can then be presented to the Executive Council for approval.

The FSR summarizes the results of the project feasibility analysis and PPP due diligence. It provides all the information that is needed for a decision by the authorities charged with project appraisal and final approval.

The FSR contains summaries of the outputs of each component of the feasibility study described above. The FSR includes the following:

- **Support and justification for the project** – Results of the feasibility study providing justification for the investment:
 - ✓ Need for the project – gaps identified in the market analysis that would be filled by the project, policy objectives met by the project, alternatives considered
 - ✓ Description of the project, including definition of services / outputs it will provide, location, target user group, technologies to be employed, agencies involved and their responsibilities, project timeline, etc.
 - ✓ Social and environmental assessments and planned impact mitigations
 - ✓ Technical description of infrastructure additions required for the project
 - ✓ Benefits and costs of the project and their distribution among key stakeholders, including social and environmental impacts
 - ✓ Summary of the financial viability of the project
 - ✓ Summary of economic appraisal (benefit / cost analysis)
 - ✓ Project implementation schedule
- **Support for procuring the project as a PPP** – In addition to the general project feasibility results, the FSR includes the following:
 - ✓ Identification of major project risks and their allocation between the public and private partners

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- ✓ Type of PPP proposed including description of likely finance structure
 - ✓ Requirement for government assistance to the project (such as Viability Gap Fund)
 - ✓ Value-for-money (VFM) analysis and result
 - ✓ Other due diligence assessments (legal, market sounding)
 - ✓ Capacity of sponsor (MDA) to implement the PPP, plan for implementation and PPP management including capacity building and use of advisors, plan for meeting project development costs

- **A section summarizing the justification for the PPP project**

This section will synthesize the qualitative and quantitative case for proceeding with the PPP procurement route. There are many reasons why a PPP may be pursued and it important to make clear what drives the final decision in setting of a specific project. Apart from highlighting the main benefits of a PPP option, this section should also make clear that such an option would be affordable to the MDA over the entire course of the project term.

4. INSTITUTIONAL AND LEGAL FRAMEWORK

This section of the Manual describes the Institutional and Legal Framework governing the implementation of Federal PPP Projects in Nigeria. The section provides details on,

- The Legal and the Regulatory framework governing Federal PPPs in Nigeria;
- The key stakeholders involved in Federal PPP procurement,
- The Institutional approvals required for Federal PPP projects in Nigeria

The Institutional and Legal Framework for State projects varies from State to State and these are described in separate sections. However, some State projects may require some form of Federal Government guarantee in order to attract international finance, and these projects should also comply with the process for Federal projects described below, since the guarantees will require the approval of the Federal Executive Council.

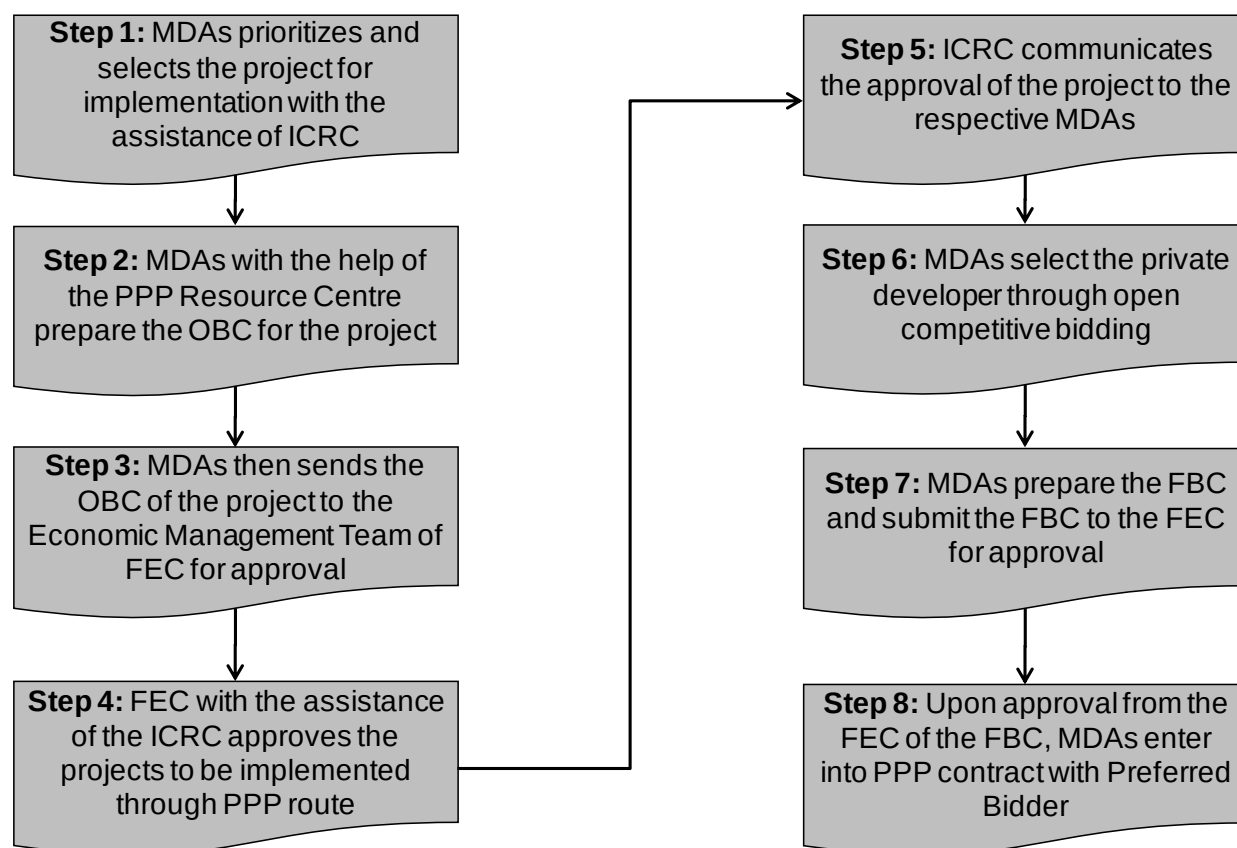
4.1. Legal and Regulatory Framework in Nigeria

The Federal Government of Nigeria (FGN) requires due process to be followed for any form of procurement involving the Government and any of its agencies, ministries, para-statal and units. This is set out in the Public procurement Act, 2007. In addition, the procurement of PPP projects or Concessions needs to comply with the *National Policy for Public-Private Partnership* and the ICRC Act, 2005. ICRC has the power to issue regulations governing the process and these will be issued in due course.

4.1.1. PPP procurement at the Federal level

The figure below provides an overview of the various stages of procurement and approval for a PPP project at the Federal level.

Figure 11: PPP procurement at Federal level



A brief description of the procurement and approval process for a PPP project at the Federal Level is provided below.

- **Step 1:** The MDAs with the assistance of the ICRC select and prioritise the projects to be implemented on a PPP basis for each sector;
- **Step 2:** For the projects selected to be implemented through the PPP route, the respective MDA with the assistance of the PPP Resource Centre prepares an Outline Business Case (OBC);
- **Step 3:** The OBC is then submitted by the MDA to the Economic Management Team of the FEC for approval;
- **Step 4:** The EMT with the assistance of the ICRC approves the projects to be implemented through the PPP route for various sectors;
- **Step 5:** The ICRC communicates the respective MDAs about the projects approved by the FEC for implementation through the PPP route;
- **Step 6:** The MDAs select the private developer for the implementation of the project through open competitive bidding process;

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- **Step 7:** Once the Preferred Bidder is selected, the MDA prepares a Full Business Case (FBC) on the basis of the OBC and the proposal of the Preferred Bidder and submits the same to the FEC for approval; and
 - **Step 8:** Upon approval of the FBC by the FEC, the MDA enters into a PPP contract with the Preferred Bidder.

4.1.1.1. Regulations governing PPP procurement at the Federal level

PPP procurement in Nigeria is governed by the following legislation:

- The Infrastructure Concession Regulatory Commission (ICRC) Act 2005;
- The Public Procurement Act 2007; and
- Regulations issued by ICRC governing the PPP process

These laws and regulations set out the requirements for competition and private sector participation in all public procurement and also specify the necessary approvals required for PPP procurement. Through such legislation, the Government assures investors that all contracts completed in compliance with these laws are legal and enforceable, and that investors would be able to recover their expected return subject to compliance with the terms of the PPP contract.

The objectives of these laws are to,

- Ensure that public authorities are empowered to enter into agreements for the implementation of privately financed infrastructure projects and that they can contract public services functions to private companies;
- Ensure that the regulation and licensing of public service operators and operations is transparent, timely, and effective;
- Provide appropriate remedies for protecting the safety and integrity of public infrastructure from vandalism and other criminal activity;
- Ensure that there are no distortions created by existing tax, banking, company, or any other laws that would bias the investment decisions of public authorities for or against PPP as a procurement option, or would distort the commercial decisions of PPP investors, contractors, or operators;
- Provide for transparent, efficient, and competitive procurement procedures for PPP-type contracts that encourage innovation from bidders, and allow dialogue to optimise the allocation of risks between the contracting parties;
- Ensure that there is an effective dispute resolution process which can operate independently and in a timely manner to provide alternative procedures such as arbitration and expert determination;
- Ensure that the proposed institutional and financial framework for PPP is consistent with the corresponding legislation proposed or enacted in each State.

4.1.1.2. The Infrastructure Concession Regulatory Commission (ICRC) Act, 2005

This ICRC Act, 2005 governs the participation of the private sector in financing the construction, development, operation, or maintenance of infrastructure or development projects of the Federal Government through concession or contractual arrangements. The ICRC Act, 2005 permits the granting of PPP contracts or concessions by any Federal Government ministry, agency, corporation, or body.

Under the ICRC Act, 2005, the Government of Nigeria has established the Infrastructure Concession Regulatory Commission (ICRC) to develop the guidelines, policies, and procurement processes for PPP projects in Nigeria. The ICRC in collaboration with the States has established a framework for the development of infrastructure in Nigeria to accelerate the development of a market for PPP projects. The ICRC is governed by a governing board.

The functions of the ICRC include,

- Taking custody of every concession agreement made under the ICRC Act and monitoring compliance with the terms and conditions of such agreement;
- Ensuring efficient execution of any concession agreement or contract entered into by the Government;
- Ensuring compliance with the provisions of the ICRC Act;
- Performing such other duties as may be directed by the President, from time to time, and as are necessary or expedient to ensure the efficient performance of the functions of the ICRC under the ICRC Act.

The Board of the ICRC provides general policy guidelines relating to the functions of the ICRC and manages and supervises the policies of the ICRC. In general, the Board ensures the efficient performance of the ICRC by providing oversight and high level guidance in accordance with the Act. Its role in monitoring compliance of both parties with completed agreements is described in Chapter 6.

Key provisions governing project implementation

The ICRC Act lays down the provisions governing implementation of PPP projects. Some of the key provisions are as follows:

- The Act includes an illustrative list of infrastructure to which it may be applied, but also allows the FEC to approve any other form of infrastructure and development project.
- The Act requires that the approved projects should follow a competitive procurement process that is openly advertised.
- The Act includes an obligation for the private sector operator (“Project Proponent”) to finance the infrastructure.

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- The Act allows the Project Proponent to recover the investment made towards funding the project cost from the relevant MDA by the way of amortization payments.
 - Project cost shall be duly authenticated by the relevant Ministry or government department and relevant qualified professional to determine the amount to be repaid by amortization.
 - The term “Concession” does not imply that rights to any revenue stream from user charges are transferred to the private sector operator.
 - No Federal MDA shall give any guarantee, letter of comfort or undertaking in respect of any concession agreement entered under the ICRC Act. However, if such a guarantee, letter of comfort or undertaking is to be given then the MDA requires the prior approval of the FEC.
 - The ICRC and the Federal MDA shall have the power to inspect the project assets at any time during the Concession period.

4.1.1.3. Public Procurement Act, 2007

The Public Procurement Act, 2007 established the National Council on Public Procurement (NPC) and the Bureau of Public Procurement (BPP) as the regulatory authorities responsible for monitoring and oversight of Public Procurement in Nigeria. Today, both the NPC and the BPP act as key stakeholders discharging important responsibilities at various stages of the PPP procurement process.

The Public Procurement Act has also harmonized the existing government policies and practices by regulating, setting standards and developing the legal framework and professional capacity for Public Procurement in Nigeria. The provisions of the Public Procurement Act, 2007 are applicable to the procurement of goods, works and services by,

- The Federal Government and all procurement entities;
- All entities not covered under the above point but which derive at least 35% of the funds appropriated or proposed to be appropriated for any type of procurement described in the Public Procurement Act from the Federation share of Consolidated Revenue Fund.

National Council for Public Procurement

Under the Public Procurement Act, 2007, a National Council for Public Procurement is established to perform the following functions related to PPP procurement:

- Consider, approve and amend the monetary thresholds for the application of the provisions of this Act by procuring entities;
- Consider and approve policies on public procurement;
- Approve the appointment of the Directors of the Bureau of Public Procurement;

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- Receive and consider, for approval, the audited accounts of the Bureau of Public Procurement;
 - Approve changes in the procurement process to adapt to improvements in modern technology;
 - Give such other directives and perform such other functions as may be necessary to achieve the objectives of this Act.

Bureau of Public Procurement

In addition to the National Council for Public Procurement, an agency called the Bureau of Public Procurement was also established to perform the following functions:

- Formulate and get approved from the Council, the general policies and guidelines relating to public sector procurement;
 - Publicize and explain the provisions of the Public Procurement Act;
 - Subject to thresholds as may be set by the Council, certify Federal procurement prior to the award of contract;
 - Supervise the implementation of establishment procurement policies;
 - Monitor the prices of tendered items and/ or services and maintain a national database of standard prices;
 - Publish the details of major contracts in the procurement journal;
 - Publish paper and electronic editions of the procurement journal and maintain an archival system for the procurement journal;
 - Maintain a national database of the particulars, classification and categorization of federal contractors and service providers;
 - Collate and maintain in an archival system, all federal procurement plans and information;
 - Undertake procurement research and surveys;
 - Organize training and development programmes for procurement professionals;
 - Periodically review the socio-economic effect of the policies on procurement and advise the Council accordingly;
 - Prepare and update standard bidding and contract documents;
 - Prevent fraudulent and unfair procurement and where necessary apply administrative sanctions;
 - Review the procurement and award of contract procedures of every entity to which the Act applies;
 - Perform procurement audits and submit such report to the National Assembly bi-annually;
 - Introduce, develop, update and maintain related database and technology;
 - Establish a single internet portal that serves as a primary source of all information on government procurement containing and displaying all public sector procurement information at all times; and
 - Undertake institutional capacity building by conducting training workshops
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Procurement procedure

Under the Public Procurement Act, to implement a project through the PPP route,

- The procuring entity invites bids from the bidders through an advertisement;
- Two credible persons, one from a private sector professional organisation and the other from a non-governmental organisation are invited by the procuring entity to be the observers in the procurement process;
- The bids received from the bidders are received and evaluated by the procuring entity according to the evaluation criteria developed by the procuring entity;
- The bidder offering the most favourable bid to the procuring entity is selected as the Preferred Bidder;
- The procuring entity obtains an approval from the relevant approving authority before entering into a contract with the Preferred Bidder;
- The unsuccessful bidders are debriefed about the selection of the Preferred Bidder;
- The procuring entity obtains a No Objection Certificate (NOC) from the Bureau and enters into a PPP contract with the Preferred Bidder.

4.1.2. PPP procurement at the State level

At the State level, only a handful of States have established their own legal and regulatory framework for PPP procurement. These have been described separately in other parts of this Manual.

To ensure effective implementation of a project through the PPP route, the Institutional framework is as important as the Legal and Regulatory Framework. The Institutional Framework governing PPP procurement at the Federal level is described in the following section.

4.2. Institutional Framework/ Key Stakeholders in PPP Procurement

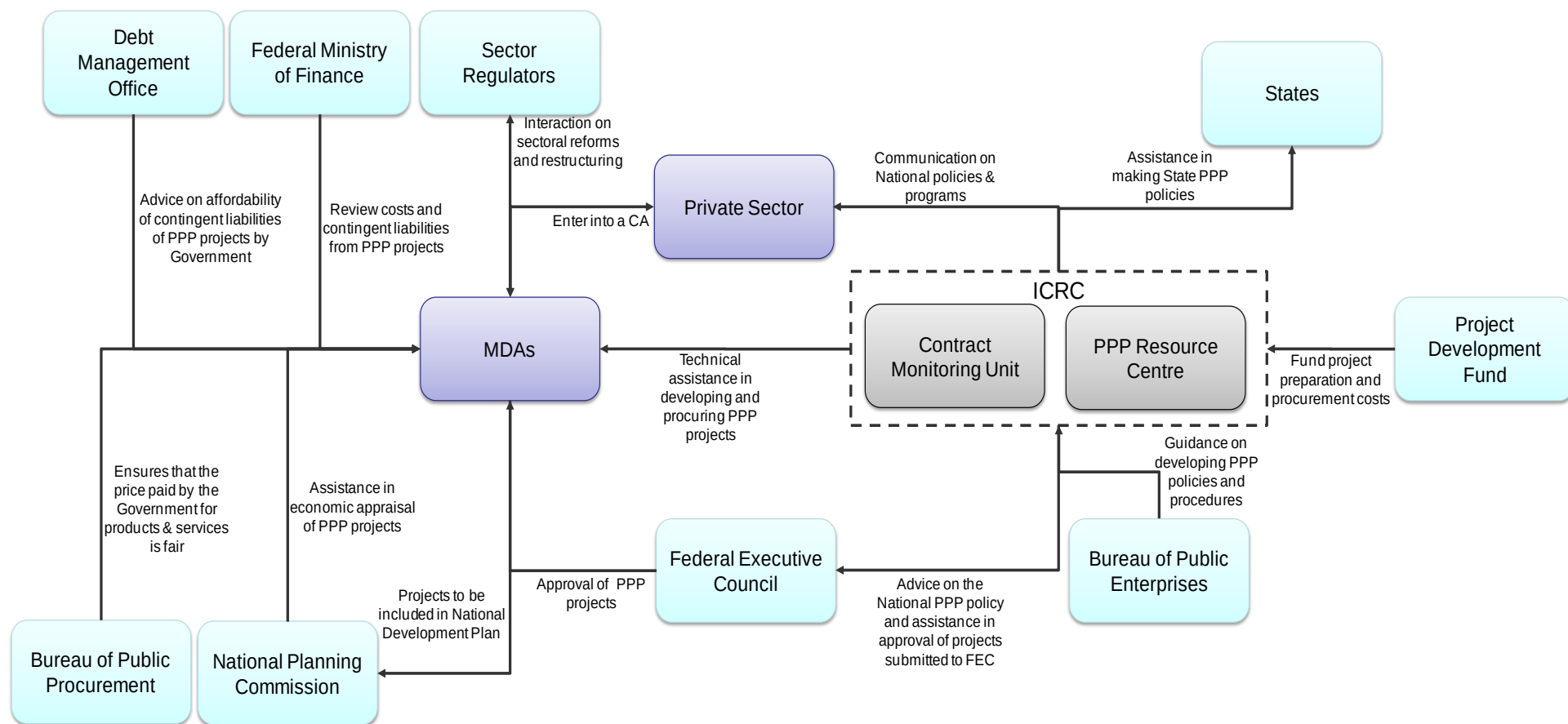
The Institutional Framework governing PPP procurement in Nigeria allocates specific roles and responsibilities to various entities within the Federal Government of Nigeria. The Framework ensures that all entities within the Federal Government that have specific responsibilities are involved in the project approval process and have access to appropriate guidance, training, expertise and resources to plan, procure and manage investments in PPP projects, taking account of value for money and long-term affordability of PPP projects, and any contingent liabilities that may be retained by the Federal Government.

The Institutional Framework ensures that Federal projects go through a rigorous appraisal procedure to establish the economic and financial viability of the projects before the project sponsor (MDA) begins a competitive and transparent procurement process.

The Institutional Framework encompasses guidance for the benefit of those States that propose to develop their own PPP policies and programmes, and sets up mechanisms to coordinate these. The Framework encourages the development of standardised documents where appropriate. It also facilitates communication between various State Governments and private sector contractors and investors interested in partnering with the public sector to deliver infrastructure assets and services on a PPP basis.

The figure below depicts the Institutional Framework governing PPP procurement in Nigeria detailing the various stakeholders involved and their roles and responsibilities within the Federal Government for planning infrastructure, allocating budgets, and managing fiscal risks.

Figure 12: Institutional Framework



4.2.1. The Infrastructure Concession Regulatory Commission (ICRC)

The Infrastructure Concession Regulatory Commission (ICRC) is responsible for developing and issuing guidelines on PPP policies, processes and procedures (including those for concessions), and acts as a national centre of expertise in PPP. It works closely with relevant MDAs to identify potential PPP projects, and acts as the interface with the private sector to promote communication on national policies and programmes. ICRC monitors the effectiveness of the Government's policies and processes and provides independent advice to the Federal Executive Council (FEC) on the development of projects through the PPP route. It provides its views to FEC on whether projects submitted for FEC approval meet the requirements of the regulations.

ICRC works closely with States that are developing their own PPP policies to ensure consistency, best practice, and a co-ordinated approach to the private sector supplier market. Although the management of PPP agreements will be for the relevant MDA, as the contracting party on behalf of government, the Contract Monitoring Unit within ICRC monitors compliance with the contractual terms and conditions by both parties. The ICRC maintains a PPP project database and also retains custody of all PPP agreements as required by the legislation.

4.2.2. The PPP Resource Centre

The PPP Resource Centre comprises of public and private sector personnel, with legal, financial, and public sector backgrounds, to provide the expertise for the implementation of PPP projects across different sectors in Nigeria. It operates within the ICRC acting as a central PPP unit.

The Resource Centre acts as an effective interface between the public and private sectors in relation to the PPP policy and practice in Nigeria. It plays an important role in managing government equity in projects ensuring that the investment decisions of the government are made primarily on commercial grounds.

Another key role played by the PPP Resource Centre is capacity building in the private sector, through publicity, conferences and other meetings. It acts as a bridge between the public and the private sectors and ensures that the PPP programme across the country has sufficient scale and focus to encourage international players to enter the market in Nigeria. The PPP resource Centre also ensures that the Government's PPP program is effectively marketed, ensuring that both the investors and potential bidders have confidence in the ability of the procuring authorities to manage the procurement process efficiently.

The major responsibilities of the PPP Resource Centre are:

- To provide advice to the Federal Government on the development of policy for PPP;
- To issue guidance, in conjunction with the National Planning Commission (NPC), on the identification of PPP projects and programmes within the Government's investment strategy;

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- To provide advice on the value for money assessment and affordability analysis of infrastructure projects that are being considered for PPP;
 - To develop a communications strategy for PPP across the Federation and with all private sector stakeholders;
 - To assist MDAs with project appraisal, the appointment of external advisers where required, and the preparation of Outline and Final Business Cases;
 - To provide technical assistance to MDAs in the procurement of PPP projects including defining appropriate output specifications, a payment mechanism, risk allocation, evaluation criteria, and draft contractual terms;
 - To provide, through the ICRC Board, advice to the Federal Executive Council on the approval of all significant infrastructure projects;
 - To support MDAs during the operational phase of projects when required, for example in contract change or refinancing;
 - To co-ordinate the PPP policies and programmes of the State and Federal Governments, working with similar units in the States or Ministries to ensure consistency of approach and a steady flow of projects to the market.

The PPP Resource Centre seeks to establish a Project Development Fund to support the project preparation and procurement costs for pathfinder PPP projects.

4.2.3. Contract Compliance Centre

The Contract Compliance Centre is responsible for the following:

- Take custody of every concession agreement and monitor compliance with the terms and conditions of such agreement;
- Ensure efficient execution of any concession agreement or contract entered into by the government;
- Develop guidance and procedures for monitoring of such agreements;
- Maintain a database on concessions and other PPP contracts entered into by the Government.

4.2.4. National Planning Commission (NPC)

The National Planning Commission (NPC) is responsible for the preparation of the Federal Government's new National Development Plan, based on the sector plans of the MDAs. This

plan will set out the Government's 15-year investment strategy covering all forms of procurement that will be financed in whole or in part from the Federal budget. The investment strategy will match infrastructure needs against projected financial resources for all sectors, based on the Medium Term Sector Strategies prepared by each ministry. The investment strategy will also identify those infrastructure projects that will be financed by borrowing, as well as those projects that will be financed by current revenues.

NPC also acts as a centre of expertise providing the tools and methodologies for the economic appraisal of the projects to be included in the National Development Plan, developing guidance on procedures and economic assumptions for cost-benefit analysis of the projects. NPC monitors the economic benefits that result from government investment and uses this data to prioritise those projects that offer the highest economic or social return.

4.2.5. Ministries, Departments and Agencies (MDA)

Ministries, Departments and Agencies (MDAs) are responsible for managing public infrastructure and services and also for the management of their own resources. The MDAs prepare long-term plans for infrastructure investment and maintenance. These plans are incorporated into the Government's rolling 15-year National Development Plan being prepared by the NPC. As part of this process, the MDAs, in consultation with the ICRC identify where PPP is likely to offer better value for money over other forms of public procurement and the same is factored into the Investment Strategy of the relevant MDA. The MDAs are guided by the NPC in consultation with ICRC for the criteria to be adopted for measurement of the value for money and assessment of the risks associated.

The MDA's decisions on procurement options are reviewed as projects, refined and enter the three-year Medium Term Expenditure Framework (MTEF) of the MDA. The MTEF allocates resources for the planning and preparation of projects. The MDA appoints an Accountable Officer at Director level to oversee the project preparation and the procurement phase and to chair the Project Steering Committee. The MDA then appoints a project team including external advisors if required, to prepare the project business cases, the procurement documents, and to manage the bid process. The MDA ensures that the project team effectively hands over the project management to a separate team of managers responsible for implementation, supervision and management of the project.

Once the business case is ready, the MDA forwards the project proposal to the FEC for approval. This approval is based on the feasibility of the project as a PPP project. Following the approval of project by the FEC, the Accounting Officer of the MDA signs the contract and is accountable for meeting the project objectives.

4.2.6. Federal Ministry of Finance (MOF)

The Ministry of Finance plays an important role in public financial management of PPP projects, and in evaluating and managing fiscal risks that may result from PPP agreements. The Ministry ensures that the forecasted costs for the Government including any subsidies that may be required to make a project viable are affordable over the MTEF, and indeed over the full life of the contract. Together with the relevant MDA, it also reviews the costs and contingent liabilities as the project design and risk valuations are refined during the project preparation and procurement phases.

4.2.7. Debt Management Office (DMO)

The operation of the Debt Management Office (DMO) is governed by the Debt Management Office Act 2003. The DMO plays an important role in monitoring liabilities created by Federal PPP projects and those State projects that require Federal guarantees. The DMO ensures that the contingent liabilities created by PPP projects are manageable within the Government's economic and fiscal forecasts.

The DMO advises the FEC on the approval of individual projects. It is also consulted in advance before an MDA requests for approvals for the involvement of any multilateral or regional agencies to provide guarantees or other financial instruments for funding a PPP project.

The DMO also plays an important role in supervising the financial and capital markets. DMO takes lead in developing a range of financial instruments that are required to manage financial risks in PPP projects.

4.2.8. Accountant General of the Federation

The Government, through the Office of the Accountant General of the Federation, ensures that funding for payment obligations incurred through a Federal PPP contract is safeguarded to ensure prompt payment.

4.2.9. Bureau of Public Procurement (BPP)

The Bureau of Public Procurement (BPP) plays an important role in the procurement of public works and services. It uses various techniques such as benchmarking to ensure that the prices paid by the Government of Nigeria for goods and services are fair and reasonable. The Government has set up a Procurement Department in each MDA to ensure due process is observed in all procurement and the procurement process takes place as per the schedule. A member of the MDA's Procurement Department is included on the Project Steering Committee set up within the MDA to manage each project to ensure effective implementation of the project and delivery of the services.

4.2.10. Bureau of Public Enterprises (BPE)

The Bureau of Public Enterprises has played an important role in privatisation of many State owned assets since 1999. BPE has used concessions as a means of commercialisation of existing government owned enterprises. The lessons learnt through these concessions, and the skills and capacity developed in BPE are available for implementing PPP and other concession projects under the purview of the ICRC. The BPE may also provide technical support to PPP Project teams along with the External Transaction Advisers that may be procured by ICRC.

The different stages of PPP Procurement in Nigeria require Institutional approvals/ clearances from various entities described above. The same are described in the next section.

4.3. Planning and Budgeting for PPP procurement in Nigeria

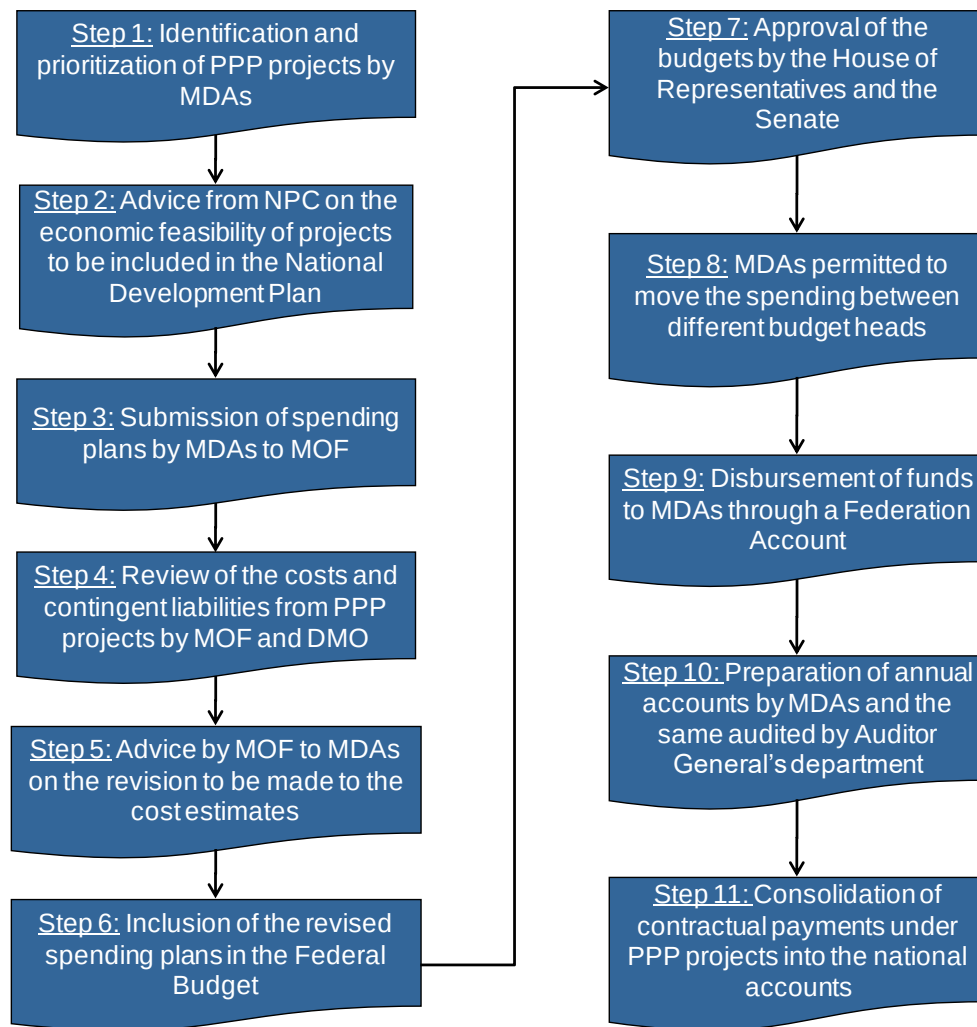
The development of PPP projects in Nigeria is initiated by Ministries, Departments and Agencies (MDAs) within their functional and geographical jurisdiction. They conceptualise the project, undertake various preparatory studies to develop the project and take the project through various stages of approvals and reviews.

PPP projects are implemented over Concession periods typically ranging from 5 years to 30 years. Accordingly, the budgets for capital and operations and maintenance spending need to be planned for the number of years of the Concession period to allow project development, procurement and implementation in an effective manner. The key entities involved in the process of planning and budgeting of PPP projects and their respective roles and responsibilities towards such planning and budgeting are as described below.

- **National Planning Commission:** The planning of infrastructure across the country is coordinated and approved by the National Planning Commission (NPC) and plays an important role in long term planning and budgeting of PPP projects. The NPC has prepared a National Development Plan by considering the investment requirements in different infrastructure sectors over a period of 15 years.
- **Federal Ministry of Finance:** The Federal Ministry of Finance (MOF) is responsible for the Public Financial Management and the evaluation and management of fiscal risks arising from PPP projects. The MOF reviews the costs and the contingent liabilities that would be created by a PPP project for the Government and advises the MDA on any revision to be made to the initial cost estimates.
- **Debt Management Office:** The Debt Management Office (DMO) provides a framework for managing the Federal debt and the contingent liabilities created by the Federal PPP projects and those State projects that require Federal guarantees. The DMO advises the Government on whether the contingent liabilities that would be created by a PPP project for the Government are manageable within the Government's economic and fiscal forecasts.

Given the importance of determining a project's affordability before proceeding to PPP procurement, the sponsoring MDA must consult with above listed entities during planning and project appraisal. The figure below depicts the procedure followed for accounting and budgeting of PPP projects in Nigeria.

Figure 13: Planning and Budgeting Framework for PPP procurement in Nigeria



The budgeting procedure is as described below.

- **Step 1:** The MDAs for different sectors identify and prioritize the projects to be implemented through PPP in their respective sectors in consultation with the ICRC.
- **Step 2:** Once the PPP projects are prioritized by the MDA, these projects are referred to the NPC. The NPC provides the necessary assistance to the MDA to undertake the economic appraisal of the project and advises the respective MDA on the projects that would be included in the National Development Plan.

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- **Step 3:** On the basis of this advice from the NPC, the MDAs submit their spending plans on the PPP projects to the Ministry of Finance (MOF).
 - **Step 4:** The MOF reviews the costs and the contingent liabilities resulting from these PPP projects of the MDAs for the Government and advises the MDAs on any revision to be made to the initial estimates of the costs. The DMO determines whether the contingent liabilities that would be created by the PPP projects for the Government are manageable within the Government's economic and fiscal forecasts.
 - **Step 5:** The MDAs make the necessary revisions to the project costs as required by the MOF and submit their revised spending plans to the MOF.
 - **Step 6:** Once these revised spending plans are agreed by the MOF, they are included in the Federal Government budget². The Government presents its consolidated draft budgets to the House of Representatives and the Senate.
 - **Step 7:** These consolidated draft budgets are either amended or accepted by both the Houses and finally signed by the President before the start of the new financial year in January.
 - **Step 8:** Once budgets have been approved by the National Assembly and the President, MDAs are permitted to move spending between different budget headings within their overall allocation according to established procedures.³
 - **Step 9:** The allocated budget is disbursed to the respective MDAs through a Federation Account that consolidates all national revenues.
 - **Step 10:** The MDAs prepare annual accounts for the expenditure incurred and these accounts are audited by the Auditor General's department usually through the joint appointment of independent auditors with the respective MDA.
 - **Step 11:** Contractual commitments for payments, insurance or other guarantees provided under PPP projects need to be consolidated into the national accounts for statistical purposes and also need to be approved in accordance with the National Policy on Public Private Partnership as they involve spending commitments beyond the budgetary period.

4.4. Institutional approvals required

As described in the chapter 2 of this PPP Manual, the PPP process in Nigeria is structured along four phases as follows:

- **Project Development** consisting of

² Federal Government budgets are prepared over a three-year cycle called the Medium Term Expenditure Framework (MTEF).

³ MDAs must not enter contractual commitments without an appropriation from the budget, but once such commitments are made then the Government will ensure that future payment liabilities will be ring-fenced within future budgets.

- ✓ Identification of the need for undertaking the project,
- ✓ Arriving at the appropriate solution to meet the identified need,
- ✓ Preparing economic, social and environmental cost benefit analysis, and an Environmental Impact Assessment, if required,
- ✓ Testing the affordability and the Value for Money (VFM) of the different procurement options,
- ✓ Preparing the pre-feasibility study (Outline Business Case (OBC)) and getting the necessary approvals for the Outline Business Case.

- **Project Procurement** consisting of

- ✓ Creation of a project team and management structure,
- ✓ Preparation of an Information Memorandum and bid documentation,
- ✓ Market consultation and selection of the preferred bidder through a competitive and transparent Bidding Process,
- ✓ Preparation and Approval of the Full Feasibility (Full Business Case (FBC)),
- ✓ Award of the contract to the preferred bidder.

- **Project Implementation** consisting of

- ✓ Monitoring of the design and construction, and subsequently operation and maintenance of project assets to ensure compliance with the required service standards,
- ✓ Monitoring the performance of the Concessionaire against the requirements of the Concession Agreement.

- **Project Maturity** consisting of

- ✓ Inspection of the project assets and preparation for the handover of project assets,
- ✓ Analysis of future service delivery options and further procurement options if required
- ✓ Closing out the contract.

The approvals required to be sought by the private developer/ Concessionaire for implementation of each activity in the four phases of PPP procurement is provided in the table below.

Table 5: Indicative steps and timelines – Two stage bidding

Stage	Task	Responsibility	Institutional Approvals required from
Phase I: Project Development			
Project Initiation	• Development of a Long-term Master Plan	MDAs and National Planning commission	National Planning Commission
Project Identification	• Identify Viable PPP Projects	MDA with the support of the PPP Resource Centre	National Planning Commission and Federal Ministry of Finance

Stage	Task	Responsibility	Institutional Approvals required from
Outline Business Case (OBC)	Prepare OBC	MDA with the support of the PPP Resource Centre	Economic Management Team
Phase II: Project Procurement			
Preparation for Procurement	Conduct Competitive Procurement Process	MDA with the support of the PPP Resource Centre	No approvals required
Expression of Interest (EOI)	Identify the suitable Bidders	MDA with the support of the PPP Resource Centre	No approvals required
Bidding	Select and Approve the Preferred Bidder	MDA with the support of the PPP Resource Centre	No approvals required
Full Business Case	Prepare FBC	MDA	Federal Executive Council
Contract close	Contract Negotiation/ Close	MDA	Federal Executive Council (if significant deviation from FBC approval)
Phase III: Project Implementation			
Project Construction	Confirm completion of construction and commission project assets	MDA	No approvals required
Project Operations and Maintenance	Effective oversight of the project	MDA and/ or Infrastructure Concession Regulatory Commission	No approvals required
Phase IV: Project Maturity			
Survey of the Project assets	Assess the asset condition and the remaining life of the assets	MDA and/ or Infrastructure Concession Regulatory Commission	No approvals required
Review	- Identify future needs and access options to meet these needs - Select the favourable option and implement the new procurement process	MDA and/ or Infrastructure Concession Regulatory Commission	No approvals required
Conclusion	Finalise New Arrangements	MDA and/ or Infrastructure Concession Regulatory Commission	No approvals required

Stage	Task	Responsibility	Institutional Approvals required from
	Formally Confirm End of PPP Contract		

In addition to the approvals listed above, approval is also required to be taken from the Federal Environmental Protection Agency to protect and enhance the natural environment and to minimise greenhouse gas emissions and other pollutants into the environment by the PPP project.

5. FINANCING PUBLIC-PRIVATE PARTNERSHIPS

5.1. Requirements for achieving project bankability

The bankability of a project refers to the acceptability of the project to the private sector/lenders as an avenue for investment or operation for the given return and risks associated with the project.

The most common structure used for financing PPP projects is the project finance structure in which the investors/lenders have no or limited recourse to the cash flows of the project sponsors. In other words, the investments by the investors/ lenders are only secured by the project assets with no claim on the physical or financial assets of the project sponsors. At times, the project sponsors may provide financial guarantees to secure the investments by the investors/ lenders in the project. Hence, to ensure that their investments in the project stay protected, the investors/lenders consider the following factors before investing in a PPP project.

- **Robustness of the cash flows:** The lenders/investors would consider the adequacy and robustness of the project cash flows to service debt over the door-to-door tenure of the debt. Ideally, the lenders/ investors would take security of the project cash flows. They would prefer ring fencing of revenue streams of the project through appropriate legal and banking arrangements. In Islamic Financing, the lenders/ investors require the mortgage and/ or hypothecation of the underlying asset as security.
- **Government support:** If the lenders/investors are not confident about the robustness of the project cash flows, they may require upfront financial support from the MDA to the project in the form of a grant, subvention, or equity contribution to provide them with the additional comfort for investing in the project. If the project is funded by international development institutions, guarantees from government, country risk guarantee, partial or full guarantees, etc., may be required by these institutions. The lenders/investors would also consider government's commitment to the project and expedient decision making during project development and implementation to ensure timely and cost-efficient execution of the project.
- **Regulatory environment:** To reach an investment decision, the lenders/investors would also consider the likely changes in the regulatory and political conditions over the duration of their investment.
- **Currency matched revenue and expenditure:** In the case of a foreign investor, investing debt or equity in a project, revenues in hard/foreign currency would be preferred.

5.2. Project funding approaches

When a project is proposed as a PPP, the responsibility of arranging the funds for the project typically rests with the private party. However, it is essential that the MDA and the other key stakeholders are aware of the potential sources of funding for the project and its impact on the potential value for money to the MDA. An understanding of project financing mechanisms and structures will also enable the accounting officer and the project team to manage the transaction advisors more effectively and to negotiate better project terms.

Broadly there are two alternate approaches that are used by the private partner in a PPP project: Corporate Finance and Project Finance. These two approaches are explained in the following sections.

5.2.1. Corporate Finance

In Corporate Finance, also sometimes referred to as balance sheet finance, lending decisions are based on the strength of the corporate balance sheet where cash flow and company assets are relied upon to service the debt facility. In other words, if the company needs loans to fund a project, the company's books need to be adequate to service such loan.

In this case, the private party enters into a concession contract for the creation of an asset and for the provision of services. It raises funds from a financial institution on the strength of its balance sheet. The lenders analyse the total income, assets, and liabilities of the private party to assess its credit worthiness. The loan is shown as a liability on the balance sheet of the private party. The private party creates the asset, provides services, and collects a user charge, which is used to service the debt.

There are certain advantages to a Corporate Finance approach for funding. If the enterprise is publicly held, information on its performance and viability is usually available through stock markets, rating agencies, and other market-making institutions. This combination of security, liquidity, and information availability allows debt to be issued at a lower cost than through project finance. Further, because the enterprise's overall risk is diversified over all the activities that it is engaged in, the cost of equity is also usually lower. The financing advantage for both debt and equity makes the overall cost of capital lower for corporate finance.

Private parties may avoid this method of funding because it strains their balance sheet and capacity and limits future participation in similar projects.

5.2.2. Project Finance

Project finance involves the creation of a legally independent project company financed with non-recourse debt (and equity from one or more sponsoring firms) for the purpose of financing a single purpose capital asset, usually with a limited life. This definition highlights the following features of Project Finance:

First, Project Finance involves creating a legally independent project company to invest in the project; the assets and liabilities of the project company do not appear on the sponsors' balance sheet. As a result, the project company does not have access to internally-generated cash flows of the sponsoring firm. Similarly, the sponsoring firm does not have access to the cash flows of the project company. In contrast, in Corporate Finance, the same investment is financed as part of the company's existing balance sheet.

Second, the purpose of Project Finance is to invest in a single purpose capital asset, usually a long-term illiquid asset. In contrast to a company which may be investing in many projects simultaneously, a project financed company invests only in the particular project for which it is created. The project company is dissolved once the project is completed.

Third, in Project Finance, the investment is financed with non-recourse debt. Since the project company is a standalone, legally independent company, the debt is structured without recourse

to the sponsors. As a result, all the interest and loan repayments come from the cash flows generated from the project. This is in contrast to Corporate Finance where the lenders can rely on the cash flows and assets of the sponsor company apart from those of the project itself.

Under this mechanism, the project assets and related revenue streams are used as the basis for raising funds. In most cases, the sponsors create a special purpose vehicle (SPV), which is a separate legal entity in which the sponsors are the principal shareholders. The SPV usually has a minimum equity contribution by the sponsors to allow for raising debt at reasonable cost. The share of individual sponsors is also generally small to ensure that the SPV is not treated as a subsidiary of the sponsor.

In addition to the two approaches described above, the private partner may also use Islamic Financing to fund the project assets and the operations and maintenance of a PPP Project. A brief overview of Islamic Financing is provided below.

5.2.3. Islamic Finance

Given the preference of Islamic finance for equity based and asset-backed projects, Islamic finance plays an important role in funding PPP projects.

Under Islamic Financing, the Project Company formed seeks funds in the construction phase and working capital in the operational phase. While the equity component of the Project Company comes in the form of share capital of the sponsors, there is a need to raise additional Shari'ah-compliant funds for completion of the project. Islamic finance for infrastructure projects also requires a security package.

The relationships and contracts used among the different stakeholders in an infrastructure development financed in a Shari'ah-compliant way depend on the specific project type and financing modes used. The financing modes used depend on the features of the project and preferences of the sponsors and financiers. Typically, *istisna*, *ijarah*, *musharakah*, etc., can be used to finance the project. The financing modes used determine the capital structure of the project.

A brief description of the Islamic modes of financing used between the Funding Company and the Project Company is provided below.

Islamic modes of financing

Traditionally, Islamic modes of financing are classified into equity and debt. The equity instruments include *mudarabah* and *musharakah*; and; the debt or the fixed-income instruments include *murabahah* (cost-plus or mark-up sale), *bai-muajjal* (price-deferred sale), *istisna/salam* (object deferred sale or pre-paid sale) and *ijarah* (leasing). The debt instruments arise from sale transactions.

- ***Istisna:*** *Istisna* is a pre-production sale contract used when a project needs to be constructed according to specification. In infrastructure financing using an *istisna* contract, the Funding

Company sells the project assets to the Project Company and takes the responsibility to construct the project. It then signs a parallel istisna contract with an EPC company to construct the project assets. The project specifications in the original istisna and the parallel istisna contracts are exactly the same, with the only difference being that the price paid to the EPC company is lower than the price received from the Project Company.

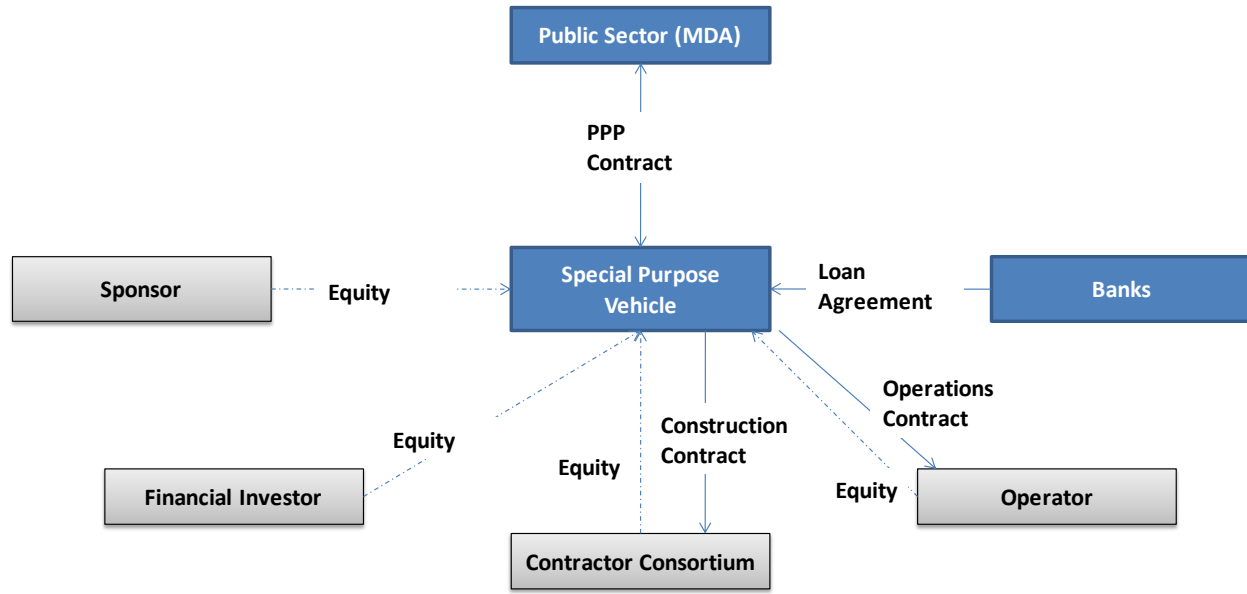
- **Istisna-Ijarah:** Ijarah (lease or renting of an asset) constitutes the sale of the usufructs of a durable good/asset. Under istisna-ijarah contracts, the Funding Company buys the project from the Project Company using an istisna contract and pays for the costs of construction incurred during different phases of the project. After the project is built and delivered to the Funding Company, it is leased back to the Project Company, which pays rent for using the project assets for the duration of the contract. At maturity, the ownership of the project is transferred to the Project Company (or to the government in cases when the term of the lease is the same as that of the Concession period).
- **Musharakah:** Musharakah is a partnership in which all partners contribute both capital and labour. Under a musharakah arrangement, the Funding Company and Project Company form a Joint Venture Company through which infrastructure projects are jointly owned. The Funding Company contributes the funds on behalf of the investors and the Project Company contributes its share of capital and facilities, such as land. On behalf of the joint venture, the Project Company uses an EPC Company to construct the project assets. Upon completion, the project is owned by the Joint Venture Company. The Funding Company derives income during the operation phase by leasing its share of assets to the Project Company and receiving rental income in return.
- **Wakala-Ijarah:** Wakala is an agency contract by which a person/entity represents another person/entity to perform certain duties. In a wakala-ijarah arrangement, the Funding Company appoints the Project Company as an agent to construct the project. The Project Company uses an EPC Company to complete the project. Upon completion, the project assets are leased to the project company and the Funding Company receives rental payments in return.
- **Murabahah:** Under murabahah, the Funding Company buys assets and sells them to the Project Company at a mark-up. The Funding Company signs separate contracts with the supplier/vendor and Project Company for the transaction to be valid. Furthermore, before entering the sale contract, the Funding Company should own and possess the asset.

5.3. Project Finance model for PPPs

In most PPP contracts, the private partner selected through the public procurement process is required to form a Special Purpose Vehicle or a Project Company for the exclusive purpose of entering into the PPP contract with the procuring MDA and implementing the project. This creation of a SPV, the complexity of infrastructure projects and the risks inherent in such projects make them a prime candidate for Project Financing. In most cases of infrastructure PPPs, the sponsors utilise this approach for funding the implementation of the project.

The following schematic represents a generic project finance structure:

Figure 14: Project Finance Structure

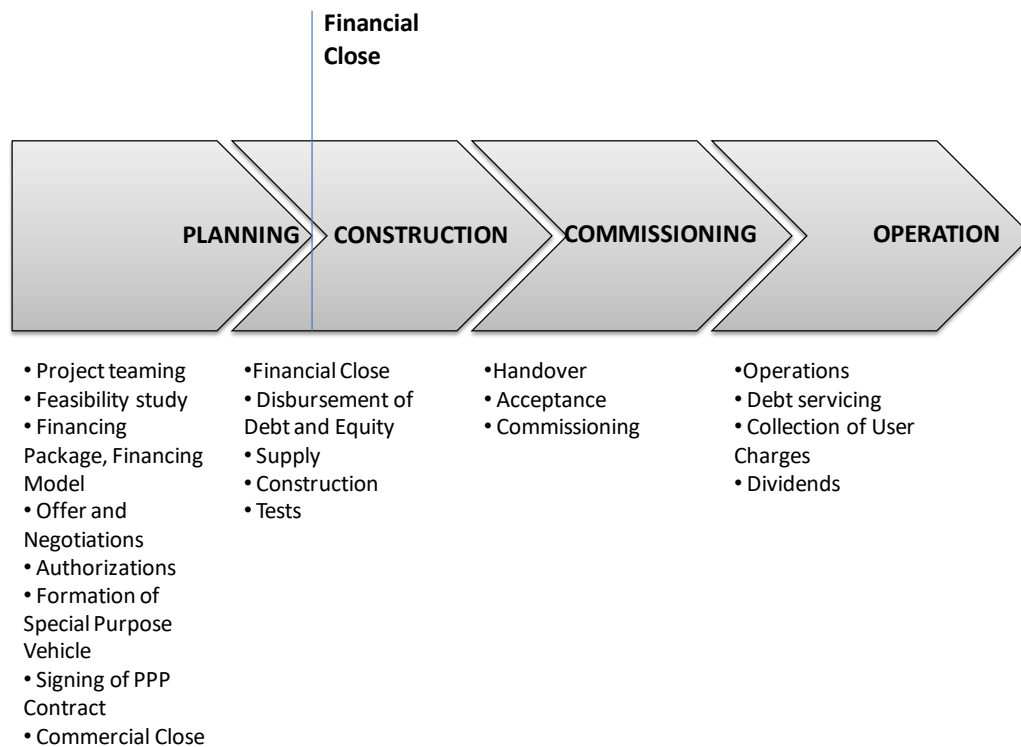


The process of structuring such a transaction, sources of finance and the various contractual arrangements are described in the following sections of this chapter.

5.3.1. Stage of Project Finance Transactions

Project Finance Transactions usually consist of the following four steps;

Figure 15: Stages of Project Finance Transactions



Step 1: Planning

The planning phase is very complex due to the parallel nature of the individual tasks such as carrying out feasibility studies, defining the project requirements, carrying out Environmental Impact Assessments, preparing an Outline Business Case, obtaining internal approvals, preparing procurement documents, managing the procurement process, finalising the PPP agreement and financing documents, obtaining final approval to award the contract, the Preferred Bidder will have included business and financing plans and a financial model as part of his bid; their implementation begins in the second phase once the contract is awarded. Of crucial importance are the financing plan and the financial model. In order to ensure the availability of the financing in good time, it is important that bidders involve banks and investors as early as possible in their bid preparation and that this is fully evaluated by the public authority. The authority will need to carry out its own due diligence on the bankability of the Preferred Bidder's proposed financing.

The SPV needs to satisfy the Conditions Precedent of the PPP Contract before the financing can be drawn down. Conditions Precedent are the milestones defined by the contracting party, that need to be achieved before the terms of the PPP contract can become active and enforceable. Typically, such milestones to be achieved by the SPV include;

- i. Submission and approval of detailed project drawings

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- ii. Receipt of all applicable permits and approvals including environmental and development approvals
 - iii. Financial Close
 - iv. Submission of the performance security by the SPV

The Conditions Precedent for the contracting party typically involve handing over the possession of the project site to the SPV. The conditions mentioned here are indicative; specific conditions need to be defined for each PPP project.

From the Project Finance perspective, the two important milestones during this stage are Commercial Close and the Financial Close. At Commercial Close, both the Bidder and the Authority will have reached agreement on all the contractual documents, in addition to all relevant technical issues. The contractual payments would also have been defined at this stage. The only remaining issue at this stage is the determination of the interest rate that the lenders are going to charge the SPV and its impact on the contractual payments.

Financial Close is the stage when the terms of financing, both debt and equity, have been agreed upon and all financing agreements have been signed between the parties. Financial Close typically follows Commercial Close and the time interval between the two should be as short as possible.

Step 2: Construction

In the construction phase it is essential to complete the investment on time, within the planned budget and according to the specifications and the functionality laid down in the construction contract. Initial tests lead to the commissioning of the facility. The most important activity in this stage from Project Finance perspective is the disbursement of debt and equity to the SPV, and utilisation of the funds for construction of the project.

Step 3: Commissioning

This phase is a particularly critical part of the project as this is when the project is accepted by the sponsor (MDA) and because the ability to invoice the services is dependent on the full functionality of the asset. From the investor's/ lender's point of view, once the project has been properly accepted and commissioned one of the core risks – the completion risk – has been eliminated.

Step 4: Operation

In the operating phase, the asset is managed and continuously maintained. The revenues generated cover the running costs and are also used to amortise the financing. The project revenues are used to pay interest on the loans, repay the loans and pay dividends to shareholders.

5.3.2. Sources of Finance

Typically, PPP projects are financed using three sources of funding including the following:

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- Equity, which represents ownership in the project and carries all risks and rewards associated with the same;
 - Senior debt, which represents first priority for payment and first rights over project cash flows; and
 - Mezzanine funding or quasi-equity, which mainly comprises subordinated loans and advances provided to the project.

In addition to these three sources, PPP projects may also be funded through government support in the form of capital or operating grants to make them viable and attractive to the private sector.

The sources of funding are closely linked to the key characteristics of the infrastructure sector for which the funding is used. A number of factors such as the size and complexity of project, upfront costs, marketability of the project, and payback period all influence the choice of funding sources for infrastructure projects to be implemented through the PPP route.

The choice of funding sources used is also influenced by local economic conditions that impact the regulatory and administrative capabilities and the maturity of local capital markets. The various sources from which capital can be raised for funding a PPP project are described below.

A. Equity

Equity is provided by 'project sponsors' (those who have an operational interest in the contract) or 'financial investors' (those who have only an investment interest).

In the case of project finance, the promoter or sponsor of the project needs to invest a certain percentage of equity capital in the SPV formed to undertake the project. This can be done either by the sponsor alone or together with a joint venture partner. The equity can also be contributed by a consortium of investors. The advantage of funding PPP projects through a consortium of equity investors is that the consortium can be constituted to minimise project risks by assigning each consortium member to manage the risks that correspond to their area of functional expertise. Accordingly, in addition to the promoters and financial institutions, equity can also be provided by equipment suppliers, Operations & Maintenance operators, project developers, end users of the service, etc.

There should be a specified lock-in period for which the equity investment of the sponsor should be maintained. Equity capital can be raised by market issuances or from internal resources or retained earnings or money brought in by the promoter. The various options are described below.

1. Internal Resources/ Retained Earnings

Equity financing through retained earnings requires the parent company to contribute funds out of surplus funds available in its existing business. This is done directly by subscribing to the equity shares of the SPV floated to execute the project or indirectly by subscribing to the equity shares of an infrastructure subsidiary, which in turn subscribes to the equity shares of the SPV.

2. Equity Issuances

Primarily, equity issuance can be classified as public issuance, rights issuance, or private placement. Equity may be raised by the project sponsors or by a fund set up to invest in these types of projects.

- **Public issuance**

The parent company or the infrastructure arm of the sponsors may consider issuing an Initial Public Offer (IPO) or a Follow-on Public Offer (FPO) (if it is already listed) for the purpose of investing in various infrastructure projects.

- **Rights issuance**

The sponsor company may even resort to a rights issuance of shares and raise money from the existing shareholders. The rights are normally offered in a particular ratio to the number of securities held by the existing shareholders prior to the issue. This route is best suited for companies that would like to raise capital without diluting the stake of its existing shareholders. The capital raised through the rights issue can be committed by the sponsor company towards financing the assets of the project under PPP procurement.

- **Private placement**

Apart from public issue of shares, shares can be issued on a private placement basis. Private placement is the issue of shares or convertible securities by the sponsor company to a select group. This is a faster way for a company to raise equity capital as compared to the IPO, FPO or the Rights Issuance.

B. Debt

Debt is defined as an amount owed to a person or organization for funds borrowed. Debt can be represented by a loan note, bond, mortgage or other form stating repayment terms and, if applicable, interest requirements. These different forms all imply intent to pay back an amount owed by a specific date, which is set forth in the repayment terms. The typical sources of debt for a PPP project are explained below.

1. Bank Loans

Bank loans represent the most common form of debt funding resorted to by the project sponsors to part finance the project costs. Bank loans can be availed in various forms with respect to the repayment facilities, tenure of the loan, interest payment options (floating or fixed), and currency denomination. Bank loans are structured on the basis of the expected project cash flows, moratorium period, interest payment, and principal repayment schedule. For example, the bank loan given to a toll road project may have a longer moratorium period as compared to the bank loan given to a commercial space/building project on the basis of the timing of the cash inflows from the project. A major advantage of bank loans over the other

forms of debt financing such as bond issuance is that bank loans can be drawn in tranches over the construction period as the project cost is incurred.

Bank loans are normally priced on the basis of the underlying cost of funds to the lender plus a fixed component (also called a margin) expressed as a percentage to cover default risk and the other costs to the lenders including their operating costs, the opportunity cost of capital allocations, profit, etc. They are also subject to up-front arrangement fees and a management fee.

Bank loans are generally fully secured and have recourse to project assets in the event of any default and rights to replace the original SPV with a new one before termination of the contract as a result of Contractor Default can be effected through a Direct Agreement with the public authority. Since most infrastructure PPP projects are undertaken through an SPV, the bank loan funding is raised by the SPV and will have no, or limited, recourse to the sponsors. The security arrangement can also be structured by creating and routing project receivables through a retention account arrangement. Based on bank requirements, the arrangement can also involve corporate or personal guarantees from one or more sponsors of the project for the interest and principal payment obligations.

Given the fact that the infrastructure PPP projects are highly capital intensive in nature, and are funded using a high proportion of debt (to reduce overall funding costs), banks prefer to be involved in projects as part of a consortium or 'syndicate' of banks that finance the project. Being part of a syndicate helps the banks to diversify the credit risk and also ensures that all lenders get similar terms. One of the banks in the consortium may act as the Lead Bank, a single point of contact between the borrower and the lending consortium, ensuring that there is a single point of disbursement and repayment.

A major limitation of funding PPP projects using bank loans is that such projects have long gestation periods with concession periods ranging from 15 to 50 years. Accordingly, these projects need access to bank funding with longer door-to-door tenure ranging from 10 to 20 years. However, the sources of funds for a bank are predominantly the deposits, which are generally short to medium term in nature ranging from 5 to 7 years. Hence, there is an asset-liability mismatch for the banks and this limits their ability to lend to infrastructure projects. The following exhibit describes the mechanism of Take Out financing which is used to mitigate such asset liability mismatch.

Exhibit 1: Take-out financing

Take-out financing is a method of financing longer duration projects (ranging from 15 to 20 years) by banks by sanctioning medium-term loans having maturities ranging from 5 to 7 years. Institutions offering take-out financing can take over outstanding loans from project lenders after a pre-agreed period, thus preventing any possible asset-liability mismatch. After taking loans from project lenders, the institution can off-load them to another bank or keep the loans with it. The institution can also off-load the loan taken from project lenders to another bank. The benefit of take-out financing is that it helps the PPP projects in obtaining long-term funding through various participants and also prevents the possibility of an asset-liability mismatch for the financing entities.

A commission is charged for providing a take-out financing commitment in the form of fees, typically a onetime upfront fee followed by quarterly fees during the tenure of the loan.

The interest rate that the banks charge on the loan depends upon the risk in the project. In simple terms the interest rate is determined based on risk in the project as compared to risk in the government securities and the corresponding risk premium that should be charged over the interest rate on government securities.

Once the project construction is complete and certified, one of the biggest risks for any investor or lender in any infrastructure project- Construction Risk is no longer present. Similarly once the project has been operated for a few years, the SPV has a good estimate of the average demand for services, improving the predictability of demand and consequently decreasing the Demand Risk. In theory this decrease in risk for a lender should get reflected in reduction in interest rate. In practice this reduction in interest rate is achieved through a mechanism known as refinancing. Refinancing is explained in the following exhibit.

Exhibit 2: Refinancing

Refinancing involves paying off an existing loan with the proceeds from a new loan, using the same property as collateral. There are three situations when a project developer can consider refinancing:

1. When the risk in the project decreases- due to completion of construction or maturity of demand
2. When the interest rate in the financial markets for a project of similar risk profile is lower than the interest rate for the existing loans of the project
3. When the project generates lower than expected revenues and there is a risk of the project defaulting on the existing project finance loans. In which case the developer might have to refinance the existing loans, replacing them with loans of longer tenure but higher interest rate (among other alternatives)

Refinancing can provide major financial benefits to a private sector developer. Once the project has been constructed and the operations have begun the lender no longer needs to worry about construction risks. By refinancing the developer can achieve lower interest payments and thus increase his profit margin. Public sector agencies are sometimes opposed to additional profits being made through this technique. Typically unless refinancing is specifically disallowed under the terms of the PPP contract then the developer should not be penalised for utilising creative financial engineering techniques to increase the profitability of the venture and the public sector can retain the right to share refinancing gains.

2. Bonds

Debt funding for a PPP project can also be raised through the issuance of bonds. Bonds represent the debt funding raised for a project from the capital markets. Bonds are usually structured as per the project/issuer company requirements. The demand and appetite for raising debt funds through bonds would generally depend on factors like:

-
- Existing market conditions and liquidity prevailing in the bond market in Nigeria
 - Credit worthiness of the issuer/rating assigned to the bond issuance
 - Tenure and rate of interest offered
 - Category of investors interested

Investors in a bond issue can be broadly categorised as (1) banks and financial institutions; (2) insurance companies, provident funds, and pension funds; (3) mutual funds; and (4) retail investors.

A major drawback of funding PPP projects through the issuance of bonds is that the issuer needs to bear the cost of negative carry⁴. Unlike bank loans, which can be drawn by the borrower in phases/tranches proportionate to the project cost incurred, in the case of a bond issue, the entire amount of funding is raised upfront even if the project may require some of these funds in the future over the remaining construction period.

3. External Commercial Borrowings

External commercial borrowings (ECBs) can be used to part finance the project cost. ECBs include commercial bank loans, buyers' credit, suppliers' credit, securitized instruments such as floating rate notes and fixed rate bonds, credit from official export credit agencies, and commercial borrowings from the private sector window of multilateral financial institutions such as International Finance Corporation (IFC) and Commonwealth Development Corporation (CDC). ECBs act as an additional source of finance to augment the domestic resources available for financing PPP projects.

4. Borrowings from Multilateral Agencies

The option of borrowing from multilateral agencies can also be explored to finance PPP projects. Multilateral agencies are ideally suited to lend to the infrastructure sector because they typically lend for long-duration projects, such as infrastructure projects. Unlike banks, they do not face asset-liability mismatches by the long-term lending.

Multilateral lenders consist of the International Monetary Fund (IMF - does not lend to the private sector), World Bank, African Development Bank (AfDB), East African Development Bank (EADB), regional development banks, and other smaller institutions. The multilaterals each have different mandates in accordance with their charters or articles of contract, and this affects their lending policies.

5. Investments by Pension Funds, Infrastructure Funds and Insurance Companies

Pension Funds: Investments by pension funds, infrastructure funds, and insurance companies in infrastructure projects is another source of funding for PPP projects. A major advantage of the funding from the pension and infrastructure funds is that the long time

⁴The project SPV may need a few years to expend the debt spread over the construction period. During this time, the debt should be invested in risk-free securities. The rate of return on these securities is usually lower than the interest rates paid on the bonds, resulting in a loss for the project SPV during the construction period. This loss is called the cost of negative carry.

horizon of pension plan funds suit the similar long gestation periods of infrastructure projects and hence provides a good fit.

Pension funds provide a good fit for infrastructure investments in terms of maturity and have the potential to increase infrastructure funding. Large volumes of funds can be raised through the investment banking arms of infrastructure funds. But in the absence of adequate reforms and regulations for the pension fund market, attracting pension funds to invest in local infrastructure development may be limited.

Infrastructure Funds: In addition to pension funds, specialised infrastructure funds established in the private sector can also be invested through private equity/debt injections into infrastructure PPP projects. These infrastructure funds are typically established by large investment banks. A leader in this field is the Macquarie Group of Australia. The Macquarie Group has financed infrastructure assets in many countries including the United States, Canada, the United Kingdom, Australia, Germany, Korea, Nigeria and Japan. The model used by Macquarie treats infrastructure as investments of 25–30 years. Nigeria's Sovereign Wealth Fund will invest some of its assets in infrastructure projects in a similar way.

Insurance Companies: Insurance companies typically have surplus funds that can be used to finance PPP projects. Insurance companies are required to deploy their funds for long tenures in avenues that provide them with risk-free annuity-like returns. However, insurance companies neither have the expertise required to assess projects and evaluate investment decisions nor do they have the appetite to take the risk associated with the construction phase of PPP projects. Consequently, during the first few years of implementing the project, when construction risk is high, banks part finance the project through conventional bank loans along with the equity brought in by the sponsors. Once the project is commissioned and completes a few years of successful operations, the bank loans are replaced with funds from insurance companies for the remaining concession period.

C. Mezzanine Funding or Quasi Equity

Infrastructure projects implemented through the PPP route can also be actualised through mezzanine funding. Mezzanine financing or quasi-equity represents a midway between senior debt and equity, and has features of both kinds of financing.

Quasi-equity is substantially riskier than senior debt since quasi-equity is generally subordinate in terms of collateral rights over security and rights to cash flow. Such debt, at times, may also be unsecured in which case the rate of interest charged would be significantly higher than that charged for senior debt. Mezzanine finance is debt capital with fixed payment or repayment requirements, and may also provide the investors with the right to convert to an equity interest in a project company. Quasi-equity or mezzanine finance mainly assumes the forms of subordinated loans, convertible subordinate loans, redeemable preference shares, debt issued with stock warrants, etc. The term of such financing is generally longer than that of senior debt, and principal payments are commonly deferred until the senior debt is retired. Such financing is usually the preferred recourse, when a project faces cost overruns.

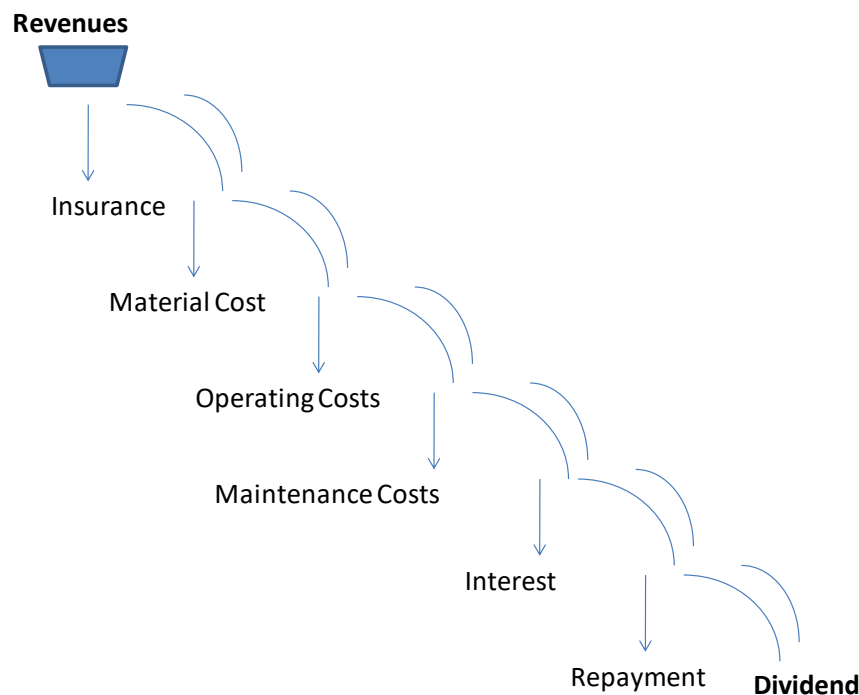
These funds are loaned, based on the amount and predictability of the cash flow exceeding those required to service senior debt. The cost of such infrastructure finance typically lies between senior debt and equity; in the case of well-structured projects, such equity can lower the average cost of capital and thus improve returns for existing shareholders. Interest costs are usually a few percentage points higher than rates on senior debt. Since subordinated debt enjoys little collateral protection, the lending institution may be granted options to own a certain percentage of equity in the project.

Internationally, the increasing demand for mezzanine financing in infrastructure projects has led to the creation of dedicated mezzanine financing funds such as the Asia Infrastructure Mezzanine Capital Fund and the Central American Infrastructure Fund. Globally, mezzanine financing is also being provided through regular infrastructure funds that are currently used for debt and equity financing of infrastructure projects.

5.3.3. Cash flow waterfall principle

In a project implemented through the project finance model, there could be all three types of investors (or sources of finance) discussed above. Each type of investor receives a consideration from the project by way of return for putting their funds into the project. The lenders (banks, bond holders) receive interest, the holders of quasi equity also receive interest and the equity holders receive dividend. In a project finance structure there is a definite priority or order in which the different types of investors would get paid. The following schematic represents a typical cash flow waterfall;

Figure 16: Cash Flow Waterfall Model



This prioritisation of the cash flows is enforced using Financing Agreements for each source of fund for the project.

5.4. Government Support to PPP

In addition to the sources of fund for a PPP project, in specific cases the Federal or State Governments might contribute funds to enhance the viability of the project. Infrastructure development represents one of many investment avenues open to the private sector. Hence, unless an infrastructure project offers a return commensurate with the risk and is more attractive than other investment opportunities, a private investor would not commit investment in infrastructure. Returns for any infrastructure asset emanate primarily from the beneficiaries of the services generated from the asset. Beneficiaries should be charged at commercial rates to recover the cost of developing and financing the infrastructure as well as the cost of providing the service; the project should generate a reasonable rate of return. However, governments are faced with other considerations like:

- Supporting economically and socially weaker sections of society who cannot pay commercial prices for basic services,
- Encouraging the use of public amenities like public transport systems by charging concessional prices,
- Executing their social mandate to provide certain services without charging citizens, and
- Executing their political mandate to provide certain services without charging citizens on a commercial basis.

Owing to these considerations, project revenues sometimes fall short of the capital and operational costs incurred to create and operate an infrastructure asset required to provide a public service.

Therefore, to ensure that infrastructure projects being marketed to the private investors have reasonably attractive returns, i.e., are commercially viable, different governments have used a range of interventions. These interventions usually reduce the effective cost that the private developer needs to incur to develop the infrastructure asset or to provide the service. The reduction in the effective expenditure of the private developer increases the return on the private investment, making it more attractive as an investment opportunity.

The government provides financial support to the project to make it desirable and commercially viable for the private sector. The private sector can avail of this financial support from the government using various instruments, which are described below.

Table 6: Key Instruments for Government Support

Key Instruments of Government Support	Description
Construction Subsidy/Capital Grant	It is provided in the form of a grant, and usually spread over the construction period. It reduces the

Key Instruments of Government Support	Description
	capital expenditure that the private investor needs to incur for the project.
Operational Subsidy	It is a form of government support that contributes to the operational expenditure of the project. It lowers the effective cost of operations that the private developer has to bear. Operational subsidy is generally provided where there is a need to keep the user charges lower than required because of social considerations. It is also provided in the case of infrastructure services where the cost recovery is low.
Minimum Revenue Guarantee	Minimum revenue guarantee is a mechanism through which a sponsoring government shares the traffic risk or demand risk in a PPP project. Through a minimum revenue guarantee, the sponsoring government promises to compensate the private developer of an infrastructure asset if the actual user charges fall short of the projected user charges.
Annuity Payments/Unitary Payment Mechanism	Annuity payment mechanism involves a private sector developer constructing an asset and providing an infrastructure service against a fixed consideration paid over the life of the asset. The fixed consideration, by definition, compensates the developer for capital expenditure, operational expenditure, financing costs, and reasonable return on investment. In effect, the sponsoring government pays for the construction and operation of the asset, while the private developer executes the project and delivers the service. In this mechanism, the government completely funds the construction of the asset and the subsequent operations through annuity or unitary payments. The focus of such transactions, therefore, is on utilising the expertise of the private sector for more efficient execution and operation.
Credit Enhancement/ Debt Service Guarantee	In this mechanism, the concessionaire gets a guarantee on the loan that it obtains from a financial institution for PPP projects. The credit guarantee increases the viability of the PPP project by reducing the borrowing costs.

The table below presents the case analysis of different government support instruments used in various countries across the globe. The Federal Government of Nigeria is setting up a Viability Gap Fund to provide up to 40% of the capital or operating costs for Federal PPP projects. It will be administered through the Budget Office.

Table 7: Government Support Instruments Used in Various Countries

Country	Key Instruments of Government Support	Description
South Africa	Construction Subsidy/ Capital Grant	Capital subsidy provided to ensure reasonable returns
	Unitary Payment Mechanism	Mechanism of compensating a concessionaire for construction cost, operating cost, and financing cost through lease payments/service payments
Chile	Construction Subsidy/Capital Grant	Competitively bid capital subsidy, provided mainly to ensure that highway tolls are at reasonable levels
	Minimum Revenue Guarantee	Guarantee by government to compensate a concessionaire for actual traffic being less than projected traffic
	Operational Subsidy	Subsidies provided during the operation phase of a project; primarily routed from the surpluses generated from other profitable projects and passed on to less viable highway projects
European Union	Project Grant (Used as construction subsidy for PPP projects)	Grants from structural and cohesion funds; the grants are used by member-states to provide construction subsidy to PPP projects
India	Viability Gap Financing Grant	Competitively bid capital subsidy, specifically to enhance the viability of PPP projects
	Grants from Central Road Fund (used as construction subsidy on highway BOT projects)	Allocations from the Central Road Fund (fund generated by the levy of fuel cess) for national highways and used to enhance the viability of highway BOT projects
South Korea	Construction Subsidy	Capital subsidy provided to ensure reasonable returns and reasonable tolls or given as compensation to a concessionaire for large fluctuations in currency exchange rates
	Minimum Revenue Guarantee	Guarantee by government to compensate a concessionaire for actual traffic being less than projected traffic
	Build Transfer Lease Scheme	Mechanism of compensating a concessionaire for construction cost, operating cost, and financing cost through lease payments/service payments
	Infrastructure Credit Guarantee	Guarantee by a statutory entity in favour of infrastructure SPVs borrowing funds from financial institutions
UK	Unitary Payment Mechanism	Mechanism of compensating a concessionaire for construction cost, operating cost, and financing cost through lease payments/service payments

Country	Key Instruments of Government Support	Description
	PFI Credit Mechanism	Mechanism of supporting capital expenditure in projects implemented at local levels
	Construction Subsidy	Capital grant provided for specific projects, only for exceptional circumstances
	DBFO Programme of Highways Agency	Mechanism of compensating a concessionaire for construction cost, operating cost, and financing cost through shadow tolls/availability payments

5.5. Sponsor Support

Although from a sponsor's standpoint project finance is essentially to do with protecting it and its balance sheet from claims should the project go wrong, banks will normally expect sponsors to enter binding commitments to inject equity into the project. Sponsors may have to offer various limited forms of support in order to speed up or simplify the financing process or enhance returns. Some of the typical forms of sponsor support are briefly explained in the following sections.

5.5.1. Equity Support Agreement

It is in the Lenders' interest to ensure that the sponsors inject the equity they have committed. This is typically done through having the sponsors enter into an Equity Support Agreement/ Equity Subscription Agreement directly with the lenders. In this agreement, the sponsors will agree to inject equity- in the form of share capital or subordinated loans or combination of both- at the times assumed in the sponsor's financial plan and the lenders' base case financial model.

5.5.2. Completion Guarantees

Sponsors may wish to offer their lenders completion guarantees- guarantee that the construction would be completed in a specified amount of time- in order to prevent the lenders conducting a costly and time consuming due diligence exercise on the construction plans of the project. The construction guarantee can take two alternate forms based on the legal enforceability of the form;

- a) Requiring the sponsor to pay a fixed sum of money to the lenders in case construction is not completed within the committed time; or
- b) Requiring the sponsor to provide the lenders a letter of credit from a bank, the terms of which will enable the lenders to call on the letter of credit if construction is not completed within the committed time.

5.5.3. Comfort Letters

The sponsor's may agree to give a comfort letter to the lenders. In order to avoid misunderstanding and costly litigation later, it is important for all the parties to be clear on the extent to which a comfort letter is intended to be legally binding at the outset. Comfort letters will

usually address the continuing ownership of the project company by the relevant sponsors, and the provision of personnel and technical resources to the project company.

5.6. Key Financial Indicators

As described in the previous sections, irrespective of the project finance structure adopted to fund the project assets, the funds primarily originate from two basic sources of finance, viz., debt and equity. Each of these types of investors would have different sets of return expectations for their investments in the project. The lenders would be more interested in the ability of the project to generate sufficient operating profits to ensure timely payment of interest and the repayment of the principal as per the agreed repayment schedule. However, the equity investors would be more interested in the ability of the project to generate returns on their investment and compensate them for taking the risks associated with the project. Accordingly, the set of financial indicators that the lenders monitor would be different from those the equity investors would monitor. The lenders would be monitoring the leverage ratios, and the equity investors would be monitoring the profitability ratios of the project. These key financial indicators are described below.

5.6.1. Leverage Ratios

The key leverage ratios that lenders need to monitor are given below.

Capital Structure Ratio

The capital structure ratio (CSR) used to ascertain the financing structure is calculated as:

$$\frac{(Equity + Quasi-equity)}{Financial\ Capital}$$

Financial capital covers all the financial resources invested and is placed under the company's control by the capital providers. In other words, it includes permanent financial resources (equity and quasi-equity + medium/long-term financial debts) and bank advances (short-term financial debts).

Debt-Equity Ratio

The most commonly used ratio to ascertain a financing structure is the debt-equity ratio (DER). It is calculated as follows:

$$\frac{Total\ Long-term\ Liabilities}{(Equity + Quasi-equity)}$$

Long-term liabilities include all liabilities such as loans and debts that the SPV raises. DER indicates the proportion of the fixed assets of the project which is funded by owners' funds and the proportion of fixed assets which is funded by borrowed funds. The DER for funding a project would always be capped by the debt service coverage ratio (DSCR) requirement of the lenders. It should be noted that the long-term liabilities do not include share capital, reserves and surplus, and current liabilities.

Annual Debt Service Coverage Ratio

The annual debt service coverage ratio (ADSCR) is calculated as follows.

$$\text{ADSCR} = \frac{\text{Available cash flow for servicing the debt (Profit After Tax (PAT) + Interest + Depreciation)}}{\text{Annual debt service (Interest + Principal repayment instalment)}}$$

This ratio is calculated each year and therefore provides a continuous view of a project's ability to service its debt. This ratio provides a measure of the surplus free cash flows available after meeting all the operating expenses to service the debt. The ADSCR requirement for PPP infrastructure projects is usually lower than that for non-infrastructure projects as the PPP projects are guaranteed by a concession contract signed with the Concessioneing authority. Accordingly, for a given level of operating profit, a low ADSCR requirement allows PPP projects to be funded at a high DER.

Net Present Value Debt Cover Ratio/ Loan Life Cover Ratio

One may also use the average of all the annual cover ratios, known as 'average debt cover ratio'. This ratio enables a comparison to be made between several methods of paying off the loan, and also provides a global view of the economics of the project.

However, as a commonly preferred practice in financial analysis, the discounted value of a series is preferred to the average value because the time value of money is taken into account. This is factored in by the net present value debt cover ratio (NPV DCR), which is defined as follows.

$$\text{NPV DCR} = \frac{\text{NPV of cash flow available for servicing the debt}}{\text{Outstanding debt}}$$

The discount rate used in calculating the NPV is the minimum return expectation for the given risk profile of the project. There are two alternatives for the period over which NPV is calculated:

- Length of the financing cycle, i.e., length of the loan: This is the loan life cover ratio or LLCR.
- Length of the investment cycle or length of the concession contract: This is the project life cover ratio or PLCR (if the debt is not repaid by the time the loan contract expires, subsequent cash flows will be used to pay it off).

In practical terms, it is difficult to suggest precise thresholds for the above ratios that could apply to all projects. However, as far as project financing in OECD countries is concerned, the following thresholds hold good:

- A capital structure ratio below 15% would in all probability lead lenders to demand an increased equity or quasi-equity contribution from the sponsors as a token of their commitment to the project.
- The optimal debt-equity ratio depends on the project cash flows and the perceived comfort of the lenders. For unitary payments linked to strong credit-worthy clients, the lenders may be willing to consider a high DER. On the other hand, for projects where revenues are subject to demand or market risks and are not guaranteed by a strong credit-worthy agency, DER could be in the range of 1.5:1 to 2.33:1.
- An annual ADSCR below 1.3 would inevitably require restructuring of the financing set-up along the lines of an amendment of the loan amortization profile. The following table can be referred to while undertaking capital structuring.

Rank	Suggested minimum levels
1	Very strong ability to pay interest and principal with minimum DSCRs above 2x and remaining above 1.5x during periods of project stress (i.e., in sensitivity analysis).
2	Strong ability to pay interest and principal with minimum DSCRs above 1.5x throughout the project life and remaining above 1.3x during periods of project stress (i.e., in sensitivity analysis).
3	Modest ability to pay interest and principal with minimum DSCRs above 1.3x throughout the project life and remaining above 1.1x during periods of project stress (i.e., in sensitivity analysis).
4	High probability of missing the scheduled debt service payments during some periods of project life, with DSCRs running as low as 1.0x throughout the project life and falling further in case the project faces any financial stress (i.e., in sensitivity analysis).

- An NPV DCR below 1.7 would run the risk of deterring any potential private investor; the project would then require an increased public financial contribution to make it viable for private partners.

These thresholds are given only as potential indicators and do not apply to all cases, nor do they take into account the country risk factor. Clearly, their final assessment is contingent upon an overall project risk analysis.

In addition to the above-mentioned ratios, some of the key factors that would be considered by lenders and financial investors for financing a PPP are as follows.

Key factors that would be considered by lenders and financial investors to finance a PPP:

- Adequacy and robustness of the project cash flows to service debt over the entire duration of the debt
- Ring-fencing of revenue streams of the project through appropriate legal and banking arrangements
- Revenues (preferably in hard/foreign currency) if foreign investment (debt or equity) is being planned for the project
- Support of international development institutions to the project – country risk guarantee, partial or full guarantees, etc.
- Guarantees from domestic financial institutions and government
- Government sponsor's upfront financial support to the project – grant, subvention, or equity contribution
- Government's commitment to the project and expedient decision-making during project development and implementation
- Rule of law – impacting government's ability to abide by the contract and dispute resolution aspects
- Transparency, and political and regulatory considerations impacting the project
- Tariff and economic regulatory issues impacting the revenue outcomes of the project
- Impact of the tax regime on foreign investors and control of foreign transactions and flows
- Environmental and conservancy laws and procedures and compliance of the project to the same

5.6.2. Profitability Ratios

The profitability indicators that equity investors in a project would monitor include the following:

Internal Rate of Return

- The internal rate of return (IRR), based on the discounted cash flow method, is the rate of discount that equates the present value of future cash benefits (cash inflows) to the present value of capital cost over the economic life of the project (cash outflows).
- In the calculation of IRR, a distinction is made between project IRR and equity IRR. As the name suggests, project and equity IRRs differ in terms of cash inflows. Inflows, which directly benefit the project, would be considered to calculate a project's IRR. Equity IRR measures the returns for the equity investors of the company after the debt has been paid off. Therefore, the latter is based on free cash flows to equity investors.
- Project IRR must be able to cover the weighted average cost of capital (WACC) of the project. WACC is calculated as the post-tax weighted average cost of the mix of funds employed for the project. Hence, while studying the financial feasibility of the project, we must compare its project IRR with its WACC. And the project should be termed as feasible only if the project IRR proves to be greater than the WACC of the project. Similarly, the equity IRR should be able to cover the cost of equity for the project, to provide adequate returns to the equity-holders.
- The IRR of a project can be compared to the IRRs of other investment alternatives to determine the alternative with the highest rate of return.

Return Ratios

The return ratios that would be monitored by the equity investors over the life of the project include the return on capital employed (ROCE) and the return on equity (ROE).

- ROCE provides a measure of the returns generated by a project on the capital invested in it on a year-on-year basis. ROCE is calculated as follows.

$$\text{Earnings before Interest and Taxes (EBIT)} \div \text{Capital Employed (Long-Term Liabilities + Shareholders' Equity)}$$

- ROE provides a measure of the returns generated by a project on the equity capital invested in it on a year-on-year basis. ROE is calculated as follows.

$$\text{Profit after Tax (PAT)} \div \text{Shareholders' Equity}$$

The only drawback of these return ratios is that they do not take into consideration the time value of money.

Profitability Margins

The profitability margin ratios that the investors in a project would like to monitor include the following:

-
- **Operating Profit Margin (EBITDA Margin):** The operating profit margin is calculated as follows.

$$\text{Operating Profit} \div \text{Sales}$$

The operating profit margin provides the measure of the operating profit as a percentage of sales. The operating profit margin is the best ratio for comparison of investments as it is independent of the capital structure of the investments and helps investors to base their decisions purely on the operating performance of the investments. Lenders would use this ratio for inter-project as well as inter-firm comparisons while making a decision to lend to a project. Given the capital-intensive nature of infrastructure projects, these are expected to have high operating profit margins (usually above 35–40%) indicating that the major components of costs in the income statement for these projects are interest and depreciation.

- **Net Profit Margin (PAT Margin):** The net profit margin is calculated as follows.

$$\text{Profit after Tax (PAT)} \div \text{Sales}$$

The net profit margin provides the measure of PAT as a percentage of sales.

5.6.3. Other Key Financial Indicators

Some other key financial indicators that a project's investors would need to monitor include the current ratio, which shows the liquidity position of a company. The current ratio is calculated as follows.

$$\text{Current Assets} \div \text{Current Liabilities}$$

The current ratio provides a measure of the ability of a project to meet its short-term obligations as and when they become due, by liquidating the current assets.

Another key financial indicator that the investors (especially lenders) would like to monitor is the asset coverage ratio, which is calculated as follows.

$$\text{Net Fixed Assets} \div \text{Secured Debt}$$

The asset coverage ratio provides a measure of the cushion available to lenders in terms of the number of times the secured debt would be covered by the fixed assets of the project should the project go into liquidation.

5.7. Financing Contracts

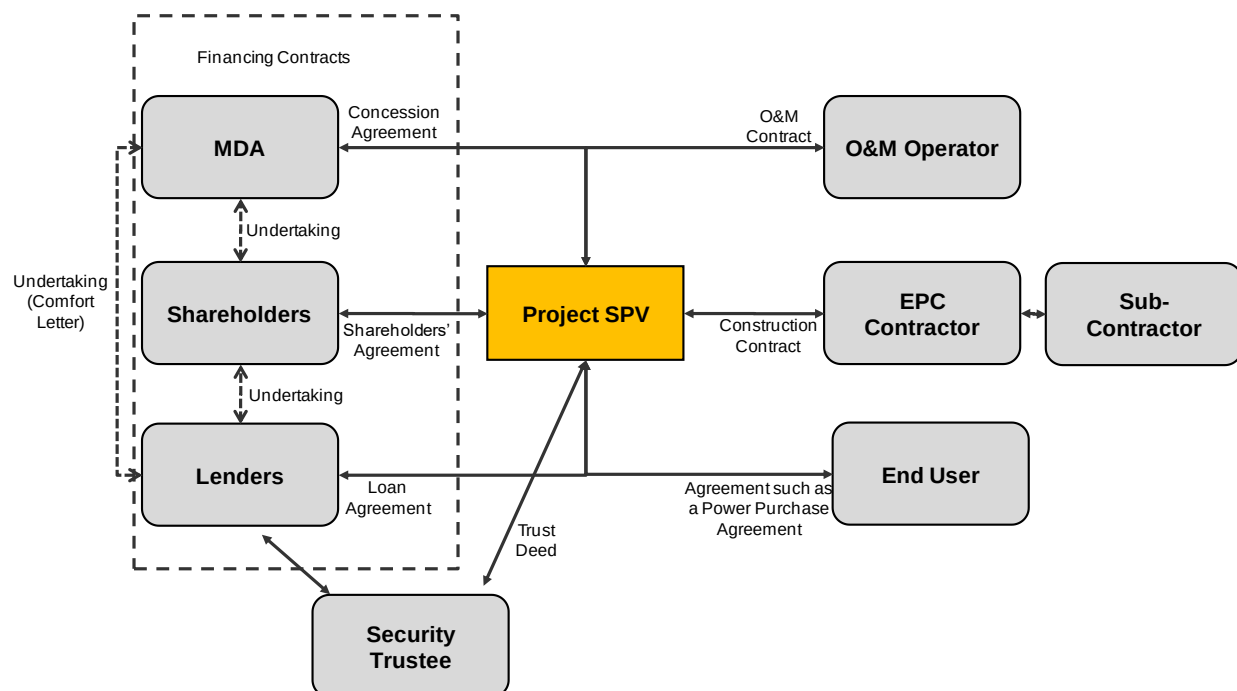
One of the key features of implementing infrastructure projects through the PPP route is the apportionment of project and other risks among the parties to the project in such a manner that the overall risk associated with project implementation is minimised. This effective allocation of risks among the parties is achieved through a matrix of contractual relations between the parties. These contractual relations between the parties are established through contracts entered into by the parties. Financing contracts form a sub-set of the various project contracts entered into by the parties to a PPP project. The MDA may require bidders to secure fully committed financing packages along with their bids, although this may result in them incurring commitment fees. This ensures that the finalisation of the financing contracts takes place simultaneously or shortly after

the signing of the PPP contract. The financing contracts are meant to serve the following purposes:

- The financing contracts are designed to protect the interests of the providers of finance by ensuring that the risks associated with the project are satisfactorily mitigated by passing them through to appropriate sub-contractors.
- The financing contracts clearly state the rights, roles, responsibilities, and obligations of the parties to the contract, thereby avoiding any conflict among the parties in relation to their project-specific duties.
- The financing contracts also establish the hierarchy for servicing the providers of various sources of finance, which also applies in the event of liquidation. The financing contracts help to align the interests of the various stakeholders in the project.

The figure below displays the implementation structure for a typical PPP project.

Figure 17: PPP Project Implementation Structure including implementation contracts



As described in the previous sections of this chapter, PPP projects are typically financed through debt and equity. Debt can take the form of senior debt or mezzanine debt, which ranks below senior debt. Equity is usually committed by sponsors towards the project. If the project is not commercially viable, it may also be funded partly through government support in the form of grant funding. Depending upon the source of funding, the project SPV enters into a number of contracts with various entities including lenders, project sponsors, and the government. The contracts include the following:

5.7.1. Pre-development Agreements

These are agreements entered into by two or more companies that have agreed to undertake a feasibility study in relation to a proposed project. As the arrangements between the parties may not be sufficiently developed to warrant a formal shareholders' agreement, this document can conveniently deal with such matters as initial decision-making and allocation of tasks in relation to investigating a particular project or proposal. Typically, the agreement would be for a limited duration and would be quite specific about the scope of the proposed arrangements and the terms upon which a party could withdraw from the arrangements. It would also deal with appointment of advisers and general cost sharing. The agreement also contains provisions relating to confidentiality and restrictions on competing. Similar agreements may also be entered into where parties join together to bid for a particular contract or concession and do not want to incur the cost or expense of a formal joint venture agreement or shareholders' agreement unless they are successful in their bid.

5.7.2. Shareholders' Agreement/ Joint Venture Agreement

In those projects which are implemented through a special purpose vehicle owned by two or more shareholders, these shareholders usually regulate the relationship between them by entering into a shareholders' agreement. On the other hand, where a joint venture structure is used then a joint venture agreement is entered into. A shareholders' agreement in relation to a project does not differ greatly from a shareholder agreement relating to the ownership of any other company and deals with items such as:

- Injection of share capital;
- Funding of the project company;
- Voting requirements for particular matters;
- Resolution of disputes;
- Dividends policy;
- Management of special purpose vehicle; and
- Disposal of shares and pre-emption rights.

A joint venture agreement contains many of the same provisions as the Shareholders' Agreement but does not deal with the matters concerning the setting up and management of a special purpose vehicle. It deals with management of the project and voting in connection with the project.

From the point of view of the project lenders, they are likely to be concerned with a number of issues with regard to the sponsors/shareholders. These include,

- The identity of the sponsors/shareholders and their experience and creditworthiness. Where shareholders/sponsors nominate a subsidiary to undertake any responsibilities or obligations with regard to a particular project, then the project lenders may demand guarantees from the parent companies to support their subsidiaries until the project debt is repaid;
- If the shareholders/sponsors are committing management resources and/or expertise for the special purpose vehicle and/or the project, then the lenders may need the obligations spelt out in clear terms and to know which shareholder/sponsor will be providing which services and on what terms. Quite often, these arrangements are set out in a separate management/supervision agreement;
- if the shareholders/sponsors agree to put up further equity at a later date, then the terms and conditions upon which this equity is put up needs to be spelt out clearly (in many, if not most,

cases the lenders are likely to require that the shareholders put up their funds first or at least proportionate to loan drawdown).

If the project company is a party to the shareholders' agreement and is the beneficiary of any rights and/or benefits under the Shareholders' agreement, then the project lenders may need an assignment by way of security of the benefit of this agreement as part of their overall security package.

5.7.3. Sponsors'/ Shareholders' Support Agreement

In some cases the sponsors/shareholders enter into a support agreement with the project company and the lenders. This agreement contains a number of commitments that the lenders require from the sponsors/shareholders with respect to the project and the project company (some of which might otherwise be found in a Sponsors' /Shareholders' Agreement), including:

- A requirement to provide management and technical assistance (including, where necessary, secondment of key employees);
- A requirement to provide funding, whether through subscription for equity or by the provision of loans (it is likely that the lenders will require any loans to be unsecured and subordinated to the project loans);
- Restrictions on the ability of the sponsors/shareholders to dispose of their shares in the project company;
- Any completion guarantees or cost overrun guarantees to be given by the sponsors/shareholders (or any of them); and
- Any security requirements from the sponsors/shareholders supporting their commitments to provide equity at a later stage.

5.7.4. Project Loan Agreement

The Project loan agreement is entered into between the borrower, the project lenders and the facility agent. It regulates the terms and conditions upon which the project loans are drawn down and line items of the project expenditure which may be funded by these the loans. The agreement contains the usual provisions relating to representations, covenants and events of default found in other syndicated loan agreements but is expanded to cover the project, project documents and related matters. The provisions relating to the calculation and payment of interest are also present with the provision for the capitalisation of interest during the construction period or until project revenues come on stream.

Repayment terms vary from project to project and often are tied to the receipt of project cash flows and/or the dedication of a minimum percentage of the project's cash flow towards debt service. The agreement normally provides for all project cash flows to flow through one of a number of project accounts maintained by the agent (or a security trustee or account bank) and charged to the project lenders. There is a detailed mechanics relating to the calculation of project coverage ratios and the preparation of banking cases and forecasting information with respect to the project. Provision for the appointment of consultants, advisers and technical experts by the project lenders are also included in the agreement.

5.7.5. Senior loan contracts:

These are contracts between lenders and the project SPV, which specify the rights and obligations of each party in relation to the senior debt drawn to part-finance the project cost.

5.7.6. Common terms contract:

This is a contract between the financing parties and the project SPV; it sets out the terms that are common to all the financing instruments and the relation between them including definitions, conditions, order of drawdown, project accounts, voting powers for waivers, and amendments. A common terms contract greatly clarifies and simplifies the multiple sourcing of finance for a PPP.

5.7.7. Subordinated loan contracts:

At times, PPP projects may be funded using subordinated loans provided by project sponsors and/or by third-party investors. Subordinated loan contracts are signed by lenders providing such subordinated or mezzanine debt and the project SPV. These contracts spell out the rights and obligations of each party in relation to the funding drawn to part-finance the project cost.

5.7.8. Shareholders' contract:

This is a contract signed between the sponsors of the project, who part-finance it through equity, and the project SPV. This contract establishes the rights and the obligations of the project's equity investors.

5.7.9. Direct contract between lenders and MDA:

This contract allows the senior lenders to take over the project (to 'step in') under certain circumstances specified in the PPP contract when certain conditions stated in the PPP contract are not fulfilled or are violated by the private party (concessionaire). This contract is also called a substitution contract in certain parts of the world.

5.7.10. Cash flow waterfall contract

The cash flow waterfall contract, which specifies precisely how project cash flows may be used, is a critical contractual arrangement in Project Finance. This contract dictates the order in which project cash flows may be distributed. Typically, the borrower will be required to use project cash flows first in satisfaction of project operating expenses, and then to pay interest and loan principal. The lender also typically seeks to structure how excess cash flow – cash flow available in excess of what is required to satisfy project expenses and debt repayment – is distributed.

The contract adjusts for a number of contingencies. For example, scheduled payments may be adjusted based on a loan life cover ratio. This ratio is determined at a given moment as the net present value of project revenues for the remaining term of the loan, divided by the amount of the loan then outstanding. If the loan life cover ratio falls below a specified threshold, required payments may be increased. These increased payments typically absorb all of the excess cash flow of the project, or such proportion as is necessary to move and maintain the loan life cover

ratio above the agreed threshold. The cash flow waterfall contract commonly also includes “cash sharing” and “mandatory cash sweep” provisions, which are designed to effectively amortize debt at a rate faster than originally scheduled if the project performs appreciably better or appreciably worse than anticipated. When a project exceeds cash flow expectations, a cash sharing provision entitles the lender to capture a portion of the cash flow that would otherwise be available for distribution to the project sponsor. This provision is triggered if the debt service coverage ratio exceeds a specified threshold, with the ratio calculated as the project’s actual revenues over some specified period divided by the project’s debt service obligations over the same period. In that case, all cash flows available for distribution to the project sponsor (after honouring all prior payment obligations under the cash flow waterfall contract) are shared in agreed proportions between the sponsor and the lender, usually in inverse order of maturity of debt contracts. In contrast, when the project is not performing up to expectation, lock up and mandatory cash sweep provisions may be triggered. If the debt service coverage ratio falls below an agreed threshold, the project will not be permitted to make distributions (i.e. return cash flow) to the sponsor, and the project cash flow remains locked up. If poor performance continues and the lock up extends beyond a specified period, the lender is entitled to sweep the locked up cash and apply it in payment of the principal outstanding (again in inverse order of maturity).

The cash flow waterfall contract is enforced through a variety of project accounts that are usually under the lender’s control. These include (i) a proceeds account, into which project revenues are deposited; (ii) a disbursement account, into which all payments to the lender and any distributions to equity are deposited for transfer; and (iii) a debt service reserve account, in which cash flows are set aside to enable payments of principal and interest to the lender if project revenues are not available. Since these accounts are under the control of the lender, they provide the lender a framework to monitor the borrower’s activities without getting involved in the borrower’s day-to-day business activities. These lender-controlled project accounts lend teeth to the elaborate and finely-tuned contracting undertaken in the cash flow waterfall contract.

5.8. Project Insurance

5.8.1. Role of project insurance

Insurance forms an integral and key element of the overall security package of lenders for a project. Insurance provides safety to the lenders should a major casualty or disaster occur with respect to all or a material part of the project and delaying or terminating the implementation of the project.

The insurance cover varies from one project to another and also from one phase of the project to another. The details of the typical insurance cover applicable to the construction and operating phases of a project are as listed below.

Project Insurance: Construction Phase

- Physical damage to project facilities during the course of construction;
- Physical damage to other assets such as offices, vehicles, etc;
- Transit insurance, e.g. parts in transit;

-
- Employers, workmen's compensation and third party liability insurance;
 - Environmental liability insurance; and
 - Delay in start-up insurance against increased costs resulting from delay caused by an insured loss

Project Insurance: Operations Phase

- Insurance against physical damage to project facilities;
- Insurance against physical damage to other assets such as plant, equipment, motor vehicles;
- Transit insurance covering the period until point of sale;
- Employers, workmen's compensation and third party liability insurance;
- Environmental liability insurance; and
- Business interruption or loss of profits insurance

5.8.2. Protection for lenders

The lenders protect their investment in PPP projects through insurance by taking the following actions.

Insurance Advisors

In most large projects the lenders appoint a firm of internationally recognised insurance brokers to act for them in providing specialist advice on the scope and level of insurances applicable for the project. A detailed insurances memorandum is entered into between the lenders and the project company (or whoever is responsible for undertaking the insurances for the project) which provides the minimum insurance obligations at all stages of the project.

Security Assignment

As part of the security package, the lenders expect to receive an assignment by way of security of the all rights, title and interest of the borrower in all project insurances or where the insurances are arranged by the contractor or another party, then a security assignment from this party. Notice of this assignment is given to the insurers in the usual manner.

Loss payable clauses

A "loss payable" clause is endorsed on to each of the policies. This clause stipulates that the proceeds of any claim (usually above a certain minimum threshold) are paid to the lenders. Because of the uncertainty as to the exact legal characterisation of loss payable clauses they are rarely relied upon without a formal security assignment.

Re-insurance

A significant part of an insurance policy may be re-insured with other insurers because the local insurers may not be able to underwrite the full value of risks of a large project. The lenders also may have a concern with all the insurances being placed locally as this exposes them potentially to additional risks that the payment of insurance claims may be blocked or otherwise interfered with.

Both the lenders and the local insurers therefore call for re-insurance with offshore insurers. The issue concerns the possible insolvency of the principal insurer. Since the contract of re-insurance is entered into by the principal insurer with the re-insurance company, should the principal insurer become insolvent, all proceeds payable under a re-insurance contract will be paid to the estate of the principal insurer and distributed to its creditors according to the normal bankruptcy laws in its jurisdiction of incorporation. In other words, neither the project company nor the lenders are likely to have any priority interest in these insurance moneys since they form part of the insurer's bankruptcy estate.

There are two possible ways of dealing with this issue:

- The most satisfactory route is to require the principal insurer to execute an assignment of the re-insurance proceeds in favour of the project company thereby removing the re-insurance proceeds from the principal insurer's bankruptcy estate. Notice of assignment would be served on the reinsurer in the normal way and the re-insurance proceeds would be paid direct to the project company (or, more likely, the security trustee). Although this is the best protection for the project company and the lenders it is relatively rare that an insurance company can be persuaded to create a security assignment in these terms; and
- The alternative, and less satisfactory approach, is to arrange for the re-insurance contract to have endorsed on it a "cut-through" undertaking. The effect of this undertaking is that the re-insurer would be irrevocably directed by the principal insurer to pay the proceeds of all claims direct to the project company (or, more likely, the security trustee) thereby by passing (or cutting through) the principal insurer. The problem with this approach, however, is that it is doubtful that such an undertaking would be enforceable against a liquidator of the principal insurer as it does not amount to a security interest but is simply an unsecured payment direction.

Government as insurer of last resort

In some projects the Government may agree to act as insurer of last resort when certain risks (eg terrorism) become uninsurable in the local market. This provision should be used with care since it may result in risks being transferred back to the public party. It is also important to ensure that the contract clauses relating to Force Majeure Events are consistent with these provisions.

6. CONTRACT MANAGEMENT

This section of the Manual provides a description of the Contract Management aspects of implementing PPP projects. It provides an overview of Contract Management followed by a detailed description of the various stages involved in Contract Management. The section also describes the potential pitfalls and mistakes in the Contract Management process.

6.1. What is Contract Management?

PPPs are typically characterised by a long-term, whole-of-life commitment by the private sector to deliver and maintain new or redeveloped infrastructure procured by MDAs to deliver services to the public. It is essential to effectively manage this commitment to ensure uninterrupted delivery of the service to the beneficiaries (end users).

Contract Management defines the processes which assist parties to a contract in meeting their respective obligations with respect to service delivery and meeting the project objectives. It helps to build a good working relationship between the MDA and the private party that will continue throughout the life of the contract.

The objective of contract management for PPP projects is for MDAs to obtain the services set forth in the output specifications of the contract and to ensure ongoing affordability and value for money, and that risks are being managed in accordance with the provisions of the agreement. This means maximizing the efficiency, effectiveness and economy of the services described in the contract, balancing costs against risks and actively managing the MDA-private sector service provider partnership. Contract management strives to achieve continuous improvement in performance by both parties over the life of the contract.

Contract Management should focus on the service delivery requirements to be achieved by the private party through the use of effective mechanisms for quality assurance, spot checking, performance monitoring and corrective action. In managing the Contract, the MDA needs to maintain a balance between excessive and too little control and regulation during the term of the project contract. The success of the project depends on the strategy adopted by the MDA. Excessive control and regulation of the private party interferes with the process of innovative service delivery from the private party while limited control leads to increase in risk to the MDA of divergence of service delivery from project objectives.

The approach followed in managing contracts is largely dependent on the sector in which the PPP project operates; the risk profile of the project and the particular phase which the contract has reached. Thus, in projects or situations where the consequences of private party performance failure would be severe, a rigorous monitoring regime would be required. In less exacting circumstances, a more flexible monitoring system can be used. Similarly, the penalty deduction mechanism might be applied with greater flexibility during the development phase compared to during the delivery phase.

While the PPP contract includes provisions for the PPP contract management approach required by the MDA, in practice many aspects of the approach depend upon the skill, judgment and creativity of the project officer and the PPP contract management team after the PPP contract has been signed.

Key success factors for PPP Contract Management

The success of a PPP project to a large extent is dependent on the following enabling factors:

- **The PPP project is viewed by the MDA and the private party as a “partnership”:** Despite seemingly divergent objectives, the participants should approach the project in the spirit of partnership.
- **Having a project team with the requisite skill set:** To be able to realise the full potential of a project, the project team and especially the project officer should have the requisite skill sets to effectively monitor and manage the project and the PPP relationship
- **Clearly defined project objectives and shared understanding** of the participants of the relationship between the project objective and the service need that it aims to meet.
- **Project Objective supported by a well structured PPP contract** that explicitly details the allocation of risks, quality of service required, value for money and procedures for communication and dispute resolution.
- **Establishing an effective contract management framework:** This includes a framework for both process and relationship management. Knowledge management and succession planning are used to retain intellectual capital and the expertise of key staff
- **Arrangements for service delivery continue** to be satisfactory to both the MDA and the private party
- **Expected PPP benefits, value for money and innovation** are being realized
- **Disputes are resolved** at the appropriate level through the partnership management system without recourse to external dispute resolution
- **Changing service delivery requirements are anticipated**, and variation procedures are used to minimise any negative consequences and maximise any opportunities brought about by change.

Despite being aware of the requirements for successful PPP contract management, a number of PPP contracts fail or become unworkable on account of a number of factors such as poorly drafted PPP contracts, ineffective performance management, personality clashes, etc. The explanatory notes provide further lessons from international PPP projects.

6.2. Contract Management Framework

The Contract Compliance Centre within the ICRC has the responsibility of monitoring compliance by both parties to a Federal PPP contract. Similar arrangements are in place in State governments, through the respective PPP Offices or PPP Units. The Contract Management framework for PPPs in Nigeria draws from international best practice. The Contract Management Framework includes the following elements:

- **PPP Service Management:** This relates to managing the PPP from the perspective of risk and performance. The range of risks associated with PPP Contract is larger than the risks identified at the procurement phase. An effective PPP Contract Management Plan should identify, monitor and manage such risks and ensure performance meets standards specified in the contract.
- **PPP Relationship Management:** This relates to managing the structure of authority and accountability within the PPP service delivery framework as specified in the PPP Contract to ensure efficient service delivery.
- **PPP Contract Administration Management:** This involves outlining administrative processes required to manage all procedural and documentation issues specified in the PPP Contract.

The Contract Management framework impacts each phase in the PPP Project Lifecycle. The explanatory notes provide a summary of the PPP Contract Framework across the PPP Project Lifecycle.

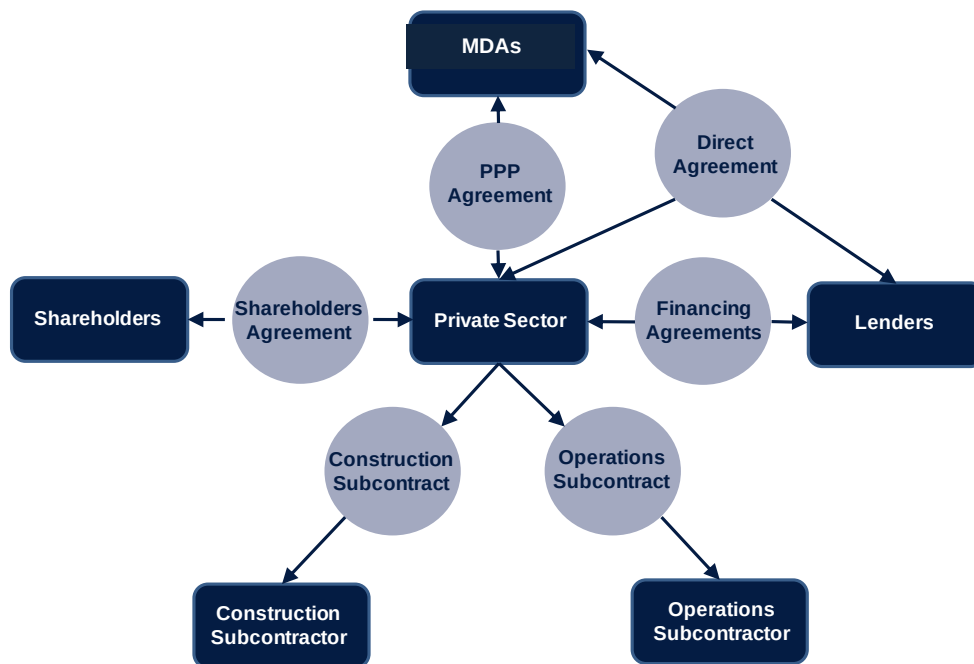
Each element is documented by the project officer to form a service management plan, relationship management plan and contract administration plan. These three plans together form the PPP Contract Management Plan. The various stages of Contract Management are described below.

6.3. Understanding the Contract

Before any effort is committed towards developing an effective contract management strategy, it is important to understand the various stakeholders in the PPP Contract.

The terms of the Concession Contract encapsulates the powers, obligations and responsibilities of the parties to the contract. Understanding the relationships between all parties is vital as each party may have conflicting goals that may not necessarily align to achieving the project objectives. The typical parties to a PPP Contract are shown below.

Figure 18: PPP Structure



6.4. Establish Contract Management Team

In order to ensure effective management of the PPP Contract, the MDA which is the public party to the agreement needs to establish a Contract Management Team comprising of experienced personnel to effectively manage the PPP contract. The hierarchy and the roles and responsibilities of the various members of the team are as described below.

Figure 19: Contract Management Team



6.4.1. Accounting Officer

With respect to managing the PPP contract, key responsibilities of the accounting officer include:

- Mobilise support for the PPP project amongst the key stakeholders
- Appoint a project officer, to provide management continuity across various phases of the project.
- Obtain the necessary external approvals (eg Federal Executive Council approval of the Full Business Case) and sign the PPP contract
- Delegate sufficient powers to the project officer after the PPP contract has been signed to enable him to effectively implement the PPP contract
- Step in to resolve any dispute which the project officer is unable to settle
- Provide executive commitment to relationship management
- Provide financial oversight and ensure that the PPP project continues to operate in the public interest after the PPP contract has been signed
- Ensure that the PPP contract is effectively enforced
- Report on the management of the PPP contract in the MDA' s annual report

6.4.2. Project Officer

The process of contract management starts as early as the PPP inception phase with the appointment of the project officer. The project officer is expected to play a central role in managing the PPP contract. The project officer should possess a diverse skill set covering personal and technical competencies essential for the contract management function. The project officer is expected to act as a safe guard of the MDA's interests in the PPP contract. He shall also be responsible for hiring a project team with the necessary technical skills to manage the MDA's interests set out in the PPP contract.

The primary responsibilities of the project officer in managing the PPP contract are:

- Manage the project on behalf of the MDA, exercising delegated authority
- Ensure that the PPP project continues to be affordable, and provides quality, value for money and appropriate risk transfer
- Ensure both parties meet their contractual obligations
- Ensure the requirements of the output specifications are achieved
- Appoint a PPP contract management team with the necessary technical skills
- Administer the MDA's obligations and protect its rights in the PPP contract
- Build a strong partnership and good working relations with the private party
- Prevent and/or resolve disputes
- Manage risks
- Monitor private party performance and take corrective action where necessary
- Develop and implement the PPP contract management plan, develop and maintain the PPP contract management manual
- Develop and manage the contract administration systems

-
- Report on the management of the PPP contract, as required for the MDA's annual report, and by any other government regulator such as ICRC or the PPP Office
 - Ensure that the private party maintains insurance and indemnities in force
 - Manage approved variations
 - Develop an effective communication framework
 - Organise PPP contract management reviews
 - Manage consequences of contract breach.

The project officer acts as the MDA's liaison officer, responsible for dispute resolution and meeting with the private party on a regular basis to consider performance reports. Depending on the size of the project, it may be prudent for the project officer to delegate some of these responsibilities to another member of the PPP contract management team, specifically with respect to the dispute resolution procedures.

6.4.3. Contract Management Team

The project officer is supported by a PPP contract management team consisting of a range of specialists and technical advisors with varying levels of involvement. The PPP Contract Management Team plays a critical role in ensuring that the various segments of the project run smoothly throughout the term of the contract.

The overall size and complexity of the project determines the size and skill sets required by the PPP Contract Management Team. In some cases it may be possible for the PPP contract management function to be carried out by a single individual. The size and composition of the team evolves through the PPP project life cycle as varied technical skills and experience are required at each phase in the project lifecycle. During the PPP Inception, feasibility and procurement phases, the Project Team takes the lead, while in the PPP development, delivery and exit phases, the PPP Contract Management Team represents the MDA.

Typical expertise

The project officer, in consultation with the accounting officer/authority, is responsible for deciding the composition of the team, how it is deployed, and whether and when to call on additional expertise (within the scope of the budget). The composition of the team reflects the various skill sets required to effectively fulfil PPP contract management during each stage of the PPP contract. Typical expertise that needs to be represented or made available includes:

- Knowledge of the subject matter
- Design and construction
- Business and product assurance
- Facilities and services management
- Information Technology (especially, but not only, for IT projects)
- Statutory safety and regulatory responsibilities

-
- Legal and regulatory
 - Finance

Structure

It is the responsibility of the project officer to co-ordinate inputs from the various team members in order to ensure effective and consistent PPP contract management. The project officer establishes a suitable structure for the PPP contract management team well before the PPP contract comes into force. The private party is made fully aware of the PPP contract management structures that have been established within the MDA. Usually, the private party appoints its own PPP contract management team to act as its interface with the MDA.

Outside expertise

Where contract management expertise is brought in from outside the MDA, either on an ad hoc basis or under a long-term arrangement, it is important to ensure that commercially confidential information held by the MDA is protected. The terms of reference, timeframes and the basis of fees for such advisors should be clearly defined to ensure that management of the PPP contract rests with the MDA. Any contract with independent professional advisors providing contract management services should contain clear arrangements for reporting the results of performance monitoring to the MDA and the private party. For large construction projects it may sometimes be appropriate to appoint an Independent Engineer.

6.4.4. Succession Planning

For long term PPP Contracts, the personnel involved in the management of the contract are likely to change several times over the PPP Project lifecycle. New and uninitiated personnel will take considerable time to become sufficiently familiar with the project to manage it efficiently.

The MDA should establish a succession plan for the key personnel to manage personnel changes effectively. The plan should be sufficiently flexible to provide quality ongoing management while accommodating management changes. The aim should be to limit concurrent departures and to ensure that the retained team has an adequate mix of old and new personnel.

6.4.5. Transition Management Strategy

The transition period runs from the signing of the PPP contract to the commencement date of the contract. At the time of finalising the details of the PPP contract, a strategy for smooth transition from the old arrangements to the new arrangements should be developed. The number of transition issues (and effort required to manage them) will depend on the nature, range and complexity of the services being provided.

Developing a transition management strategy is particularly important for larger and more complex projects which may involve the use or transfer of existing assets of the MDA. The

objective should be to manage the transition to the private party while minimising the loss of service delivery and impact on key stakeholders.

A possible set of issues that should be considered in the Transition Management Strategy include:

- **Industrial Relations Issues:** The MDA should consider whether the PPP Contract is likely to be IR sensitive and also identify which aspects of the PPP contract are likely to be most sensitive to these issues.
- **Familiarisation Period:** This is more relevant for large and complex projects wherein a familiarisation period allows the transfer of existing data/documentation and knowledge and allows the provider time to recruit and train personnel, while the MDA or existing provider continues to provide the service. For complex projects, the commencement of the project could be conditional upon satisfactory completion of the familiarisation period. For less complex contracts only a few days may be necessary.
- **Transfer Plans:** This includes transfer (or sale) of resources such as staff, equipment, systems and information. Management should consider the logistics associated with transferring staff (e.g. conditions), the physical relocation of assets, arranging on-site facilities and security of site and purchaser data (through systems access).

6.4.6. Exit Strategy

The Project officer should prepare an exit strategy as part of the Contract management plan. This strategy should be based on the provisions contained in the PPP contract in relation to termination and expiry, and should demonstrate the MDA's capacity to bring the project to an end efficiently while ensuring ongoing service delivery. This may be achieved either by continuing the functions in-house or by setting up the inception phase of a new PPP project.

The exit strategy should include:

- An analysis of options, within the parameters of the PPP contract, for continuing the service after termination or expiry, and an initial recommendation on the preferred option
- Plans for organising a post-implementation review of the project, which should:
 - ✓ Assess key deliverables, value for money, quality and project innovation; and
 - ✓ Be carried out within six months of the expiry or termination date
- The steps that will be taken to integrate the lessons of the project into the day-to-day work of the MDA
- An implementation plan based on the hand-back procedures set out in the PPP contract
- Plans to deal with the implications of any employee transfers from the private party to either the MDA or a successor body
- An estimate of the resources and personnel that the MDA will allocate to managing the exit strategy

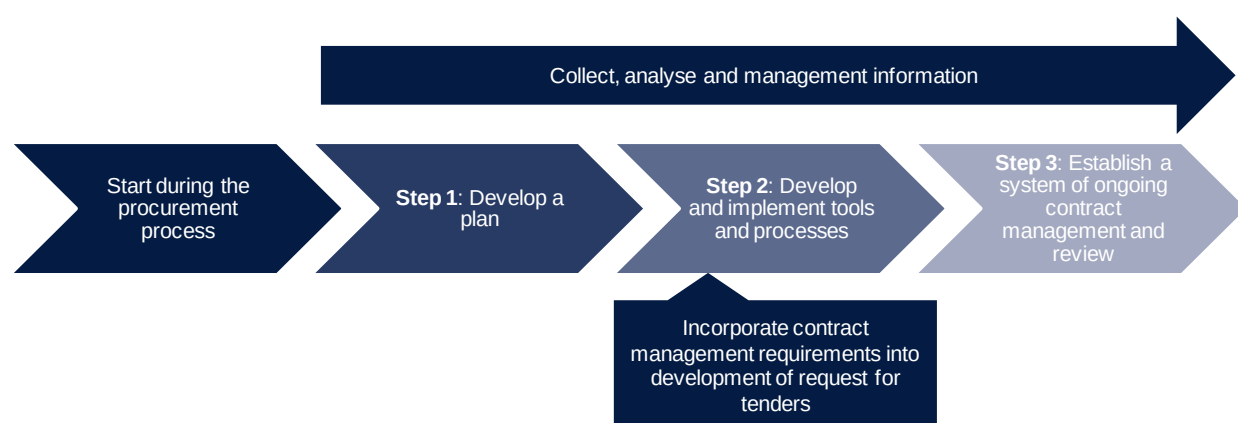
- Plans for a closure event to celebrate the achievements of the project and prepare PPP contract management staff and end users for their new role.

The exit strategy should be reviewed at appropriate points during the delivery phase, and revised as necessary to ensure that robust plans are in place three years in advance of expiry of the project term.

6.5. Development of a Contract Management Strategy, Plan and Manual

The development and implementation of a contract management strategy should start at an early stage during the procurement process. This ensures that the contract management requirements are included in the draft PPP Contract developed by the MDA.

Figure 20: Steps in PPP Contract Management



As shown in the figure above, all three steps rely on the efficient collection, analysis and management of information.

Given that contract management will be enforced throughout the lifecycle of the PPP, it is important to dedicate sufficient resources to carefully plan the strategy. The first step in the process is to develop a Contract Management Plan.

6.5.1. Develop a Contract Management Plan

The Contract Management Plan should be developed and implemented at an early stage during the procurement phase in order to ensure that the PPP Contract management requirements are incorporated into the PPP Contract. The PPP Contract management plan forms the basis of the PPP contract management. Adequate time and resources should be devoted to the preparation of the plan.

The Contract Management Plan is a strategic management tool to guide the PPP Contract management activities of the MDA and the private party. It clarifies the key roles and responsibilities of the MDA during each stage of the project and identifies the resources that the MDA will require to undertake these responsibilities.

A Contract Management Plan should include the following.

Figure 21: Components of a Contract Management Plan



- **Tools and Processes:** The Project officer should identify the necessary tools and processes that are needed to effectively manage the contract during the lifecycle of the PPP.

These tools and processes (for example, monitoring of KPIs) should be comprehensive and entail a level of detail that would enable the contract monitoring parties to be able to identify any potential risks arising both efficiently and effectively;

- **Resource Availability:** The availability of tools and processes governing contract management is futile if there are no resources available to utilize these tools. The availability of the relevant resources plays a dominant role in determining the tools and processes defined within the contract management framework. Such resources can be in three forms: Human, Financial and Technological; and
- **Timeline for Development of Tools and Processes:** The Contract Management Plan should contain the timeline needed to develop and install these tools and processes within the contract management framework, subject to the availability of resources.

6.5.2. Develop and Implement Tools and Processes

Once the plan is developed, the project officer should proceed with developing and implementing the necessary tools and processes. At the same time, the Project officer should liaise with the

project team responsible for drafting the RFP. The contract management requirements should be built into the request for tender.

6.5.3. Establish system of ongoing contract management and review

The Project officer should establish a culture of ongoing contract management. This should include a systematic review of the overall contract management strategy and of the tools and processes during the project lifecycle. A systematic approach to reviewing the contract management strategy serves to enhance the management's ability to identify potential risks and effective risk mitigation strategies at the early stages. The contract management strategy may undergo adjustments throughout the project lifecycle. Such adjustments should be done in consultation with all relevant stakeholders.

6.5.4. Contract Management Manual

The Contract Management Manual is the key document in the contract management process. The main purpose of the PPP contract management manual is to provide:

- A repository of contract management procedures, key stakeholder details and all the important documents relating to the PPP Contract
- A document management tool
- A resource that can be used to train newly-appointed PPP contract management staff, and orientate technical advisors and end users

The PPP contract management manual should contain the following documents:

- The PPP contract
- All schedules contained in the PPP Contract
- All financing contracts
- Financial models
- The close-out report
- The PPP contract management plan
- Variation procedures
- The names, roles and contact details of key individuals in: the MDA; the private party; third party entities; end-user organisations; and other key stakeholder groups
- All other documents relating to the PPP contract.

The tables below provide the sample templates for a Contract Management Plan and for an Implementation Plan.

Table 8: Sample Template for Contract Management Plan

Section	Subsection	Summary Of Contents
1.Purpose and Approach	1.1 Purpose	▪ Purpose of the PPP contract management plan
	1.2 Approach	▪ Partnership principles ▪ Benefits to the MDA and the private party of a successful partnership ▪ The MDA's approach to PPP contract management
2.Strategic Objectives and Key Deliverables	2.1 Objective	▪ Summary of project objectives
	2.2 Key Deliverable	▪ Summary of the output specifications and key deliverables
3.Transition Management Strategy	3.1 Transition Management	▪ Listing of key issues in Transition Management ▪ Strategies to be adopted to overcome the issues identified
4.Relationship Management	4.1 Relationship Management Plan	▪ Key elements of relationship management plan defined in section on Relationship Management
5.Service Management	5.1 Risk Management	▪ Key elements of risk management plan defined in section on Risk Management
	5.2 Performance Management	▪ Key elements of performance management plan defined in section on Performance Management
6.Contract Administration	6.1 PPP contract administration	▪ Contents of PPP contract management plan defined in section on Contract Administration
7. Contingency Plan	7.1 Business Continuity Plan	▪ Key elements of Business Continuity plan detailed in section on Business Continuity Plan
	7.2 Step in Plan	▪ Key elements of Step In plan detailed in section on Step in Plan
	7.3 Default Plan	▪ Key elements of Default plan detailed in section on Default Plan
7. Exit Strategy	7.1 Exit Strategy	▪ Evaluation of the options for continuing the service after termination/expiry based on the provisions of the PPP contract ▪ Outline of the procedures, roles and responsibilities and resources required for a smooth transition to the new service delivery arrangements
8. Implementation Plan	8.1 Development	▪ Table with key tasks, Target Dates, Responsibilities and MDA Budget
	8.2 Delivery	▪ Table with key tasks, Target Dates, Responsibilities and MDA Budget

Section	Subsection	Summary Of Contents
	8.3 Exit	Table with key tasks, Target Dates, Responsibilities and MDA Budget

Source: South Africa PPP Manual

Table 9: Sample Template for Implementation Plan

Key Tasks	Target Date	Responsibility	MDA Budget
1. Development phase - Establish partnership management structure - Establish performance monitoring system - Arrange staff transfers - Survey end-user requirements - Other			
2. Delivery phase - Conduct quality assurance review - Prepare performance report - Review and revise the PPP contract management plan - Conduct regular review meetings - Other			
3. Exit phase - Evaluate exit options - Review PPP contract termination/ expiry conditions - Other			

Source: South African Treasury PPP Manual

6.6. Service Delivery Management

Once the project advances to the service delivery stage, it is vital to have a service delivery monitoring mechanism in place to proactively ensure that the service meets the standards specified in the contract. The monitoring mechanism should also proactively ensure that the costs associated with the project do not exceed those estimated at the procurement stage.

Service Delivery Management covers the two basic areas of risk management and performance management and ensures that all the risks associated with the project are kept at a level acceptable to the MDA.

6.6.1. Risk Management

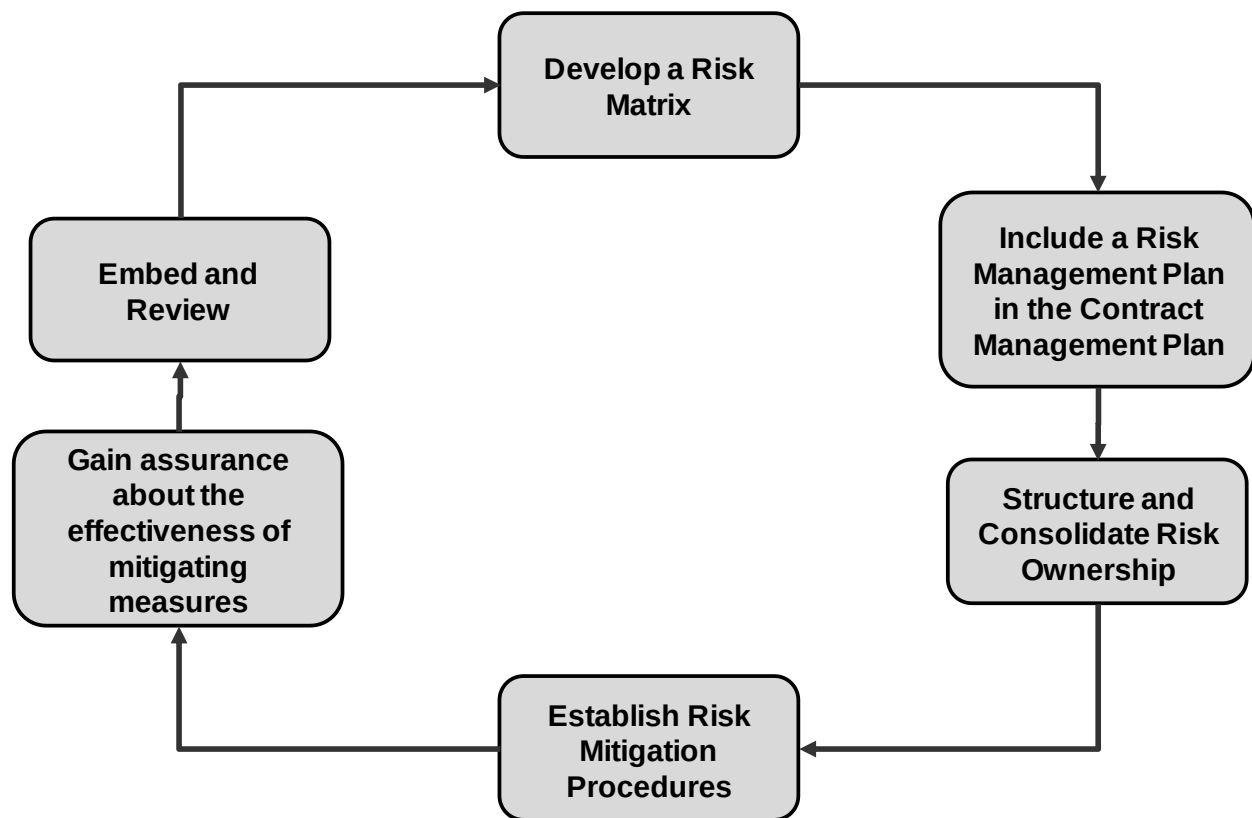
Management of risks is an essential element of the PPP procurement process. The development of the Contract Management Plan at the procurement phase attempts to identify all potential risks. The strength of the risk management strategy of the MDA can be gauged by its ability to effectively identify and manage additional risk during the term of the PPP Contract.

The various categories of risk include:

- **Project risks contractually allocated to the Government:** These risks are explicitly allocated to the Government and may also represent risks arising from contractual obligation implied by the law.
- **Risk arising from issues not resolved at the time of signing the PPP Contract:** While an attempt is made by the MDA to identify and allocate all risks associated with a project, it is likely that certain risks may not have been identified and hence not allocated to one of the parties in the PPP Contract. Other risks may not have been resolved during the negotiation stage and hence not allocated. The MDA should manage such unresolved risks with the objective of minimising their impact on the project.
- **Risk borne by the MDA:** These would cover the residual risk to the MDA of not being able to manage and mitigate risks allocated to private party. These may also include the risk of ineffective PPP Contract administration.
- **Risk of change in the terms of the Contract:** These include risks associated with changes proposed to the terms of the contract which could lead to the risk that the changed terms of the contract are not managed effectively or the risk of impact of the changes on the ongoing success of the project.

The MDA should develop an effective Risk Management Strategy to identify and manage all risks associated with the project. The figure below shows the Risk Management Framework that can be adopted to mitigate the risks during implementation of a PPP.

Figure 22: Components of a Contract Management Plan



Source: Adapted from UK HM Treasury, *Management of Risk – A Strategic Overview*, (The Orange Book), 2001.

The various components of the Risk Management Framework are explained below.

- **Developing a risk matrix:** During the procurement phase, the MDA should identify the risks associated with the project and arrange them in the form of a risk matrix. The risk matrix should detail the identified risk, mitigation mechanisms, the allocation of such risks, probabilities associated with each risk occurring and corresponding costing. The risk matrix should form part of the PPP contract and should contain detailed provisions about the allocation of risk between the MDA and the private party.
- **Including a risk management plan in the PPP contract management plan:** While developing the PPP contract management plan during the project procurement phase, the Project officer should develop a risk management plan based on the risk matrix. For each MDA risk or shared risk, the risk management plan should set out:
 - ✓ An evaluation of the different options for treating the risk
 - ✓ The MDA official who will be responsible for managing the risk
 - ✓ The procedures and mechanisms that will be used to control the risk
 - ✓ An estimate of the resources that the MDA will allocate to managing the risk.

For each private party risk, the risk management plan should set out:

- ✓ The obligations and reporting requirements that the MDA has imposed on the private party to ensure that the risk is properly managed
 - ✓ The MDA official who will be responsible for monitoring the risk
 - ✓ An estimate of the resources that the MDA will devote to monitoring the risk
 - ✓ The mechanisms that will be used by the MDA to deal with any failure of the private party to manage the risk, namely penalty deductions, step-in and other measures
 - ✓ The business contingency plan that the MDA will follow to ensure continued service delivery in the event that the private party cannot maintain the service or the MDA is forced to terminate the PPP contract for whatever reason.
- **Structure and consolidate risk ownership:** After the signing of the PPP contract, a critical next step for the MDA in risk management is to structure and consolidate the ownership of each risk. While the risk management plan will identify risk management responsibilities, this will need to be institutionalised. Ownership of each risk must be clearly defined, documented and agreed with the individual owners at all levels, so that they understand their various roles, responsibilities and ultimate accountability. The owner of the risk may not be the person tasked with the assessment or management of the risk, but he or she is responsible for ensuring the process is applied. Each of the identified risks and mitigation actions should be allocated to a party responsible for it.
 - **Establish risk mitigation procedures:** While the risk management plan will explain the mechanisms and procedures that the MDA will use to manage, monitor and mitigate risk, the Project officer should ensure that these mechanisms are put in place after the signing of the PPP contract. Two highly effective risk mitigation instruments are:
 - ✓ **Risk Register:** The risk register is a log of all risks and all relevant information related to each identified risk. This document presents a consolidated picture of the risk exposure of the project. The figure below presents a sample template of a risk register.

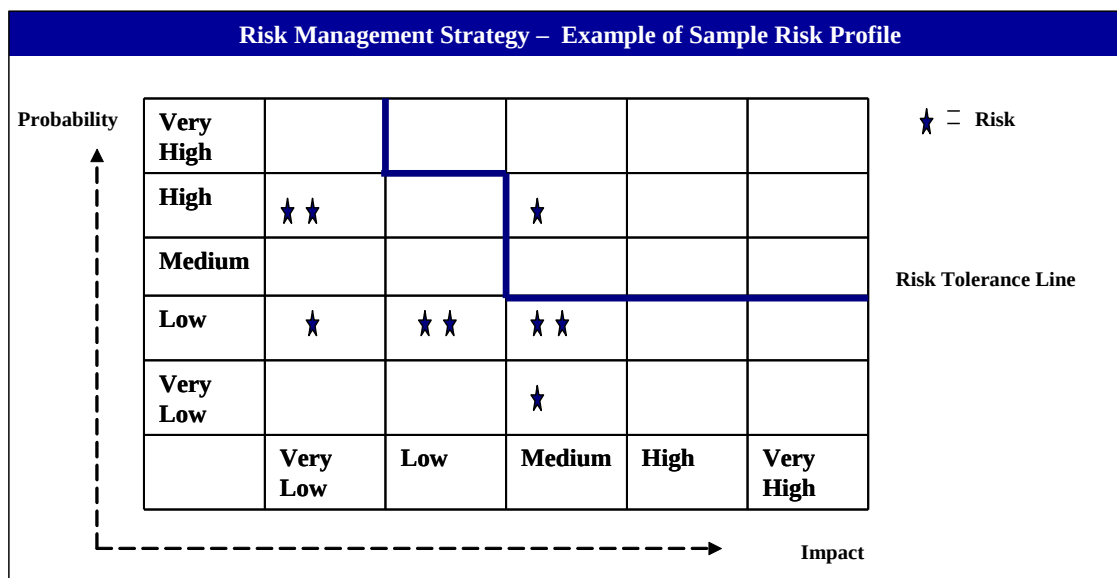
Table 10: Sample Template for Risk Register

Risk No.	Date of Registration	Description of Risk	Impact			Probability	Possible Response	Target Date for Action	Owner	Action
			Time	Cost	Quality					

- ✓ **Summary Risk Profile:** The summary risk profile is an effective PPP contract management tool as it presents a snapshot of all key project risks as contained in the risk register. The Project officer should update the risk register regularly and then generate the

summary risk profile which shows the risk in terms of probability and impact, with the effects of mitigating action taken into account. The risk tolerance line in the summary risk profile graph reflects the risk tolerance of the MDA to general and project specific risks. This risk tolerance line is set by experienced risk managers in conjunction with the Project officer and accounting officer/ authority of the MDA and should be regularly reviewed. If at any point in time, the overall risk exposure is above and to the right of the risk tolerance line, the Project officer and the PPP contract management team will need to take prompt action with respect to relevant risks. The figure below presents an example of a summary risk profile.

Figure 23: Example of Sample Risk Profile



Source: South Africa PPP Manual, UK Office of Government Commerce website – Risk Management Tools

- Enabling systems for gauging the effectiveness of the mitigation measures:** Subsequent to establishing the risk mitigation measure, the MDA should also enable systems and procedures for gauging the effectiveness of the mitigation measures. A system of reporting of risk identification and mitigation measures should be set in place such that the Project officer should provide regular reports on the work done to keep the risk mitigation procedures up to date and in line with the PPP contract. Internal audit also provides an independent assessment of how effectively the MDA is managing risk.
- Creating awareness and allocating responsibility for risk management:** The risk management systems and processes should be well integrated into the MDA by generating necessary awareness of the need for the risk management systems. In addition, responsibilities are allocated within the PPP contract management team. Risk management must form an integral part of the PPP contract management systems of the MDA.

-
- **Ensuring regular updating of the risk mitigation systems** and risk profiling and facilitating changes to the PPP contract on account of such changes in risk profile of project.

6.6.2. Performance Management

A well structured performance management system will allow the MDA, among others, to quantify benefits and costs, clearly define services and their deliverables and ensure that services provided comply with the identified business requirements.

The performance management consists of systems for monitoring and reporting of performance.

The key issues to consider while developing a performance management system are:

- **Timing:** The timing of performance management and reporting would change with time. The reporting requirement frequency during the construction period would be different from the operating period.
- **Nature of monitoring and reporting:** The monitoring and reporting requirements will be governed by the type of project and delivery structure. For e.g. the financial reporting requirements for a special purpose vehicle would be different from a corporate finance structure where a substantially publicly traded company carrying out the project on its own books.
- **Level and type of action required** based on the monitoring and reporting: The monitoring system needs to focus attention of the MDA on the key areas.

The various steps in performance management include:

- Development of a performance management model which forms a part of the PPP contract. This performance management model includes three elements as follows.
 - ✓ **Baseline level of performance that meets the service delivery specifications:** The baseline determined should be reasonable and measurable. Performance measures and any improvements in the same are tracked against the baseline performance.
 - ✓ **Performance monitoring system:** Monitoring of performance happens at three levels. The most basic level is the systematic self monitoring through a quality management system. The second is a review of the quality management system by the MDA or a third party. The third means is end user feedback on the quality and effectiveness of service delivery. The PPP contract should specify the form of reporting for monitoring of performance.
 - ✓ **Penalties associated with not meeting baseline requirement:** The consequences of the private party failing to meet the baseline requirements should be specified in the PPP

contract and any such situation should be handled as per the terms of the contract. The penalties should be over a wide range from warnings to deductions in payments and eventually to termination of contract on account of default.

- ***Detail a performance management plan in the PPP contract management plan:*** The performance management plan should detail the performance management model developed in the previous step and also provide the reporting requirements. The key elements of the performance management plant are:
 - ✓ Reporting requirements of the private party with respect to self monitoring
 - ✓ Performance monitoring system that would be sued by the MDA and/or independent third parties to review the private party's quality management system
 - ✓ Mechanisms that would be used to solicit end user feed back
 - ✓ MDA officials responsible for monitoring affordability, service delivery, value for money, quality and performance improvement
 - ✓ Estimate of the resources that the MDA would allocate to manage the private party performance
- ***Establish performance monitoring systems:*** Subsequent to the signing of the PPP contract, the project officer should implement the various performance monitoring systems that had been identified as a part of the performance management system. The objective of the performance monitoring systems should be to regularly check progress of the project against established milestones, hold progress meeting and discuss performance report, check that all performance conditions and clauses in the PPP contract are acted upon, develop effective mechanism for feedback, review third party monitoring reports and maintain comprehensive documentation on performance monitoring.
- ***Review of performance monitoring and taking corrective action:*** The monitoring systems established should allow the MDA in reviewing the performance of the private party against the baseline requirements specified and also aid in taking corrective action where required. In carrying out review the project officer should consider using generic quality assurance systems or industry specific systems to evaluate the effectiveness of the private party's quality management system. The corrective action should be in line relevant provisions of the PPP contract and should consider the severity and impact of deviation from baseline requirements. The application of formal warnings, penalty deductions, step-in and other responses should be undertaken in a manner that is likely to achieve the best result from the MDA's point of view. An overly rigid approach may jeopardise continuing service delivery to end users, while too much lenience could encourage the private party to commit further breaches.
- ***Effecting performance improvement measures:*** The objective of effecting performance improvement is not to extract more from the private party but it aims at improving service delivery quality and value for money in a manner that benefits both parties to contract. Since the term of most PPP contracts tend to relatively large, there could be changes to baseline

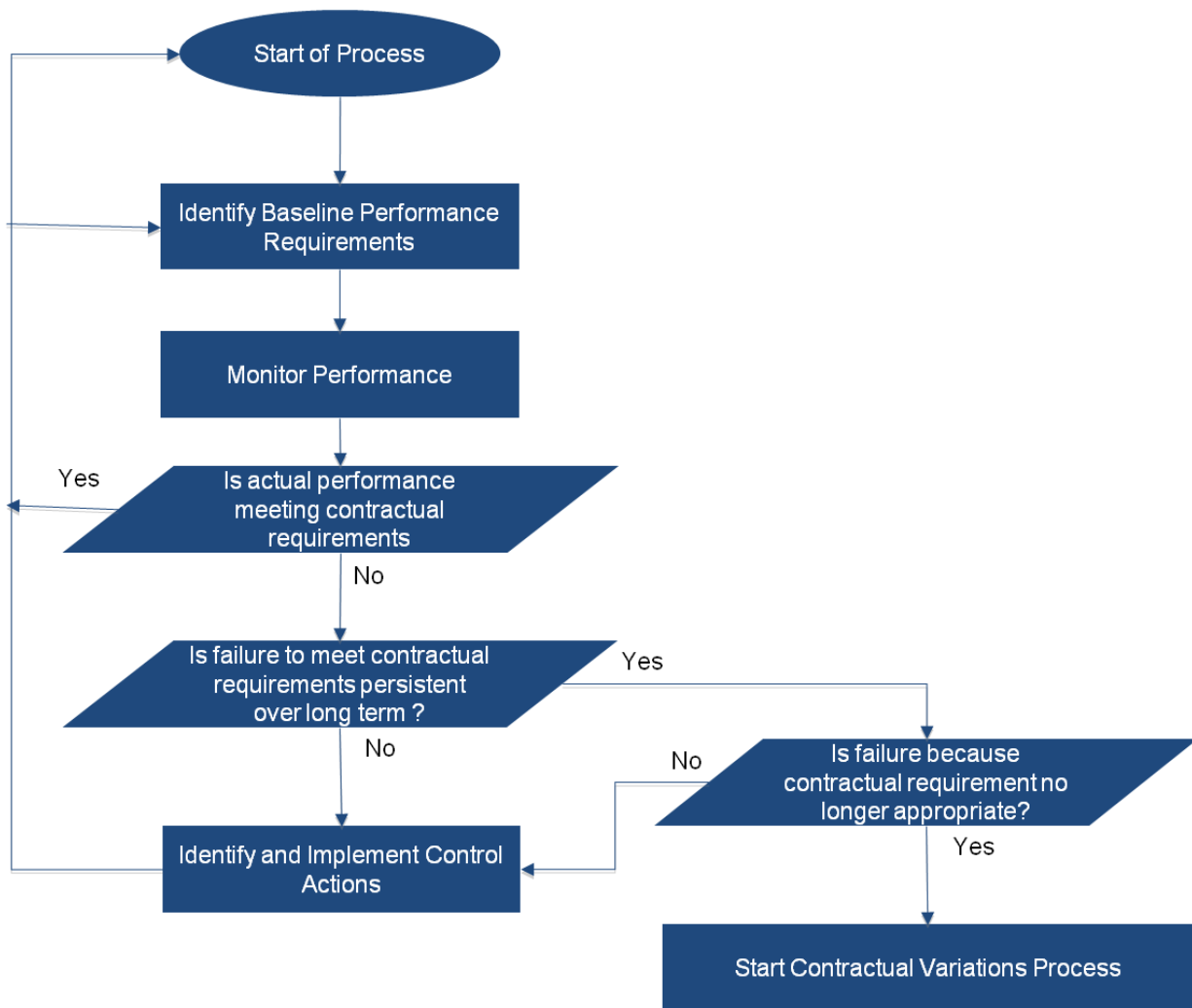
performance requirements which could be warranted on account of technological changes or improvement in productivity. The payment mechanism can capture the incentives to private parties for such improvement. For example, a fixed payment system which would mean any reduction in costs on account of productivity improvement would reflect in higher margins for the private party.

- **PPP contract management systems:** Steps should be taken to ensure that PPP contract management procedures and ways of working are as robust as possible. One way to achieve this is to review and revise the PPP contract management plan every three years. Another way is for the MDA to commission a comprehensive independent review of the project. Such reviews should again be undertaken in accordance with the strategies outlined in the PPP contract management plan, and used to identify opportunities to improve PPP contract management arrangements, quality, value for money and the scope for innovation.

6.6.3. Performance Monitoring

The Performance Monitoring process is depicted in the figure below.

Figure 24: Performance Monitoring Process



The purpose of performance monitoring is to ensure that the private developer meets the agreed level of performance. Most of the monitoring roles are carried out by the Contract Management Team of the MDA. At the same time, the private developer also monitors the MDA's performance to ensure that the MDA upholds its end of the contract.

The contractual requirements reflect the agreed risk allocations. Performance monitoring helps to ensure that the risks allocated to the parties are actually shouldered by the parties responsible for handling them. These allocations are different for different projects. Accordingly, performance requirements, criteria and monitoring roles also vary from one project to another.

If the failure to meet contractual requirements is persistent over the longer term, the MDA should seek to understand the cause of such persistence. If the failure is due to contractual requirement being not appropriate over time, the contractual variations process can be activated to examine the changes that are needed. To be effective, performance monitoring should be done

periodically. It can be done in the form of either reports or meetings, examination of financial data and inspections.

Payments for Non-Delivery

The PPP Contract should stipulate clearly the financial penalties and consequences for non-delivery of contractual services or standards. For example, in a unitary payment regime, the payment may be reduced if the private developer exhibits substandard performance in the delivery of the services. The penalties serve to incentivize the private developer to deliver outputs or services according to contractual standards.

The table below shows some examples of common performance requirements, criteria for measuring performance, monitoring arrangements, and examples of penalties for underperformance.

Table 11: Examples of Performance Monitoring Matrix

Pre-operative stage			
Performance requirements	Performance criteria	Monitoring arrangements	Example Penalties
Achieving financial close	Relevant financial documents are effective and finance is available	Reporting by the private developer ("Reporting")	Financial penalty for delay
Carrying out technical planning and design	Specifications and standards	Reporting, evaluation by the Contract Management Team of the MDA	
Environmental and social management assessments and planning	Assessments made and plans in place	Reporting, evaluation by the Contract Management Team of the MDA	
Obtaining permits / approvals	Required permits are obtained May include MDA obligations	Reporting	
Land acquisition	Rights to land acquired – obligation typically on the MDA	MDA reporting, providing legal entitlement	Financial penalty for delay
Project management arrangements	Project management plan, systems and staff in place	Reporting	

Construction stage			
Performance requirements	Performance criteria	Monitoring arrangements	Example Penalties
Site-related obligations	Access, site condition, safety, utilities etc May include obligations on the MDA, such as granting access	Testing, inspections	Private developer required to remedy any failings. MDA to pay compensation in case of access delays.
Meeting the design specification, construction quality	Specifications and standards	Testing, inspections	Private developer required to remedy any failings. May also incur delay penalties.
Meeting construction schedule and timelines	Construction milestones – including dates; Reporting requirements (progress reports, including frequency – For example, monthly)	Reporting	Private developer pays time-based damages during period of delay
Implementing environmental and social safeguards		Reporting, consultations with affected parties, environmental testing	Private developer required to remedy any failings. May include compensation and damages payments.
<i>Notes:</i> The Concession Contract will specify the testing requirements, including who is responsible for carrying out the tests, schedule for testing, and who will bear the cost. Also to be clearly specified, with measurable performance criteria, are the requirements and standards to be met before the construction can be declared complete.			

Operation stage			
Performance requirements	Performance criteria	Monitoring arrangements	Example Penalties
Quality of services	Specifications and standards	Tests, inspections, user complaints procedure	
Maintenance	Schedules, including dates; Specifications and standards	Tests, inspections, reporting	
Financial reporting	Schedules, including dates; Accounting standards	Reporting, audits	
<i>Notes:</i> The Concession Contract will specify the testing requirements, including who is responsible for carrying out the tests and who will bear the cost.			
Contract closure and asset transfer stage			
Performance requirements	Performance criteria	Monitoring arrangements	Example Penalties
Asset quality at handover	Specifications and standards	Tests, inspections	Private developer required to remedy any failings. Withholding of Termination Payment
Documentation, records, titles	Completeness, timeliness	Reporting and auditing	
<i>Notes:</i> The Concession Contract will specify the testing requirements, including who is responsible for carrying out the tests and who will bear the cost. Also specified will be measurable requirements for declaration of contract closure and release of termination payment.			

6.7. Relationship Management

Given the long-term nature of PPP projects, it is imperative for the MDA and the private developer to build a strong and solid ongoing relationship.

Good relationship management shall enable both the parties to anticipate and mitigate any potential risk events more effectively. Relationship management is based on an understanding of mutual benefits, open communication and information sharing.

The Contract Management team should identify processes that require establishment of strong relationships with other stakeholders to the contract. The Contract Management team should aim to build the following in relationship management:

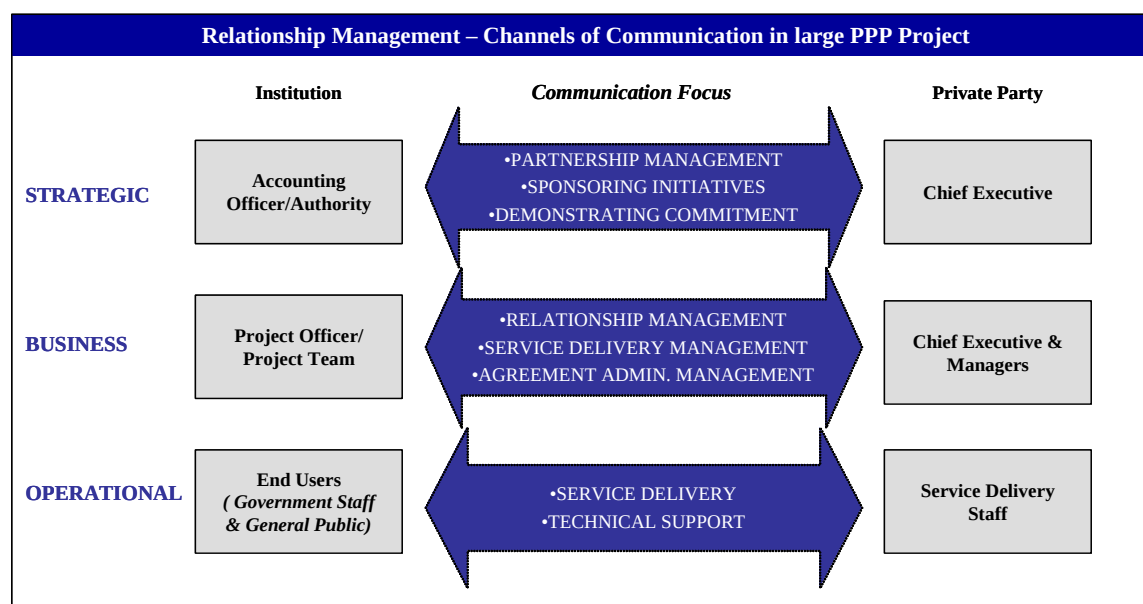
- The parties appreciate each other's objectives, strategy and point of view;
- The parties are prepared to work collaboratively when it comes to resolving disputes and issues that may arise during the lifetime of the PPP. Both parties should have agreed on a mutually agreed issue and dispute resolution mechanism before hand;
- There is a clear and open communication channel between both the parties at all the levels;
- A degree of commercial trust should be established between the two parties. This is the foundation for achieving both efficiency and effectiveness in progressing the PPP project; and
- The relationship should be championed at senior levels in each organization.

Good communication and strong relationships are essential when dealing with issues or dispute resolution. Once both parties have mutually agreed on an issue and dispute resolution process, a strong working relationship should minimize impact on the relationship and help the parties increase the odds of achieving success in the project.

6.7.1. Levels of Communication

Given that the responsibilities differ at each level of seniority in both the MDAs and the private organization, effective relationship management requires effective communication management. Effective communication between the MDA and the private developer entails establishing varying levels of communication that are focused on specific issues. The communication levels can be divided into three different levels: Strategic, Business and Operational. The figure below illustrates the manner in which the levels can be organised.

Figure 25: Communication Process



- Strategic level:** At this level, the two parties need to establish commitment to making the partnership work, mobilising political and financial support, and 'leading from the front.' Ultimately this level must deal with dispute resolution if difficulties cannot be resolved at the business level. This is not, and should not be allowed to become, the level where day-to-day project matters are managed.
- Business level:** The business level is the level at which the PPP contract is formally managed by the MDA's Project officer/ Manager (with his or her project team) and his or her private party counterpart (with his or her managers). This is where the day-to-day partnership is managed, services are planned and their delivery is monitored.
- Operational level:** The operational level is where services are delivered to end users comprises of staff in the MDA and the general public. Staff order or call off components as they require them and receive technical support as necessary from the private party's service delivery management. The private party and its subcontractors provide the service to agreed levels. A call-centre may be used to log levels of satisfaction from end users. Day-to-day problems in the delivery of services may be resolved here. If this is not possible, they can be escalated to the Project officer.

6.7.2. Consistency in Communication

Consistency in communication is important to minimise differences in understanding and views of the participants.

- **Attitude and behaviour:** Behaviour is a manifestation of the attitude of the participants to the contract. Emphasis should be on developing attitude and behaviour that respects the contribution of others, does not over emphasise the power of formal authority, looks at the benefit of all parties, is collaborative and inclusive rather than adversarial in nature and creates a pervasive relationship which operates at many levels. The objective articulated for obtaining and providing feedback should be for using such information for improvement rather than penalty.
- **Proximity:** Proximity of PPP contract management staff of counterparties enhances the communication channels between the two by facilitating face to face communication. On the issue of co-location of strategic level teams, this is not advisable as it may infringe on the private parties independence and confidentiality.
- **Trust:** In the context of the PPP contract management, trust can be viewed as the confidence of one party in another towards integrity, commitment to the relationship, goodwill and the capability to successfully execute the work at hand. This element of the relationship needs to be worked upon by both parties to the contract. Senior managers should seem visibly committed to the relationship and this should be communicated throughout the organisation and reiterated over the term of the contract.

6.7.3. Relationship Assessment

In addition to assessing performance of financial and service indicators, for a long term contract the MDA should establish a means of assessing other aspects of the partnership between the MDA and the private party. Such an assessment should be carried out by an independent third party review once every few years to identify existing and potential areas of difference and identify mechanisms for dispute resolution. It may be appropriate for this review to be carried out by the Contract Compliance Centre within ICRC or by peer review by other State Government members of the Nigerian PPP Network.

Periodic assessments might address issues such as:

- Whether each party is getting the expected benefits when the PPP contract was signed?
- How well the management structures are seen to be operating?
- How successful communication is seen to be?
- The degree to which information is shared freely and openly between the parties.
- Whether conflicts are being avoided or resolved effectively?
- End-user satisfaction and perceptions of the relationship.

While issues like these may be perceived subjectively to a large extent, these perceptions by each party of the relationship can have a material effect on PPP contract management, regardless

of their validity. There should be a willingness to learn from mistakes and, if necessary, to take part in partnership development programmes if they will help to strengthen the relationship.

6.7.4. Issue Management

Issue Management involves the management of service delivery related problems faced during the lifetime of the project.

Clear procedures for raising issues and managing the problems are needed to ensure that they are dealt at the earliest and appropriate level. The Contract Management team should identify in the contracts the different issue escalation mechanisms in the contract to ensure that the issues are managed at the appropriate level.

A standard issue management procedure shall cover the following:

- **Issue Register:** There should be an issue register that is set up to record the issues as they occur. This is done to identify potential trends in the types of issues recorded in order to help assess any potential threat to value for money. Modern information technology platforms can facilitate such functionality;
- **Issue Notification Mechanism:** Issues identified by the MDA should be notified to the appropriate level of the Private Sector. The same mechanism should be applied to any issues identified by the Private Sector;
- **Issue Escalation Mechanism:** Escalation mechanism and procedures should be built in to allow for successive level of responses depending on the nature of the problem and outcomes of the actions achieved at lower levels; and
- **Documentation of approach and resolution:** Any issues that are successfully resolved should be fully documented including the resources needed, approaches and levels of escalation needed to arrive at a satisfactory resolution.

An effective Issue Management mechanism should enable both parties to resolve issues effectively and efficiently.

6.7.5. Dispute Resolution and Management

Given the long term nature of PPP projects, the possibility of disputes arising with regard to a party's contractual obligations and allocated risk positions cannot be completely discounted.

The contracts should include agreed mechanisms for settling disputes. A proper dispute resolution framework should lead to a quick resolution. A quick resolution also reduces costs to both parties and minimizes negative publicity. There are a number of existing dispute resolution approaches as documented below:

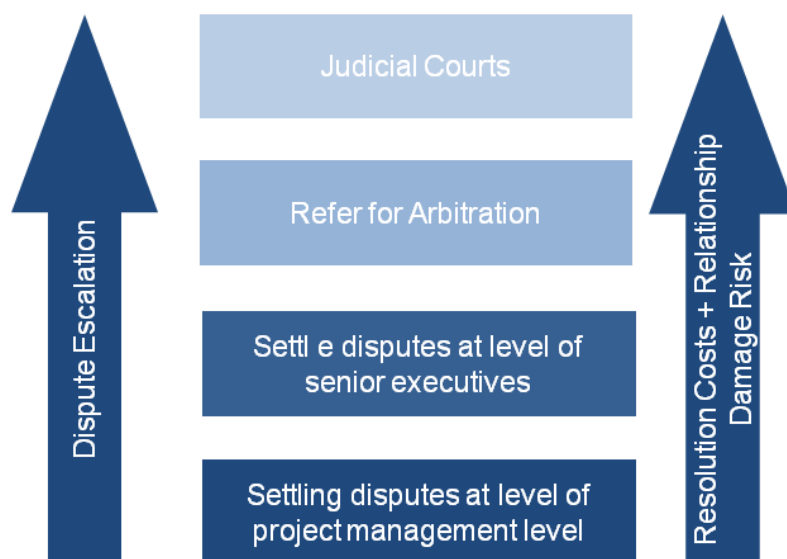
- Discussion between both parties;
- Fast Track resolution process;
- Dispute resolution board;
- Expert determination;
- Mediation or conciliation; or
- Arbitration or Courts.

The Contract Management team should ensure that the relevant arbitration clauses are built in to the contract.

The Contract Management Team should provide guidance on the following relevant dispute resolution issues:

- **Preferred resolution approach:** Disputes can come in many forms. The team should provide guidance on the relevant dispute resolution mechanisms and approach;
- **Project continuity during dispute resolution:** Both the public and Private Sector shall adhere to project obligations in the event of a resolution. Such adherence should extend, where possible, to the continuation of work and service delivery; and
- **Dispute costs allocation:** The costs to settling dispute should be agreed upon both parties. However, this needs to be carefully designed to ensure that both parties do not perceive disputes as a potential income stream. Such perception will come at a detriment to the project.

Figure 26: Dispute Resolution



Adjudication by courts of law for dispute resolution should be considered as the last option for both parties. Additional Information on Dispute Management and Resolution is provided in the Explanatory Notes.

6.8. Contract Administration

The objective of the PPP Contract administration is the establishment of administrative processes to ensure that all procedures and documentation relating to the PPP Contract are effectively managed.

The elements of PPP Contract Administration include:

- Variation Management
- PPP Contract Maintenance
- Financial Administration
- Prepare PPP Contract Administration Plan

6.8.1. Variation Management

Variation Management relates to the creation of a mechanism to enable changes to be made to the PPP Contract to be effected. These changes represent specific circumstances that could not be anticipated or quantified when the PPP contract was signed and could represent changes to works, services or form of delivery.

There are typically four categories of variations. There are procedures for all these categories, which must be used for all changes to the PPP contract regarding works, services and the means of delivery. Given the length and complexity of PPP contracts, it is likely that these procedures will be invoked from time to time to deal with changing project needs. It must be used effectively to ensure that other important functions, such as performance management and risk management, continue to operate in line with contractual requirements and changing service delivery imperatives. The Project officer must become familiar with all the intricacies of each variation procedure and ensure that the correct steps are followed whenever the need arises.

The four categories of variations are as follows.

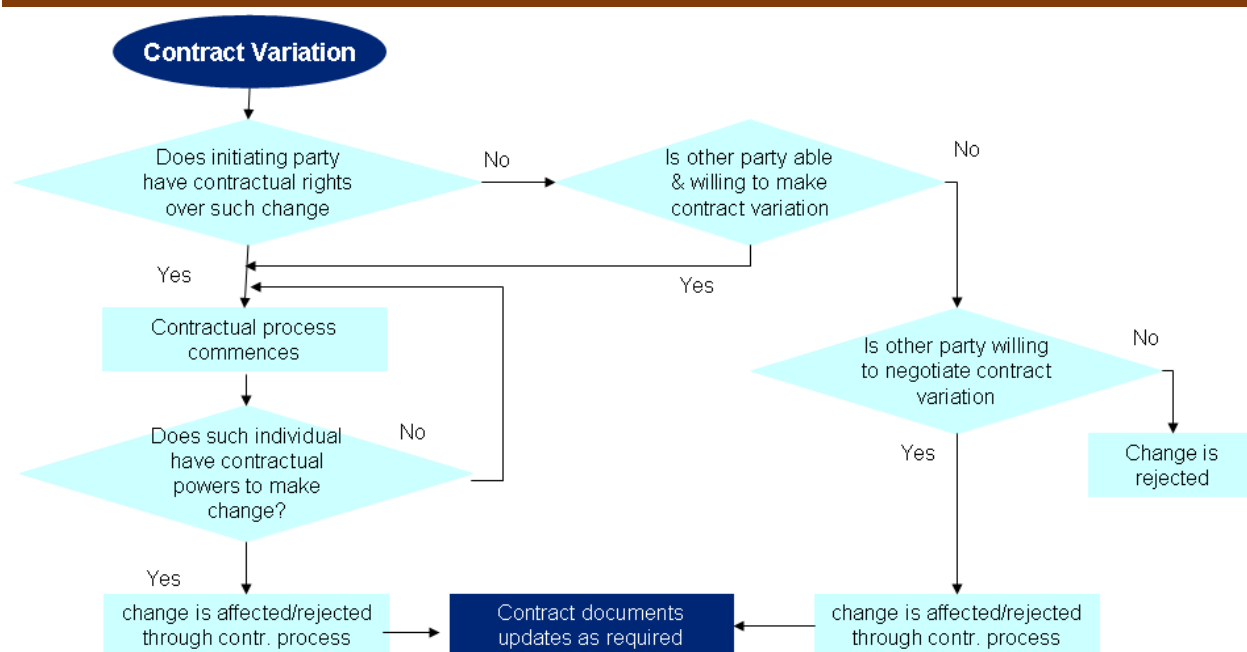
- **Variations that involve no additional costs:** In such a situation no formal variation procedure is required. The MDA and the private party should meet to discuss the best way of implementing the proposed change. If the variation will result in a reduction in costs, then the two parties will need to reach agreement about how to distribute such savings. In the case of a variation proposed by the MDA, savings should accrue to the MDA and/or end users, while savings derived from a variation proposed by the private party should be divided between the MDA, the private party and end users. The two parties would be expected to reach contract on implementing this category of variation without recourse to dispute resolution procedures.
- **Small works variations:** The small works variations procedure is designed to provide an efficient mechanism for dealing with additional capital works required by the MDA. Where the threshold for such works is sufficiently low for the private party to manage, a clause should be

included in the PPP contract requiring the private party to provide a schedule of rates for small works at the beginning of each year. Any dispute between the parties relating to small works variations must be determined in accordance with the dispute resolution procedures.

- MDA variations:** MDA variations should be limited to changes to the services requirements, the specified constraints on inputs, and the limits or scope of the project insurances. If the MDA wishes to make a change to the project deliverables, it must first submit the MDA variation proposal to the private party. The variation proposal must describe the nature of the variation, and require the private party to provide an assessment of the technical, financial, contractual and timetable implications of the proposed change within a specified period. After meeting with the private party to consider its response, the MDA must, subject to obtaining relevant transaction approvals, decide whether the private party or the MDA should put the funding in place to implement the variation. Depending on who provides the funding, payment for the variation should be made by any necessary adjustments to the unitary payment or other forms of payment. Disputes between the parties relating to the variation (which does not involve a decrease in the scope of the service or adversely affect the private party's risk profile) must be resolved in accordance with the dispute resolution procedure. In situations where the MDA's requirements for variations can be foreseen to a reasonable degree before the signing of the PPP contract, the MDA should explore the feasibility of requiring the private party to commit to pricing pre-specified variations as part of the PPP contract. This would provide for an accelerated variation procedure after the PPP contract has been signed.
- Private party variations:** If the private party wishes to introduce a variation it must submit a private party variation proposal to the MDA, setting out the details of the variation and the likely impact of the variation on the PPP contract, particularly in relation to unitary payments. After meeting with the private party and providing it with an opportunity to modify its variation proposal if necessary, the MDA must decide whether to accept it or not. If the MDA decides to accept the proposal and has obtained the approval of the relevant transaction approval, it will need to make the necessary arrangements for payment depending on the funding regime that has been agreed.

The figure below shows the process flow for Contract Variation. For all types of variation identified, the decision making process would be almost the same.

Figure 27: Contract Variation Process Flow



Source: *Contract Management Guide, Partnerships Victoria*

6.8.2. PPP Contract Maintenance

PPP Contract Maintenance involves establishing procedures to keep the PPP Contract and related documentation up-to-date, ensure that all documents relating to the contract are consistent and are accessible to all relevant parties. A key task in PPP Contract Maintenance is the development and updating of the PPP Contract management manual which is designed to act as a repository of the PPP Contract itself.

For larger and more complex project with multiparty contract, a formal document management system along with formal change control procedures will be critical. The document management principles will involve identifying all relevant documents; establishing change control procedures and ensuring that no changes are made without proper authorization; recording the status of documents as current, historic, draft etc and ensuring consistency across documentation.

6.8.3. Financial Administration

Effective financial administration involves the development of systems and procedures to make and receive financial payments, and to keep records of financial transactions. In preparing the PPP Contract, the MDA should include procedures for: making unitary payments and additional payments to the private party; administering penalty deductions; calculating inflation; dealing with late payments; and receiving reports linked to unitary payments and additional payments.

6.8.4. Prepare PPP Contract Administration Plan

The Project officer should develop a PPP Contract Administration Plan, which sets out:

-
- A summary of the proposed systems and procedures for variation management, PPP Contract maintenance and financial administration.
 - The roles and responsibilities of the MDA and the private party in relation to variation management, PPP contract maintenance and financial administration.
 - The plans for the development of the PPP contract management manual that will be used to provide details of all documents relating to the PPP contract, and the variation management, PPP contract maintenance and financial administration procedures.
 - An estimate of the resources that the MDA will devote to variation management, PPP contract maintenance and financial administration.

After the PPP contract has been signed, the Project officer must ensure that the PPP contract administration plan is implemented, and that the PPP contract management team has the resources and expertise necessary to deliver the plan. Particular attention should be devoted to the development and regular updating of the PPP contract management manual.

6.9. PPP Contingency Planning

Contingency planning is an important element of the PPP contract management process. In the event that the private party fails to deliver the services as specified under the PPP Contract, the MDA may face significant reputation damage and this failure could inconvenience end users. Additionally force majeure conditions could potentially relieve the private party from its obligation although the MDA would still be required to provide the service to meet its objectives. Contingency planning thus aids the MDA in being prepared for such situations.

Contingency planning consists of three primary activities which cover the basis forms of contingencies:

- Business Continuity and Disaster Recovery Plan which cover events that disrupt service delivery but do not involve default by the private party
- Step in Plan which covers events that disrupt service delivery and involve a default by private party
- Default Plan which covers private party defaults that do not result in disruption of service delivery

The MDA should identify all significant contingency events related to the PPP Project and develop appropriate contingency plans which should form part of the PPP Contract Management Plan.

6.9.1. Business Continuity and Disaster Recovery Plan

The objective of developing a business continuity plan is to mitigate the impact of disruption in service delivery on the key stakeholders such as the MDA and end users. While the disaster recovery plan aims at restoring critical service functions following an event which has a catastrophic impact on the project.

In developing the business continuity and disaster recovery plans, the MDA should keep in mind that the plans would need to be implemented at short notice and under significant pressure. The plans should thus be short, clear, easily accessible and understandable.

The MDA should consider among others, the following key issues in developing and maintaining a business continuity plan:

- Potential events that could severely disrupt service delivery
- Immediate action that should be taken in response to the disruption of service
- Priority and timeframes for restoring critical services
- Service delivery specification and service level targets to be set for each critical service
- Identifying resources required for implementing the plan and allocating roles and responsibilities to MDA personnel for triggering and implementing the business continuity plan
- Information required to implement the business continuity plan
- Channels of communication with stake holders
- Testing of the business continuity plan

A Disaster recovery plan may not be required in all PPP projects, as restoring critical service functions may be entirely in the private party control. If a disaster recovery plan is required, the process of preparation is similar to the business continuity plan.

6.9.2. Step in Plan

The Standard PPP Provisions allows the MDA to “step in” in certain circumstances and temporarily enter or take control of the private party’s facilities used in providing the services.

In PPP Contract where the “step in” rights exist, a “step in” plan should be developed in conjunction with the business continuity and default plans. While the “step in” plan may not be an all inclusive document, it should contain the basic requirements.

The MDA should keep in mind the following issues while detailing a “step in” plan:

- Events that are likely to trigger the “step in” right of the MDA
- Contractual conditions that should be satisfied before the “step in” rights can be exercised
- Roles and responsibilities of the MDA personnel responsible for implementing the “step in” plan
- Authorisation required prior to exercise of the “step in” right.
- Obligations and liabilities incurred in exercise of the “step in” right
- Resources required to implement the plan
- Communication channels to implement the “step in” plan
- Whether “step out” is possible or feasible for the project

6.9.3. Default Plan

The default plan would need to be activated when the default clause as per the Standard PPP Provisions is invoked. The default plan should be developed in a manner similar to and in conjunction with the business continuity and “step in” plans. Since the plan is likely to be triggered at short notice and under high pressure, the default plan should be short, concise, easily accessible and understandable.

The MDA should keep in mind the following issues while detailing a default plan:

- Events likely to lead to a default
- Impact of the default on service delivery
- Time period before the MDA can act on the default
- Remedies available in the contract and impact of the remedies on service delivery
- Role and responsibilities of the MDA personnel responsible for implementing the default plan
- Communication channels to implement the default plan

6.10. Project Handback process

At the end of the life of the contract there is a set of obligations that both the private sector and the MDA need to fulfil. At the expiry of the contract, the private sector is required to hand over the project assets to the MDA.

For PPPs that have asset transfer, the critical management issue is ensuring that the assets are up to the agreed standard. It may happen that since the concessionaire would be handing the assets over at the end of the concession period, it won't receive benefits from its maintenance costs and so may skip these costs. For this reason, as a PPP with asset transfer nears the end of its lifetime there is a risk that the concessionaire will allow maintenance standards of the assets to slip.

In developing the PPP contract the aim should be to create the correct incentives for the concessionaire to maintain the assets to the agreed standard, and to provide the MDA with the information it needs to check that standards have been met.

The PPP Contract should:

- Clearly specify the standard required of the assets on the handover date
- Lay out a process for monitoring the asset standards over a period leading up to the contract end date
- Specify financial penalties for failure to meet the required standards.

The MDA should aim to avoid a situation where it only discovers at the very end of the contract that the asset condition is sub-standard. Because assets can be allowed to deteriorate over a

long period before the end of the contract; it is important that the monitoring of the asset condition in terms of the standard required at the end date is ongoing well in advance of the contract end date.

The payment structure for the PPP should include a termination payment possibly by means of an escrow Retention Account, which should be conditional on the assets being to the agreed standard. If the standards had not been met then this payment could be withheld until repairs are made or withheld entirely.

The Contract Management team should also manage the handover of relevant documents and records. Further at this stage the Contract Management team should plan for the continuity of service delivery and maintenance of service standards either in the form of new project development or through other means.

If the PPP mode does not involve transferred assets (For example, a management contract, or a BOO) the contract closure process simply requires the termination of the contract.

7. EXPLANATORY NOTES

7.1. Value for Money

The value for money estimation is a critical element in the decision to undertake a PPP project. The assessment of value for money involves a quantitative and a qualitative assessment of the private party bids. The use of the Public Sector Comparator aids in the quantitative assessment.

The factors that determine whether a project delivers value for money will vary by type of project and by sector. In general, PPP projects can generate improved value for money through a number of ways including,

- Reduced whole life costs - the integration of infrastructure design, build and operation, facilitating private sector innovation in design, an avoidance of over-specification and improved maintenance scheduling;
- Better allocation of risk - cost effective transfer of risk to the private sector, enabling efficiency benefits to be generated across the term of the contract;
- Faster implementation - the transfer of design and construction risks, together with the principle of no payment until commencement of service delivery, will provide significant incentives for the private sector to deliver infrastructure projects within short construction timeframes;
- Improved quality of service resulting from better integration of services with supporting assets, improved economies of scale, the introduction of new technology and innovation in design, and the performance incentives and penalties included in the Public Private Partnership contract; and
- Generation of additional revenue - more intensive exploitation of assets to generate additional revenues, for example from shared use of facilities or the sale of surplus assets.

PPP Reference Project

The PPP reference project is a hypothetical private party bid which meets the service delivery specifications of the MDA. The PPP reference project enables the MDA to identify the best value for money for the MDA in service delivery either through MDA's service delivery or from the private party. In determining the PPP reference project, the MDA should undertake a preliminary assessment of the PPP arrangement for service delivery. The service delivery specifications for the PPP reference project should be identical to that used in estimating the PSC. The key considerations in construction the PPP reference project should include:

- Determining the nature of PPP procurement arrangement: In undertaking this exercise, the MDA should address the following issues:
 - ✓ Most appropriate form of PPP to meet service delivery specifications

- ✓ Risks that can be transferred to the private party
- ✓ Tenure of the PPP arrangement
- ✓ Asset ownership and transfer arrangements and treatment of residual value
- Determining the Financing structure of the project whether it would be a project finance structure, corporate finance structure or whether it would involve capital contributions by the Government.
- Determining the payment mechanism for the project.
- Determining the cost of service delivery taking into account the heads of costs used in estimating the PSC for a comparable period of time.

All assumptions used in developing the PPP reference project should be precisely documented for ready reference.

The value for money test forms part of both the PPP feasibility phase as well as the PPP procurement phase.

- In the PPP feasibility phase, the objective of undertaking the preliminary value for money test is to identify the benefit, if any, of undertaking a PPP procurement of the service delivery as opposed to conventional MDA's procurement. In this case the Public Sector Comparator developed is compared to a PPP reference project which is an approximation of the cost of service delivery through a PPP arrangement. If the MDA is able to demonstrate value for money through PPP procurement, the next phase of PPP procurement is undertaken.
- In the PPP procurement phase, the bids received from private parties are compared to the public sector comparator to determine the actual value for money from PPP service delivery.

Value for Money

The public sector comparator is an important tool in the quantitative assessment of value for money during the procurement process in terms of evaluation and comparison of bids. The project description and brief provided to bidders in the RFP document will detail the service delivery specification and the PPP agreement terms detailing the risk allocation. The project brief would replicate the service specification and primary assumptions used in calculation of the PSC. Doing this would ensure a more accurate comparison of bids against the PSC. Bidders are required to structure and submit their bids based on this information. The private party bids thus received should be first assessed against the project description to ensure compliance to the brief and thereafter it should be compared to the PSC. It is important for the MDA to ensure that the bids received are based on the same level of risk transfer as the project brief.

To facilitate effective comparison, bids should be standardised to allow comparison with other bids as well as the PSC.

An illustration of the comparison of bids received with the PSC is presented below:

Illustration of Value for Money				
Project Cost Items	PSC	Bidder I	Bidder II	Bidder III
Cost of service delivery	50			
Transferable Risks				
Construction	11			
O&M	7			
Estimated Project Cost	68	57	54	62
Retained Risk				
Regulatory	5	5	5	5
Actual Net Project Cost	73	62	59	67

In determining the best value for money option from the bids, Bid II would be the most likely option, as it has the same risk transfer structure as the other bids, but has the lowest estimate project cost of services to MDA. In addition, Bid II's actual total cost of services is lower than the PSC's total cost of services. Bidder II has submitted a bid with an estimated project cost of USD 54 million which includes Transferable Risk valued in the PSC at USD 18 million. The bid, however, excludes the Retained Risks valued at USD 5 million in the PSC. The total bid cost to government is the estimated project cost of the bidder's service charges of USD 54 million and the costs of the Retained Risks, giving a total cost of USD 59 million.

The risk-adjusted Bid II of USD 59 million compares favourably against the PSC cost of USD 73 million. Ignoring qualitative considerations, value for money is achieved where the NPC of service charge for a bidder is lower than the NPC of the expected cost to government under the PSC.

Qualitative assessment

When assessing the value for money offered by a PPP arrangement, the project officer/accounting officer should not rely solely on a straight comparison of a PPP bid to its PSC, which should never be regarded as a pass/fail test, but instead as a quantitative way of informed judgement. This is especially important where bids are very close to the value of the PSC. The assessment should also consider all other relevant factors of bid evaluation including (but not exhaustively):

- The value to the public sector of the risk the private sector accepts through the proposed PPP arrangement;
- Any differences in service deliverable between the PSC and PPP bid; and
- The wider consequences to the public sector of first receiving service from a different date under PPP compared to that in the PSC.

Adjustments or standardisations are often needed for the PSC to allow for these and other factors to ensure a fair comparison between the PSC and PPP bids. Some factors may be difficult to

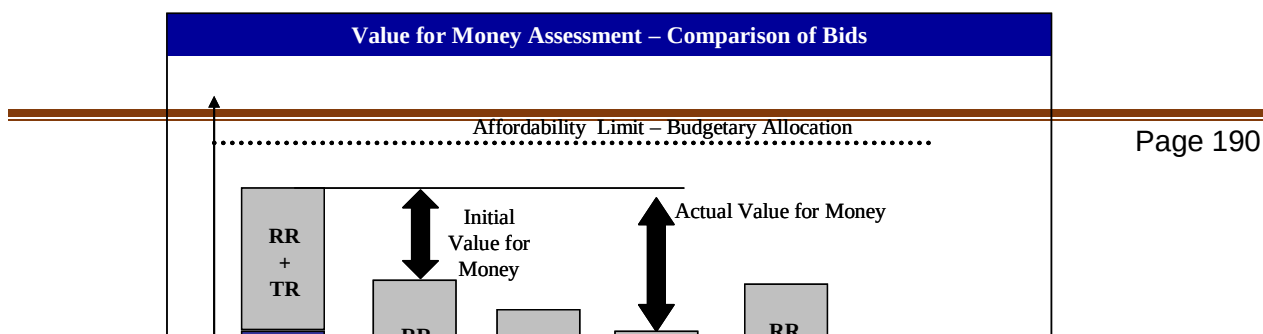
quantify; such as differences between the standards of service or methods and dates of delivery. These may require the conclusion to be made on a qualitative basis. Achieving value for money does not necessarily mean accepting the lowest cost bid. Where decisions reflect qualitative factors they must be sufficiently documented to allow future understanding of how the conclusions were drawn.

Qualitative factors, by definition, are not fully accounted for in the PSC as they are not accurately quantifiable. However, they need to be considered in conjunction with the PSC as part of a fully informed evaluation process.

Qualitative factors that need to be considered may typically include the following:

- Material costs (including risk) that are not capable of being quantified for a project (either explicitly or as a contingency factor);
- The identity, credit standing and proven reputation of the bidder (including consortium parties and financiers). This will help ensure the ability of the bidder to deliver the proposed service at the specified bid price;
- Any differences in the deliverable service which cannot be quantified and adjusted for any wider net benefits or costs that a PPP approach may bring. For example, the social and wider benefits of earlier provision of key infrastructure services under a partnership delivery method; and
- The accuracy and comprehensiveness of the information used and the assumptions made in the PSC.

Qualitative factors become particularly important either where the lowest private bids are close to the PSC or where an important consideration cannot be quantified for the PSC. Where value for money decisions reflects the consideration of qualitative factors, these must be fully documented to leave a verifiable decision trail which can be used by parties involved in the decision-making process. To this end, it is important that the procurement team constructs a list of all qualitative factors at an early stage. This may be developed in conjunction with the PSC, to identify costs that could not be meaningfully quantified in the PSC. The figure below presents a graphical representation of the value for money assessment.



While the estimating of the PSC and the assessment of value for money is quantitative assessment of value for risk which has been widely used, the process and methodology for assessment is a learning curve wherein MDA's and governments can benefit greatly from the experience of one another in avoiding costly mistakes and maximising the value for money from the projects they undertake. The exhibit below presents the key learning from the London Underground Public Private Partnerships as identified by the National Audit Office of the United Kingdom.

7.2. Steps for creation of a benchmark for comparison against private sector bids in the absence of a full PSC

Step 1: Construct a PPP Reference Project

The PPP reference project is a hypothetical private party bid which meets the service delivery defined in the output specifications. In this case, the costing of the output specifications should be carried out from a private party's perspective. Since the MDA will not be able to estimate the costs associated with a private party delivery model, the transaction advisor should have the necessary expertise, market knowledge and experience to construct a market related PPP reference project.

To construct the PPP reference project the following activities should be undertaken.

- *Determine the nature of PPP procurement arrangement:* The PPP procurement project either involves the private party performing a function of the MDA or the use of certain MDA's assets by the private party for its own commercial purposes. The form of PPP procurement that best suits a particular service delivery output specification can be either of these two forms or a

combination of the same. Determine the nature of the PPP procurement arrangement, the risks to be transferred to the private party, the period of the Concession Agreement, the nature of contractual agreement for use of assets, and related costs of delivery.

- *Determine the proposed project structure and sources of funding:* The proposed project structure showing the relationship among the MDA, the Special Purpose Vehicle (if required), the shareholders, the lenders, the suppliers, the subcontractors, and other players is identified and prepared. Based on the requirements of the project, the proposed sources of funding (equity, debt, and government contribution) are identified and incorporated into the project funding structure. The estimated returns to debt and equity and relevant ratios such as debt service coverage ratio are also calculated. All assumptions used in the calculation of each element of the funding structure are clearly stated.
- Chapter 5 of this manual provides a full description of the primary ways of funding a project.
- *Identify the core components of the payment mechanism:* While a detailed assessment and development of the payment mechanism is carried out in the PPP procurement stage, during preparation of the Request for Proposal document, a preliminary identification of the core components of the payment mechanism is undertaken. In the case of a unitary payment mechanism, the following factors are addressed:
 - ✓ The amount of the single indivisible unitary payment
 - ✓ Whether any splitting of the unitary payment between services is appropriate
 - ✓ Identify the key areas of availability and performance of service
 - ✓ Prepare an initial allocation of the unitary payments to these areas in order to verify that appropriate incentives and penalties are created for the service as a whole.
- *Calculate and consolidate all costs:* The categories of costs used for the PPP reference project are mainly direct costs of capital, operation and maintenance, and all indirect costs over a comparable time period. The PPP reference project costs, however, take into account the higher costs associated with innovative designs, as well as construction and operational efficiencies associated with private service delivery. The cost of the capital element of the PPP reference project also differs from traditional procurement because the cost of capital for the PPP project is based on credit raised by the private party which is greater than the government bond rate for a similar duration project. The cost of capital provided is backed by historical data and also takes into account the risks perceived by lenders to be associated with the project.
- *Undertake an independent risk assessment for the PPP reference project:* An independent assessment of the cost to the private party for each of construction stage risk categories is undertaken. It is widely believed that the private party is able to manage certain risks more efficiently on account of a greater focus on output, economies of scale, inventive use of assets, innovative financing structure, and managerial expertise. Such risk assessment for the PPP

reference project is undertaken by the MDA's transaction advisors and is put to a market test, if necessary. In the case of the PPP reference project, the cost of risks associated with the project are included as a line item such as insurance or guarantee costs, increased required return on equity, and increased cost of debt. The PPP reference project also adds the costs associated with the retained risks. Since the private sector prices all risks transferred to it, the PPP reference project includes all risks that would ordinarily be retained by the MDA. The costs to the MDA for managing the PPP reference project are also clearly identified and included in the PPP reference model.

- *Calculate the PPP reference project cost:* The PPP reference project cost is estimated as the discounted cash flow associated with the project. The underlying assumptions for calculation of the PPP reference project (inflation rate, discount rate, accounting treatments) are similar to those that one would apply under traditional public procurement. A detailed explanation of the model along with the underlying assumptions is included. Thus, the PPP reference project cost is estimated as follows:

$$\text{PPP Reference Project Cost} = \text{Discounted Value of All Direct \& Indirect Costs} + \text{Retained Risks}$$

Step 2: Undertake a sensitivity analysis

To gauge the robustness of the PPP reference projects, a sensitivity analysis of the key assumptions (variables) is required for the model calculations and risk components. The financial model is developed in a manner so as to allow different values for key variables over time. The variables to be typically analyzed in the sensitivity analysis are:

- Project term covering both the development phase and delivery phase
- Inflation rate and discount rate
- Construction costs
- Service demand
- Operating Costs
- Third party revenue
- Residual values
- Financing terms

Step 3: Demonstrate Affordability

The MDA's budget for the project which has been identified in the previous stages is analyzed in detail in this step to confirm the affordability of the project.

- *Assess the MDA's budget:* The MDA's budget for the project and all related allocations are revisited to confirm the level of funds available to the MDA over the project term. Since the project term for longer duration projects can extend beyond the planning horizon of the MDA, a realistic estimate for assessing budgetary allocations is to assume the budgetary allocations will remain constant in real terms. Any increase in allocations will only reflect inflationary adjustments.
- *Compare the MDA's budget with the PPP reference project:* Since affordability is a primary constraint for any service delivery option, in the event that the PPP reference project costs exceed the MDA's budget, a refinement of the output specification is required to the extent that this does not compromise service needs. Alternatively, other service delivery options may need to be explored. In case of changes in the service delivery specifications, these are incorporated in the PPP reference project.

Step 4: Assess Initial Value for Money

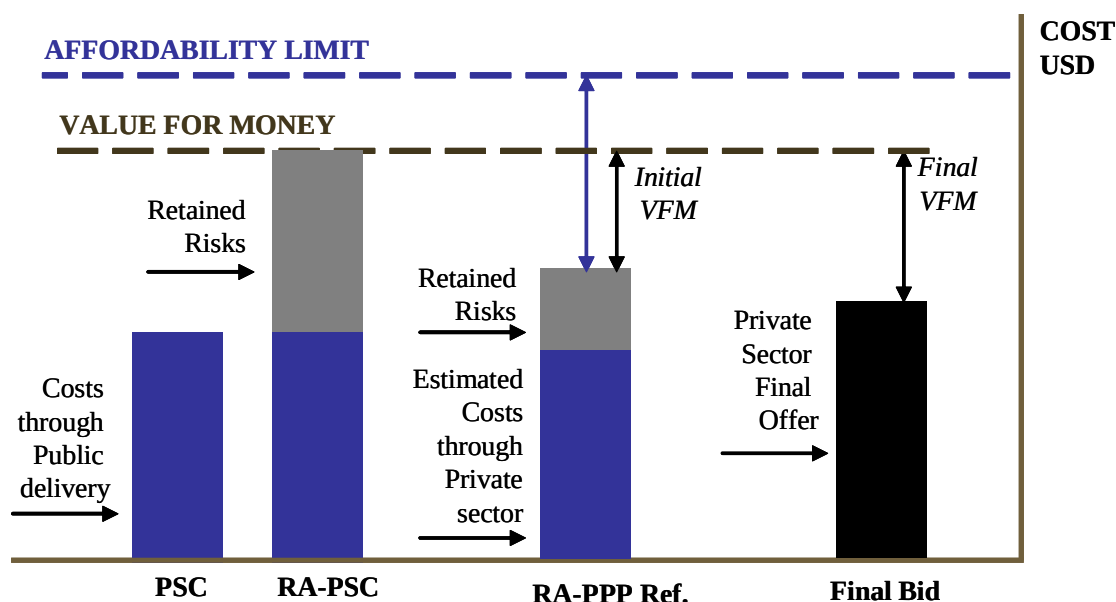
As explained earlier, Nigerian authorities will initially apply a judgmental approach in determining Value-for-Money and will focus on increasing competitive pressure throughout procurement. Over time, a quantitative comparison of the PSC and PPP reference may be applied as an initial value for money test. This initial Value-for-Money test needs to be performed by the MDA to demonstrate the rationale for undertaking PPP procurement. A final Value-for-Money analysis forms a part of the PPP procurement phase wherein the private party bids received for the project are compared to the PSC to determine the actual value for money of the project. To perform the initial value for the money test, the MDA undertakes the following:

- *Verifies the PSC and PPP reference projects:* A check of the two calculations is undertaken to ensure that the projects meet the service delivery specifications, incorporate all costs associated with the specification, and incorporate all risks valued appropriately. Also, ensure that the underlying assumptions are reasonable and appropriate.
- *Establish the initial indication of value for money:* The MDA is required to give an initial indication of value for money that the project is likely to provide if it were procured through PPP rather than conventional public procurement.
 - ✓ The comparison of the PSC and the PPP reference projects is based on the net present value of cash flows. This is preferred as the timing of cash flows for the two projects may not be identical and the NPV calculates the present value of all future cash flows, thereby enabling comparison. It is therefore critical that the underlying assumptions (discount rate, inflation rate, etc.) used in calculating the NPV in both cases should be identical.
 - ✓ The treatment of residual asset value also has an impact on the comparison between the PSC and the PPP reference project. In the case where the PPP does not pass the residual value risk to the private party, the asset simply returns to the MDA for zero or nominal

consideration, and the private party earns a return on the initial investment through the service charges payable. Since the MDA is left with an asset with a remaining useful life, there is a deduction of the Net Present Cost of the service charges to reflect the lower true net cost of the service provided under the contract. If such a deduction is made in the PSC, the same should also be made in the cost of the PPP reference project. The residual value can also be excluded from the estimates as it will not have an impact on the difference between the PSC and the PPP reference project. It is important to be consistent in the approach to dealing with residual value, i.e., it should either be included in both cases or excluded in both cases. Where the PPP contract does involve residual risk being passed to the private party, the MDA usually has the option of paying an amount equal to the market value at the end of the contract in order to retain the asset, or to pay nothing and leave the asset with the private party. In this case, no residual value deduction is needed from the NPV of the service payments to calculate the NPV of the services under the PPP. However, for the PSC model calculation, an assumption is made regarding the deduction needed to avoid overstating the cost of services.

The figure below provides a schematic representation of the value for money test. In the absence of a PSC calculation, final VFM will entail a comparison of the PPP reference against the final preferred bid from the procurement process.

Figure 28: Initial Assessment of Value for Money



Step 5: Identify and select the preferred mode of procurement

Based on the initial value for money assessment, if the MDA believes that the project is affordable as a PPP and results in a lower net present cost as compared to conventional procurement, the PPP procurement option is selected.

At the time of selecting the preferred mode of procurement, the MDA satisfies itself regarding the soundness of the feasibility study conducted. This includes statements:

- From the internal project team and its transaction advisor on the reasonableness of the information collected;
- From the transaction advisor about whether value for money could have been enhanced;
- Describing how the assumptions used in constructing the PSC and the PPP reference project are realistic and appropriate;
- Recording the methodologies used in valuing various costs including the cost of key risks
- On how an audit trail of all documentation has been established and maintained to date and how it will be maintained throughout the project

Identification of a check list of legal compliances is also undertaken by the legal advisors.

7.3. Constructing the Public Sector Comparator

The construction of the public sector comparator detailed in Chapter 2 should not be a rigid process but should be flexible. It should take into account the varying characteristics and circumstances of the individual projects and also the potential form the PPP agreement can take. This annexure aims to familiarize the MDA's practitioners on the key elements of the Public Sector Comparator (PSC) and the process of construction of the same.

Definition of Public Sector Comparator

The Public Sector Comparator can be defined as a hypothetical risk-adjusted cost to the MDA for an output specification produced as part of a PPP procurement exercise. The PSC has the following characteristics:

- It is expressed as a net present value term
- It is based on recent public sector procurement for a similar service delivery requirement. The recent public sector procurement information should also capture the inefficiencies in the system.
- It effectively captures the risk inherent in the project and procurement process envisaged

For projects where no track record for public procurement exists, the MDA should consider devoting additional resources and time in the options analysis stage to ensure that the alternatives to the PPP procurement are clearly identified.

The PSC should act as a benchmark for comparison and choice of preferred bid. Hence to be a valid benchmark against which private sector bids can be compared fairly, the PSC must reflect not only certain procurement costs but also the additional costs that may arise on account of the risks inherent to the project. During the procurement process, risks should be identified, and ways

in which these risks can be mitigated considered. It is necessary to assess the impact of these risks on costs, estimate their probabilities, and explore and appreciate the sensitivity of these estimates. Comprehensive accounting for risk is required to ensure that valid and informed comparisons can be made amongst the bids and between the bids and the PSC.

Key Elements of the Public Sector Comparator

The public sector comparator consists of the following elements

- Primary Public Sector Comparator which reflects the costs of service delivery
- Retained Risk
- Transferable Risk

Each element of the PSC is analysed in greater detail in the subsequent sections.

Direct Capital Costs

The direct capital costs are the costs associated directly with the provision of the service. The basic capital costs should include the basic costs of capital assets, such as buildings, required for the project, including any fit-out costs required to convert an existing property to the required use. Cost estimates should reflect the full resource costs of the project. In particular, they should include the opportunity cost of any assets already owned by the MDA and which are to be used in the project. If the asset could be sold or used for another purpose, then the use of that asset in the project has an opportunity cost.

All assumptions and sources of information, in particular relating to the costing and timing of expenditure should be clearly listed out. Sometimes PSCs are constructed on the assumption that major construction work will be delayed due to constraints on the availability on public capital. This approach is not recommended as any assumptions made are inherently non-verifiable and recent history has shown that levels of available public capital can be quite volatile even over relatively short periods. If there is any doubt regarding the availability of public capital sensitivity analysis should be undertaken to quantify the effect of delayed construction work.

However, assumptions about the start, completion, and if applicable, the phasing of construction work should reflect what could be realistic to expect in the public sector and will not necessarily correspond to the bidders' proposals.

The construction techniques assumed in estimating capital costs should reflect recent actual practice in the public sector using existing plans for a site or the likely approach (the costs should not be amended in the course of the competition to mimic the 'bidders' proposals). It should be recognised that this may evolve over time and clients involved in a series of similar procurements should not automatically assume that assumptions used in a previous PSC will remain valid. Sometimes the assumptions will need to be amended to reflect changes in conventional procurement practices.

The assumptions regarding cost or time overruns should normally reflect recent experience of conventional procurement. However, judgement must be applied to assess the relevance of that experience. The size and complexity of a project have a direct impact on the risk of delay and it would be misleading to apply data from recent relatively small projects to a PSC for a very large project. There is much experience to suggest cost over-runs were more likely on larger projects. Time delays also show some correlation with the size of the project.

Operating and Maintenance Costs

The direct costs associated with operating and maintenance of the project should be included in constructing the PSC. While the exact nature of the cost would be dependent on the service to be delivered, the costs would broadly include:

- Operating cost covering the following
 - ✓ Cost of inputs
 - ✓ Cost of employees directly involved in service delivery including wages and salaries, employee entitlements, superannuation, training and development etc.
 - ✓ Direct Management costs
 - ✓ Insurance
- Maintenance costs are recurring in nature and will be linked to maintaining the capacity and quality of the asset rather than upgrading or improving the asset. Maintenance cost typically includes raw materials (spares), tools and equipment and the employee costs associated with maintenance work.

The cost estimates for a number of these items can be determined by comparison with similar projects undertaken in the public sector. Since the PPP agreements normally involve long tenures, the effect of inflation on the costs during the term of the agreement would be significant. However as the construction and comparison of the PSC is being undertaken at prices in the base year, effects of inflation should be excluded. The forecasted operating and maintenance costs of the PSC should reflect to a reasonable degree improvements in service delivery on account of technological improvements or learning from past experience. This would ensure that the PSC reflects a reasonably accurate picture of value for money from traditional procurement methods.

Third Party Revenue and Capital Receipts

Certain PPP agreement may involve not just costs but also potential third party revenues which may lead to a reduction in the costs to the MDA. The two variables in determining revenue, price and quantity should be identified separately and potential equilibrium price and quantity should be determined. In determining price of service, the MDA should consider pricing for alternate sources of similar services. The MDA should consider expert inputs for demand forecasting based on a cost benefit trade off of such expert information.

Capital receipts of the MDA in case of determining the PSC could include the revenue from upfront sale, lease or disposal of an asset and/ or residual value treatment of the asset at the end of the

PPP agreement term. Based on their expected timing such revenues should be deducted from the PSC.

A PPP agreement could involve rationalisation or restructuring of a project with pre-existing assets and subsequent disposal of the surplus assets. In case of estimating the primary PSC using the conventional procurement method, the treatment of such disposal should be considered. The receipts from such disposal should be deducted from the PSC with reasonable and reliable estimates of receipts from sale. If the estimated value of asset sale is fairly large, the MDA could consider employing the services of specialist.

If, at the conclusion of the PPP agreement, the MDA accepts the asset for zero or nominal consideration, then the economic effect is that the supplier must earn a return on its initial investment through the service charges payable during the service period. However the MDA is left with an asset with a remaining useful economic life and there should be a deduction from the NPV of the service charges to reflect the true net cost of the services provided under the contract.

Where such a deduction is made to the cost of the PPP option an equivalent deduction should be made from the PSC. In each case the value of the asset to the client is the appropriate figure. As there is unlikely to be a material difference between these two figures it is usually legitimate to exclude the residual value on the grounds that it will not affect the comparison. The key point is to achieve consistency of approach, i.e. either include a deduction for residual value in both calculations or include it in both calculations. However, it is best practice to include the figures as this demonstrates that the matter has been addressed.

If, at the conclusion of a PPP agreement, the public sector has the option to pay an amount equal to market value at the end of the contract, in order to retain the asset, or to pay nothing and to “walk away”, i.e. leave the asset with the supplier. In this case no residual value deduction is needed from the NPV of the service payments to calculate the NPV of the services received under PPP. However for the PSC calculation a deduction is needed to avoid overstating the cost of services (otherwise the PSC would represent the cost of services for X years + the cost of asset with Y years remaining useful economic life after X years of service). Where estimates of residual value are required care must be taken to ensure the value is consistent with the level of maintenance assumed in the operating cost forecasts.

Risk transfer

The risks associated with each service delivery are unique to the project. The first step in estimating a risk adjusted PSC, is to identify and estimate the cost associated with each risk of the project. The underlying objective of risk identification is that the party best able to handle a particular risk should carry that risk and receive the gains or losses on account of the same. Optimal risk transfer would be the key to maximizing the value of a project.

The underlying premise of all PPP transactions is value for money. The objective of value for money should be to obtain optimal risk transfer rather than maximum risk transfer. The value for money is improved by transfer of appropriate risk to the private party who can either reduce or decrease the probability associated with the specific risk. However, if the risk cannot be effectively

managed by the private party, the value for money will decline as the premium demanded by the private party would outweigh the benefit to the MDA.

Discounted Cash Flow

The public sector comparator identifies and estimates the project cash inflows and outflows and the discounted cash flow analysis estimates the value of this cash flow at a single point in time. The Discounted Cash Flow (DCF) follows a process whereby all future cash flows are forecast over a given period and then adjusted to a common reference date, taking into account the time value of money and risks associated with a project. The estimation of the PSC using the Discounted Cash Flow method thus requires two basic elements:

- Forecasted net cash flows from the project
- Discount rate

The discounted cash flow model is based on the assumption that a dollar today is worth more than a dollar received tomorrow. The effect of discounting is to bring a variety of different values and ranges of future cash-flows back to today's values. That is, to produce the net present value (NPV) of a stream of future cash-flows. In the case of a PSC, the NPV is actually a net cost figure, i.e. all of the costs of the project to the MDA less the receipts associated with the project. Since the cash flow stream for the PSC and the PPP reference project or bids received can vary significantly, the use of discounted cash flow is particularly important.

The sum of the DCFs over the entire period of the project forms the net present cost (NPC). The NPC result is a useful measure because it is a compatible dollar figure which is easily interpreted and readily comparable to other projects or bids expressed in NPC terms for the same reference date.

The following techniques for minimising errors are suggested in the UK Technical Note on How to Prepare a Public Sector Comparator:

- Ensuring there is a clear audit trail from the calculation of NPV to the undiscounted cash flow to the base assumptions producing the cash flow for the PSC to the supporting evidence for the assumptions. This will assist a reviewer identifying any inconsistency or other errors;
- The discount factor applied to each years' cash flow should be shown to minimise the possibility of confusion over base dates for discounting cash flows; and
- The financial data should be kept as simple as possible to minimise the risk of arithmetical error and avoid spurious accuracy.

For projects that the MDA believes are not very complex and where the risks associated with the project can be readily quantified as cash flow items, the PPP guidelines recommend the use of government bond rates of similar maturity as the term of the project. In more complex project where such assessment and quantification of risk as a cash flow item is not possible, the discount rate used in calculating the discounted cash flow is typically the cost of capital of the project. The

cost of capital of a project can be determined using the Capital Asset Pricing Model (CAPM). The calculation of cost of capital based on the CAPM model is as follows:

$$R_k = R_f + \beta (R_m - R_f)$$

Where,

R_k represents the cost of capital for the project

R_f represents the risk free rate, the interest on Government bonds of equivalent term as the project could be taken as proxy

β represents the project beta or the degree to which the returns of the project are likely vary with the return on the market

R_m represents the return on market portfolio

The choice of appropriate discount rate should be specific to the requirements of the project and should be decided by the MDA with the expert inputs of its transaction advisors.

The discount rate decided by the MDA would be used to discount PSC, the PPP Reference Project and the private party bids received.

Inflation

The PSC should be developed using nominal values and not real costs. All costs should be expressed as nominal values with the effect of inflation included in them. The inflation projections to be used should be based on the inflation forecasted by the Central Bank of Nigeria.

An illustration on the process of discounting for a hypothetical technology hub is presented below. This illustration for calculating the net present value of cash flows has been adapted from the UK Technical Note on How to construct a Public Sector Comparator. Please note that cost figures used in this illustration do not represent actual cost in setting up a technology hub and have been used solely for the purposes of illustrating the process of calculation of the PSC.

Brief Illustration of Calculation of the Net Present Value of Public Sector Comparator

The MDA/government is considering a project for developing a technology hub for centralising all of its functions including customer/end user interface. Based on a preliminary estimate of available land with the MDA, a site has been identified which presently has some structure and equipment. The capital cost estimated for the project is to the tune of USD 107 million. Site development will cost approximately USD 18 to 20 million and the equipment to run the centre would be about USD 10 million to start off. After an initial assessment of the project site, it is understood that some of the structure and equipment on the site can be sold. The estimated value of such asset is about USD 5 million. The initial term of the project is estimated at 10 years and the overall operating costs during this period are likely to be about USD 150 million.

Subsequent to an initial analysis of project details, the project team believes that the capital costs of the project are subject to risks of construction cost overrun, changes in original design, construction costs being higher than budgeted. As a consequence, they believe that these costs should also be reflected in the Capital cost cash flow estimates of the project. Presented in the figures below is the estimated capital cost cash flows which incorporates risks associated with capital costs.

Figure 29: Public Sector Comparator – Capital Cost Cash flows

Capital Cost Cash Flows						Million USD
Project Year	Building	Site Development	Equipment	Capital Receipts	Risk Adjustment	Total Capital
0				2.5	5.1	2.6
1	15	5	3	2	6.6	27.6
2	25	7	2		7	41
3	32	6	5		5.1	48.1
4	30				6.4	36.4
5	5				4.6	9.6
6					3.3	3.3
7					2.7	2.7
8					2.5	2.5
9					2.8	2.8
10					2.9	2.9

Figure 30: Public Sector Comparator – Capital Cost Risk Adjustment

Capital Cost Risk Adjustment			Million USD
Project Year	Construction Risk	Maintenance Cost Risk	Total Risk Adjustment
0	3	2.1	5.1
1	3.1	3.5	6.6
2	2	5	7
3	2	3.1	5.1
4	3	3.4	6.4
5	1	3.6	4.6
6		3.3	3.3
7		2.7	2.7
8		2.5	2.5
9		2.8	2.8
10		2.9	2.9

The Project Team then went ahead to estimate the operating cost of the project. There is a common belief in the team that certain changes are envisaged by the Government which would limit the function of the technology hub. This aspect is likely to be related to certain regulatory compliance issues and separation of execution and regulation functions of the MDA. The Project Officer believes that the risk from such regulatory changes is significant and material enough to include its impact in calculating the operating costs of the project. The second important element of operating risk relates to technological risk which the team believes is very real and material for the technology hub proposed and should be captured in the cost of the project. The figures below

present the calculation for operating cost cash flows of the project over the ten year term of the project.

Figure 31: Public Sector Comparator – Operating Cost Cash Flows

Operating Cost Cash Flows				Million USD
Project Year	Building	Equipment	Risk Adjustment	Total Operating Costs
0	1	2.5	0	3.5
1	1.5	2.1	0	3.6
2	3.8	1.8	0	5.6
3	7	1.5	0	8.5
4	10	1.9	0	11.9
5	15	1.75	0	16.75
6	15	1.5	13	29.5
7	22	1.7	12.5	36.2
8	20	1.5	15.8	37.3
9	21	1.8	17.9	40.7
10	21	1.65	17.8	40.45

Figure 32: Public Sector Comparator – Operating Cost Risk Adjustment

Operating Cost Risk Adjustment			Million USD
Project Year	Regulatory Risk	Technological Risk	Total Risk Adjustment
0			0
1			0
2			0
3			0
4			0
5			0
6	3	10	13
7	3.5	9	12.5
8	6	9.8	15.8
9	8	9.9	17.9
10	8	9.8	17.8

Having calculated the operating and capital cost cash flows, the team now estimates the total undiscounted cash flow of the project. This figure is calculated at approximately USD 410 million. However the team is aware that this does not take into account the time value of money and hence they now calculate the discounted cash flow for the project with the discount rate taken at 5%. The figure below show the calculation of the discounted cash flow of the project and the Net Present Value of the Public Sector Comparator thus arrived at.

Figure 33: Public Sector Comparator – Net Present Value

Net Present Value (Public Sector Comparator)				Million USD
Project Year	Capital Costs	Operating Costs	Total Undiscounted Cash flows	Discounted Cashflows*
0	2.6	3.5	6.1	6.1
1	27.6	3.6	31.2	29.7
2	41	5.6	46.6	42.3
3	48.1	8.5	56.6	48.9
4	36.4	11.9	48.3	39.7
5	9.6	16.75	26.35	20.6
6	3.3	29.5	32.8	24.5
7	2.7	36.2	38.9	27.6
8	2.5	37.3	39.8	26.9
9	2.8	40.7	43.5	28.0
10	2.9	40.45	43.35	26.6
Net Present Value (Public Sector Comparator)				321.1

*Discount Rate assumed at 5%

7.4. PPP Lifecycle

- The lifecycle of PPP Projects is similar across countries. The similarity also reflects the consistency of good international practices across the globe. Therefore, it is recommended that Nigeria also adopts the international standard PPP Lifecycle framework.
- A standard PPP lifecycle shall facilitate in adequate project preparation and implementation by project agencies and the private sector, as also due quality assurance, transparency, oversight and supervision by various oversight agencies and regulators at key stages in the project life.
- The following Table summarizes the institutionalized PPP Project Lifecycle in India, South Korea and UK

PPP Project Lifecycle	India	South Korea	UK
Inception	1. Project is conceptualized as per sector plans or state priority by the line agency	1. Line agency prepares project proposal and submits to Ministry of Strategy & Finance 2. Preliminary assessment by MSF and recommendation for preliminary	1. Selection and conceptualization of project proposal by MDA 2. Preparation of business case by MDA, and review by OGC 3. Value for Money assessment by

PPP Project Lifecycle	India	South Korea	UK
		feasibility study, submitted to PIMAC for comments	MDA and review by OGC 4. Business case approval by Treasury Ministers, supported by Major Projects Review Group (MPRG)
Feasibility	2. The line agency prepares the project proposal, including • Techno economic feasibility study • Draft Bid Documents 3. In Principle Approval of project proposal is obtained from competent authority	3. Feasibility and Value for Money Assessment by MDA, submitted to PIMAC for review 4. Review by MSF and PPI Committee, grant of PPI status	5. Preparation of full business case and review by OGC
Tendering	4. Issue of Request for Qualification and short-listing of bidders 5. Issue of Request for Proposal and selection of Preferred Bidder 6. Contract signing	5. Review by MSF and PPI Committee, grant of PPI status 6. Issue of RFP 7. Evaluation of bids and negotiations by MDA, assisted by PIMAC	6. Approval of tendering process by Treasury Ministers, supported by MPRG 7. Invitation of Bids and OGC review of process

PPP Project Lifecycle	India	South Korea	UK
		8. Contract Award	8. Review of selected bid by OGC before signing of contract 9. Signing of contract
Development & Construction	7. Fulfill conditions precedent in PPP contract 8. Provide land to private party 9. Appoint Independent Engineer 10. Review designs 11. Monitor construction and performance milestones	9. Establishment of PPP corporation 10. Approval of detailed implementation plan 11. Access to land 12. Expropriation or use of land 13. Infrastructure Credit Guarantee 14. Implementation of Supplementary project	10. Submission of project drawings and review by Authority 11. Audit of quality management systems
Operations	12. Monitor service performance 13. Inspect facility 14. Review financial position of private party	15. Right to manage and operate 16. Supervision 17. Government disbursement for Built Transfer Lease Projects 18. Use of facilities	12. Availability requirements 13. Performance requirements 14. Monitoring 15. Maintenance requirements

PPP Project Lifecycle	India	South Korea	UK
			16. Sinking Fund requirements
Exit	15. Site condition inspection 16. Implement transition plans 17. Issue vesting certificate to private party after asset take back	19. Buyout Rights 20. Exit Inspection and Conditions	17. Survey on expiry/ termination 18. Preserving conditions of assets 19. Handover provisions 20. Transfer of residual value risk

The following sections briefly explain the significance of each of the PPP lifecycle stages by giving international examples of the corresponding stages and the activities performed in that stage.

- **Project inception** - In UK and South Korea, this stage involves preparation of the initial project proposal and the initial business case respectively; while the feasibility studies come much later. In these two countries the legal framework also governs the conduct of feasibility studies, and the federal governments get involved much earlier. In both these countries, the specific project proposals are a part of the departmental budgets, multi year and annual, which have been submitted, approved and made part of the overall budget of the federal government.
- **Project Planning** - In India, it is assumed that the MDA has already undertaken these steps, before submission of the project proposal. In other words these activities are not governed by the PPP process framework of the federal government. Appointment of transaction advisor would be governed by specific procurement guidelines, while appointment of project team of the MDA would be according to the internal processes of the respective ministries and departments. However in case the MDA has applied for project development funding for the project, there are certain aspects of the project planning activities, including appointment of transaction advisors, which are governed by the PPP framework of the federal government.

In both South Korea and UK, the legal/ policy framework for PPP does not regulate this stage. The guidelines issued under the PPP framework provide for uniformity in these activities to a certain extent. In UK, an Office of Government Commerce (OGC) review is prescribed at this stage, titled as review of the Strategic Business Case. The Strategic Business Case essentially establishes the strategic reasons for the project, including the contribution of the project to wider organizational and sectoral strategies, affordability of the project and preliminary value of money.

- **Project Feasibility-** This stage is directed towards establishing the technical and financial feasibility of the project, and examining the Value for Money possible to the Public Sector Agency. This key objective of this stage is to provide a basis for the go-no go decision to implement the project through the PPP mode.

The choice between public and private provision of infrastructure is committed to be made on practical grounds. Such choices are based on an assessment of the needs of each project and are tested against a rigorous public interest test that examines the potential impact upon privacy, security, consumer rights, public access and equity. This generally involves a quantitative and qualitative choice between public funding and PPP. The quantitative aspect is generally assessed through the Value for Money analysis, while the qualitative aspect takes different forms in different jurisdictions.

In India, as mentioned earlier the feasibility study is undertaken by the MDA and submitted as part of the project proposal to the competent authority.

In South Korea, the preliminary feasibility assessment is conducted by the Ministry of Strategy and Finance on behalf of the MDA, and is reviewed by PIMAC. Based on the results of the preliminary feasibility assessment, the decision of whether to conduct a detailed feasibility study is made and the specific PPP contract type is decided. Subsequently the detailed feasibility study and the Value for Money tests are conducted by the MDA. In UK, the Value for Money assessment is carried out by the line department and is reviewed by OGC.

Typically across countries, except South Korea, the feasibility stage does not require approvals. Review and approval of the feasibility study is undertaken in the immediately following stage of In-Principle approval or preliminary approval.

- **In Principle Approval-** This stage is directed towards review of the project proposal, feasibility study and Value for Money assessment and In-Principle/ Preliminary Approval to initiate the Bidding Process.

In India, the application for In Principle Approval includes the project plan, technical and financial feasibility reports, draft bidding documents and draft contract. These documents are reviewed by the PPP cell housed in Ministry of Finance, which provides the results of the review to the competent Approving Authority. The Approving Authority is responsible for

approving or rejecting the grant of In- Principle Approval. The grant of In-Principle Approval to the project implies permission to initiate the Bidding Process.

In South Korea, this stage has more fundamental implications- grant of PPI designation to the project. PIMAC reviews the application for PPI designation, including the feasibility assessment and Value for Money Assessment and submits its comments to the Ministry of Strategy and Finance. The Ministry reviews the project proposal and comments of PIMAC and grants/ rejects the PPI designation. If the project is granted PPI status, it is to be procured through the PPP route.

In UK, this stage involves three activities- approval of the value for money assessment and outline business case by Treasury Ministers, preparation and submission of full business case by line department and approval of the tendering process by the Treasury Ministers. In case of large and complex projects, the Major Projects Review Group (MPRG) supports the Treasury Ministers in reviewing the project proposal.

- **Project Procurement-** The objective of this stage is to ensure a fair, competitive and transparent process to identify a private party with the financial and technical capabilities to execute the PPP project. The design of the process would need to balance the consideration of scrutiny at every stage of this process while expediting the time and cost required for procurement of the private party.
 - ✓ This stage involves the following activities
 - ✓ Prequalification of Bidders
 - ✓ Preparation of Bid Documents
 - ✓ Identification of Preferred Bidder and Negotiations
 - ✓ Contract Award

The Ministry of Finance, Government of India has issued model Request for Qualification and Request for Proposal documents to simplify the process of drafting bidding documents by the Line Ministries.

- **Project Development/ Exit and Transfer-** The Project Development stage would comprise the operation of the project and provisioning of services by the private party and will continue through the concession/project delivery period. The Exit and Transfer Stage would be initiated at the end of the contract period.

In India the PPP Policy frameworks governing the PPP lifecycle is silent about stages beyond award of contract. However the model contracts issued in the sectors of National Highways and Major Ports etc. regulate the contractual provisions in PPP arrangements in these sectors. In UK, there is a prescribed OGC review after procurement and thereafter the provisions of SoPC govern the PPP lifecycle, including the stages of project development, service delivery, performance management and exit.

7.5. Request for Qualification (RFQ)

- The objective at the RFQ stage is to pre-qualify bidders to be selected for the PPP Project. The RFQ stage becomes essential in cases where
 - ✓ The number of potential bidders is high in which case undertaking the RFQ stage, would reduce the number of bidders eligible to submit the bid, and in turn reduce the number of bids that would need to be evaluated by the Public Sector Agency
 - ✓ The cost of preparation of the bids might be substantial- for instance in case of projects where the bidder needs to take a view on the likely traffic, undertake some form of technical examination etc. in which case only the more suitable bidders should need to incur the cost of preparation of the bid
 - ✓ Execution of the project being bid requires technical and/ or financial expertise or experience in which case only those bidders which have the requisite expertise are allowed to bid
- Conceptually the RFQ document should provide a background of the project, description of the Bidding Process, eligibility of applicants for qualification, contents of the application for qualification, qualification criteria, due date and other instructions
- The following box provides the table of contents of the Model Request for Qualification document issued by the Ministry of Finance, Government of India

Model Request for Qualification for PPP Projects- Contents

1. Introduction

- 1.1. Background
- 1.2. Brief description of the bidding process
- 1.3. Schedule of the bidding process

2. Instructions to Bidders

2A: General

- 2.1. Scope of application
- 2.2. Eligibility of applicants
- 2.3. Change in composition of consortium
- 2.4. Number of applications and cost thereof
- 2.5. Site visit and verification of information
- 2.6. Acknowledgement by applicant

2.7. Right to reject/ accept all or any application

2B: Documents

2.8. Contents of the RFQ

2.9. Clarifications

2.10. Amendment of RFQ

2C: Preparation and submission of bids

2.11. Language

2.12. Format and signing of applications

2.13. Sealing and marking of applications

2.14. Application due date

2.15. Late Applications

2.16. Modification/ substitution/ withdrawal of applications

2D: Evaluation Process

2.17. Opening and evaluation of applications

2.18. Confidentiality

2.19. Tests of responsiveness

2.20. Clarifications

2E: Qualification and Bidding

2.21. Short listing and notification

2.22. Submission of bids

2.23. Proprietary data

2.24. Correspondence with the bidders

3. Criteria for Evaluation

3.1. Evaluation parameters

3.2. Technical capacity for the purposes of evaluation

3.3. Details of experience

3.4. Financial information for the purpose of evaluation

3.5. Short listing of applicants

4. Fraud and corrupt practices

5. Pre-Application conference

6. Miscellaneous

Appendices

I. Format for Application

Annex I: Details of Applicant

Annex II: Technical Capacity of Applicant

Annex III: Financial Capacity of Applicant

Annex IV: Details of Eligible Projects

Annex V: Statement of Legal Capacity

II. Format of Power of Attorney for signing the Application

III. Format of Power of Attorney for Lead Member of Consortium

IV. Format for Joint Bidding Agreement for the Consortium

7.6. Request for Proposal (RFP)

- The objective at the RFP stage is to select a preferred bidder based on an objective, comprehensive and transparent selection process. This is a critical phase for obtaining the best value for money by the Public Sector Agency. The purpose of the PPP Policy and the guidelines to be issued under it is to ensure standard and uniform RFP documents across PPP projects in various sectors to mitigate the risks arising out of improper design and contents of the RFP document.
- Conceptually the RFP document should provide a background of the project, description of the Bidding Process, eligibility criteria for the bidders, contents of the bid, due date and other instructions. Usually a bid security is requested from potential bidders to prevent frivolous bids, and the RFP document prescribes the quantum and form of the bid security

- Internationally the contents of RFP documents are on similar lines, with sectoral and geographical customization. The following box provides the table of contents of the Model Request for Proposal document issued by the Ministry of Finance, Government of India

Model Request for Proposal for PPP Projects- Contents

1. Introduction

- 1.1. Background
- 1.2. Brief description of the bidding process
- 1.3. Schedule of the bidding process

2. Instructions to Bidders

2A: General

- 2.1. General terms of bidding
- 2.2. Change in composition of bidding consortium
- 2.3. Change in ownership
- 2.4. Cost of bidding
- 2.5. Site visit and verification of information
- 2.6. Right to accept or reject any or all bids

2B: Documents

- 2.7. Contents of the RFP
- 2.8. Clarifications
- 2.9. Amendment of RFP

2C: Preparation and submission of bids

- 2.10. Format and signing of bids
- 2.11. Sealing and marking of bids
- 2.12. Bid due date
- 2.13. Late bids
- 2.14. Contents of the bid

2.15. Modification/ substitution/ withdrawal of bids

2.16. Rejection of bids

2.17. Validity of bids

2.18. Confidentiality

2.19. Correspondence with Bidders

2D: Bid Security

2.20. Bid security

3. Evaluation of Bids

3.1. Opening and evaluation of bids

3.2. Tests of responsiveness

3.3. Selection of bidder

3.4. Contacts during bid evaluation

4. Fraud and corrupt practices

5. Pre-Bid conference

6. Miscellaneous

Appendices

- I. Letter Comprising the Bids
- II. Bank Guarantee for Bid Security
- III. Power of Attorney for signing of Bid
- IV. Power of Attorney for Lead Member of Consortium
- V. Guidelines of the Department of Disinvestment

- The key aspect of this stage is defining the bid evaluation criteria. The bid evaluation criteria fundamentally are based on only two sets of parameters- financial and technical. Financial parameters are forms of the following:
 - ✓ The payout by the government agency/ users during the contract period- Whichever bid request the lowest payout would be the preferred bidder
 - ✓ The inflows to the government agency during the contract period- whichever bid offers the highest inflow to the government agency would be the preferred bidder

✓ Lowest contract period

One of the above parameters is modified and customized for use in every PPP project. For example the parameter of lowest payout by the government agency/ users during the contract period can be modified as lowest tariff offered to users, lowest capital grant, lowest net present value of subsidy/ grant, lowest annuity to the government agency etc. The highest inflows to the government agency can be modified as highest revenue share, highest premium, highest lease rental etc. The lowest contract period is essentially a form of the first parameters- lower the contract period, lower is the total payments made by the user/ government agency during the whole contract period

Technical parameters are modifications or combinations of criterion like suitability of design, technology proposed, environmental impact, experience of the bidder etc.

- The Public Sector Agency shall select either a financial evaluation (Least Cost Method) or a combination of financial and technical evaluation (Quality cum Cost Based Selection) based on its requirements as mentioned in the PPP Policy Statement. Internationally both types of approaches are used. The following table presents the evaluation approaches across different countries

No.	Country	Relevant Legislation/ Guideline/ Regulation	Practice
1.	United Kingdom	Directive 2004/17/EC of The European Parliament The Public Contracts Regulations 2006	Choice between: Price only (lowest price to the public procurer) Price and economic benefits (value of features of the tender linked to subject matter of the contract)
2.	South Africa	PPP Manual (published by PPP Unit of South Africa) Preferential Procurement Policy Framework Act 2000	Weighted average of the following factors: Price (weight between 20% and 40%)

No.	Country	Relevant Legislation/ Guideline/ Regulation	Practice
			Technical Evaluation Score (weight between 50% and 70%) Black Economic Empowerment Score (weight between 10% and 20%)
3.	South Korea	Basic Plan for Private Participation in Infrastructure 2007	Weighted average of the following factors: Engineering Factor- focusing on the content, plans and drawings (weight of 50%) Price Factor- Net Present Value of all payments to be made by the public entity (weight of 50%)
4.	Australia	Practitioners' Guide- National PPP Guidelines	Combination of the following Highest savings as compared to Public Sector Comparator (Bidder ranked accordingly) Qualitative assessment of individual bids

7.7. Concession Agreement

- PPP Agreement is the document that governs the contractual relationship between the Government Agency and the Private Party specific to a PPP project. Although the PPP Agreement would be customized to the specific project, the structure of the PPP contract and the sector in which the project is, governments or departments in some countries have institutionalized model contract agreements or detailed guidance notes. These documents apply to all PPP projects irrespective of the sector like the Standardization of PFI Contracts prevalent in UK or are specific to sectors like documents prevalent in India for Major Ports and National Highways.
- Detailed guidance for PPP Agreements or Model Concession Agreements benefit in the following ways
 - ✓ Promote common understanding of the risks and allocation of risks in PPP arrangements
 - ✓ Consistency of approach, commitments and liabilities across various projects bringing predictability to a certain extent from the point of view of the government agencies
 - ✓ Restrict the time and effort required for negotiations, as the provisions of the agreement are known to both the parties in advance
- Conceptually PPP agreements necessarily include rights and obligations of both the parties, definition of the subject matter of the agreement, payment terms, performance obligations, defaults and their consequences, events of termination and other ancillary clauses.

The following box lists the contents of the Model Concession Agreement for National Highways in India

Contents of Model Concession Agreement for National Highways in India

Part I: Preliminary

1. Recitals
2. Definitions

Part II: The Concession

3. Scope of the Project
4. Grant of Concession
5. Conditions Precedent
6. Obligations of the Concessionaire
7. Obligations of the Authority

8. Representations and Warranties

9. Disclaimer

Part III: Development and Operations

10. Performance Security

11. Right of Way

12. Utilities, Associated Roads and Trees

13. Construction of the Project Highway

14. Monitoring of Construction

15. Completion Certificate

16. Entry into Commercial Service

17. Change of Scope

18. Operations and Maintenance

19. Safety Requirement

20. Monitoring of Operations and Maintenance

21. Traffic Regulation

22. Emergency Medical Aid

23. Traffic Census and Sampling

24. Independent Engineer

Part IV: Financial Covenants

25. Financial Close

26. Grant/ (or Premium)

27. Concession Fee

28. User Fee

29. Revenue Shortfall Loan

30. Effect of Variations in Traffic Growth

- 31. Construction of Additional Toll way
- 32. Escrow Account
- 33. Insurance
- 34. Accounts and Audit

Part V: Force Majeure and Termination

- 35. Force Majeure
- 36. Compensation for Breach of Agreement
- 37. Suspension of Concessionaire's Rights
- 38. Termination
- 39. Divestment of Rights and Interest
- 40. Defects Liability and Termination

Part VI: Other Provisions

- 41. Assignment and charges
- 42. Change in Law
- 43. Liability and Indemnity
- 44. Rights and Title over Site
- 45. Dispute Resolution
- 46. Disclosure
- 47. Redressal of Public Grievance
- 48. Miscellaneous

7.8. Unsolicited Bids

7.8.1. Introduction

Unsolicited PPP proposals are proposals submitted by the Private Sector in the absence of a publicly announced tender. While such proposals have the potential to address gaps in meeting infrastructure demands, unlock hidden value and introduce innovation, they may not be seen as conducive to transparency.

7.8.2. Key considerations

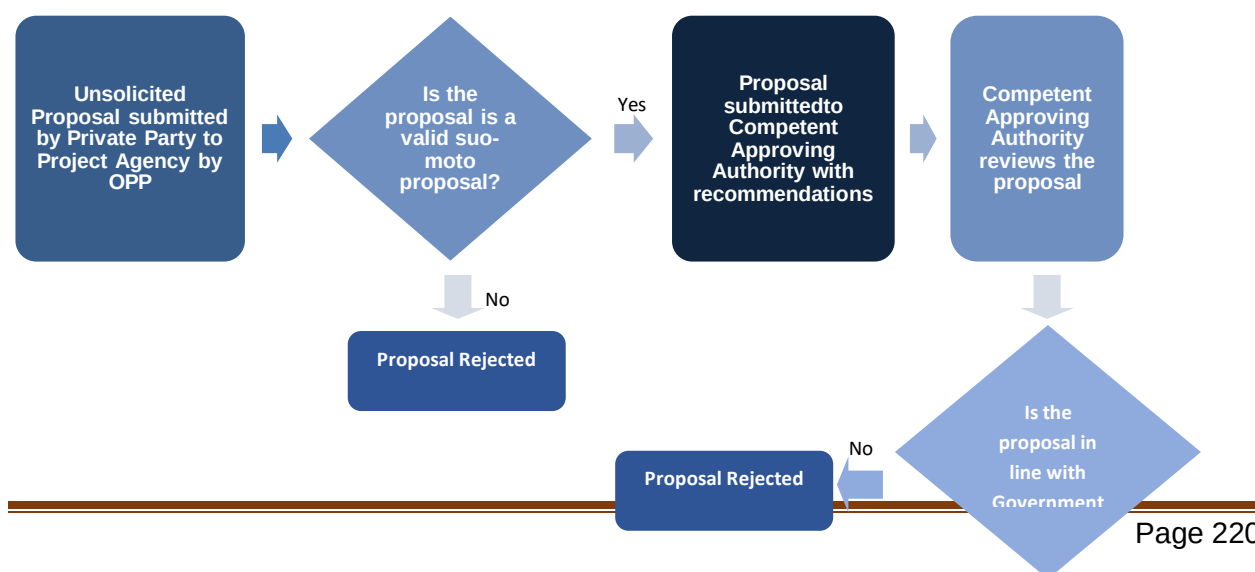
The key considerations in defining the treatment of unsolicited proposals can be summarized as follows:

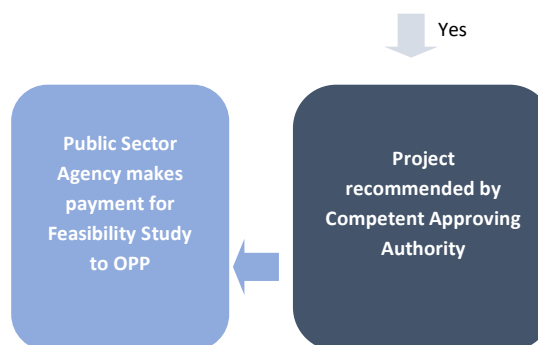
- The Private Sector may come up with innovative ways of accomplishing a project that may be in line with the authorities strategic initiatives in that sector;
- In the absence of high level of transparency and accountability unsolicited bids might contribute to corruption and a low value for money. Hence, robust government processes are required to deal with unsolicited proposals;
- In the markets with limited competition (e.g., natural monopolies), it is important to have a robust and systematic process for consideration of unsolicited bids in order to enhance the transparency of the system; and
- If the Original Proposal Proponent (OPP) intends to use special technology/processes that are unavailable to other bidders, exposing that know-how in the open tender might not be in the best interest of the OPP. This may dissuade the submission of unsolicited proposals.

7.8.3. Guidelines for dealing with unsolicited proposals

To maintain a fair and transparent bidding process, the Public Sector Agency needs to have a process for dealing with unsolicited proposals. Practices in other jurisdictions are discussed in Sections 4 and 5 below. The following process describes the steps that should be taken on receiving an unsolicited proposal for a project from a Private Sector. The process is implemented as follows:

Figure 34: Dealing with Unsolicited Proposals





Step 1: The Private Sector would submit his proposal to the Public Sector Agency. The Public Sector Agency will then screen the project to ensure the validity of the proposal as a “suo-moto” proposal. The OPP needs to submit the following at this stage:

- Project details including project specifications and performance standards, scale and scope, and other technical, financial and commercial details;
- Details of technical, commercial, managerial and financial capability of the OPP;
- Principles of the PPP Agreement including risk sharing and risk assessment, options analysis, commercial principles and an implementation plan;
- Feasibility Study including market, technical and financial feasibility of the project. The feasibility study should also include a strategic needs assessment and a legal framework; and
- Estimated cost of the feasibility study of the project. This cost should not exceed 1 per cent of the project value. The approval of any such amount and feasibility report will be subject to the approval of the ICRC or relevant State authority.

If the proposal does not satisfy the above submission criteria the agency should inform the OPP that the submission is invalid. If the project proposal satisfies the above submission criteria the Public Sector Agency will review the proposal and forward it to the Competent Approving Authority through the Central PPP unit, within 30 working days with its recommendations.

Checklist for selecting an unsolicited proposal

The Public Sector Agency may receive many unsolicited proposals and not all may be in line with the Public Sector Agency’s policies and objectives. Following is a list of key parameters the Public Sector Agency should use to make its recommendation to the Competent Approving Authority regarding an unsolicited proposal. Checklist is as below:

Sr. No.	Parameter	Valid/ Not Valid
1	The project is not already listed in the list of priority projects identified by the Public Sector Agency.	☐
2	No direct government guarantee, subsidy, or equity is required. While projects that do not require government guarantee, subsidy or equity will be preferred, it does not imply that the unsolicited proposal will be rejected if any form of government support is required.	☐
3	The project is in public interest and the scale and scope of the project is in line with the requirements of the Public Sector Agency.	☐
4	Sharing of risks as proposed by the OPP is in conformity with the risk-sharing framework as adopted by the Public Sector Agency. If any variations to the risk sharing are required the proposals should be looked at on a case by case basis.	☐
5	The cost of the project exceeds (the minimum project cost for a project to fall under the PPP category).	☐
6	The proposal is financially viable and it has the potential for securing private financing.	☐
7	The proposal satisfies all the above conditions.	☐

Step 2: The ICRC or relevant State PPP Office will review the proposal and forward it together with its recommendation and the recommendation of the Public Sector Agency to the Relevant Approving Authority. The Approving Authority will ascertain whether the proposal is in line with Government's requirements. If the Competent Approving Authority recommends the retention of the project, then the Public Sector Agency will compensate the OPP the cost for the preparation of the feasibility study. The feasibility study together with the other related documents for the project then become the property of the Public Sector Agency.

Thereafter, the Public Sector Agency will initiate a competitive tendering process. The OPP would be invited to participate in the competitive tendering process as one of the prospective bidders. If the OPP is not the winning bidder then the winning bidder will compensate the Public Sector Agency for the cost of the feasibility study prepared by the OPP.

The OPP would not be given any advantage over other bidders in this case as that under the systems like the bonus system or Swiss challenge system. The OPP would only be compensated for the Feasibility Study submitted to the Public Sector Agency.

7.8.4. Key Policy Choices

The Public Sector Agency needs to have in place a set of policies to deal with unsolicited proposals to ensure a transparent and corruption free process. The Public Sector Agency must address questions such as,

- Screening of unsolicited proposals;
- The amount of reimbursement for project development costs (optional); and
- Timelines for the project approval and comparative/competitive bidding process.

These policy choices are discussed in detail below.

Screening of unsolicited proposals

In order to streamline evaluation of unsolicited bids, many governments have developed checklists for initial evaluation and have a two-stage evaluation process, with relatively short time period (about 15-30 days) allocated to the initial evaluation.

Examples:

Gujarat (India): The proposal must contain the following –

- Feasibility study consisting of market analysis, technical aspects, financial analysis and operational./institutional aspects;
- Basic contractual terms and conditions;
- Pre-qualification requirements, which include legal requirements, experience or track record and financial capability to undertake the project;
- Preliminary financing plan, which describes how the project will be financed; and
- Implementation plan, which would show the timeframe of construction and implementation.

Costa Rica: In Costa Rica, during the screening stage, the private proponent submits a preliminary project presentation to the appropriate agency that assesses whether the project serves a public interest.

Within 45 days, the administration should conduct the initial assessment and if there is interest in the proposal, allow the Private Sector to present a full detailed proposal. Also at this preliminary stage, the proponent is required to submit a bid bond to guarantee that its proposal which cannot exceed more than 1 percent of the estimated project value.

Reimbursement of project development costs to the OPP

Full or partial compensation of project development costs encourages development and protection of intellectual property, maintains Private Sector interest and innovation.

Some countries that offer reimbursement for project development costs include:

- **The Philippines** – The development costs will be reimbursed in the event the challenger outbids the OPP.
- **Gujarat (India)** – The state will reimburse costs of project development to the OPP in case it does not win the project.

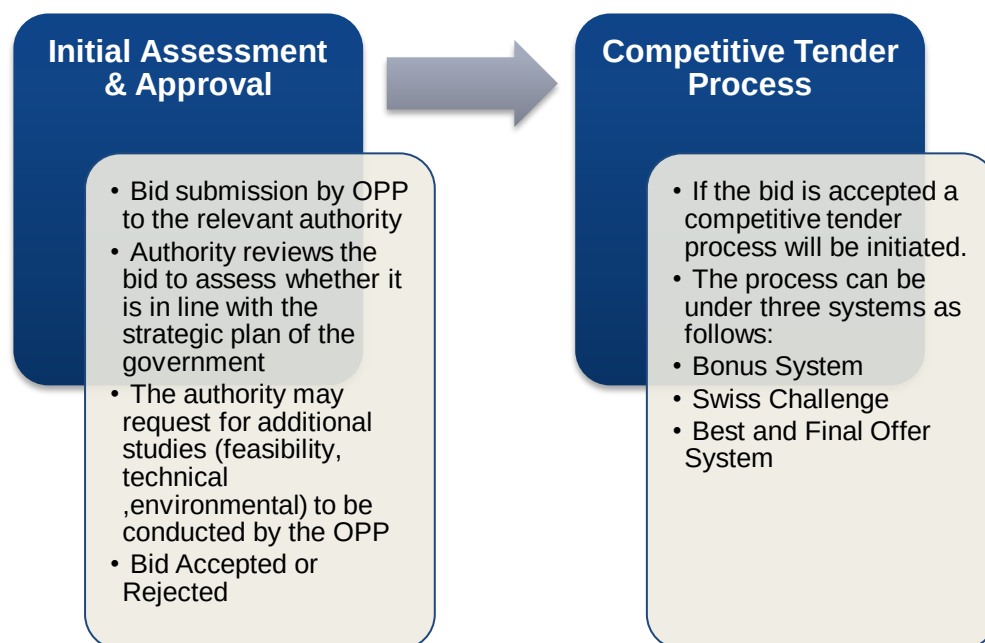
However, determination of reimbursements costs is a complex process and may lead to unnecessary proposals, exaggeration of project development costs and additional costs to the Public Sector Agency to determine or verify the amount of reimbursement.

Timelines for dealing with unsolicited proposals

Most of the countries will have a fixed time frame for the completion of each stage of the bidding process. The time constraints for dealing with unsolicited proposals are set up for preliminary approval, putting the project out for bidding, and a closing date for counter-proposals. These timelines should be setup keeping in mind the obvious advantage to the OPP who has an advantage over other proponents as the OPP is more familiar with the project. An opponent in many countries is given a short time of usually 60 days (Philippines and Guam) to challenge the project. This may discourage potential proponents from competing for the bid. Thus, selecting an appropriate timeframe for the bidding process is essential to ensure a fair, transparent and competitive bidding process.

7.8.5. Approaches to unsolicited bids

Countries across the world use different approaches to unsolicited bids. While some countries do not allow unsolicited bids, others have a framework as shown below:

Figure 35: Approaches to Unsolicited Proposals

Following are the systems used for a competitive tender process in dealing with unsolicited bids in different countries.

Bonus system

If the proposal is accepted by the authority-in-charge, the project is opened to other bidders, but an advantage (usually between 5% and 10%, made known to other bidders) is granted to the OPP. This implies that the OPP wins if his bid is x% or x\$ higher than the other bidders. If the OPP loses the bid or decides not to bid, the winning bidder might be required to compensate the OPP for the case development costs. The size of the bonus can be used to calibrate the number of unsolicited proposals.

Following are the examples of some of the countries that use this system:

Countries using Bonus system

Chile – the OPP is allowed to sell the bonus to other bidders;

Korea – bonus points awarded are within 0-4% of a total of 1,000 evaluation points; modification of original proposal by the OPP causes it to forfeit the bonus points;

Mauritius – the OPP will be awarded the contract if its price is within 10% of the best challenger.

This system has its disadvantages in that the provision of a bonus may discourage other bidders from tendering and hence there may be fewer bids.

Swiss Challenge System (right to match)

If the proposal is accepted by the authority-in-charge, the project is opened to other bidders, but the OPP is granted the right to match the best offer, thus securing the contract. Following are examples of countries that use the Swiss Challenge system.

Countries using Swiss Challenge System

Gujarat and Andhra Pradesh (India) – An unsolicited bid is evaluated by the Public Sector Agency and if the proposal is acceptable, a competitive tender is held and the OPP is given an opportunity to match it. If the OPP does not win the bid, project development costs can be reimbursed. The Public Sector Agency of each state has specific check-lists to screen unsolicited project bids.

The Philippines – If a lower priced proposal is submitted and approved, the OPP is given 30 working days to provide a counter bid price. If the OPP is able to match the lowest bid price it is immediately offered the project.

Guam – If a proponent submits a bid at a lower price and the OPP is able to match it and provide a counter bid within 30 working days then the BOT committee assesses which proposal has greater technical merit. It then submits the review to the board of directors for the final decision. within 30 working days, then the BOT committee will identify which proposal has greater technical merit and submit its recommendations to the board of directors for disposition

As this system generally provides for little time for preparing counter bids, it may discourage Private Sector bidders. Also, other proponents may bid quite aggressively to counter the OPP and then expect a renegotiation with the Public Sector Agency at a later stage.

Best and Final Offer (BAFO)

If the proposal is accepted by the authority-in-charge, the project is opened to other bidders and multiple rounds of tendering take place, but the OPP is guaranteed participation in the final round.

Countries using Best and Final Offer System

South Africa – An unsolicited bid is evaluated by the Public Sector Agency and if the proposal is acceptable, a competitive tender is held and the two most advantageous bids are selected. If the OPP is not part of the two final bidders it is automatically

allowed to participate in the final round of bidding. The winning bidder is required to compensate the proponent for the project development costs as per the public bid documents.

Costa Rica – The Public Sector Agency mandates an open competition and the OPP are allowed to participate in it. The winning bidder will compensate the OPP for project development costs as per the public bid documents.

Hybrid System

Many countries now use a hybrid model for dealing with unsolicited proposals. These approaches follow the same process up to project acceptance stage. Once the project is accepted different countries use different combinations of BAFO and other systems for the bidding stage.

Countries using Hybrid System

Argentina – Argentina follows a combination of BAFO and Bonus system. If the OPP's bid is within 5% of the best offer then the OPP's bid is selected. If however, the OPP's bid is between 5% - 20% of the best offer the two proponents are allowed to submit their best and final offers. If the OPP's bid is not selected in the final round then the proponent will compensate the OPP with the project development cost estimated at 1% of the project cost.

7.9. Appointment and Management of Transaction Advisors

7.9.1. Who is a Transaction Advisor?

A transaction advisor is a person or group of persons (firm or company) that either possesses or has access to the professional expertise in financial analysis, economic analysis, legal analysis, environmental impact analysis, contract documentation preparation, tender processing, engineering and cost estimating. The role of a transaction advisor is to bring a PPP project from the concept stage through public bidding and award to actual execution.

7.9.2. Need for a Transaction Advisor

The project development process might require the inputs of a transaction advisor if the Public Sector Agency feels that capacity within the organization is not adequate to manage the project development process, especially if the project is complex. Even if the capacity within the organization is adequate to manage the project development process, a professional firm associated as the technical advisor is considered to add value to the process by:

- Bringing in their experience in similar transactions and protecting against costly, avoidable mistakes
- Providing technical strength to the Public Sector Agency's team

-
- Bringing legitimacy to the PPP process and placing an external stamp of endorsement on the Government's proposals, increasing investor and public confidence
 - Providing an opportunity for knowledge transfer
 - Developing strategies for government consideration
 - Helping develop public messages and information
 - Performing analysis of PPP options
 - Supporting the bidding and negotiation processes etc.

Accordingly, the Public Sector Agency may hire the services of the transaction advisors and/or specialist advisors such as lawyers, financial analysts, financiers, economists, sociologists, and sector specialists to support the Public Sector Agency for successful implementation of the project through the PPP route. These advisors can be procured as a team or recruited individually, in which case coordination among the team members should be ensured.

7.9.3. Considerations for appointment of Transaction Advisors

Some essential considerations to be taken care of when appointing a transaction advisor and during the tenure in the project include:

- The transaction advisor should be hired at the start of the PPP project development and retained either until after the signing of the PPP agreement or at the end of the procurement phase.
- The procurement of the transaction advisor must be fair, equitable, transparent, competitive and cost-effective.
- The terms of reference for the transaction advisor should be precise and focused on clear deliverables.
- The terms of the contract between the Public Sector Agency and the transaction advisor should incentivise quality completion of milestones on time and within the budget.
- The Public Sector Agency should avoid separately retaining or subsequently hiring additional consultants for the project outside of the transaction advisor. Otherwise conflicting work streams and accountability can be created which might be detrimental to both the quality and timing of the project.
- The project team should meet regularly with the transaction advisor to receive progress updates, provide project direction, resolve impasses, and ensure ongoing institutional input and support.

7.9.4. Terms of Reference for the Transaction Advisor

The terms of reference (TOR) for the transaction advisor should clearly articulate the requirements and expectations of the Public Sector Agency. The terms of reference and the proposal submitted by the transaction advisor will form the deliverables schedule of the transaction advisor's contract. Hence the more clear and precise the terms of reference are, the higher would be the quality of bids received. Some of the example contents of terms of reference for appointing a transaction advisor are as follows:

-
- **Introduction:** Briefly describe the project and its objectives, and how these align with the institution's strategic vision. Briefly narrate the background of the assignment including the institutional mandate to proceed with the project, needs that led to the project and any preparatory work which has been carried out.
 - **Scope of work:** Outline the scope of work for the transaction advisor during the project development process, including but not limited to, feasibility analysis and procurement support.
 - **Deliverables:** List the deliverables required from the transaction advisor and the schedule which they need to conform while submitting the deliverable.
 - **Required skills/ experience:** List the professional experience of the transaction advisor that is required for the specific project. List the firm level skills and team member level skills that are required for the specific project.
 - **Payment terms:** The payment terms will narrate the remuneration system and schedule.
 - **Performance terms:** Set out the appointment, reporting and decision-making arrangements under which the transaction advisor will be required to team, and the project officer's contact details.
 - **Bidding procedure:** Briefly narrate the bidding procedure, mostly in conceptual terms for a general understanding of the bidders.

7.9.5. Selection of Transaction Advisor

The selection of Transaction Advisors will vary from project to project depending, in part, on the country in which it is being undertaken, the type of project and the source of financing. However, best practice selection should follow four main rules as below.

- **Transparency:** As much information as possible should be made publicly available. A transparent process eliminates doubt about the quality of the final winning team. Furthermore, it is a pre-requisite to the participation of most top consultancies, which will not bother to participate in a process that is opaque and difficult to understand.
- **Fairness:** All parties are treated equally. All parties receive the same information at the same time, and are evaluated on the same criteria.
- **Cost-effectiveness:** Costs should be minimized without sacrificing quality. Costs can be minimized and quality of service maintained by choosing and employing the appropriate selection method (For example a form of competitive bidding and by understanding the likely cost components of the work while drafting the terms of reference).

- ***Freedom from conflicts of interest:*** The selection process should avoid both actual and perceived conflicts of interest. This requires avoiding the participation of companies that may be involved as investors or consumers, the participation of government officials who have current or recent connections to the companies involved and the linking of rewards to anything other than performance.

The appointment of a Transaction Advisor would preferably be done on the basis of proposals submitted in accordance with a comprehensive RFP. Prospective transaction advisors would preferably be required to submit proposals in two sections as described below.

Technical Proposal

The technical proposal would normally carry the highest weighting of say 60-70 percent of the overall assigned scores for evaluation. The technical proposal could consist of the following sections:

- Company and staff experience (say about 75 percent of the total weight assigned to the technical proposal)
- Proposed execution plan (say around 10 percent of the total weight assigned to the technical proposal)
- Understanding of transaction requirements (say about 15 percent of the weight assigned to the technical proposal)

The technical proposal would also be accompanied by the relevant documents to support the above.

A threshold may also be established in terms of which a prospective Transaction Advisor's proposal might need to achieve a minimum number of technical evaluation points for that bid to be further evaluated on the basis of its financial proposal.

Financial Proposal

The components of the financial proposal could be the total cost, retainer and success fee. For the evaluation of the financial proposal, the maximum number of points could be awarded to the proposal with the lowest total tendered cost, being the aggregate of a retainer and a success fee. The retainer fee could consist of the sum disbursed regardless of the success or financial closure of the project. The success fee on the other hand, could be contingent on the success or financial closure of the project.

The other proposals could be awarded on a pro rata number of points, calculated on the percentage difference in cost between their tendered costs and the lowest tendered total cost.

7.9.6. Managing the Transaction Advisors

Once Transaction Advisors have been appointed it is crucial that they are managed properly. Getting maximum benefit from a transaction advisor requires good management and effective leadership and oversight by the Public Sector Agency right from defining the transaction advisor's

tasks, to choosing the transaction advisor, and monitoring and managing their performance throughout their engagement with the Public Sector Agency. Without this, the Transaction Advisor's work can be misdirected, misunderstood, and may even amount to fruitless expenditure by the Public Sector Agency.

The Public Sector Agency would appoint a Project team lead by a Project Officer for the implementation of the Project. The Project Officer and the Project team play a pivotal role in managing the transaction advisor. The transaction advisor would be managed on a day-to-day basis by the Project Officer, and will play the key technical roles in the work of the Project team. The Transaction advisor will furnish the Project team, in a format to be agreed upon by the Project team, with all the documentation required during the course of the project. The project team could meet the Transaction Advisor at regular intervals to assess the progress of the project and the progress on the Transaction Advisor's deliverables and also to assist the Transaction Advisor with the necessary data requirements of the Transaction Advisor, obtaining the approvals and the clearances as required for the successful implementation of the project.

7.10. Risk Identification and Allocation

Risk is an inherent part of all projects. In the context of the PSC, risk reflects the potential for additional costs above the base case assumed in the primary PSC or for revenue below it. For the PSC to provide a meaningful test for value for money against the private bids, it must include a comprehensive and realistic pricing of all quantifiable and material risks.

In constructing the PSC, the value of risk is included in the cash flow numerator of the PSC. This is seen as offering the following advantages:

- By valuing risk as a separate cash flow item, government is better able to focus on the key factors influencing the optimal level of risk allocation;
- Cash flow valuation takes better account of the timing of risk by analysing the risk profile of each risk. For example, construction risk arises early in the project, while upgrade and residual value risks arise towards the end;
- The value and impact of a particular risk may vary over time; and
- Cash flow valuation provides a transparent methodology by using a consistent government discount rate across projects.

Identifying the project risks

The first step in managing and allocating risk is to identify all risks associated with a project. Risks are usually identified by reference to generic risk categories and/or risks based on different phases of the project. The risks associated with project phases include: bid phases; negotiation with bidders; construction; operation and transfer risks. The first two project phase risks are not accounted for in the PPP agreement. An illustrative list of risks associated with a project is presented in the table below.

Table 12: Constructing a Risk Matrix – Risk Identification

Risk category	Description of risk
Commissioning risk	The risk that the infrastructure will not receive all approvals to satisfy an output specification, such as expected changes in legislation which allow for a specific output specification not materialising
Construction risk	The risk that the construction of the assets required for the project will not be completed on time, budget or to specification
Demand (usage) risk	The risk that actual demand for a service is lower than planned
Design risk	The risk that the proposed design will be unable to meet the performance and service requirements in the output specification
Environmental risk	The risks that the project could have an adverse environmental impact which affects project costs not foreseen in the environmental impact assessment
Financial risk	The risk that the private sector over stresses a project by inappropriate financial structuring
Force majeure risk	An act occasioned by an unanticipated, unnatural or natural disaster such as war, earthquake or flood of such magnitude that it delays or destroys the project and cannot be mitigated
Industrial relations risk	Industrial relations risk The risk that industrial relations issues will adversely affect construction costs, timetable and service delivery
Latent defect risk	The risk that an inherent defect exists in the structure being built or equipment used, which is not identified upfront and which will inhibit provision of the required service
Operating risk (service under-performance)	The risks associated with the daily operation of the project, including an unexpected change in operating costs over budget
Performance risk	The risk that the operator will not perform to the specified service level, such as a power generator supplying less power than demanded
Change in law risk	The risk that the current regulatory regime will change materially over the project or produce unexpected results

Risk category	Description of risk
Residual value risk	The risk relating to differences from the expected realisable value of the underlying assets at the end of the project
Technology obsolescence risk	The risk that the technology used will be unexpectedly superseded during the term of the project and will not be able to satisfy the requirements in the output specification
Upgrade risk	The risks associated with the need for upgrade of the assets over the term of the project to meet performance requirements

Source: Partnerships Victoria, Technical Note on Public Sector Comparator

The depth and accuracy of information collected should reflect the materiality of the costs (or revenues) to be quantified. It would generally be inappropriate to devote excessive time and resources to valuing minor or less sensitive risks. For the purpose of constructing the PSC, only material risks should be included.

Risk Assessment

After all material risks have been identified, the next step would be to assess and quantify the consequence of each risk. The two factors impacting the consequence of the risk are first the likelihood of its occurrence and second the size of its consequence if it were to materialise.

The consequences of risk can be either direct or indirect. Direct consequences include time and cost overruns over the initial base costs used in the Raw PSC. Indirect consequences arise from the interaction between risks, where the occurrence of one risk has flow-on implications for other aspects of the project. When identifying the consequences of a particular risk, the potential interaction between risks needs to be considered. This is particularly relevant where the risk would delay the critical path and has a flow-on effect throughout the project.

Table 13: Constructing a Risk Matrix – Direct Consequences of risk

Risk category	Direct Consequence
Commissioning risk	Additional ramp-up costs, cost of maintaining existing infrastructure or providing a temporary alternative solution where this leads to a delay in the provision of the service
Construction risk	Additional raw materials and labour costs, cost of maintaining existing infrastructure or providing a temporary alternative solution where this leads to a delay in the provision of the service

Risk category	Direct Consequence
Demand (usage) risk	Reduced revenue based on lower throughput
Design risk	Cost of modification, redesign costs
Environmental risk	Additional costs incurred to rectify an adverse environmental impact on the project, incurred from the construction or operation of the project or pre-existing environmental contamination
Financial risk	Additional funding costs for increased margins or unexpected refinancing costs
Force majeure risk	Additional costs to rectify
Industrial relations risk	Increased employee costs, lost revenue or additional expenditure during delay in construction or service provision (post-construction)
Latent defect risk	Cost of new equipment or modification to existing infrastructure
Operating risk	Increased operating costs or reduced revenue over the project term
Performance risk	Cost of failing to comply with performance standards
Change in law risk	Cost of complying with new regulations
Residual value risk	Lower realisable value for underlying assets at end of project term
Technology obsolescence risk	Cost of replacement technology
Upgrade risk	Additional capital costs required to maintain specified service above the level included in the Raw PSC
Maintenance risk	Increased cost of repairs above the level included in the Raw PSC

Source: Partnerships Victoria, Technical Note on Public Sector Comparator

A useful tool for identifying the consequences and financial impact of risk is a risk matrix. A comprehensive risk matrix should be more than an indication of whether each risk should be transferred, retained or shared. It should also identify the main consequences, financial impact and potential mitigation strategies for each risk. This allows the risk matrix to serve as a reference point for valuing risk in a PSC. An example of a risk matrix is presented in the table below:

Table 14: Constructing a Risk Matrix – Example of a risk matrix element

Risk	Cause	Consequence of risk	Potential financial impact	Strategy/ mitigation
Commissioning risk – delay in service provision	(1) Failure to complete or construct adequately	Cost and time overruns (e.g. additional ramp-up costs)	Dependent on extent of time overrun	Allocate risk to bidder; fixed time and price contract with an experienced builder
		Cost of maintaining existing infrastructure or providing a temporary solution through inability to deliver the new facility as planned	Known (monthly/daily) cost but dependent on extent of time overrun Dependent on probability of risk occurring	Ensure construction company provides a liquidated damages bond
	(2) Council failure to deliver approvals in a timely manner	Cost and time overruns (e.g. additional ramp-up costs)	Dependent on time taken to acquire approvals (if they can be obtained at all)	Simplify approval process (as far as is reasonable)
		Cost of maintaining existing infrastructure or providing a temporary solution through inability to deliver the new	Dependent on probability of risk occurring	Obtain as many approvals as is possible prior to contract signature Use best legal advisers to determine and obtain all approvals required

Risk	Cause	Consequence of risk	Potential financial impact	Strategy/ mitigation
		facility as planned		
	(3) Flaws in output specification	Cost and time overruns (e.g. additional ramp-up costs) Cost of maintaining existing infrastructure or providing a temporary solution through inability to deliver the new facility as planned	Dependent on extent of time overrun Known (monthly/daily) cost but dependent on extent of time overrun Dependent on probability of risk occurring Potential cost of redefining the output specification Dependent on probability of risk occurring	Remove high risk technological elements from specification (keep it simple and unambiguous) Nature of commissioning tests should be clearly spelt out upfront, focusing attention on whether the output specification will be met

Source: Partnerships Victoria, Technical Note on Public Sector Comparator

It is useful to separate the different causes and consequences of each risk for two reasons:

- Different consequences may have a different probability of eventuating — typically, more severe consequences have a lower probability of occurring; and
- It may be optimal to allocate different causes for the same risk between the parties, based on their ability to manage it at least cost.

This process is performed for each risk to complete the risk matrix. The entire process should be thoroughly documented to ensure an adequate probity trail exists to justify the risk valuation and

allocation, and to allow for future review of the process.

Having identified the material risks and assessed the variety of potential consequences, it is then necessary to estimate the probability of each of the consequences occurring. There are various risk valuation techniques that can be used to provide probability estimates. These range from simple techniques that provide a subjective estimate of probability, to more advanced techniques that produce weighted probabilities for specific risks based on given confidence intervals, and single comprehensive risk estimates for all project risks using multivariable statistical techniques.

Quantifying the risk

This step involves assessing the financial impact of the risk. Given that the project risks are being captured only in the numerator of the cash flows rather than being an intrinsic element of the discount rate, hence a contingency factor should be included in each major risk category (e.g. construction, operations and maintenance) to account for any unobservable costs which would otherwise lead to the undervaluation of identifiable and quantifiable risks.

The amount of the contingency that should be added to the major risk categories depends on a number of factors, including:

- The accuracy of information used in valuing the particular risk;
- The size of the contingency (as a proportion of the underlying cost) — this will be inversely proportional to the amount of resources devoted to valuing the observable components of the risk; and
- The degree of uncertainty for completeness

The MDA should also gather contingency risk data from previous public procurement projects and base its contingency factor for a particular risk or risk category on this, supplemented by information from the private sector where appropriate (e.g. where these have not been previously included). The value of each risk is then calculated individually using the following probability weighted formula:

$$\text{Value of risk} = \text{consequence} \times \text{probability of occurrence} + \text{contingency}$$

Once the consequences and probability of the occurrence have been quantified, the value of each risk can be determined. There is often more than one possible consequence for a particular risk. The value of each risk in such cases is the sum of all these probability weighted consequences (assuming the consequences are all independent), plus a contingency amount.

Estimating the probability of occurrence

The techniques for estimating the probability of occurrence of a consequence vary from simple probability valuation techniques based on subjective estimates to more advanced probability valuation based on multivariate statistical techniques.

- **Simple probability valuation:** In its most basic form probability valuation involves making subjective estimates of likelihood of the occurrence of each risk. It is normally based on past experience, current best practises and anticipated improvements in future. One such technique is to make point estimates. This would involve realistically estimating the extent to which the final cost of the project is likely to be above or below the estimated value of the PSC. Each point estimated will be associated with a likely consequence and the consequence would be dependent on the materiality of the occurrence to the project. In case of subjective estimates as well as in empirical estimation, all assumptions related to the estimation should be clearly stated and documented.
- **Advanced probability valuation:** These techniques involve estimating the probability of occurrence by creating a probability distribution and interpreting resulting outputs. These distributions are based on professional experience, supported where available by historical information and reliable assumptions for similar recent projects. Once these distributions have been calculated, a reliable estimate of probability can then be made to a given level of accuracy (known as the confidence interval). Statistical risk measures have the advantage that they are based on rigorous economic principles, use a mix of professional experience and available information, and map a variety of possible outcomes. Conversely, they have the disadvantage that they can be more complicated to calculate and interpret and may require a significant amount of reliable information to determine an appropriate distribution. This may be significantly mitigated where experienced risk professionals are engaged, increasing the ability to make reliable and objective forecasts. The accuracy and reliability of probability distribution estimates therefore depends on the capability to provide reasonable forecasts of likely outcomes, supported by the quality of available information. Instead of estimating each risk and its components separately, it may be possible to calculate a single risk measure through multivariable analysis and simulation. These techniques typically involve the use of computer-based simulation packages. One accepted method of multivariable analysis is Monte Carlo simulation. This technique constructs an artificial probability distribution for total risk, or a subset of risks, based on assumed or actual distributions for each of the individual risks. It then provides a single value for risk by simultaneously solving a number of different risk relationships.

The choice of risk valuation technique should depend on the size and complexity of the project and the cost benefit analysis of using an advanced probability valuation technique.

Illustration of estimating of value of risk

This illustration of estimating risk is adopted from Partnerships Victoria- Public Sector Comparator, Technical Note.

Consider the construction of a number of new educational facilities with a total base cost of USD100 million. Closer examination indicates that the following risk consequences are associated with construction of the facilities:

-
- **Likely increase in construction costs (based on average cost overruns):** Evidence suggests there is a 15 per cent probability that actual total construction costs will be the same as the initial base cost (included in the Raw PSC). It is also determined that there is a 40 per cent probability that total construction costs will exceed the base amount by 10 per cent ('likely' scenario), a 25 per cent probability that costs will exceed the base amount by 15 per cent ('moderate' scenario), and a 15 per cent probability of a 25 per cent increase in costs ('extreme' scenario). In addition there is a 5 per cent probability that costs will be 5 per cent below the base amount;
 - **Increase in costs arising from a delay in the construction schedule (time overrun):** Assume the cost of delay is a uniform USD 4 million per year, accumulating at a constant rate over the year. The procurement team estimates there is a 15 per cent probability that the facilities will be completed on time, a 50 per cent probability that completion of the new facility will be delayed by one year, and a 25 per cent probability that construction will be delayed by 18 months. In addition there is a further 10 per cent probability that the delay will be two years;
 - **The cost of providing similar services during the delay period, generally from existing facilities ('service maintenance'):** In this case, the probability of needing to provide similar services is assumed to be directly related to the probability of a time overrun, and that the cost of utilizing existing facilities to meet required demand will be USD 3 million per year;
 - **Increase in construction costs if the planned facility is not sufficient and additional treatment capacity needs to be added ('upgrade costs'):** The procurement team estimates there is a 20 per cent probability that the facilities will be completely adequate and no upgrade will be required. In the event that additional upgrades are required over the initial design, it is estimated that there is a 40 per cent probability that the cost will be approximately 5 per cent of the initial base amount ('likely' scenario), a 30 per cent probability that the cost will increase by 7 per cent ('moderate' scenario), and a further 10 per cent probability that the cost will increase by 10 per cent ('extreme' scenario); and a contingency factor of 2 per cent is also included to account for any unobservable costs associated with construction risk.

These scenarios can be represented in a simple risk valuation table.

Figure 36: Constructing a Risk Matrix – Example of risk valuation table

Scenario	Outcome	Consequence	Probability	Value of Risk
Cost Overruns				
Below Base Figure	95	-5	5%	-0.3
No Deviation from Base	100	0	15%	0.0
Overrun- Likely	110	10	40%	4.0
Overrun- Moderate	115	15	25%	3.8
Overrun- Extreme	125	25	15%	3.8
Subtotal				11.3
Time Overruns				
No Time Overrun	100	0	15%	0.0
Overrun- Likely	104	4	50%	2.0
Overrun- Moderate	106	6	25%	1.5
Overrun- Extreme	108	8	10%	0.8
Subtotal				4.3
Service Maintenance				
No Deviation from base	100	0	15%	0.0
Overrun- Likely	103	3	50%	1.5
Overrun- Moderate	104.5	4.5	25%	1.1
Overrun- Extreme	106	6	10%	0.6
Subtotal				3.2
Upgrade Costs				
No Deviation from base	100	0	20%	0.0
Overrun- Likely	105	5	40%	2.0
Overrun- Moderate	107	7	30%	2.1
Overrun- Extreme	110	10	10%	1.0
Subtotal				5.1
Contingency Factor (2% value of project)				2
Total Value of Risk =				25.9

The timing of each possible consequence then needs to be assessed. This may be different for a number of consequences within a particular risk, and is represented in the simple matrix below.

Figure 37: Constructing a Risk Matrix – Timing and probability of consequence

Consequence	Year 0	Year 1	Year 2
Cost Overrun	70%	30%	
Time Overrun	71%	29%	
Service Maintenance*		71%	29%
Upgrade Cost*		100%	
Contingency Factor*	70%	30%	

*In practice, these risks may be expected to occur in later years. However, for illustrative purposes, all consequences are assumed to occur in Years 0-2.

For example, the cost of providing a similar service will only be incurred once the service is expected to be delivered under the timetable assumed in the Reference Project (e.g. Year 1). The

timing of the contingency factor is assumed to be the same as the cost overrun. The subtotal cost of each risk component is then allocated across the term of the project according to the timing weightings given above. For example, the cost overrun component (in real terms) would be allocated as follows:

Figure 38: Constructing a Risk Matrix – Allocating Cost of Risk

(USD Million)

Consequence	Year 0	Year 1	Year 2
Cost Overrun	7.9 (11.3 x 70%)	3.4 (11.3x 30%)	0 (11.3 x 0%)

Each of the components then needs to be converted into nominal cash flows to account for the effect of inflation. In this example, inflation is assumed at 2.5 per cent per year.

Figure 39: Constructing a Risk Matrix – Estimating Present Value of Risk

(USD Million)

Cost	Year 0	Year 1	Year 2
Construction Risk			
Cost Overrun	7.9	3.4	0
Time Overrun	3.1	1.2	0
Service Maintenance	0	2.3	0.9
Upgrade Cost	0	5.1	0
Contingency Factor	1.4	0.6	0
Real Cost	12.4	12.6	0.9
Nominal Costs (assuming inflation at 2.5% p.a.)	12.4	12.9	1
Discounted Cash Flow	12.4	11.9	0.8
Present Value of Construction Risk	25.1		

Thus the present value of construction risk for this project has been estimated at USD 25.1 million.

Estimating Transferable Risk

All risks of the project can be classified as either Transferable Risk (those that MDA seeks to allocate to bidders) or Retained Risk (that MDA is willing to accept). However, there may be situations where specific components of a particular risk are allocated between parties, or where an overall risk is shared. In the former situation, the particular risk needs to be separated into both its Transferable and Retained Risk components. Risk sharing may occur in accordance with an agreed formula contained in a negotiated contract. For example, where a department or agency is not expected to be the only end-user of an asset or service, government may specify a base

level of demand it will support. Bidders may be required to take demand risk above this base level.

Where a risk is classified as a Transferable Risk, bidders should be given a substantial degree of flexibility to determine the best method of controlling the costs associated with that risk. This creates a powerful incentive for bidders to manage the risk in the overall interests of the project, while delivering greater value for money to government. This is further enhanced through the use of a performance-based payment mechanism. Achieving an optimal risk allocation can have substantial value for money implications.

Once all the Transferable Risks have been identified, the size and timing of the expected cash flows associated with each risk needs to be aggregated to determine the NPC of the Transferable Risk component of the PSC. Each of the risks should be included as a separate cash flow item and then added to form the Transferable Risk component, to allow for a detailed analysis of the key risks and their sensitivity to the overall PSC.

Estimating retained risk

Retained risk is that component of the risk of the project that the MDA will continue to bare in a PPP arrangement. The scope of Retained Risk reflects the nature of the project and the output specification. Where government retains responsibility for the provision of core services, these should not be considered in the intended risk allocation, as they are not part of the project. For example, in a project for the provision of educational facilities, government maintains the responsibility of providing teachers and developing the curriculum outside the project. This risk does not form part of the project's Retained Risk.

Once all the Retained Risks have been identified, the size and timing of the expected cash flows associated with each of these risks needs to be aggregated to determine the NPC of the Retained Risk component of the PSC. Each of the risks should be included as a separate cash flow item and then added to form the Retained Risk component to allow for a detailed analysis of the key risks and their sensitivity to the overall PSC.

Risk Allocation

The principle governing risk transfer is that each risk should be allocated to whoever is best able to manage it at least cost, taking into account public interest considerations. This requires an optimal rather than maximum transfer of risk. It is determined by assessing the ability of each party to reduce the probability of a risk occurring, and to minimise the consequences if that risk eventuates.

It is unlikely that either government or bidders will be best suited to manage all the risks of a project. Factors to be considered include:

- The nature of the project;
- The respective strengths and ability of each party to manage a risk (this may change over time as each party's risk mitigation skills improve);

- Flexibility of the output specification (whether any constraints exist which influence the method for managing risk);
- Previous levels of risk transfer (this indicates the historical success of each party in managing particular risks and the potential ability to manage risk in the future);
- Prevailing market attitudes towards risk;
- Public interest factors; and
- Other policy considerations.

Risk Mitigation

Risk mitigation is a component of risk allocation. Risk mitigation is any action that can be taken to reduce:

- The likelihood of a risk materialising; or
- The consequences to the contracting party taking the risk, if it does materialise.

Risk mitigation is an attempt to reduce the relevant party's exposure to the risk and inherently increases the likelihood of achieving (or bettering) the project's base case scenario. Mitigation practices vary depending on the risks being considered and whether the party concerned is a private or public one.

Private sector risk mitigation mechanism is passing through the risk to a third party. It is one of the most commonly used and readily available risk mitigation option for private parties is to pass the risk on to other parties who are able to control it at a lower risk premium. This supplementary risk allocation creates a chain of risk bearers, each best placed to control the particular risk, and each insulated from the collective risks which the private party would otherwise have to bear. Other private sector risk mitigation mechanisms include insurance, use of financial market instrument and developing diversified project portfolios. Public sector risk mitigation measures are similar to those used in the private sector. Additionally an MDA could consider taking steps to reduce the risk during the procurement stage.

An illustration of a risk matrix adopted from Partnerships Victoria's Note on Risk Allocation and Contractual issues, is presented in the following pages:

Table 15: Constructing a Risk Matrix – Elements of a risk matrix element

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
Site Risks				

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
Existing structure (refurbishment / extensions)	Risk that existing structures are inadequate to support new improvements	Additional construction time and cost	Private party will pass to builder which relies on expert engineering reports	Private party
Site conditions	Risk that unanticipated adverse ground conditions are discovered which cause construction costs to increase and/or cause construction delays	Additional construction time and cost	Private party will pass to builder which relies on expert testing and due diligence	Private party
Approvals	Risk that necessary approvals may not be obtained or may be obtained only subject to unanticipated conditions which have adverse cost consequences or cause prolonged delay	Delay in works commencement or completion and cost increases	Prior to beginning the tender process government may seek a planning scheme amendment or environmental impact assessment taking risk of a route diversion or special measures to protect environmental values; for example in the case of linear infrastructure (road, rail, pipeline); during the tender process by means of a Project Development Agreement both	Private party possibly up to a specific cost amount unless government assumes because of complexity or sensitivity

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
			government and the private party may achieve a measure of pre-contractual certainty allowing an early start to the approval process and a sharing of costs	
Environmental (1)	Risk that the project site is contaminated requiring significant expense to remediate	Clean-up costs and delay	Reliance on expert reports and insurance	Private party will generally assume the risk although because of the time and cost implications of full due diligence for each bidder, some risk sharing may be a cost effective solution particularly using a regime for allocation of cost consequences such as a Material Adverse Effect regime

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
Environmental (2)	Risk that prior to financial close offsite pollution has been caused from a government preferred site (any site) to adjacent land	Clean-up liability	Government to commission reports; government should also have greatest knowledge of past uses of its site	Government may assume responsibility by way of indemnity or obligation to compensate for unidentified off site pollution pre financial close where the site is a preferred government site
Environmental (3)	Risk that prior to financial close (in case of a non-government site) or after financial close (any site) offsite pollution is caused to adjacent land	Clean up liability	Private party can manage site activity	The private party will be in control of activities on the site post financial close and will be required to assume risk of offsite pollution caused by those activities; also it will take risk of offsite pollution from any site which is not a government preferred site (even if it

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
				occurs pre-completion)
Clean-up and rehabilitation	Risk that the use of the project site over the contract term has resulted in a significant clean up or rehabilitation obligation to make the site fit for future anticipated use	Financial liability on residual owner	Private party able to manage the use of the asset and attend to its maintenance and refurbishment; government may require sinking funds if it is to resume the site and its use is liable to result in significant clean up/rehabilitation cost	Private party to take risk (whether government is to resume or not) and must demonstrate financial capacity or support to deliver the site in the state required by government
Native title	Risk of costs and delays in negotiating indigenous land use agreements where project site may be subject to native title or risk injunction and/or invalidity of approvals	Delay and cost	Search of registers and enquiry if appropriate and take expert advice	Government will usually take risk on government preferred sites as it generally has a better understanding of procedures, has special powers of acquisition and use of native title land for infrastructure and is usually in best position to manage this risk;

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
				government is also in better position to negotiate where policy discourages use of compulsory acquisition power
Cultural heritage	The risk of costs and delays associated with archaeological and cultural heritage discoveries	Delay and cost	Search of registers and enquiry if appropriate and take expert advice	Government will generally take risk on government preferred site as it generally has a better understanding of procedures, and is usually in best position to manage this risk otherwise private party takes responsibility
Availability of site	Risk that tenure/access to a selected site which is not presently owned by government or private party cannot be negotiated	Delay and cost	Bidders obligation to secure access prior to contract signing	Private party, as it makes the decision to bid on a non preferred site
Design, construction and commissioning risk				

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
Design	The risk that the design of the facility is incapable of delivering the services at anticipated cost	Long term increase in recurrent costs - possible long term inadequacy of service	Private party may pass risk to builder/architects and other subcontractors while maintaining primary liability; government has the right to abate service charge payments where the risk eventuates and results in a lack of service - it may ultimately result in termination where the problem cannot be suitably remedied	Private party will be responsible except where an express government mandated change has caused the design defect
Construction	The risk that events occur during construction which prevent the facility being delivered on time and on cost	Delay and cost	Private party generally will enter into a fixed term, fixed price building contract to pass the risk to a builder with the experience and resources to construct so as to satisfy the private party's obligations under the contract	Private party will be liable unless the event is one for which relief as to time or cost or both is specifically granted under the contract, such as force majeure or government intervention
Commissioning	The risk that either the physical or the	For the private party and its	No payment by government until all	Private party, although

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
	operational commissioning tests which are required to be completed for the provision of services to commence, cannot be successfully completed	financiers - delayed/lost revenue for government - delayed service commencement	physical and operational commissioning tests have been successfully completed	government will assume an obligation to cooperate and facilitate prompt public sector attendance on commissioning tests
Sponsor and financial				
Interest rates pre-completion	The risk that prior to completion interest rates may move adversely thereby undermining bid pricing	Increased project cost	Interest rate hedging may occur including under Project Development Agreement	Government may assume or share
Sponsor risk	The risk that the private party is unable to provide the required services or becomes insolvent or is later found to be an improper person for involvement in the provision of these services or financial demands on the private party or its sponsors exceed its or their financial capacity causing corporate failure	Cessation of service to government and possible loss of investment for equity providers	Ensure project is financially remote from external financial liabilities, ensure adequacy of finances under loan facilities or sponsor commitments supported by performance guarantees; also through the use of non financial evaluation criteria and due diligence on private parties	Government

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
			(and their sponsors)	
Financing unavailable	The risk that when debt and/or equity is required by the private party for the project it is not available then and in the amounts and on the conditions anticipated	No funding to progress or complete construction	Government requires all bids to have fully documented financial commitments with minimal and easily achievable conditionality	Private party
Further finance	The risk that by reason of a change in law, policy or other event additional funding is needed to rebuild, alter, reequip etc the facility which cannot be obtained by the private party	No funding available to complete further works required by government	Private party must assume best endeavours obligation to fund at agreed rate of return with option on government to pay by way of uplift in the services charge over the balance of the term or by a separate capital expenditure payment; government to satisfy itself as to likelihood of this need arising, it's likely criticality if it does arise, and as to financial capacity of private party to provide required funds and (if appropriate) budget allocation if	Government takes the risk that private finance is unavailable

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
			government itself is required to fund it	
Change in ownership	The risk that a change in ownership or control of the private party results in a weakening in its financial standing or support or other detriment to the project	Government assurance of the financial robustness of the private party may be diminished and, depending on the type of project, probity and other non financial risks may arise from a change in ownership or control which may be unacceptable to government	Government requirement for its consent prior to any change in control. private party will seek to limit this control to circumstances where substantive issues are of concern such as financial capacity and probity	Government risk as to the adverse consequence of a change if it occurs; private party risk that its commercial objectives may be inhibited by a restrictive requirement for government consent to a change
Refinancing benefit	The risk (upside) that at completion or other stage in project development the project finances can be restructured to materially reduce the project's finance costs	A beneficial change in the financing cost structure of the project	Government will assure itself that likely benefit has been factored into competitive bids to avoid the risk that the private party will be allowed to earn super profits from the project	Private party to benefit; government will share in limited circumstances (essentially, in symmetrical risk allocation and super profits)
Tax changes	The risk that before or after completion the tax impost on the private party, its	A negative effect on the private party's financial returns and in	The financial returns of the private party should be sufficient to withstand such	Private party

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
	assets or on the project, will change	extreme cases, it may undermine the financial structure of the project so that it cannot proceed in that form	change; with respect to specific infrastructure taxation particularly that relating to transactions with government, the private party should obtain a private tax ruling	
Operating				
Inputs	The risk that required inputs cost more than anticipated, are of inadequate quality or are unavailable in required quantities	Cost increases and in some cases adverse effect on quality of service output	Private party may manage through long term supply contracts where quality/quantity can be assured; private party can address to some extent in its facility design	Private party unless government controls inputs e.g. water catchments
Maintenance and Refurbishment	The risk that design and/or construction quality is inadequate resulting in higher than anticipated maintenance and refurbishment costs	Cost increases where private party has assured whole of life obligation and adverse effect on delivery of contracted services and, in core services model, a corresponding adverse effect on government	Private party to manage through long term subcontracts with suitably qualified and resourced sub-contractors and through formal or informal consultation processes with government	Private party

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
		ability to deliver core services		
Changes in output specification outside agreed specification range	Risk that government's output requirements are changed after contract signing whether pre or post commissioning	A change in output requirements prior to commissioning may necessitate a design change with capital cost consequences depending on the significance of the change and its proximity to completion; a change after completion may have a capital cost consequence or a change in recurrent costs only; for example where an increase in output requirements can be accommodated within existing facility capacity	Government can mitigate this risk to an extent by minimising the chance of its specifications changing and, to the extent they must change, ensuring the design is likely to accommodate it at least expense; this will involve considerable time and effort in specifying the outputs up front and planning likely output requirements over the term	Government

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
Operator failure	Risk that a subcontract operator may fail financially or may fail to provide contracted services to specification	The failure may result in service unavailability, an inability for government to deliver core services and, in each case, a need to make alternate arrangements for service delivery with corresponding cost consequences	Government will carry out due diligence on principal subcontractors for probity and financial capacity and commission a legal review of the major subcontracts including the guarantees or other assurances taken by the private party; if failure does occur the private party may replace the operator or government may require operator replacement	Private party is fully and primarily liable for all obligations to government irrespective of whether it has passed the risk to a subcontractor
Technical obsolescence or innovation	Risk of the contracted service and its method of delivery not keeping pace, from a technological perspective, with competition and/or public requirements	Private party's revenue may fall below Projections either via loss of demand (user pays model) payment abatement (availability model) and/or operating costs increasing; for government -	Private party may arrange contingency/reserve fund to meet upgrade costs subject to government agreement as to funding the reserve and control of reserve funds upon default; also monitoring obligations in the contract and work on detailed, well-researched output	Private party except where contingency is anticipated and government agrees to share risk possibly by funding a reserve

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
		consequence will be failure to receive contracted service at appropriate quantity/ quality including adverse effect on core service delivery in core service model	specifications (government) and design solution (private party)	
Market				
General economic downturn	In a user pays model, the risk of a reduction in economic activity affecting demand for the contracted service	Revenue below projections	Where government is the primary off-taker the private party will seek an availability payment element; otherwise the private party will ensure robust financial structure and sponsor/financier support	Private party except to the extent that government has committed to an availability payment element or agreed to provide redress for impact of government subsidised competition
Competition	In a user pays model the risk of alternate suppliers of the contracted service competing for customers	Revenue below projections arising from a need to reduce the price and/or from a reduction in	Private party to review likely competition for service and barriers to entry	Private party except to the extent that government has committed to an availability

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
		overall demand, because of increased competition		payment element or agreed to provide redress for impact of government subsidised competition
Demographic change	The risk of a demographic/socio-economic change affecting demand for contracted service	Revenue below projections	Private party to review likely competition for service, barriers to entry	Private party except to the extent that government has committed to an availability payment element
Inflation	Risk that value of payments received during the term is eroded by inflation	Diminution in real returns of the private party	Private party seeks an appropriate mechanism to maintain real value e.g. via linkage to CPI; government concern to ensure its payments do not overcompensate for inflation and to avoid any double payment for after costs adjustments e.g. on changes in policy/law	Private party takes risk on the methodology adopted to maintain value; government shares to the extent of agreed indexation
Network and interface				

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
Withdrawal of support network	The risk that, where the facility relies on a complementary government network, that support is withdrawn or varied adversely affecting the project	Negative patronage and revenue consequences	Private party will seek financial redress against change which unfairly discriminates against the project particularly on a user pays project where revenue is directly affected; under an availability model private party will seek to avoid abatement if government 'prevention' is cause of unavailability	Government where the change discriminates against the project
Changes in competitive network	The risk that an existing network is extended/ changed/ re-priced so as to increase competition for the facility	Negative patronage and revenue consequences	Private party will seek financial redress against change which unfairly discriminates against the project by government subsidising competition (existing or new)	Private party except to the extent that government provides redress for appropriate, discriminatory changes
Interface (1)	The risk that the delivery of core services in a way which is not specified/anticipated in the contract	Adverse effect on delivery of contracted service, potential for default by	Government manages core service activities allowing it to influence the materialisation of	Private party except to the extent that government provides redress for

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
	adversely affects the delivery of contracted services	private party and possible need for government to make other arrangements for service provision	interface risk and its consequences; other mitigants include an upfront assessment (by both government and the private party) of the likely interface issues, continual review and monitoring and development of a communications strategy in respect of delivery of the two related services; government will also specify in the contract the extent of core services and the way in which they will be delivered so that only manifest and adverse changes and deficiencies can trigger this risk	appropriate, discriminatory changes
Interface (2)	The risk that the delivery of contracted services adversely affects the delivery of core services in a manner not specified/anticipated in the contract	Adverse effect on delivery of core services, default by private party and possible need for government to make other arrangements	Private party manages contracted service activities	Private party

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
		for core service provision		
Industrial relations				
Industrial relations and civil commotion	Risk of strikes, industrial action or civil commotion causing delay and cost to the project	Cost and time delay	Private party or its sub-contractors manage project delivery and operations	Private party
Legislative and government policy				
Approvals	The risk that additional approvals required during the course of the project cannot be obtained	Further project development or change in business operation may be prevented	Private party to anticipate requirements	Private party unless government has initiated the change requiring approval
Changes in law/policy (1)	The risk of a change in law/policy of the State Government only, which could not be anticipated at contract signing and which is directed specifically and exclusively at the project or the services and which has adverse capital expenditure or operating cost consequences for the private party	A material increase in the private party's operating costs and/or a requirement to carry out capital works to comply with the change	Government may mitigate its liability for such change by monitoring and limiting (where appropriate) changes which may have these effects or consequence on the project and via mechanisms in the contract allowing compensation only above a pre-agreed 'Significant Amount'; also requiring the	Government: although the parties may share the financial consequences of capital cost increases in an agreed way, for example by the private party meeting a percentage of the cost up to a specific limit and

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
			private party to effect the change in such a manner that the financial effect on government is minimised and, if payment is required, that payment is made in a way and a time best suited to government (e.g., pay on a progressive scale); also (in a user pays model) having in place a regulatory regime which allows pass through to end users	government meeting any excess
Changes in law/ policy (2)	In some cases, the risk of a change in law/policy (at whatever level of government it occurs) which could not be anticipated at contract signing which is general (i.e. not project specific) in its application and which causes a marked increase in capital costs and/or has substantial operating cost	Requirement on the private party to fund and carry out capital works or meet a marked increase in operating costs to comply with the change	Government mitigates by excluding changes such as tax changes or changes for which the private party is compensated under a CPI adjustment or similar and only allowing compensation above a pre-agreed Significant Amount; also, again mechanisms	Government: although the parties may share the financial consequences of capital cost increases in an agreed way for example by the private party meeting a percentage of the cost up to a specific limit and

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
	consequences for the private party		could be used to minimise and manage financial impact on government and (where appropriate) a regulatory regime to allow pass-through to end users	government meeting any excess
Regulation	Where there is a statutory regulator involved there are pricing or other changes imposed on the private party which do not reflect its investment expectations	Cost or revenue effects	Private party to assess regulatory system and may make appropriate representations	Private party
Force majeure				
Force majeure	The risk that inability to meet contracted service delivery (pre or post completion) is caused by reason of force majeure events	Loss or damage to the asset, service discontinuity for government (may include inability to deliver core service) and loss of revenue or delay in revenue commencement for private party	Private party given relief from consequences of service discontinuity; if uninsurable, private party may establish reserve funding; government to establish contingency for alternate service delivery; if insurable, private party must ensure	Private party takes the risk of loss or damage to the asset and loss of revenue, government takes some risk of service discontinuity both as to contracted service and core service subject to insurance

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
			availability of insurance proceeds towards repair of asset and service resumption and government is to be given the benefit of insurance for service disruption costs	availability and will need to arrange alternative service provision the cost of which will be met from redirected service payments and (if insurable) any shortfall made up from insurance proceeds
Asset ownership				
Technical obsolescence	The risk that design life of the facility proves to be shorter than anticipated accelerating refurbishment expense	Cost of upgrade	Private party may have recourse to designer, builder or their insurers	Private party, but in certain high technology projects costs may be anticipated and shared
Default and Termination	Risk of 'loss' of the facility or other assets upon the premature termination of lease or other project contracts upon breach by the private party and	Loss of investment of private party; possible service disruption for government	Private party (and its debt financiers) will be given cure rights (time and opportunity) to remedy defaults by the private party which may lead to termination including under tripartite deed with	Private party will take the risk of loss of value on termination

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
	without adequate payment		financiers; also only serious breaches by the private party to lead to termination; if termination occurs pre completion government may (but need not) make payment for value in the project on a cost to complete basis; if it occurs post completion the private party may receive fair market value less all amounts due to government; government will require step in rights to ensure access and service continuity until ownership/control issues are resolved	
Residual value on transfer to government	The risk that on expiry or earlier termination of the services contract the asset does not have the value originally estimated by government at which the private party agreed to	Capital costs incurred to upgrade the asset to the agreed value and useful life or asset demolished or removed	Government will impose on the private party maintenance and refurbishment obligations, ensure an acceptable maintenance contractor is responsible for the work, commission	Government

Risk Category	Description	Consequence	Mitigation	Preferred Allocation
	transfer it to government		regular surveys and inspections; it may also direct funds from the project into dedicated controlled sinking fund accounts to accumulate funds sufficient to bring the asset to agreed condition and/or (if required) obtain performance bonds to ensure the liability is satisfied	

7.11. Learning from International Projects

Traditionally provisioning of infrastructure services has been in the domain of the public sector. However chronic inefficiency, poor pricing policies, and corruption in the public sector provisioning of infrastructure services has meant its inability to provide adequate services to existing consumers, let alone consider expanding services to meet rapidly growing demand. The nineties saw the introduction of private sector participation in infrastructure provisioning. Studies undertaken on the impact of private sector participation have highlighted the following:

- **Increase in service provision:** The use of a wider range of technical and financial expertise coupled with a more effective pricing policy and financial discipline provided private parties with greater funds to invest in expanding service delivery and better meet the increased service demand.
- **Increase in efficiency of service delivery:** As opposed to politically motivated and non commercial objective driven public provision of services, private participation has been able to improve efficiency through the introduction of incentives to reduce wasteful costs and improvement in collection of revenues.

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- **Improvements in quality of service:** Improvements in financial performance allows the private party to increase investment to provide better quality of service through improved reliability and continuity.
 - **Improvements in fiscal position of governments:** Efficient provision of services and effective recovery of dues through private sector participation allows the service delivery project to be more self sufficient as opposed to inefficient public provision which was supported by heavy subsidy by the governments. Thus there has been a positive impact on the financial position of government from effective and efficient private sector participation.
 - **Increase in price of service delivery:** Since public provision of a number of services such as electricity and water tend to be highly subsidized with price of service not reflecting the true cost; hence the private provisioning tends to increase the price or user tariff associated with service delivery. In most cases, the private provisioning reduced cost of service delivery and related price and hence if pricing of the service was not initially subsidized, the private participation has had a positive impact on this element of service delivery as well.

Thus well-designed private participation schemes can produce real improvements in the quality and quantity of infrastructure services, as well as major benefits for the efficiency of provision.

International experience of Cancelled PPP Projects in various sectors

In its review of cancelled private projects, the World Bank note on Public Policy for the Private Sector defines a cancelled project in the following manner:

“...project is considered to be cancelled if one or more of the following events occurred before the end of the project’s expected life (as determined in a contract or license):

- *The private company sold or transferred its economic interest in the project to the public sector.*
- *The private company physically abandoned the project (such as by withdrawing all staff from the project).*
- *The private company ceased to provide services to all customers or halted construction of the project for around 20 percent or more of the project’s expected life following the revocation of a license or repudiation by the relevant contracting or licensing authorities.”*

An analysis of the factors influencing the cancellation of private projects across the globe between 1990-2001, undertaken in this World Bank note, reveals that the cancellation of project were specific to the investors, governments and regulators involved with the project. A sectoral review of the factors impacting the private project include

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- Transport sector: Cancelled toll road project were mostly the outcome of the exit of the private party on account of limited traffic volumes as opposed to the traffic forecasts. The unwillingness of consumers to pay for the right to use the toll road also impacted PPP projects, in cases where the impact of an alternate toll free route had not been effectively factored into. Examples of Mexico and Hungary provided in the note amply illustrate this point. "...more than half the Mexican toll roads reached less than 50 percent of the forecasted volumes, and the M1/M15 toll road in Hungary achieved less than 60 percent of projected traffic flows in its initial years of operation. In some cases a government's willingness to assume traffic risks may have led to less investor scrutiny of demand forecasts and so perhaps increased the probability that the project would fall short of projections. The Mexican government offered indirect guarantees to the investors and lenders funding the private toll road program, which may have led private operators and banks to undertake some projects that they might otherwise have turned down."
 - Water and Sewerage projects that were cancelled during the period under study were confronted with issues of price increase and difficulty in collecting users charges from consumers. In most countries, the public water utilities generally keep the price of the service below costs and also tend to have low collection rates. In line with the private provision of services, any attempt to raise prices or increase collection often leads to opposition from consumers and politicians. In many cases, ambitious project designs worsen the situation with the urgent requirement to increase revenues to make the project feasible. Example of Bolivian Water Concession is a case in point "In the Cochabamba water concession in Bolivia, for example, the local government opted for a high-cost bulk water source that exacerbated the need to raise previously subsidized tariffs. When tariffs were increased by about 35 percent almost immediately after privatization, the project ran into widespread opposition. Moreover, all this took place against the backdrop of broader political opposition to irrigation reforms and the government's coca eradication policy, both of which contributed to the civil disturbances that preceded the cancellation of the project."
 - Electricity Sector projects faced similar constraints as the water sector in terms of pricing and recoveries. In case of electricity sector the problems impacted both the generation and distribution projects. Another factor impacting the sector is the impact of macroeconomic changes on the project. Since demand for electricity is positively linked to economic growth, macroeconomic shocks can negatively impact the development and delivery of independent power producers.
 - Telecommunications service projects have been less impacted by issues of pricing and recovery. Cases where projects face, related mainly to changes in the regulatory and market structures by the governments. In case of mobile services, some projects were impacted by the high bids that were placed for license fees which could not be covered through actual revenue generation.
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Characteristics of a successful PFI

In its report PFI: meeting the investment challenges report, the Treasury department of the United Kingdom, sets out the following criteria which need to be fulfilled if PFI is to be considered a procurement options

- There is a major capital investment programme, requiring effective management of risks associated with construction and delivery.
- The private sector has the expertise to deliver and there is good reason to think it will offer value for money.
- The structure of the service is appropriate, allowing the public sector to define its needs as service outputs that can be adequately contracted for in a way that ensures effective, equitable and accountable delivery into the long term, and where risk allocation between public and private sectors can be clearly made and enforced.
- The nature of the assets and services identified as part of the PFI scheme are capable of being costed on a whole-of-life, long-term basis.
- The value of the project is sufficiently large to ensure that procurement costs are not disproportionate.
- The technology and other aspects of the sector are stable and not susceptible to fast-paced change.
- Planning horizons are long-term, with assets intended to be used over long periods into the future.

Pre-requisites for a successful PPP: UK Experience

One of the pioneers in private sector participation in infrastructure provisioning was the United Kingdom. The UK's experience from operating its PFI-type schemes has highlighted a number of prerequisites to a successful PPP programme. The key ones include:

- **Political commitment:** Political commitment at the policy level is important for the private sector, because unless PPP is seen to offer continuing business opportunities, firms will be reluctant to develop the necessary resource that is required to bid for contracts.
- **Enabling legislation:** PPP projects often need to be supported by enabling legislation that is firmly embedded in the legal structure of the host country. Key aspects of this include: the existence of a concession law that can be readily applied to PPPs; the removal of tax anomalies that can weigh against PPPs; and refining of public expenditure capital controls to accommodate PPPs.

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- **Expertise:** Both the public and private sectors must have the necessary expertise to deal with the PPP process. The public sector procurer, for example, needs to be able to negotiate individual project contracts and to access the appropriate financial, legal and technical expertise.
 - **Project prioritisation:** The government needs to identify those sectors and projects that should take priority in the PPP process. A gateway review of the commercial deliverability of the scheme, prior to the commencement of the procurement, can be a source of comfort to the private sector. It helps to reduce the incidence of unsuccessful procurements and avoid the associated bidding costs that would otherwise be incurred.
 - **Deal flow and standardisation:** A regular and predictable flow of deals, based on recognised risk allocation templates, nurtures the development of a successful PPP programme. Guidance on contract structure also helps to keep costs down.

Key Learning from International experience

While it is widely understood that a well designed public private partnership project can yield significant benefits for the stakeholders, it must also be kept in mind that the process is complex and inclusive in nature wherein managing expectations of all concerned would be critical to its success. The key issues that the government needs to recognise include:

- **Effective Pricing:** This has been one of the most contentious issues in PPP service delivery. The government must recognise and appreciate the fact that the users of the infrastructure services would need to ultimately pay for the use of the service either directly through user charges or indirectly through tax revenues which can then be channelled to subsidise the service provisioning. Thus maintaining price close to cost of service delivery and also expanding services to poorer strata of the economy can be possible through output based subsidies i.e. subsidies paid when service is delivered.
- **Customising service delivery projects to the economic reality of the consumers:** It is important for the government to take into consideration the economic reality of the consumers in designing projects for service delivery. The private party should be encouraged to use innovative service delivery options at a lower cost in tune with the financial capacity of the poorer section of society
- **Creating competition:** Infrastructure services have been traditionally viewed as natural monopolies. Competition has been proven to be an extremely effective tool for fostering innovation, reducing costs and expanding services in the telecommunications sectors. Keeping in mind the specific nature of each infrastructure sector, advances in technology and improved economic thinking should be used to foster competition in service delivery.

- **Clearly defined regulatory framework separate from service delivery:** An issue faced often in public provisioning of services is the overlap of regulatory and service delivery function in the same entity. Establish of an effective regulatory framework with transition of service delivery to private party and government retaining the primary regulatory functions should be considered.
- **Political commitment:** As mentioned previously, political commitment to the process of increased private participation would be crucial to its success. Since introducing a private party in service delivery may bring to light a number of negative aspects of the current public provisioning such as operational inefficiencies, overstaff and price related matter, an inclusive approach with political commitment is required.

The factors leading to disputes in projects and in extreme cases the cancellation of projects highlights the complexities and challenges faced in implementing PPP projects. A key to success, as seen in a number of countries, is ensuring transparency in both the procurement and development and delivery phase of the project. Important to this is a collaborative approach through building consensus for the process with the objective of reducing opposition to the project. Having an effective transition management plan to handle the issues likely to arise in transition would help ease the transfer of service delivery to the private party.

7.12. Contract Management Framework

This section provides an illustration of the Contract management framework. It presents a snapshot of the requirements for Contract management at each phase of the PPP project lifecycle.

Table 16: Contract Management Framework

PPP Lifecycle Phase	Key Functions		
	Service Management	Relationship Management	Contract Management
PPP Inception and Feasibility	Identify & specify - Service delivery specifications - Affordability limit - PSC and Value for Money benchmark - Risk Allocation framework	Undertake following tasks - Appoint the Project officer & Project Team - Decide on project type & procurement method	Establish following systems and processes for - Document tracking & management - Financial management
PPP Procurement	Develop and prepare Performance management plan	Undertake following tasks	Develop and prepare the PPP contract management plan

PPP Lifecycle Phase	Key Functions		
	Service Management	Relationship Management	Contract Management
	- Payment mechanism - Risk management plan	- Develop the relationship management plan - Identify and establish the PPP contract management team - Prepare the PPP contract management plan	
PPP Development	Establish, monitor and manage - Risk control procedures - Performance management systems - Progress of project towards completion	Establish and implement - Relationship management plan - Transition management plan - Change management measures	Establish procedures and systems for - Financial administration - PPP contract maintenance - Variation management - Recording penalties - Updating the PPP contract management manual
PPP Delivery	Monitor and Manage - Risk - Performance in relation to standards specified - Variations	Undertake following tasks - Review and revise partnerships - Commission independent reviews - Review and revise PPP contract management plan	Review, monitor and update - Financial administration - PPP contract maintenance - Variation management - Recording penalties - PPP contract management manual
Exit	Review and assess - Deliverables - Value for Money - Quality of Innovation	Undertake following tasks - Manage Change - Organise closure	Implement and monitor Hand over procedures

PPP Lifecycle Phase	Key Functions		
	Service Management	Relationship Management	Contract Management
	Identify means of service delivery through ▪ MDA ▪ New PPP project Organise post implementation review	▪ Record the lessons of the PPP project	▪ Transition to new/alternate service delivery

7.13. Dispute Resolution and Management

Disputes that arise during the PPP project lifecycle between the parties to the contract can be time consuming, expensive and an unpleasant experience. They tend to strain or even destroy the relationship built over a period of time between the MDA and the private party and in turn may impact service delivery of the project. It is often argued by the Private Party (and particularly its funders) that resolving disputes under a contract by means of normal litigation processes (that is, through the courts) is too slow, too expensive and sometimes even unreliable” as the courts may lack the expertise necessary to adjudicate the technical and financial complexities of PPP Contracts. Thus disputes can add substantially to the cost of a PPP project and could take away from, and in some cases completely negate, the benefits associated with the project. Thus it is in the interest of all concerned to work towards avoiding disputes in the first place.

Effective management of disputes would involve selecting and using the most appropriate dispute resolution procedure available. The objective of the MDA should always be to keep the relationship with the private party non adversarial in nature. This can be achieved through including relevant provisions in the PPP contract for resolution of disputes which take into account the specific circumstances of the project and ensure that the relationships are cordially maintained.

Dispute resolution procedures are typically selected either at the negotiation stage of the PPP procurement process or when a dispute arises. The stage of negotiation on dispute resolution methods and procedures should be carefully discussed by the parties to the contract, as subsequent to the signing of the PPP contract, the methods and procedures identified in the PPP contract have to be adopted in all cases for dispute settlement and any change in method or procedure required by one party can only be made with the consent of the other party to the contract. The dispute resolution provisions in the PPP contract should thus aim at providing a complete framework for escalation of disputes beginning with reference to the project board, followed by negotiation between the named representatives of the parties to contract and thereafter recourse to non binding Alternate Dispute Resolution procedures and in the event of failure to agree on a settlement, ultimate resort to litigation in court or arbitration.

Dispute avoidance

Since the time and cost involved in disputes tend to be high, the priority of the MDA should be to avoid disputes. Dispute avoidance can be achieved primarily through a well drafted PPP contract which clearly lays down provisions for adequate dispute resolution techniques to be applied in the event of a dispute and also the escalation arrangements.

Effective management of the PPP contract is instrumental in avoiding expensive and disruptive disputes. Adequate processes and procedures should be in place to ensure monitoring for early detection of issues. The PPP contract management plan should include regular meetings between the MDA and the private party to raise issues and look for early resolution measures.

Dispute Management and Resolution

In the event that a dispute does arise between the parties to the contract, it is important that the dispute is handled proactively and in a positive manner at the right level of management to enable early and effective settlement of dispute. Procrastinating on issues by management can lead to escalation of costs and permanent damage to the relationship between the parties to contract.

Forms of dispute resolution

A number of dispute resolution techniques can be specified in the PPP contract and can be used to resolve the dispute. The techniques for dispute resolution could be an informal one to one negotiation between parties to contract to more complex formal procedures for dispute resolution. These dispute resolution forms have been adopted from the Dispute Resolution Guidance of the Office of Government Commerce, U.K.

- ***Negotiations:*** This is the most commonly used form of dispute resolution wherein the parties to the contract come together to discuss a mutually agreeable settlement. It is one of the most effective tools for dispute resolution in terms of management time, cost, range of possible solution and relationship management. In the event that the dispute cannot be resolved through negotiation the PPP contract management team needs to consider the other alternatives available for managing the dispute. The team should consider continuing the negotiations along with the other techniques of dispute resolution.
- ***Mediation:*** This involves negotiations with the support of an independent third party. Mediation has the advantages of negotiation along with the benefit of balanced inputs from a neutral third party. In situations where negotiations have failed or are progressing at a slow pace, mediation should be considered as a dispute resolution mechanism. The process typically followed for mediation involves: an opening joint meeting at which each party briefly sets out its position. This is followed by a series of private confidential meetings between the mediator and each of the teams present at the mediation. This may lead to joint meetings between some or all members of each of the teams. If a settlement is reached, its terms should

be written down and signed. The primary role of the mediator is to facilitate the negotiations between the parties to the contract.

- **Neutral evaluation:** As specified in the Dispute Resolution Guidance of the Office of Government Commerce, U.K. the aim of a neutral evaluation is to test the strength of the legal points in the case. It can be particularly useful where the dispute turns on a point of law. Each side submits an outline of their case with an indication of what evidence they would be able to produce at trial. A third party neutral, usually a retired judge or a lawyer, gives a confidential opinion as to what the outcome of a trial would be. This procedure can be carried out entirely on paper, saving the parties the time and expense of an oral hearing. The opinion can then be used as a basis for settlement or for further negotiation.
- **Expert determination:** In expert determination, the parties agree to be bound by the decision of an expert in the field of dispute. This process can be useful where the dispute is about a technical matter. The expert will commonly be given powers to investigate the background of the dispute himself, rather than just relying on the evidence the parties choose to present.
- **Arbitration:** It is a process for resolving disputes in which both sides agree to be bound by the decision of a third party, the arbitrator. The contract to arbitrate should be in writing. It can take the form of a clause within the original PPP contract or can be made after a dispute has arisen. It is possible, as long as all parties agree to amend an arbitration contract at any stage so that it serves the needs of the parties better.
- **Litigation:** If the use of a consensual process is not provided for in the contract and cannot otherwise be agreed, the only alternative is litigation. Litigation will involve preparation for trial before a judge, and may well be a lengthy, drawn out and costly process. Parties often agree a settlement before the case comes to court but in some cases not until months or even years of effort have been spent on expensive preparatory work.

The following table adopted from Dispute Resolution Guidance of the Office of Government Commerce, U.K presents the various dispute resolution forms and their key features.

Table 17: Key features of various forms of dispute resolution

Form	Time	Cost	Binding	Adversarial	Special features
Negotiation	Varies	Low	No	No	Can continue throughout the dispute resolution process
Mediation	Fast	Low	Not unless agreed to	No	
Conciliation	Fast	Low	Not unless agreed to	No	Often within the scope of mediation

Neutral evaluation	Fast	Low	No	No	Incase dispute proceeds to arbitration or litigation, evaluator cannot be employed as judge
Arbitration	Fairly slow	Fairly high	Yes	Yes	
Expert Determination	Quite fast	Moderate	Yes	Yes	Normally follows directly after negotiations
Litigation	Slow	High	Yes	Yes	

Source: adopted from *Dispute Resolution Guidance of the Office of Government Commerce, U.K*

ANNEXURE 1: JOB DESCRIPTION OF THE PROJECT OFFICER

Under the direct supervision of the [Accounting Officer/Authority], the project officer will carry out the following duties and have the following responsibilities:

Sr. No.	Description of the Responsibility
1	Manage the planning and implementation of the PPP project on behalf of the [Accounting Officer/Authority], exercising delegated authority;
2	Consult with the management of the MDA at all relevant stages in the project cycle and ensure ongoing consultation and buy-in from relevant stakeholders;
3	Directly support the [Accounting Officer/Authority] to comply with the requirements of the relevant PPP guidelines and regulations;
4	Follow diligently, the Guidelines for PPP issued under National Policy on Public Private Partnership, Nigeria;
5	Establish and manage a project team;
6	Draft terms of reference and secure a suitable budget for a transaction advisor;
7	Manage the procurement process to appoint a transaction advisor;
8	Direct and manage the work of the transaction advisor at every phase of the project cycle, exercising delegated authority; carry out all functions of inception, feasibility and procurement phases as delegated;
9	Carry out all functions required of the MDA to properly submit applications for all Transaction approvals in terms of PPP Policy and PPP Guidelines and respond to all queries from the relevant Approving Authorities in respect thereof;
10	Diligently manage the project from inception to the signing of the PPP contract and financial closure, to ensure that the project is affordable to the MDA, provides an optimal value for money solution for the [service delivery/use of state property], and appropriately allocates risk to the private party;
11	Manage all information systems necessary for the proper planning and implementation of the project;
12	Manage the PPP, into the term of the PPP contract, in terms of the PPP contract management plan, on behalf of the MDA, specifically in the development phase; and the [.....years] of the delivery phase.
13	Ensure that the PPP contract is properly enforced in terms of the relevant sections PPP Policy and PPP guidelines and in so doing maintain mechanisms and procedures as approved in the PPP contract management plan for: • Measuring the outputs of the PPP contract; • Monitoring and regulating the implementation of, and performance in terms of, the PPP contract; • Liaising with the private party; • Resolving disputes and differences with the private party; • Generally overseeing the day-to-day management of the PPP contract; and • Reporting on the PPP contract in the MDA's annual report.
14	Ensure that the MDA's function is effectively and efficiently performed in the public interest, [and/or that state property is appropriately protected];

Sr. No.	Description of the Responsibility
15	Establish and maintain close links to the relevant officials of the Approving Authorities in order to ensure proper alignment of policy and best practice;
16	Prepare and compile any information as may reasonably be required by the MDAs from time to time in connection with the PPP project;
17	Conform to all statutory obligations and non-statutory external obligations binding upon the MDAs in respect of the PPP project;
18	Continuously comply with the MDA's rules, regulations, policies, practices and procedures; and
19	Remain honest and faithful to the MDA in the performance of these duties and responsibilities, acting at all times according to good industry practice and in compliance with the public service code of conduct.

ANNEXURE 2: PRELIMINARY PROJECT ASSESSMENT FORM

SN	Particulars	Details (To be filled in by the MDA)
1	Project Name	<i>Provide the name of the Project</i>
2	MDA Name	<i>Provide the name of the MDA acting as the procuring entity</i>
3	Brief description of the project	<i>Provide a description of the project including location, capacity, size etc.</i>
4	Project being implemented under which Line Ministry	<i>Provide the Line Ministry under which the project is implemented</i>
5	Objective of the project and expected outcomes	<i>The objective for pursuing this project and the outcomes expected are to be provided here</i>
6	Technical Feasibility	<i>The MDA's preliminary view on the technical feasibility of the project. Successful precedent of similar projects may be included here</i>
7	Legal Framework	<i>The MDA's view on the legal framework for the implementation of the project</i>
8	Project impact and suitability	<i>The MDA's preliminary view on the likely impact of the project on the environment and community, as well as social acceptability and public benefits of the project. Long-term impact on the goals and position of the MDA. Please add more details as an annexure to this form.</i>
9	Brief description of land acquisition and resettlement requirements, community consultation undertaken, willingness and compensation/ assistance plan	<i>Please add more details as an annexure to this form</i>
10	Estimated Capital Expenditure	<i>This should be a preliminary estimate and need not be a detailed calculation.</i>

SN	Particulars	Details (To be filled in by the MDA)																		
11	Estimated O&M Expenditure over the asset life in present value terms	<i>This should be a preliminary estimate and need not be a detailed calculation. The projected O&M expenditure over the asset life should be discounted to arrive at the present value.</i>																		
12	Estimated Investment	<i>Summation of Capital Expenditure and Present Value of O&M Expenditure</i>																		
13	Revenue generating potential	<i>State the various sources of revenues for this project. If available, also include the preliminary annual expected revenues</i>																		
14	Proposed Means of Financing	<i>State the various proposed means of financing the project, indicative proportions and amount.</i> <table> <tr> <th>Source</th><th>Proportion (%)</th><th>Amount (Naira Mn)</th></tr> <tr> <td>Private Sector</td><td></td><td></td></tr> <tr> <td>MDA</td><td></td><td></td></tr> <tr> <td>Government of Nigeria</td><td></td><td></td></tr> <tr> <td>Any other (Specify)</td><td></td><td></td></tr> <tr> <td>Total</td><td></td><td></td></tr> </table>	Source	Proportion (%)	Amount (Naira Mn)	Private Sector			MDA			Government of Nigeria			Any other (Specify)			Total		
Source	Proportion (%)	Amount (Naira Mn)																		
Private Sector																				
MDA																				
Government of Nigeria																				
Any other (Specify)																				
Total																				
15	Estimated Project IRR (Internal Rate of Return) (where developed)	<i>If estimation of returns is very difficult at this stage then, do not include at this stage.</i>																		
16	Key risks envisaged	<i>The key risks identified for this project should be provided under this section.</i>																		
17	Does the Preliminary assessment show that the project is suitable for PPP?	<i>Reasons and necessity for involving Private Sector in the Project and analysis of suitability of alternative models of project delivery. Roles of MDA and Private Sector.</i>																		
18	Estimated project development expenses (Naira)																			

Signature and seal

Name of the authorized signatory:

Designation of authorized signatory:

Name of the MDA:

Date:

ANNEXURE 3: TEMPLATE OPTIONS ANALYSIS

Sr. No.	Section	Description
1	Executive Summary	This section should provide a summary of the findings of the options analysis. Sufficient information should be included to allow key decision-makers to understand the issues and the rationale for the selected short-listed options. Necessary clarification of the implications of the proposed initiative should also be specified.
2	Description of service requirements	This section provides a description of service requirements.
3	Project functions, objectives and critical success factors	This section provides a description of the Project functions, objectives and critical success factors.
4	Alignment with strategic objectives	This section provides a description of the strategic objectives of the parties.
5	Stakeholder identification	This section provides a description of the stakeholders involved.
6	Options Analysis	The range of feasible possibilities should be considered. A qualitative description of the advantages and disadvantages may be used to assist in evaluating the options. For major project proposals, risk-adjusted estimates (of revenue, costs, duration and benefits) need to be applied to address project characteristics, level of knowledge and degree of confidence in the estimates. In completing the template, the following criteria must be considered: - Options would generally include: Base Case (do nothing) minimal approach non-asset solutions, for example, these may include: demand management, service transformation, optimising existing operations or asset use, alternative maintenance strategies, re-investment in replacement/renewal, enhancement of existing infrastructure investment in new assets. - The evaluation of options would include: rating of achievement of project objectives; rating of achievement of strategic objectives; capital cost (present value) (including confidence levels); recurrent costs (including confidence levels); potential revenues (including confidence levels); environmental benefits; social benefits and where these benefits are distributed key assumptions and risks; timing of service delivery and the risks associated, should the project not proceed.

Sr. No.	Section	Description
7	Project Delivery Alternatives	For each of the proposal options, all appropriate project delivery approaches should be considered. These may range from traditional procurement to design-construct or PPP Project delivery, depending on the nature of the investment proposal.
8	Preliminary Assessment Risk	For each option, a high-level analysis of potential risks is required to estimate their likelihood and consequences and determine the risk level. The highest-ranking risks should be listed in the options assessment along with potential cost implications and indicative risk reduction strategies.
9	Preferred Option	Based on the options analysis and the preliminary risk assessment a prioritised short-listing of options and any clear preferred option for further analysis is provided. Reasons for the preferred option or prioritised short-listing should be documented, including key assumptions made, the details of the ranking process and the assessment criteria. The preferred timing and sequencing for the project should also be documented.
10	Actions to progress to business case	Actions required to further progress the proposal should be listed. This may include: further iterations of the options analysis; determining the impacts of deferring the project; issues to be specifically addressed in the business case; timeframe required to develop the outline business case and further the full business case; further studies for addressing information gaps.
11	Supporting Documents	All documentation that supports the finding of the options analysis

ANNEXURE 4: TYPICAL TABLE OF CONTENTS FOR THE OUTLINE BUSINESS CASE (FEASIBILITY STUDY)

1) Executive Summary

This summary provides the following information –

- a) Current service provision, if applicable and future requirements;
- b) A summary of the full list of options;
- c) A summary of the options selection procedure and the options chosen for detailed examination;
- d) A summary of the comparative findings and justification for the preferred option; and
- e) Highlights of the implementation plan;

Part A: Feasibility Assessment

2) Project Background

This section provides a background on the project location, type of infrastructure, the MDA, previous studies undertaken, and previous approvals received etc.

3) Strategic Needs Assessment, Demand Assessment and Project Scoping

This section analyses current and future needs. An analysis of the user's needs is included. The following issues are addressed –

- a) Existing or envisioned service gaps;
- b) Key stakeholders and their requirements; and
- c) Consultation plan with key stakeholders to ensure that the project remains relevant.

Assessment of demand is also included in this section. Project scoping Component determines and defines the scope of the project, outlining the services to be delivered.

4) Service Standard – Output and Services

This section translates the needs identified in the previous step into specific outputs. The following issues should be addressed –

- a) Impact of the proposed project on the service gaps identified above and overall objectives the project aims to achieve;
- b) Outputs expected from the project, stated in measurable and quantifiable terms as far as possible;
- c) Support service outputs (the outputs that are not the key drivers of the projects, but have potential to enhance the project's value for money); and
- d) Relevance of the project to the MDA's long-term strategic goals and overall national development plan.

5) Market Assessment

Once the project outputs have been specified, assessment of the market potential can commence. The purpose of market assessment study is to assist the MDA in deciding how to design, and deliver the project. The study may address the following elements –

- a) Description of the industry;
- b) Current market analysis (current offerings, market players and their capability and appetite);
- c) Competition (alternative service and product offerings);
- d) Anticipated future market potential;

- e) Potential market players and sources of revenues; and
- f) Demand projections.

6) Technical Feasibility

This component details how a project can be delivered (i.e., outline technical solution). The study addresses the following elements –

- a) Field surveys of the project site, which may include (depending on the project) mapping, topographical and geotechnical surveys;
- b) A preliminary technical design of facilities required to provide the project outputs. This should consider alternative design options, taking into account uncertainty in the demand projections and other site-related uncertainties.
- c) Materials and other inputs requirements;
- d) Alternatives (such as those involving usage of existing assets for the project, rather than creating new ones; or achieving the desired outputs by some means other than the proposed solution) and their assessment in relation to the possibility of achieving the targets of the project; and
- e) Capital Expenditure cost assessment and Operating and Maintenance cost assessment based on the components of the preliminary technical design.

7) Financial Feasibility

This component provides an estimate of project costs based on recommended technical solution and identifies possible financing solutions. The study addresses the following elements:

- a) Project costs (initial and replacement capex, cost of upgrades, opex);
- b) Start-up capital;
- c) Sources of financing;
- d) Potential revenues;
- e) Estimated returns; and
- f) Consulting costs

8) Environment Impact

This section examines environmental considerations, including details of any environment impact study conducted.

9) Legal Framework

This component examines the suitability of existing legislative environment for the execution and running of the project, as well as any licenses or requirements that potential service providers need to comply with.

- a) The study should address the following elements –
- b) Appraisal of current legislative environment in relation to requirements of the project;
- c) Assessment of required amendments to the current legislation;
- d) Legal requirements for the proposed market and organisational structure; and
- e) Other legal issues that may inhibit / prevent the development of the project

10) Stakeholder consultation findings and public interest evaluation

This component states the findings of the consultation process with the various stakeholders including but not limited to –

- a) Users;
- b) Developers;
- c) Community participants;

- d) Citizens likely to be affected;
- e) Financers; and
- f) Other relevant government authorities

11) Conclusion and Recommendations on Feasibility Assessment

This component details the key conclusions and recommendations on the Feasibility Assessment.

Part B: Structuring

12) Risk Assessment

This section identifies all material risks associated with the project, specifying the external and project development risks for the MDA, the project risks to be allocated to the Private Sector and those to be retained by the MDA.

13) Key Commercial Principles and Payment Mechanisms

This section details the key commercial principles for the PPP project. These commercial principles include among other principles, the payment mechanisms, relief, compensation and force majeure events, default events, termination payments, the MDA's step-in, cure rights, insurance etc.

14) Public Sector Comparator (PSC)

This section states the reference project and details the computation of the Public Sector Comparator.

15) Option analysis, Value for Money and recommendations

This section identifies delivery options available for the development of the project, provides evaluation of these options and recommends the preferred one, based on the evaluation criteria specified.

16) Evaluation Criteria for selection of Private Sector

This section details the evaluation criteria for selection of the Private Sector. The evaluation criteria may either be on a Least Cost Approach or on a Quality cum Cost Based Selection (QCBS).

17) Implementation Plan

This section details the activities and timelines during the project development period. It also states the person or entity responsible for each activity.

18) Project resource requirement

This section details the resources required during and after the project development period.

19) Conclusion and Recommendations on Structuring

This section details the key conclusions and recommendations on the Project Structuring.

Appendixes (other supporting documents)

Any supporting documents are included in the section like Detailed projected Financial Statements, Detailed Environment Impact Assessment study, Detailed Technical Report, Detailed review of legal framework, etc.

ANNEXURE 5: CHECKLIST FOR FEASIBILITY STUDY

This section provides an indicative checklist for the Feasibility Study. The objective of this check list is to ensure that the information as required to be included in the Feasibility Study by the parties to the project have been included or not. This provides a quick check of the key data pending to be availed and included in the Feasibility Study.

Checklist for Feasibility Study

SN	Particulars (Tick “✓” the applicable box)	Provided	Not Provided	Not Applicable
1	General			
1.1	Name of the Project			
1.2	Type of PPP (BOT, BOOT etc.)			
1.3	Location (Province/District/Town)			
1.4	Responsible Ministry/Department			
2	Project Description			
2.1	Brief description of the project			
2.2	Justification for the Project			
2.3	Possible alternatives, if any			
2.4	Estimated capital costs with break-up under major heads of expenditure also indicate the basis of cost estimated			
2.5	Phasing of investment (if required)			
3	Financing Arrangements			
3.1	Sources of financing (equity, debt, mezzanine capital etc.)			

SN	Particulars (Tick “✓” the applicable box)	Provided	Not Provided	Not Applicable
3.2	Indicate the revenue streams of the Project (annual flows over project life). Also indicate the underlying assumptions			
3.3	Indicate the Net Present Value (NPV) of revenue streams with appropriate discounting			
3.4	Who will fix the tariff/user charges? Please specify in detail			
3.5	Have any financial institutions been approached? If yes, their response may be indicated			
4	IRR			
4.1	Economic IRR (if computed)			
4.2	Financial IRR (project and equity), indicating various assumptions			
5	Clearances			
5.1	Status of environmental clearances			
5.2	Clearance required from the MDA and other local bodies			
5.3	Other support required from the MDA			
6	Government of Nigeria Support			
6.1	Viability Gap Funding, if required			
6.2	Government of Nigeria guarantees being sought, if any			
7	Concession Agreement			

SN	Particulars (Tick “✓” the applicable box)	Provided	Not Provided	Not Applicable
7.1	Term sheet of the proposed Concession Agreement			
8	Criteria for short listing at RFQ stage			
8.2	Indicate the criteria for short listing			

Concession Agreement

SN	Particulars (Tick “✓” the applicable box)	Provided	Not Provided	Not Applicable
1	General			
1.1	Scope of the Project			
1.2	Nature of Concession to be granted			
1.3	Period of Concession and justification for fixing the period			
1.4	Estimated capital cost			
1.5	Likely construction period			
1.6	Conditions precedent, if any, for the concession to be effective			
1.7	Status of land acquisition			
2	Construction and O&M			
2.1	Monitoring of construction; whether an independent agency/engineer is contemplated			
2.2	Minimum standards of Operation and Maintenance			
2.3	Penalties for violation of prescribed O&M standards			

SN	Particulars (Tick “✓” the applicable box)	Provided	Not Provided	Not Applicable
2.4	Safety related provisions			
2.5	Environment related provisions			
3	Financial			
3.1	Maximum period for achieving financial close			
3.2	Nature and extent of capital grant/subsidy contemplated			
3.3	Bidding parameter (capital subsidy or other parameter)			
3.4	Provisions for change of scope and the financial burden thereof			
3.5	Concession fee, if any, payable by the Concessionaire			
3.6	User charges/fee to be collected by the Concessionaire			
3.7	Indicate how the user fee is to be determined; the legal provisions in support of user fee; and the extent and nature of indexation for inflation			
3.8	Provisions, if any, for mitigating the risk of lower revenue collection			
3.9	Provisions relating to escrow account, if any			
3.10	Provisions relating to insurance			
3.11	Provisions relating to audit and certification of claims			
3.12	Provisions relating to assignment/substitution rights relating to lenders			
3.13	Provisions relating to change in law			
3.14	Provisions, if any for compulsory buy-back of assets upon termination/expiry			

SN	Particulars (Tick “✓” the applicable box)	Provided	Not Provided	Not Applicable
3.15	Contingent liabilities of the MDA			
3.15a	Maximum Termination Payment for the MDA's default			
3.15b	Maximum Termination Payment for Private Sector default			
3.15c	Specify any other penalty, compensation or payment contemplated under the agreement			
4	Others			
4.1	Provisions relating to competing facilities, if any			
4.2	Specify the proposed Dispute Resolution Mechanism			
4.3	Specify the proposed governing law and jurisdiction			

Commercial Case

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
1	Is the project expected to achieve a satisfactory rate of return?			
	Explanatory Notes			
2	Are projected financing ratios satisfactory?			
	Explanatory Notes			
3	Is the project likely to achieve value for money (VFM)?			

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
	Explanatory Notes			
4	Are the project outputs, services levels and performance requirements clearly specified?			
	Explanatory Notes			
5	Are credible proposed financing arrangements in place?			
	Explanatory Notes			

Risk Management Strategy

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
6	Have all major risks been identified, understood and evaluated?			
	Explanatory Notes			
7	Are risk management plans in place?			
	Explanatory Notes			
8	Are approvals processes and clearances being addressed?			
	Explanatory Notes			
9	Are environmental and social issues being addressed?			

	Explanatory Notes			
10	Are land acquisition issues being addressed?			
	Explanatory Notes			

Readiness for Procurement

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
11	Is a robust procurement strategy in place, including for the management of deviations?			
	Explanatory Notes			
12	Has the proposed procurement procedure been evaluated and, in particular, its compliance with legal requirements confirmed?			
	Explanatory Notes			
13	Has stakeholder consultation confirmed the acceptability of the project and procurement strategy?			
	Explanatory Notes			
14	Is there adequate knowledge of the market and potential suppliers?			
	Explanatory Notes			

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
15	Is progress in obtaining permits, approvals and clearances satisfactory and in accordance with the procurement strategy?			
	Explanatory Notes			

Procurement Plan

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
16	Are the project budget and timetable under control?			
	Explanatory Notes			
17	Does the project team have adequate skills and resources, including appropriate external advisors?			
	Explanatory Notes			
18	Have remaining project activities been timetabled, defined, and resourced?			
	Explanatory Notes			

Overall Assessment

SN	Particulars	Details (Tick “✓” the applicable box)			
1	Is the project documentation complete?	Complete	Partially Complete	Not Provided	Recommendations

SN	Particulars	Details (Tick “✓” the applicable box)
	Explanatory Notes	

Capacity of the MDA to manage and monitor the contract

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
1	Has a suitable Contract Management Team been formed?			
	Explanatory Notes			
2	Have financial resources been secured for managing and monitoring the contract during the current budgetary cycle?			
	Explanatory Notes			
3	Has a contract management plan been prepared?			
	Explanatory Notes			
4	Do the plans for contract management and monitoring meet the guiding principles for contract management (simple and focused, low cost, conducive to partnership, clear dispute resolution procedures)?			
	Explanatory Notes			
5	Has a monitoring schedule been developed?			
	Explanatory Notes			

SN	Particulars (Tick “✓” the applicable box)	Yes	No	Unsure
6	Are training and capacity building opportunities available to the contract management personnel?			
	Explanatory Notes			
7	Are plans in place to respond to difficulties or problems in contract implementation as they arise?			
	Explanatory Notes			

ANNEXURE 6: PAYMENT MECHANISMS

1. Introduction

The payment mechanism determines the payments which the MDA makes to the Private Sector and sets out the incentives for the Private Sector to deliver the services required by the MDA.

The payment mechanism is tied to the output specifications and determines the performance requirements, the level of risk that is transferred to the Private Sector and the required level of penalties for under-performance. The payment made thus reflects the risk and responsibility distribution between the Public and the Private Sectors and serves as a motivation for the Private Sector to provide the service at predetermined standards. In certain cases instead of receiving payments the Private Sector may be required to share revenues/profits.

There is no single model for determining the payment mechanism and it needs to be tailored specifically for every project. The payment mechanism should be such that it optimises the risk transfer to the Private Sector, provides value for money, and incentivises the Private Sector to provide quality service.

2. Key elements of the Payment Mechanism

The general key elements of the payment mechanism are as follows:

Unitary Payment

The unitary payment is the payment made to the Private Sector for the service provided. This payment should not contain a fixed sum to be paid irrespective of the required service performance. For example, the payment should be linked to the performance of the Private Sector for the required service and not to the payment obligations of the Private Sector to a third party like lenders to the Project. The unitary payment should be a single individual sum and not be broken down into separate payments for a range of services. This ensures that the Private Sector maintains the performance standard across the range of services provided.

The unitary payment may not apply to revenue-generating projects, volume-based or user-charge projects.

Where a single unitary payment is not appropriate the payment may be divided into a number of components that can be subject to indexation over the course of the project. For example, in a power plant project, the amount of power generated will determine the operating costs of the plant. In this case as the costs may vary substantially from time to time it would not be appropriate to use a single unitary payment. Instead, a capacity and usage payment which are subject to indexation may be used.

In some projects, the feasibility study may indicate that making payments over time would provide more value for money for the MDA than making a single unitary payment. In this case, the MDA may want to break down the single charge into some small periodic payments. Often, this unitary

payment is used as one of the key financial bid parameters to evaluate bidders for a particular project.

Availability of Service

The MDA should make the payment only upon the availability of the service contracted for and at a certain level of quality. No payment should be made unless the service contracted for is deemed available.

For example, in case of a hospital, the availability of hospital building may determine the availability of the service. Similarly for a sewage treatment plant, payments should not begin unless the plant is commissioned and the required level of sewage treatment service is made available from the plant.

Provision for deductions

The payment should be in proportion to the level of service provided. There should be in place a mechanism for deductions in case partial or no service is provided. Deductions should ensure that they create motivation for the Private Sector to provide the service at the desired level of performance and quality. Deductions should also coincide with the level of failure in delivery of service. The penalty deduction amount should increase with repeated failure to provide the service. An example of unavailability of the service can be in case of a water treatment plant wherein the water of appropriate quality level is not available.

Provision for excess profit sharing

Due to the long-term nature of PPP Contracts, it may be foreseeable that the Private Sector may make profits exceeding the forecast. In such circumstances, it may be appropriate to include commercial terms that provide for the sharing of the excess profits with the MDA. This sharing of excess profits may be event-specific like a refinancing benefit or may emanate out of increased revenues or reduced costs.

MDA need to be very careful in sharing the gains from increased revenues. If demand risk is borne by the Private Sector, then it is recommended that the MDA should not have any claim to excess profits. It should be noted that excess profits here refer to the profits over and above the projections as provided by the bidder in the financial model at the bid stage. Excess profit-sharing models should be decided on a case-to-case basis.

Provision for changes to service or contract

Over the course of a PPP Contract, changes may be required to the service requirements or the contract itself. There may be changes to the scope of the infrastructure project which in turn may require changes to the PPP agreement. The payment mechanism should be flexible enough to ensure that any change in service requirements over the course of the agreement can be accommodated.

The contract should set out in detail the terms and conditions governing the criteria for any changes required to pricing, output variation in the contract, and refinancing. Any changes in the law should be dealt with as extraordinary events.

Price Review/Adjustments

Given the long term nature of a PPP Contract, the payment mechanism should include mechanisms for adjusting the Unitary Payment to prevent the Unitary Payment from becoming insufficient to meet the project's operating costs and financial obligations for reasons beyond the Private Sector's control.

The payments should be subject to adjustments only based on inflationary increases as these are typically not in the control of the Private Sector. Construction costs are largely of fixed nature and should not be subject to inflation adjustments. The level of indexation should be determined on a project-by-project basis.

Two important aspects of inflation indexation should be considered for price adjustments:

Price Index to use: The contract should specify which indexation factor will be applied.

Proportion of the unitary payment to be indexed: The contract should determine the proportion of the unitary payment to be indexed. The indexation should be applied only to the proportion of the Unitary Payment that matches the proportion of costs that are expected to escalate in the total cost. This provides a hedge against costs that are not under the control of the Private Sector.

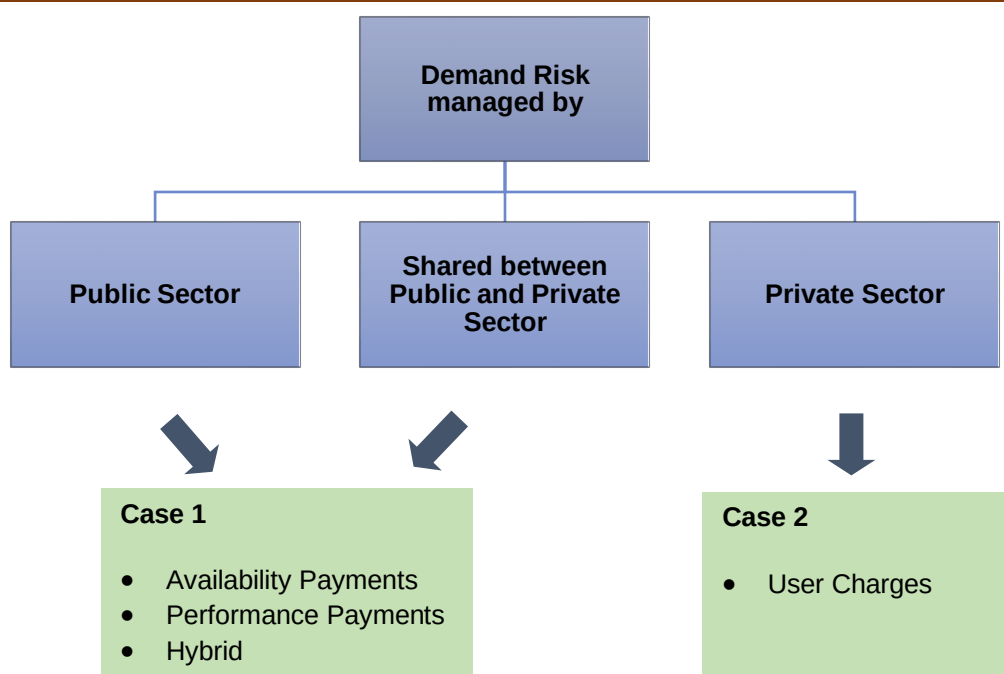
Benchmarking / Market Tracking: Due to the long-term nature of the contract, it is appropriate for the MDA to compare costs periodically to ensure that the value-for-money proposition is maintained.

3. Structuring of the Payment Mechanism

The structure of the payment mechanism is determined by the risk assumed by the Private Sector. Should the Private Sector only assume risks in relation to availability and service performance with demand and usage risk being Government risk, the appropriate payment mechanism should provide a fixed availability payment that is supported by a deduction based on the level of service performance.

Where the Private Sector assumes demand risk for the services to be provided, the more appropriate payment mechanism will be user-based revenue that is collected by the Private Sector directly from the user.

- **Case 1:** Where the demand risk is managed by the MDA or is shared between the public and Private Sector. In this case the risk faced by the MDA from the contract is that of the actual availability of the service and the service performance standard.
- **Case 2:** Where the demand risk is completely managed by the Private Sector. This usually applies for projects where the consumer pays for the service provided.



Where demand risk is to be shared between the public and Private Sectors, the payment mechanism will need to reflect the extent to which demand risk has been allocated to a party.

Costs for “soft services” are tested against prevailing market conditions on a periodic basis (e.g., 3-5 years). The PPP contract should set out how discrepancies will be reflected in adjustments to the unitary payment.

Availability Payments

This form of payment mechanism is suitable when demand risk is assumed by Government or is shared between the public and Private Sector and the availability and quality of service is the key responsibility of the Private Sector.

This form of payment mechanism is based on the facility/service being “available” for use when required; with penalties should all or part of facility/ service not be available. The term “available” (or “unavailable”) should be defined in the PPP agreement and reflect the extent of accessibility to the facilities required by the MDA to deliver the core services.

The unitary payment should be subject to an abatement regime whereby deductions to the Unitary Payments are made should the facilities (or part thereof) be deemed “unavailable”. The extent of abatement should be subject to calibration to ensure that the deductions meted out are not disproportionate. .

In designing an effective availability payment mechanism, the following features need to be taken into account:

- It should to be easily and objectively measurable;

- It should be subject to an abatement regime linked to the concept of “availability”; and
- It should compensate Private Sector for both capital and operating costs.

For example, in case of a road DBFO project where an availability payment mechanism is utilised, deductions for sub-standard service can be structured as follows:

Sample deduction methods for a road DBFO project

Key Service Areas	Deductions
Lane Availability	• Deductions for “unavailable” lanes
Route Conditions	• Deductions for substandard roadway that is deemed “unavailable”
Safety Performance	• Deductions based on comparisons with the relevant country’s safety trends • Bonus/credits for performance above standard

In the above example, the abatement regime will effect deductions to the service payment.

The extent of the deductions can be calculated based on –

- Length of road affected;
- Number of lanes affected;
- The use of contra flow (on grounds of reduced safety);
- Duration of unavailability; and
- Time of day (higher in peak hours), day of week, season.

Source: US Department of Transportation, Federal Highway Administration

Performance Payments

This payment mechanism is suitable for projects where the provision of the service of a certain standard is required. Under this mechanism the services and the operational performance of the Private Sector should be emphasized rather than the usage of the facility.

The key measures of performance may relate to –

- Reliability;
- Speed of response to failures;
- Responsiveness to user feedback; and
- Cleanliness.

Certain Key Performance Indicators (KPIs) can be set up to measure the performance level for the service and to create appropriate deductions. For example, in Spain, KPIs to manage a road project can be seen in the table below.

Examples of KPIs in Spain

KPI Area	Measurement
Safety	$A = N \cdot 10^8 / L \cdot 365 \cdot \text{AADT}$ Where: A = accident rate N = number of accidents with victims L = length of highway under management (km) AADT = average annual daily traffic The accident rate is compared with the previous year's rate; an increase results in a penalty, while a decrease results in a bonus of up to 5% of the annual service payment.
Heavy Vehicles	If at least 90% of the time during the first 35 years of concession, at least 35% of total heavy vehicle traffic in the corridor uses the highway AND at least 90% of the time during the first 35 years of concession, at least 40% of total heavy vehicle traffic use is at night, THEN the concession period is extended 1 year.
Winter Weather Conditions	Road closure = €1,800/hour in fines Tire chains required = €600/hour in fines

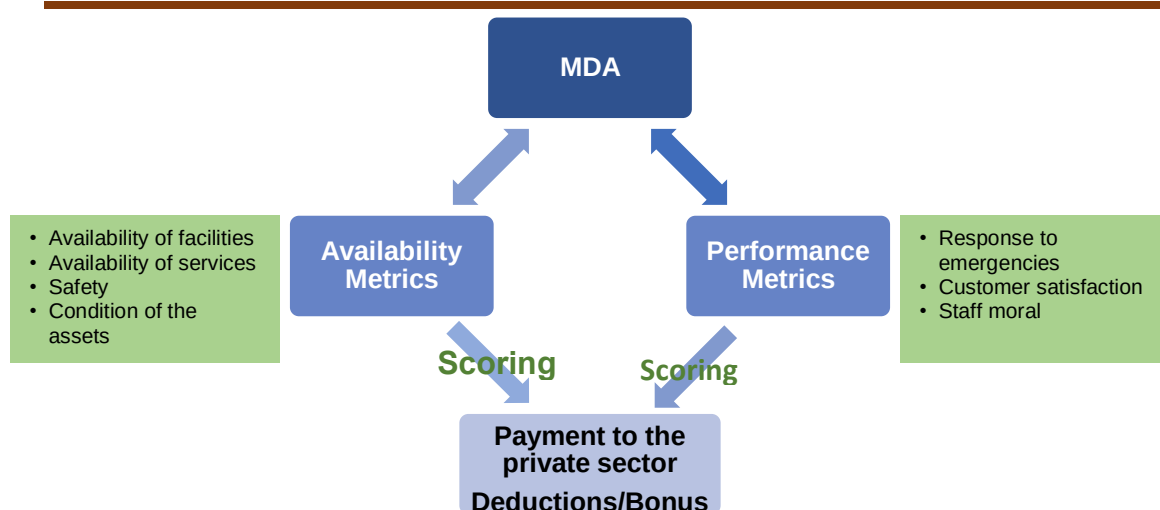
Source: US Department of Transportation, Federal Highway Administration

Non-financial measures can be used for both of the above payment mechanisms to ensure delivery of performance at agreed standards. These can take the form of –

- a) Rectification plans;
- b) Formal warning notices;
- c) Service provider replacement; and
- d) Contract termination.

Hybrid Availability/Performance based payment mechanism

Depending on the nature of the project, a combination of the availability and performance payment mechanisms can be used. This model is suitable where the MDA assumes demand risk for the project and requires the delivery of the services by the Private Sector to specified standards.



The case study below depicts this usage:

Example case study: Singapore Sports Hub PPP

Project Scope: Design, build, finance, and operate the facilities PPP for a National Stadium, a Multi-Purpose Indoor Arena, an Indoor Aquatic Centre, Office space for SSC and NSAs, 200-room elite athlete residences, other facilities to include a Museum, Medical Facilities, Media Facilities, Car Parking Facilities, and Road Network. Supporting services required also included security, cleaning, estate management etc.

The Government will own the Project site and grant a lease to the Private Sector. The Government will have usage rights of the facilities as specified in the PPP Contract and upon conclusion of the PPP Contract and land lease, Sports Hub will revert to the public party at no charge.

Payment Mechanism: The availability-based payment structure was used.

Unitary Payment = AP + VP – AD – PD +/-ADJUSTMENTS

AP = Availability Payment

VP = Variable Payment: Government event days, Singapore Sports Council (SSC) requires a certain number of event days to stage government-sponsored events such as National Day Parade. The event cost is fixed and is bid during procurement, based on the forecasted attendance numbers for these events.

Variable Payment = Fixed Event Cost – Revenues Generated

AD = Availability Deductions

PD = Performance Deductions

ADJUSTMENTS = Third Party Revenue Share

Performance Incentives

- Deductions levied against Private Sector for poor performance
- Availability Deductions (AD)
- Where the facility or any part of it is unavailable, the payment is reduced
- Performance Deductions (PD)
- Where services are not performed as required, the payment is reduced
- Non-Financial Remedies:
- Rectification Plans
- Formal Warning Notices
- Service Provider Replacement
- Contract Termination

Adjustments: Third party revenue share.

Source: Singapore Sports Council

User Charges

If demand risk is transferred entirely to the Private Sector and the consumers of the service are expected to pay for the service then payment mechanism is in the form of a user charge. This type of payment is most suitable to toll roads, highways and public utilities such as water, gas and electricity. The need to satisfy the customers of the service provided is the incentive to the Private Sector to maintain quality in this case as demand would be affected by customer satisfaction.

In case of a toll road project the user fee can be paid directly to the Private Sector (real toll) or it can be collected by the MDA (shadow tolls) which in turn remunerates the Private Sector.

In some instances where user charge-based payment mechanism is used, the MDA may provide a level of revenue guarantee is sometimes provided. This needs to be evaluated on a case by case basis to ensure that the Private Sector is not subject to undue financial stress in the event that demand fails to meet expectations.

Payment Mechanism Checklist

Following are the key issues that should be considered when preparing a payment mechanism for a PPP Contract.

SN	Statement	Check
1	The payment mechanism has a clear relationship with the objectives/outputs of the contract/project	☐

SN	Statement	Check
2	The payment mechanism takes into account all the payments and deductions to be made under the PPP agreement	☐
3	The payment mechanism takes into account the long term view on value for money, changes in service	☐
4	The payment mechanism is transparent and understood by all stakeholders	☐
5	The payment mechanism is based purely on objective observable and measurable facts	☐
6	The contract specifies a service commencement day after which the first payment is made	☐
7	The contract exhibits a consistent link between output specifications, risk allocation and incentives, and the payment mechanism	☐
	Summary – Hence, Payment Mechanism is appropriately addressed	☐

ANNEXURE 7: DRAFT CODE OF CONDUCT FOR BID EVALUATION PANEL MEMBERS

This code of conduct shall be applicable for both the selection of a transaction advisor and PPP procurement phase bid evaluation.

Background

Every member of a bid evaluation panel appointed by an MDA to act on behalf of the state in the adjudication and evaluation of these bids is required to sign this code of conduct before receiving bids. In addition, each member has to sign the attached declaration of interest form once the MDA has announced and recorded the identities of the bidding parties.

The aims of the code

This code of conduct does not address every possible situation that may arise. It also cannot serve as a substitute for the responsibility of the accounting officer/authority and the bid evaluation panel members to:

- Exercise sound judgment
- Act with exceptional standards of moral integrity
- Abide by all applicable laws.

This code of conduct is intended to:

- Confirm the member's commitment to all its prescripts
- Guide members who are faced with ethical dilemmas in an increasingly complex operational environment
- Provide a reference for disciplinary and/or prosecuting procedures if a member is found guilty of fraud or corruption
- Serve as a public commitment by the MDA to the highest standards of ethical and professional conduct in the evaluation of bids.

Breaching the code

A member will be found guilty of breaching the code of conduct if he or she

- Contravenes or fails to comply with any provision in it
- When declaring interests, wilfully gives incorrect or misleading details.

In these cases, a member will be liable for disciplinary action in terms of relevant public service regulations and may also be liable for criminal prosecution. The accounting officer/authority, acting on his or her own or on a complaint by any person, may investigate any alleged breach of this code by a member of an evaluation panel and may withdraw the member from the panel during the investigation.

Definitions

“**Family member**” means a parent, sibling, child or spouse of a member;

“Member” means a person appointed by the accounting officer/authority to a bid evaluation panel, either as the chairperson, or as an ordinary member or secretariat, for purposes of conducting the evaluation of either transaction advisor bids or PPP bids as a representative of the MDA;

“Privileged or confidential information” means any information:

- determined by the MDA to be privileged or confidential
- discussed in closed session by the bid evaluation panel
- which if disclosed would violate a person's right to privacy
- declared to be privileged, confidential or secret in terms of any law

Code of conduct

I, [insert name of member of bid evaluation panel], acting in my capacity as member of the [insert name of MDA] evaluation panel for the adjudication and evaluation of bids for transaction advisors/private parties (delete which is not applicable) under [insert tender number] hereby undertake:

1. to act at all times with fidelity, honesty, integrity and in the best interests of the state and the general public it serves
2. to diligently perform the duties of a member efficiently, effectively and strictly in accordance with the rules of bidding and bid evaluation, as set out in the bid documentation and according to all relevant instructions given by the MDA
3. to properly prepare for and attend each meeting of the bid evaluation panel, and failing this to withdraw as a member
4. to act at all times in accordance with the relevant legislation and regulations, including Ministry of Finance regulations, and directives given by the MDA
5. to recognise the public's right to access to information in the interests of administrative justice
6. to take the utmost care in ensuring that there is reasonable protection of the records of the MDA and all bid documentation
7. not to misuse the position or privileges of a member, or privileged or confidential information obtained as a member
8. to carry out duties with the skill and care expected from a person of knowledge and experience, and to exercise due judgement
9. not to unfairly discriminate against any bidder on the grounds of race, gender, ethnic or social origin, colour, sexual orientation, age, disability, religion, political persuasion, conscience, belief, culture or language
10. not to abuse any position in the public service to promote or prejudice the interest of any political party or interest group
11. to give the Auditor-General all the information and explanations it requires to carry out its functions
12. to report to the appropriate authorities any case of fraud, corruption, nepotism, maladministration and any other acts which constitute an offence or which are prejudicial to the public interest, arising during the bid evaluation panel proceedings
13. to declare, diligently, accurately and honestly in the declaration of interest, all personal and/or business interests that I or a family member may have in any business of any bidder, and to willingly abide by any decision of the chairperson of the bid evaluation panel or the accounting officer/authority to withdraw as a member of the panel because of this to be open and honest about all decisions and actions taken regarding the bid evaluation, and to give clear reasons for these, which can be accurately recorded
14. not to make any dishonest allegations about any bidder
15. not to make any false or misleading entries into the records of the bid evaluation panel

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16. to make no contractual commitments related to the bid, to any bidding party, on behalf of the MDA
 17. to proactively protect the privileged or confidential information of the bid evaluation panel from theft, unauthorized disclosure or inappropriate use, and specifically:
 - not to respond to any queries relating to the bid evaluation on behalf of the MDA, unless expressly authorized in writing by the accounting officer/authority to do so
 - not to speak to or correspond carelessly with any person (fellow member, colleague, friend, family member or otherwise) on any matter related to the bid evaluation
 18. not to request, solicit or accept any reward, gift or favour in return for voting or not voting in a particular way on any matter, or for disclosing privileged or confidential information
 19. not to accept or agree later to accept, any 'kickbacks' in the form of money, favours, inappropriate gifts or anything else of value from a member of the public, government, a political or social movement, or any stakeholder or potential stakeholder which is or may be viewed as aimed at influencing or directing my evaluation of the bids
 20. to disclose immediately to the chairperson or the accounting officer/authority any attempted inducement or offers of perks that may be construed as aimed at influencing or directing the evaluation of the bids
 21. to report to the chairperson of the panel any invitations to any kind of entertainment by any party that may be construed as being associated in any way with the outcome of the bid evaluation
 22. not to vote at, attend or participate in any other way in any meeting or hearing about any matter before the bid evaluation panel, if any interest prevents me from carrying out my member functions in a fair, unbiased, and proper way by this code of conduct
 23. That, the breach of this Code of Conduct or any provisions of the ICRC Act, 2005 shall not preclude the MDA of criminal proceedings under the relevant laws and regulations in Nigeria.

Signed: _____

Date:

[Signature of member] [Insert date]

Witnessed: _____

[Signature of witness]

ANNEXURE 8: DRAFT DECLARATION OF INTEREST

All members of the bid evaluation panel for PPP projects are required to complete and sign the following declaration of interest.

The table below shows the full list of all the bidders, including the names of all the consortium members of each bid, who have responded to the [insert name of MDA] call for a transaction advisor/PPP (delete as appropriate) bid for [insert name and tender number of project].

As a member of the bid evaluation panel, you are required to declare any interest, as far as you are aware that you have, in any of the bidders and their consortium member companies.

An interest includes, but is not limited to:

- Your shareholding in a bidding company or any of its consortium member companies. Clearly indicate the extent of your shareholding and links to this bid.
- Family members, friends or associates employed by a bidding company or any of its consortium members. Clearly indicate the extent of this relationship and links to this bid.
- Family members, friends or associates' shareholding in a bidding company or any of its consortium members. Clearly indicate the extent of their shareholding and links to this bid.
- Family members, friends or associates contracted to provide services to a bidding company or any of its consortium members. Indicate these individuals' links to this bid.
- You, or any of your family members, friends, or associates receiving or in contract to receive, any gifts, favours, payments, sponsorships, subsidies, or any other benefits from any bidders or any members of any of the consortia, within the last 12 months of the date of this declaration.
- Any other personal interest that may reasonably be deemed relevant to protecting the integrity of the bid evaluation.

Name of Bidders	Interest (Y/N)	Extent of Interest
<details of bidders and consortia members>		

I, [insert name of member], a member of the bid evaluation panel for the [insert name of MDA and name and number of project] declare that the above information is true and correct to the best of my knowledge. I declare further that in the event of any such interests arising during the course of bid evaluation, these shall be promptly and accurately declared in writing to the accounting officer/authority.

Signed: _____
[Signature of member] [Insert date]

Date:

Witnessed: _____
[Signature of witness]

ANNEXURE 9: TEMPLATE FOR PROCUREMENT CHECKLIST

The attached procurement checklist has been prepared by the project officer to reflect the specific needs of the project and has been approved for use by the concerned accounting officer. This procurement checklist is to be completed by the process auditor and submitted along with the procurement audit report to the accounting officer.

PROJECT OFFICER

Name:

Signature:

Date:

ACCOUNTING OFFICER

Name:

Signature:

Date:

PROCUREMENT CHECKLIST

Process Requirement/ Task	Details	Completed	Not Completed	Not Applicable	Comments
PPP Inceptions tasks	Initial Needs Analysis				
Registration	Has the project been registered with relevant registering authority?				
...					

PROCESS AUDITOR

Name:

Signature:

Date:

ANNEXURE 10: TEMPLATE FOR PROCUREMENT AUDIT REPORT

The template for procurement audit report could be on the lines of the pre-award of contract report format used in Ireland for PPP projects.

Please find below the relevant format adopted from the format in Ireland.

Procurement Audit Report

In accordance with the Auditor-General's requirements for audit of the procurement process and the broad guidelines provided by the Infrastructure Concession Regulatory Commission (ICRC) and the Bureau of Public Procurement, I have audited the procurement process prior to the signing of the PPP contract. The PPP contract has not been signed and no binding commitments have been entered into.

To the best of my knowledge, all relevant steps outlined in the project's procurement process checklist, as approved by the Accounting Officer, have been adhered to in the procurement of [project name]. Confirmation that each relevant stage was completed is detailed in the appended checklist.

OR

As you are aware, *[Detail of steps not followed]*

In view of the fact that the Project Officer has not completed *[briefly list the steps not followed]*, as detailed above, in my opinion, all relevant steps outlined in the project's procurement process checklist, as approved by the Accounting Officer, were not adhered to in the procurement of [project].

In all other respects, in my opinion, the requisite steps were followed in the procurement of [project]. Confirmation of each stage completed is detailed in the appended checklist.

Name of Process Auditor

Date: