

Public-Private Partnerships

A Basic Introduction for Non-Specialists

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Glossary of Terms

Definitions provided here are based on terminology used in the primary references provided at the end of this Topic Guide. The source is mentioned at the end of the definition in italics.

Affermage: A PPP structure under which the private operator is responsible for operating and maintaining the utility but not for financing. The project company does not receive a fixed fee in exchange for services but rather retains a percentage of receipts collected from consumers, with a portion of the receipts going to the contracting agency as owner of the assets. *(PPP Knowledge Lab)*

Availability Payment: In PPPs paid mainly by the public sector, government payments dependent on the asset or service being available at a contractually-defined quality. *(Nathan Associates)*

Bilateral Agencies: An agency of one country, either public or private, which funds development in other countries. *(PPP Knowledge Lab)*

Build-Operate-Transfer (BOT): It is a form of project financing, wherein a private entity receives a concession from the private or public sector to finance, design, construct, and operate a facility stated in the concession contract.

Brownfield Project: A project that makes use of previously used land or facilities that are upgraded, expanded or modernised to meet project requirements. *(Nathan Associates)*

Capital Costs: Costs of financing construction and equipment. Capital costs are usually fixed, one-off expenses. *(PPP Knowledge Lab)*

Capital Expenditure: Long-term expenditure on fixed assets such as land, buildings, plant and equipment. *(PPP Knowledge Lab)*

Commercial Close: The point in the PPP Cycle when commercial documentation has been executed but conditions precedent has not yet been satisfied or waived (prior to financial close). *(PPP Knowledge Lab)*

Conditions Precedent: The conditions that have to be met, per the concession agreement, prior to release of a loan disbursement (i.e.: financial close). *(Nathan Associates)*

Concession: The right granted by the government for a private company to operate and profit from an otherwise public sector asset in exchange for a concession fee or other form of payment for use of those assets. *(Nathan Associates)*

Concessionaire: The private sector operator responsible for the full delivery of services under a concession in a specified area including operation, maintenance, collection, management, construction and rehabilitation. *(Asian Development Bank PPP Handbook)*

Contract period: The period from financial close to the expiry of the project agreement. *(New Zealand Treasury)*

Contractual close: The date at which the finalised project agreement is signed by authorised representatives of the procuring entity and contractor. *(PPP Knowledge Lab)*

Convertible Currency: A currency which can be freely exchanged into foreign currency or gold without government central bank restrictions or authorisation. *(PPP Knowledge Lab)*

Debt Service: Payments of principal and interest on a loan. *(PPP Knowledge Lab)*

Economies of Scale: A lower average total cost achieved as a result of higher output levels. *(PPP Knowledge Lab)*

Expression of Interest (EOI): The stage of the procurement process in which the procuring entity conducts an open process to short list a predetermined number of respondents to participate in the request for proposals stage. *(New Zealand Treasury)*

EPC Contract: Engineering, procurement and construction contract (i.e. turnkey construction contract). *(PPP Knowledge Lab)*

Feasibility Study: A detailed assessment of the parameters of a PPP project used to prepare a project for transaction development. *(PPP Knowledge Lab)*

Financial Close: The time at which financing obligations (in particular, the final interest rates, the base case financial model and the process by which equity contributions will be made to the SPV) are set and agreed between the procuring entity and the contractor. *(New Zealand Treasury)*

Greenfield Project – A project that makes use of previously unused land for development of a new facility or piece of infrastructure. *(Nathan Associates)*

Guarantee: An undertaking to fulfil the obligations of a third party in the event of a default. *(PPP Knowledge Lab)*

Institutional Framework: The series of institutions that together deliver the different functions and inputs from the Government required to implement a PPP programme. *(PPP Knowledge Lab)*

Management Contracting: A structure whereby a private company takes on the management of the project, selecting contractors, setting prices, and overseeing construction and other services for the benefit of the contracting agency for a fee, generally based on performance or total cost. *(PPP Knowledge Lab)*

Multilateral Agencies: Organisations jointly owned by a group of countries and designed to promote international and regional economic co-operation. *(PPP Knowledge Lab)*

Net Present Value (NPV): The discounted value of an investment's cash inflows minus the discounted value of its cash outflows. To be adequately profitable, an investment should have a net present value greater than zero. *(PPP Knowledge Lab)*

Offtake Purchase Agreement: The agreement whereby the offtake purchaser undertakes to purchase an amount of some or the entire project output (like a power purchase agreement for a power project and a water purchase agreement for a water treatment project). *(PPP Knowledge Lab)*

Offtake Purchaser: A buyer of a resource to sell a portion of the producer's future production of the resource.

Operation and Maintenance Agreement: The agreement allowing the operator the obligation to operate and maintain the project in accordance with its requirements. *(PPP Knowledge Lab)*

Performance Bond: A bond payable if a project is not completed as specified. *(PPP Knowledge Lab)*

PPP Framework: The combination of legal, regulatory, institutional and financial framework that together facilitates the implementation of PPP, generally on a programmatic rather than ad hoc basis. *(PPP Knowledge Lab)*

PPP Legal Framework: The laws and regulations that create the enabling framework for a PPP programme. *(PPP Knowledge Lab)*

PPP Policy: The Government policy regarding the implementation of the PPP programme. *(PPP Knowledge Lab)*

PPP Unit: A Government unit or agency focused on PPP, often located in a powerful central agency (e.g. planning or finance) able to enforce the PPP policy and provide the support needed to implement PPP transactions. *(PPP Knowledge Lab)*

Pre-feasibility Study: An assessment of the basic parameters of a PPP project, used to decide whether to go forward with more in-depth and expensive studies (such as feasibility studies). *(PPP Knowledge Lab)*

Pre-qualification: The process whereby a limited number of qualified bidders are selected based on a pre-defined set of criteria, generally involving experience in the relevant field, site country experience, identity of local partners and international reputation. *(PPP Knowledge Lab)*

Procurement: The process by which the contracting agency obtains infrastructure services on terms and price considered to be the best available as they were reached through a competitive process. *(PPP Knowledge Lab)*

Project Development Fund: A fund for the cost of feasibility studies, transaction advisers and other costs of project development, to encourage contracting agencies to use high quality transaction advisers and best practice. *(PPP Knowledge Lab)*

Project Financing: A loan structure that relies primarily on the project's cash flow for its repayment, with the project's assets, rights and interests held as secondary security or collateral. *(PPP Knowledge Lab)*

Public Private Partnership: A partnership in which the government transfers the exclusive rights to a private operator or investor to develop and/or operate an infrastructure facility under certain conditions for a fixed period of time. *(Nathan Associates)*

Public Sector Comparator (PSC): An assessment of the expected cost of public sector project delivery, used as a comparator to assess whether a PPP proposal represents value for money. *(PPP Knowledge Lab)*

Request for Proposals (RFP): The stage of the procurement process in which short listed respondents develop proposals for delivering project outcomes. The procuring entity then evaluates the proposals from the competitive tender with the objective of selecting one respondent as the preferred bidder. *(New Zealand Treasury)*

Special Purpose Vehicle: A limited recourse project company specifically created to finance, develop, operate, maintain, and promote a specific project. *(Nathan Associates)*

Unsolicited Bid/Proposal: A proposal submitted by a bidder outside of a formal bid process. *(PPP Knowledge Lab)*

Value for Money: Value for Money and Cost-Benefit Analyses incorporate a wide range of factors, apart from time and cost. VfM and CBA incorporate values gained from improved efficiency, lower risks, and other qualitative considerations. VfM compares the value of a project developed by the government vs. a project developed through a PPP. *(Nathan Associates)*

Variation Mechanism: The contractual procedure set out for making a change, specifically how a change can be made and how to calculate the resulting change in contract price and time for completion. *(PPP Knowledge Lab)*

Viability Gap Fund (VGF): A special fund established to provide direct grants to an infrastructure project. VGF-based grants are generally provided to cover a percentage of the capital cost associated with an infrastructure project. *(Nathan Associates)*

Executive summary

Infrastructure is the lifeline of any economy and serves as an important catalyst for economic growth, trade and poverty reduction, particularly in Low Income Countries (LICs) where access to basic infrastructure is often lacking. In 2015, the Organisation for Economic Cooperation and Development (OECD) announced that global infrastructure investment needs for airports, ports, rail, and oil and gas (transport and distribution) alone could amount to over USD 11 trillion from 2009-2030. The World Economic Forum (WEF) separately estimates that the global demand for infrastructure investment is about US\$ 3.7 trillion annually. Multilateral Development Banks (MDBs) and national governments alone do not have sufficient resources to fund these global infrastructure gaps. As such, governments around the world are looking towards the private sector as an additional source of funding.

This topic guide seeks to provide a basic introduction for non-specialists looking for a primer on Public Private Partnerships (PPPs) for infrastructure and service provision.

It is intended to help development professionals considering whether and, if so, how to support the governments of Low Income Countries (LICs) to make greater use of PPPs by highlighting the key considerations, challenges, risks, and common motivations for the private sector's participation. It also presents recent case studies across a wide range of infrastructure sectors (transport, energy, urban, healthcare and education) to provide additional background on the challenges faced and lessons learned by PPP implementers. It is not intended to be a complete 'how to' guide but it sign posts other more specialist resources.

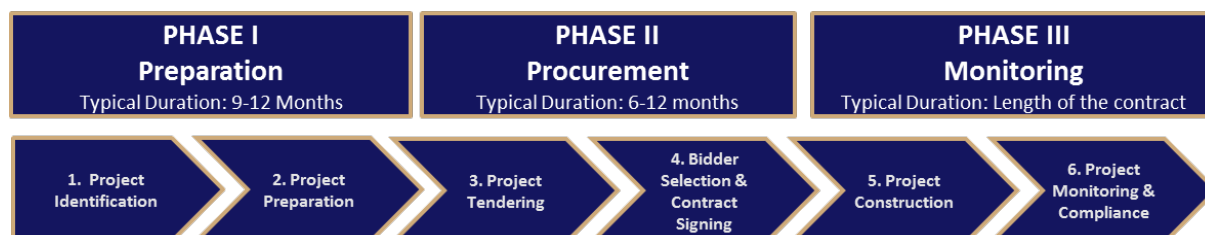
For developing and developed countries alike, PPPs can offer significant value and serve as a solution for overcoming shortages of upfront capital and skills or human capital needed to expedite the development of efficient infrastructure projects. There is no universally accepted definition of PPP as it is not a "one-size-fits-all" approach, and many countries adapt the PPP model to meet their specific needs. For the purpose of this topic guide, PPP can be defined as follows:

A government transfers the exclusive rights to a private operator or investor to develop and/or operate an infrastructure facility under certain conditions for a fixed period of time.

Every country has a specific set of objectives for using PPP, and in LICs these objectives typically involve reducing cost constraints on the public sector, lowering tariffs and expediting project delivery. Another principal benefit of implementing projects under PPP arrangements is the ability to allocate risks to the party that can best mitigate them. Common PPP objectives are presented in further detail in Section 1.3.

As described in Chapter 2, there are several key areas that should be considered when evaluating whether a PPP is the appropriate choice for delivering an infrastructure project. These important considerations include whether or not there is an enabling legal and regulatory framework in place, a business environment that facilitates private sector involvement and the required institutional capacity in place to implement PPPs.

Once it is decided that a country is able to implement a project using the PPP method, it is critical that all three phases of the PPP cycle (as shown below) are completed in a proper and transparent way. Each stage of the cycle requires specific institutional capacity, which is discussed in greater detail in Section 2.2.

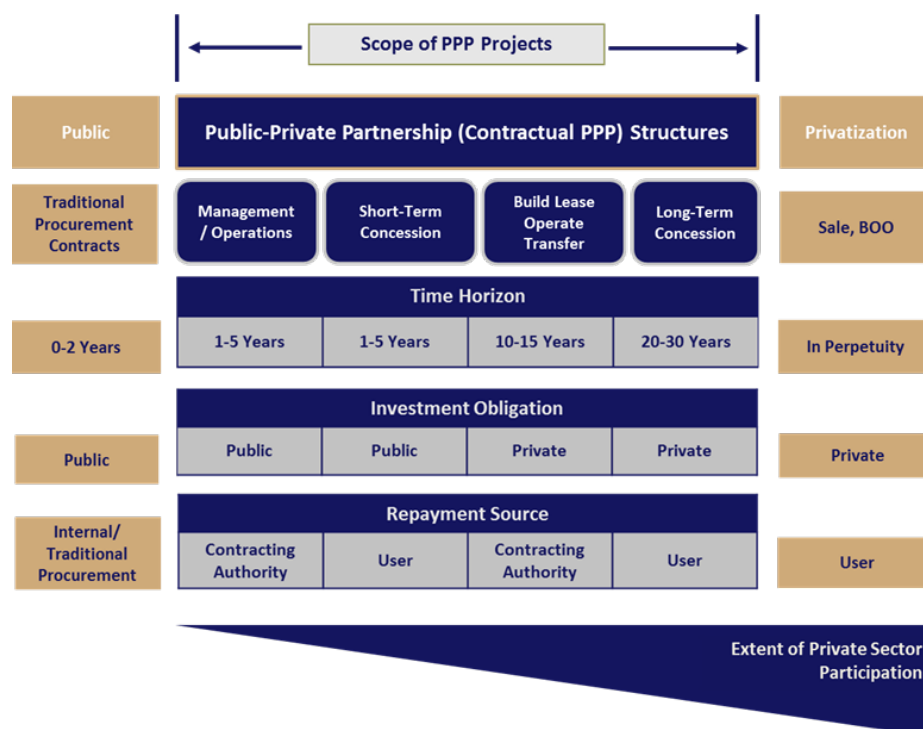


- The first phase, **project identification and preparation**, involves the necessary analysis to ensure that the projects are well aligned with government objectives, that they are financially and technically viable, that they incorporate public consultation and provide the best value for money.
- The second phase, **project tendering and bid selection**, must be transparent and well-managed as the private sector will only participate in a bidding process if it believes that the chances of successfully being awarded a contract are proportionate to the costs incurred in bidding and that the project has a good chance of successful implementation.
- The final stage of the PPP cycle involves **project construction and contract monitoring**. It is critical that contract compliance is monitored appropriately to ensure that public infrastructure provided under a PPP agreement is provided according to the requirements set forth in the contract, and that value for money is generated throughout the lifetime of the project.

The nature of the PPP project determines the specific PPP structure that is employed and how the project will best be financed. For example, financing PPP projects in LICs presents different challenges to financing traditional PPP infrastructure in advanced economies and developed countries. Different PPP models are described in Chapter 3 but, put simply, PPPs are generally structured according to one of two main project financing categories:

- **Demand risk PPPs** where the private sector concessionaire receives payment directly from the users of the infrastructure (for example through user tolls) rather than from the government. In these cases, the private sector operator is taking on the demand risk associated with the infrastructure and the infrastructure is being funded by users rather than the government.

- **Availability payment-based PPPs** where the government agrees to make payments to the private sector operator of the infrastructure based on key performance indicators being satisfied. In these PPPs, the government takes on the demand risk. Availability payment-based PPPs typically include social infrastructure PPPs, such as those in healthcare, education and justice



A number of PPP contract structures are portrayed in the side image; ranging from management contracts where the private sector operates and manages existing public assets to long-term concessions where the private sector could be responsible for structuring, designing, financing, constructing, operating, and maintaining an infrastructure asset. The decision to pursue a particular arrangement will depend on the characteristics of each project (including cost, revenue, and risk distribution):

Chapter 4 presents case studies focused on a range of different project structures across key infrastructure sectors; transport, energy, urban and municipal services, education and health. These case studies illustrate the potential benefits of implementing projects through PPP but also detail various challenges that they each face. For example, the failure of some PPP projects can be attributed to inaccurate estimates of demand at the outset. Most issues which arise from PPP projects can be mitigated through clear and well-structured legislation and contract terms, detailed project analysis, transparent procurement procedures and long-term contract oversight. However, controversies still arise and these are described further in Section 1.6.

When appropriate and implemented well, PPPs can bolster economic growth, unlock revenue potential and enhance innovation and operational efficiency in the provision of public services. There are some common 'keys to success' which are useful across sectors and countries, and include the following:

Keys to Success
Set realistic expectations and clear objectives for the project
Ensure value for money for the government
Maintain benefits for the greater public interest
Ensure transparency
Allow for adequate access to information for all stakeholders
Ensure accountability
Promote competition
Ensure a proper balance and allocation of risks and rewards
Must support environmental and social protection

In addition to these keys to success, the recent growing PPP implementation experience (in both the developing and developed world) has taught industry professionals a number of key lessons. A few lessons are highlighted below:

- It is of critical importance for governments to understand their objectives for pursuing PPP. In order to align PPP projects with government objectives and implementing principles, projects should be based on desired outcomes or results, rather than required inputs. This allows the private sector investor/operator to be more flexible and more creative with the delivery of infrastructure facilities and services, whilst ensuring that those facilities and services meet the required targets or operating capacities established by the government.
- The focus for this topic guide is the PPP infrastructure experience in LICs, which is a relatively new experience for most LICs. Although many governments have promoted PPP strategies in their countries, the absence of well-developed financial sectors, low purchasing power of infrastructure users, and a lack of capacity in the public and private sectors remain major obstacles when implementing sound PPP projects.
- To be successful when attracting private sector investment, there must be a clear legal and regulatory framework in place to give stability and certainty to potential investors and to ensure the effectiveness of long-term PPP contracts. The legal, regulatory and policy framework must clearly specify the rights and obligations for private sector investment and must facilitate private sector participation in developing infrastructure assets. The most dynamic environments will have a PPP or Concessions Law as well as general PPP guidelines. The inclusion of PPP-specific legislation often sends a message to the private sector that there is stable political and legal support for these types of projects.
- One of the most important elements of any PPP is clear allocation of responsibilities and accountability between all parties involved. In other words, any PPP arrangement must clearly establish the allocation of rights, obligations, and responsibilities between the private and public sectors.

- In areas where key government bodies involved in the PPP process may not have capacity to successfully implement the process, one solution may be to hire external consultants. In addition, it is important to have a “PPP Champion”, this is someone involved in high-level government decision-making who can spearhead and effectively advocate for PPPs. Furthermore, a successful PPP programme does not necessarily require a central PPP Unit; however, it is highly recommended as it can help to ensure consistency, efficiency and quality across a wide range of PPP transactions.
- Governments pursuing PPP must consider a market oriented approach; the project must have a realistic business proposition, must promote stakeholder consultation during all stages of the PPP cycle, from the policy making and planning to the monitoring stage.
- Successful PPPs require a well-defined process for planning and project selection which sits in line with national development plans, sector strategies and investment programmes. Governments must define and rank objectives and understand that each PPP is unique and is structured to address specific project needs. Furthermore, the selection of the pilot (flagship) project for a country developing their PPP programme is crucial as it sets the tone for future successes.
- Countries around the world are competing for private sector investors and operators for financing transport infrastructure PPPs. An updated and accessible pipeline of bankable projects is a powerful tool to attract these domestic and international private sector investors because it provides the necessary information for both private and public sectors to develop their long-term strategic plans.
- Typically, a country begins to use PPPs for projects where the benefits are easiest to achieve, such as projects that earn revenue from the users (e.g. toll roads, energy). However, as soon as the PPP programme becomes more developed, governments then have the institutional capacity and know-how to target sectors (e.g. education, water sanitation, and health) that use more complex financing methods.
- Finally, transparency in all stages of the PPP process is a fundamental condition for any PPP project and should be facilitated through proper mechanisms and formal processes. These mechanisms and processes will also enable the government to achieve a proper balance between transparency and flexibility. Access to timely information is a critical element for ensuring transparency and attracting first class private sector operators/investors, as well as keeping the general public informed.

Private sector participation in infrastructure development is an evolving process. According to the World Bank's Private Participation in Infrastructure Database, only 276 projects involving private participation have reached financial closure in Sub-Saharan Africa from 2005-2015. This topic guide aims to synthesise the key considerations for successful PPP projects across a wide range of infrastructure sectors and project structures.

1 Introduction to Public-Private Partnerships

1.1 A brief history on PPPs

Although the term “Public-Private Partnership” may be relatively new, the concept is well established in history. Partnerships between the public and private sector were first seen as far back as two thousand years ago in the Roman Empire. During that time PPP-like arrangements occurred between the private sector and the Roman Empire to construct and manage post office networks for five year periods, with some agreements including the maintenance of associated highways along the network. In the 16th and 17th centuries, countries in Europe implemented canal construction, the paving of roads, waste collection, and other public services through partnerships with the private sector. Then, in the 19th century, the industrial revolution brought about rapid urbanisation which required the immediate expansion of public transportation, energy and sewage systems, much of which was facilitated by the private sector through concession agreements.

Throughout most of the 20th century, private sector involvement in the implementation of basic infrastructure declined due, among other things, to the world wars that halted growth and development, a move towards collectivism rather than free markets in many countries, and the economic slump sparked by the oil crisis in the 1970s. Starting in the late 1980s there was a shift back towards private sector participation in delivering infrastructure assets and social services. In this period, many countries improved their processes and frameworks to help facilitate PPP and privatisation which further solidified the option of financing infrastructure using the PPP model.

Countries in the developing world have been slower to adapt the PPP model for the procurement of infrastructure - only 276 projects involving private participation reached financial closure in Sub-Saharan Africa between 2005-2015 (acc. World Bank’s Private Participation in Infrastructure Database). Low Income Countries (LICs) have made increasing use of PPP arrangements over the last decade as a means to circumvent budgetary constraints and insufficient investment to propel further infrastructure development and economic growth. As noted by the African Development Bank, the largest obstacle when attracting private investment in the region concerns the business environments in these countries. Though risks may be present in certain countries and projects, successful PPPs have been implemented in both the typical infrastructure sectors (transport, energy, and telecommunications) and in the social sectors (education and health).

1.2 Defining PPPs

There is no universally accepted definition of PPP, as it is not a “one-size-fits-all” approach and many countries adapt the PPP model to their specific needs. For the purpose of this topic guide, PPP is defined as follows:

A government transfers the exclusive rights for developing and/or operating an infrastructure facility to a private operator or investor under certain conditions for a fixed period of time.

As defined above, the private sector agrees to provide public infrastructure in exchange for specific financial benefits. Although the private sector will deliver the service, the public sector maintains a significant role through the purchase of services provided, provision of public assets to be managed by the private sector and/or through creation of the proper enabling environment for the PPP project to be successful.

As part of a PPP the private sector may provide design, construction, financing, operation, and maintenance services, as well as technical expertise and managerial skills, and is compensated according to its performance. The public sector takes the lead role in identifying and implementing PPP projects, including conducting feasibility studies,

mobilising resources, risk sharing, monitoring and regulation. PPPs can involve either new assets requiring significant construction costs, typically called *greenfield projects*, or the rehabilitation of an already-existing asset, known as *brownfield projects*.

1.3 Different motivations for PPPs

Governments have a range of motives for pursuing PPPs and these objectives and desired outcomes play an important role in determining how the PPP programme should be designed and structured, as well as how to select the winning bidders. A clear definition of government objectives should therefore be the first step in developing a country's PPP programme. Common government goals for pursuing PPP are included in the table below:

Table 1: Common objectives for using PPPs

Objective	Considerations
To Complete Projects On-Time and Within Budget	For projects to be completed on-time and within budget, the PPP contract must provide incentives for the private sector to do so. In long-term PPP projects where the private sector is responsible for design, construction, and then operation of the asset, the private sector is motivated to build to schedule because they will receive greater revenue if operations start sooner. With this in mind, the government must make sure to provide the necessary incentives in the contract.
To Increase Market Efficiency by Proper Allocation of Risk	Optimal risk allocation is one of the main determinants for successful PPPs. Risk should be allocated to whoever is best able to manage it, taking into account public interest. Proper allocation of risks helps to reduce projects costs, without proper allocation a party that is not best-positioned to take on a risk will mitigate this risk at a higher cost than the optimal party.
To Ensure Greater Service Coverage for Users	In the case of providing greater service coverage for users, the government will choose the offer that has the best investment commitment thus allowing the public sector to expand the infrastructure asset and provide the greatest coverage.
To Lower Tariffs	Selection criteria and the bidding process will focus on selecting a bidder who can provide the best value for money whilst lowering tariffs. This objective is expected to involve a greater monetary contribution from the government which will leave the government with less capital to finance other projects simultaneously.
To Increase Foreign Investment in the Country	The public sector will place an emphasis on providing the appropriate incentives to attract foreign investors with the hope that it would lead to further foreign investment for future projects. A balance of local and international investment is always desirable.
To Promote Monetisation	In this case, the government receives a large upfront lump sum in exchange for the right to use/operate an existing revenue-generating asset (<i>brownfield projects</i>). Typically, the government pursues this type of arrangement in order to reinvest the large payment back into other infrastructure projects or in other sectors like education or health.
To Provide Better Quality of Service	For this objective, the technical proposals from a firm will carry greater weight than the financial proposals. The PPP structure must incentivise the provision of higher quality rather than penalise the lack of it.
To Reduce Maintenance Costs	The private sector typically makes extra provisions to guarantee that the asset is built properly and safely to eliminate, or significantly reduce, future repair costs during the life cycle of the concession. If this is the main objective, the PPP contract should be detailed and demand a long-term concession to encourage particularly conscientious construction of the asset by the private sector.
To Access Improved Technology and Innovation	If improved technology and innovation is the government's primary objective, the government will look towards bidders that include advanced technology and innovative approaches in their proposals. Bidders must also be willing to transfer knowledge to the public sector. For example, in a new toll road project, the government can encourage the use of an automated system to collect tolls in order to promote the use of enhanced technology. This approach could be actively discouraged through the promotion of manual systems if the government objective were to promote labour.
To Ensure the Optimisation of Resources	One of the key drivers of PPPs is to promote better utilisation and optimisation of resources for both private and public sectors. Critical mass, economies of scale and vertical and horizontal integration are important when considering cost-saving and generate value to attract international private sector investors/operators to infrastructure projects. PPP is a proven infrastructure procurement method that, in the appropriate circumstances, can utilise the resources of both the public and private sectors.

To Enhance Competition	A transparent procurement process attracts the most qualified investors and best value for money from the private sector. The inherent competition amongst bidders to provide the best value at an appropriate cost will allow the government to choose the proposal that most appropriately satisfies their needs and expectations.
To Obtain Flexibility of Non-Government Entity	The private sector is permitted greater flexibility and innovation in their delivery of infrastructure assets or public services compared with traditional public procurement. Since the private sector is awarded a contract for the entire life cycle of the project, they decide on how to subcontract different roles. Alternatively, in traditional procurement the public sector is required to release a competitive open bid for each component, thus limiting flexibility and increasing the time and costs involved with procurement.
To Achieve Clear Separation from Regulation and Operations	By contracting the private sector to finance and operate an infrastructure asset for a set period of time, the public sector is effectively separating any conflict of interest between policymaking/regulation and investment/operations. During the contract period these two roles would both be the responsibility of the public sector during traditional procurement.

As set out in the table above, each objective has a large impact on how the public and private sectors identify, prepare and implement PPP projects. The project structure and bid selection criteria, for example, would differ significantly when working to provide services at the lowest possible price as opposed to working to improve technology and innovation. These objectives and desired outcomes are a key component in determining the source of financing for the project.

The purpose of implementing the PPP model for LICs is often to help reduce some of the large upfront costs in the construction and operation of infrastructure assets and to transfer some of the associated risks to the private sector. However, each country and each project will have their own unique reasons for pursuing PPP and these often evolve over time as a programme matures.

1.4 Roles of the public and private sectors in PPPs

PPPs are arrangements that require significant input from both the public and private sectors. Although the private sector may construct and own an infrastructure asset, the public sector still has a large role to play throughout the process of a PPP project, particularly in the project preparation phases. The various responsibilities typically undertaken by the public and private sectors during a PPP arrangement are outlined below:

Public sector role:

- Establish project objectives
- Accountability to citizens
- Project identification, assessment and prioritisation
- Project preparation (including feasibility studies, value for money analyses and the review of unsolicited proposals)
- Pursue a market oriented approach (consult stakeholders during all stages of PPP cycle)
- Project tendering and selection (including the hiring of advisors, drafting the contract, selecting the winning bidder, ensuring that proper financing and insurance have been obtained)
- Project monitoring (monitoring contract compliance)

Private sector role:

- Ensure financial and technical capacity throughout all phases of the project (project preparation, selection, monitoring)
- Compete in bidding process fairly and offer the government an optimal value for money
- Ensure services provided comply with the contract and remain in line with the quality expected by users

- Sharing expertise and know-how with the public sector to build wider institutional capacity
- In certain roles, the private sector may also act as a transaction advisor and advise the public sector on how to tender and structure a project.

2 Public-Private Partnerships: The basics

2.1 “First-Gate” analysis to consider PPPs

Both the government and private sector can benefit significantly from PPPs, but care must be taken in the development of these projects, and both must work under clear rules to properly allocate the risks, benefits and responsibilities associated with such projects. Before proceeding with a detailed analysis of the suitability of a PPP (explained in Section 2.2), it is critical to first consider a number of fundamental questions to determine if a PPP is appropriate. This should be considered as a “first gate” in the approval process of deciding whether or not to pursue a PPP project.

- Are there existing successful PPP projects in the country?
- Is there a mature private sector in the country or the ability for foreign firms to participate in infrastructure development?
- Is the project profile sufficiently defined to provide enough data for necessary project planning and evaluation?
- Is the capital requirement for the project large enough to attract foreign investment?
- Who is the majority owner of the project?

If the response to these questions is negative, traditional public procurement should be evaluated as an alternative option. While there is no true set rule as to when a project should be procured to the private sector (through a long-term concession) and when a project should be procured for the public sector, some guidance can be provided in terms of the specific characteristics of these projects. For example, it could be advisable that projects with insufficient demand pursue an operation and maintenance PPP, however, if those functions are currently well-managed by the public sector (and private participation would not improve operations significantly), then those projects should remain within that sector. Alternatively, the private sector may be better suited to taking on projects that require significant investment, new technology and flexibility in procurement and staffing.

2.2 “Second-Gate” analysis to determine suitability of PPP

Once it has been decided at the first gate that PPP is a viable procurement option, both the public and private sectors must look at the project in more depth to gain a clearer understanding of the feasibility of the PPP project and the best process for implementing such a project. Considerations to determine the suitability of PPPs, once the preliminary “first-gate” analysis has been completed, are presented below.

2.2.1 Government objectives

In order to align PPP projects with government objectives and implementing principles, projects should be based on desired outcomes or results, rather than inputs. This allows the private sector greater flexibility and creativity in how infrastructure can be delivered, whilst ensuring that those facilities and services meet the required results or operating capacity as established by the government.

2.2.2 Legal and regulatory framework

In order to successfully attract private sector investment, there must be a clear legal and regulatory framework in place to increase certainty for private investors/operators and ensure the effectiveness of long-term PPP contracts. Private investors want to assure that there are minimal legal risks when engaging with the public sector on a PPP, for this reason, transparency in legal processes, predictability of legal decisions, existence of clear

monitoring mechanisms, and autonomy of the regulators are all factors that reduce risk in the eyes of investors and can facilitate further private investment into the country.

Following international best practices, it is recommended that a country has a PPP Policy or Law. If there is no law then the PPP contract itself becomes the presiding legal document which can be complicated as the contract must then address all potential scenarios that would otherwise be covered under a PPP policy.

2.2.3 Business environment

A country must also have a business environment that is transparent and facilitates private sector financing in public infrastructure projects. It is beneficial if a country is open to foreign investment, has full foreign currency convertibility, does not have restrictions on repatriation of capital, has a favourable tax environment and has a stable currency and exchange rate. Without a stable business environment, investors will often perceive risks as too high and will decline participation in the project altogether or impose a very high risk factor (a high rate of return).

2.2.4 Implementation capacity

Key government bodies involved in the PPP process must have sufficient capacity to carry out their respective responsibilities. A successful PPP programme does not require a central PPP Unit, however, the success of a PPP programme does depend on the involved parties having a clear understanding of their roles throughout the entire project cycle. The learning process for preparing, selecting and implementing PPP projects is relatively slow, so if a government does not have the capacity or is planning to pursue a small number of PPP projects then they would be advised to consider different options for accessing expert capacity, such as hiring external advisors. Even where government capacity is adequate, having a professional firm as a technical advisor can add value by:

- Providing its experience on multiple engagements in similar transactions on a regular basis.
- Providing specialised technical strength to the Government's team.
- Providing legitimacy to the PPP process and placing an external stamp of endorsement on the transparency of the procurement process, thus increasing investor and public confidence.
- Broadening the pool of potential bidders through industry connections.
- Providing an opportunity for training and knowledge transfer to the Government.

A nascent PPP programme should pay special attention to the first few PPP projects that it implements, as these can establish a track record and attract capable investors with a broader range of skills to meet the project objectives. There are several factors which are key to the success of any organisation coordinating PPPs:

- 1 The PPP coordinating body must have a **high level of political support** to ensure clear leadership and adequate resources are dedicated to the success of the project.
- 2 The PPP coordinating body must have adequate powers and an **appropriate level of authority** for the intended role and the goals it is expected to achieve.
- 3 The PPP coordinating body must have the **resources necessary to hire skilled staff**, undertake training, and/or hire short and long-term technical and PPP transaction advisors to provide the necessary multidisciplinary support for specific projects.

2.2.5 Risk allocation

One of the principal benefits of implementing projects under PPP arrangements is the ability to allocate risks to the party that can best mitigate them. If too great a risk remains with the public sector, the benefit of the PPP arrangement diminishes; if too great a risk

falls on the private sector, or if the cost of managing certain risks is too high, the project may achieve better outcomes via traditional procurement. There is no predetermined formula for risk allocation and projects must be assessed on a case-by-case basis, however, below are some examples of typical risk allocations between the public and private party during a PPP project.

Table 2: Typical primary risk allocations in a PPP arrangement

Risk	Risk Description	(Typical) Primary Allocation
Land Availability	<ul style="list-style-type: none"> Land required for the project is not available or has not been acquired; or There is uncertainty over the cost and time needed to acquire land. 	Public
Legal & Regulatory	<ul style="list-style-type: none"> The terms and conditions of the PPP contract regarding the private operator's capacity to collect revenues and to seek reasonable tariff increases in accordance with the contract's price escalation formula are not fulfilled; or New laws or regulations are passed which increase the costs or reduce the revenue of the PPP contractor without fair compensation. 	Public
Design	<ul style="list-style-type: none"> The design of the facilities is unable to meet the project's needs. 	Private
Procurement & Construction	<ul style="list-style-type: none"> Budget, timing and performance are not in accordance with the contract 	Private
Transfer (End of Contract)	<ul style="list-style-type: none"> The condition of the project's assets at the end of the contract term (when they are transferred back to Government) is not in compliance with the PPP contract's maintenance & performance standards. 	Private
Political/Sovereign	<ul style="list-style-type: none"> The Government nationalises the project. 	Public
Exchange Rate	<ul style="list-style-type: none"> The local currency depreciates in value relative to the hard currencies in which the project's loans and equity investments are denominated. 	Public

2.3 2.3 Detailed analysis to determine PPP suitability

Following the preliminary analyses described above and during the pre-feasibility stage of a project, there are a number of more detailed analyses that should be undertaken, namely a Public Sector Comparator or Value for Money analysis, a pre-feasibility analysis and a feasibility analysis.

As defined by the World Bank, a **Public Sector Comparator (PSC)** is an assessment of the likely cost of public sector project delivery used as a comparator to assess whether a PPP proposal represents value for money. In determining the value provided by the public vs. private sectors, a PSC analysis considers the cost of service in addition to the costs associated with risk. For projects or countries where there is significant uncertainty (e.g. if there is not sufficient past data or if the country is currently in-conflict) then the private sector will impose a much higher cost to counteract these risks, and traditional procurement may be preferable. Traditional procurement will also likely be used for assets considered to be linked to "national security", such as air traffic control.

Approval of the project should be based on a thorough **Value for Money (VfM) or Cost-Benefit Analysis (CBA)**. VfM and CBA incorporate a wide range of factors, aside from time and cost, such as values gained from improved efficiency, lower risks, and other qualitative considerations. Some costs and benefits are difficult to establish in quantitative terms, such as the benefits received from a better allocation of risk. Translating qualitative assessment into quantitative/monetary terms should be transparent to ensure that the overall value of the project is clear to all stakeholders. If the VfM analysis for a project meets the minimum threshold for approval, it should be added to a publicly available project pipeline.

After a preliminary CBA/VfM analysis has determined that the project meets the minimum threshold, the project has been approved under a PPP arrangement and has been prioritised for implementation; a **pre-feasibility analysis** must be undertaken by the Contracting Authority, which provides further analysis to confirm whether or not the project is viable and should move forward to the feasibility phase. This pre-feasibility

analysis should ensure that the project is technically, financially, legally and environmentally sound on at least a preliminary basis, and that the principal risks are analysed and mitigated.

A pre-feasibility study determines if the project is viable to move to a more detailed feasibility analysis. If the project is not viable, it should be rejected at this stage. If it is determined that the project warrants further consideration, a **feasibility analysis** is conducted. The feasibility analysis should be sufficiently detailed to assist in drafting the key documentation (project information memorandum, request for proposal, etc.) that will be required for the first stage of the procurement phase of the project; the analysis should include verification of the following:

- Technical, financial, legal and environmental viability of the project.
- The project's engineering and construction parameters are set according to international norms and best practices.
- The project's operating parameters sit in line with international norms and best practices.
- That the business plan and the main inputs to the financial model are assessed with respect to assumptions that affect the expected future cash flow of the project.
- That the principal risks associated with the project are identified, that they are assessed according to how such risks may affect the project's financial viability, and that they are analysed according to how they can be mitigated and allocated.

If the feasibility study is approved, the project moves into the tendering process, described in the next section. If the feasibility study is not approved, the project is rejected, or tabled for re-evaluation at a later date.

In the following section, the key challenges and benefits of PPPs are presented. These considerations are examined during the project preparation and analysis to ensure that the benefits will outweigh the challenges.

2.4 Key challenges and benefits of PPPs

The success of a PPP depends on the associated contract being well-designed, transparently procured and enforced effectively. When a PPP is successfully, the users, private sector and public sector can all benefit from it. There are, however, still a number of challenges that could present themselves while pursuing PPP:

Key challenges:

PPPs are inherently complex, both technically and financially, which can lead to problems stemming from miscommunication, lack of capacity, weak contract management and poor planning. Most issues arising from PPP projects can be mitigated through well-structured legislation and contract terms, detailed project analysis and transparent procurement procedures as well as long-term contract oversight. Challenges still arise, however, and often in the following areas:

- *Time and money invested:* The PPP procurement process is more expensive and takes more time than traditional government procurement. In addition, it is a complex process to structure a PPP and often the government does not have the required institutional capacity to manage it.
- *Risks:* As shown in section 2.2.5, risks must be allocated to the best suited party (public or private); however, this allocation does not remove potential risks completely, it only reduces its potential costs.
- *Clear contract specifications:* Incentives, demand forecasts and performance measures must be clearly stated in the contract. Long term contracts will also

often lead to renegotiation during the lifespan of the concession and so the rules outlining this process must be clear and well-defined.

- *Coordination between public and private sectors:* The steps to reach financial close are detailed and require close coordination between the public and private sectors. Many projects fail to reach financial close due to a lack of planning, coordination and/or expert advice from transaction advisors.
- *The cost of private capital:* In order to attract investors, the financial risks of the project must be mitigated where possible, which would result in a probable and reasonable return on investment. Unlike projects that are entirely financed using government (taxpayers') funds, projects using private capital require a higher rate of return on their investment. This higher rate is the private sector's compensation for direct exposure to financial, commercial and technical risks. In addition, the public sector's opportunity costs for funding projects are not as high as the private sector's as their objectives are not simply economic but also social.
- *The private sector is a revenue maximiser:* Ultimately, the private sector's goal is to maximise revenue and provide the greatest return on initial investment which can lead to increasing user tariffs. In monopolistic services a clear economic regulation mechanism is therefore required to ensure competition and protect user rights.
- *Concerns about social aspects:* In the past there have been varying opinions about how far communities should be protected and involved in project development and operation. Given the significant investments from the private sector, many international companies are now becoming quite active in the protection and consideration of labour and environmental concerns with a view to protecting their investments and minimising risk.
- *Labour concerns:* Another barrier in pursuing PPP can often come from labour unions. Failure to recognise and cater for their concerns can lead to controversy. Some PPP contracts mitigate the risks of discontent from labour unions by including clauses that require the new company to retain a certain number of past employees, thus protecting the original staff from being replaced.
- *Political sensitivity for users being charged fees (by the private sector):* Tolls and other user fees are very visible and are, for that reason, used to put pressure on governments to address other social issues. For example, in South Africa before the World Cup, miners and other social groups closed the roads and pressured the government to suspend toll collection. PPPs taking over the delivery of services that have been heavily subsidised in the past often face a difficult transition, for example, users not accustomed to paying full cost for a service could perceive the change as an increase in the cost of the service which could result in unrest.

Many of the above challenges can be mitigated if the PPP agreement is transparent and takes into consideration all stakeholders involved with the project. There may also be circumstances, however, where PPPs may not be a better alternative to traditional public procurement.

Key benefits:

As highlighted in the section above, there are many potential challenges to implementing a PPP. Though these challenges persist, many of them can be mitigated through appropriate foresight and comprehensive planning which contribute to a large number of potential benefits to PPPs over traditional government procurement. The objectives described in Section 1.3 typically encompass the key benefits gained from successful PPP, such as:

- *Lower cost* for government to provide infrastructure

- Projects completed *on-time and within budget*
- *Proper allocation of risks* and benefits
- Greater *service coverage* for users
- Better *quality of service*
- *Reduced maintenance costs*
- Improved technology and *innovation*
- Enhanced *competition*
- Increased *flexibility* in designing and constructing (or rehabilitating) the asset
- *Clear separation* from regulation and operations

In addition to the objectives included above and described in deeper detail in section 1.3, some of the following additional benefits arise from using PPP:

- *Improved selection of feasible projects:* PPPs benefit from the innovation of the private sector where, due to the dependence of future financial returns on the accuracy of forecasting, detailed analysis can be used to predict traffic, cost and revenue. In addition, the private sector may alert unsolicited proposals to the public sector's attention, highlighting projects that may have been missed by the public sector.
- *Additional due diligence review by private sector developers and banks:* Each lender evaluating a project typically completes their own financial and technical due diligence to gain assurance on their return on proposed investment. . As such, the project is reviewed and analysed at different stages by different participants throughout the process, to ensure that the project is indeed feasible and allowing for suggestions for improvement.
- *Whole life-cycle cost optimisation and long-term value for money:* Examples of optimising whole life-cycle costs include the bundling of construction and maintenance under the responsibility of one contract, thus incentivising the contractor to deliver high quality work whilst maintaining a certain cost level. Whole life-cost also implies that the project is looked at through the lens of all phases of the cycle, not just the construction, which better defines the true sustainability of the project.
- *Transfer of skills* from private sector to the public sector, as well as to the local private sector, which therein builds institutional capacity at the local level, facilitating the ease of implementing new PPPs in the future.
- *Available sooner:* The use of private capital provides the government with the opportunity to improve services and build new infrastructure assets immediately rather than a schedule dependent on government budget.
- *Ensures transparency:* Countries around the world are competing for private sector investment and operators for financing infrastructure PPPs. The "best value" investors always evaluate a wide range of project risks before entering a new country, engaging with a government or participating in a new project. The risks associated with political instability, lack of transparency or corruption can deter the "high quality" private investment from entering a country. For that reason, private sector participation acts as an impetus for transparency to be reinforced.

It is evident from the points listed above and in the following chapter that governments must take care when deciding how to procure an infrastructure project. Table 3 highlights key differences between PPP and traditional public procurement:

Table 3: Differences between PPP and traditional public procurement

	Under a Public-Private Partnership	Under Traditional Public Procurement
Project Development Costs	Project development costs under a PPP are usually higher than with traditional government procurement because PPPs require detailed analysis in the form of Value for Money/Cost Benefit Analysis, Pre-Feasibility and Feasibility Studies. These studies require analysis carried out by outside advisors and these costs are paid by the public sector.	Project development costs under traditional government procurement are typically much lower than with a PPP.
Construction Costs	The private party is responsible for the construction costs and, therefore, is incentivised to construct the asset on-time and within budget. Any overspend in construction has a direct effect on the private sector's profit. However, PPPs require more stringent regulatory control to ensure that the private party meets all contracted elements and delivers expected value for money.	The public sector pays the costs of construction, which requires a large amount of capital during the initial stages of the project. Additionally, contractors are subject to government procurement laws which are often inflexible; they limit innovation and can prolong the process.
Financing Costs	Financing from the private sector is more expensive than financing a project with public sector money.	Financing (the cost of interest) is cheaper than it would be with the private sector.
Planning Time	The Planning Phase (including Project Identification and Project Preparation) usually takes about 9-12 months. During this phase, the government will conduct various analyses such as value for money and feasibility analysis.	A short-turnaround may be a priority for certain projects and therefore traditional government procurement may be attractive, however, without detailed feasibility analysis it is probable that the project could suffer in the future due to low traffic levels or higher construction costs.
Procurement Period	Tendering and Bid Selection for PPP is much longer than traditional government procurement, typically lasting 6-12 months, due to the required competitive bidding process. The bid process would usually involve both an EOI and Proposal stage both of which involve additional market sounding, stakeholder consultations and coordination of multiple parties.	With typical government procurement, the period between tendering and bid selection is usually much shorter than with a PPP arrangement.
Project Contract	In PPP, some or all of the phases under the project contract can be awarded to one bidder. By allowing one contractor control over the whole life cycle of a project, it allows for greater innovation in planning as well as lower construction and operational costs as the performance of each subcontractor will affect the overall profits for the contractor. In addition, there are clear advantages of having continuity and consistency between the different PPP process phases as well as a "project manager" responsible for pushing the project forward.	Each phase of the project can be contracted out to different bidders thus removing the contractor's incentives to efficiently manage and coordinate any subcontractors to finish on time and within budget. However, having separate advisors in charge of the preparation phase and the procurement phase of the PPP process can bring the advantage of independent and unbiased feasibility and project appraisal.
Retained Risk	The party that is best positioned to manage a risk will assume the risk. This allows for an equal share of risk and reward between the public and private sector.	The public sector carries all of the risk, even risks relating to construction and design of the project.

In the following section, the entire PPP Project Cycle is presented, which includes the phases that follow the project identification and analysis period once it is determined that PPPs are the most appropriate route for infrastructure delivery. The three phases that compose the Project Cycle are: Preparation, Procurement and Monitoring. The analyses presented under sections 2.1, 2.2 and 2.3 are part of the project preparation phase.

2.5 Introduction to the PPP project cycle

The PPP project cycle can be complex and time consuming, taking between one and three years to reach contract signing before a project begins construction and operations. The process should follow a market oriented approach and include three main phases, as shown in the image below and described in the following sections:



2.4.1 Project identification and preparation

The PPP process begins with the identification of the projects considered under a PPP arrangement. Any project opportunities that do not meet the government's strategic objectives should be discharged in the early stages to avoid spending unnecessary time and money considering unqualified projects. This phase is critical for confirming the economic and financial viability of a project through various stages of analysis, including: PSCs, VfM and CBA, pre-feasibility analysis and detailed feasibility analysis for *greenfield* projects and the proper corporatisation for *brownfield* projects

Budgetary resources

If insufficient budget and/or financial resources are available to ensure the project's financial feasibility, the project should be rejected or placed on hold for reconsideration at a later time.

Project prioritisation

It is critical for the government to prioritise the PPP projects under consideration to ensure proper timing of the project based on market conditions and the private sector's capacity and appetite. Issuing a tender for several PPP projects at once has the potential to saturate the market and overwhelm the private sector. Issuing tenders for projects at the same time as competing projects in other countries will limit the ability of some bidders to participate or may prevent the government from attracting the participation of the highest quality private investors.

2.4.2 Project tendering and bid selection

A typical tendering process involves selecting a project manager, transaction advisor, and technical advisors as needed; as well as defining a strategy, marketing the project, developing a terms of reference, identifying key risks, testing the market with potential investors, releasing to the market, and evaluating received bids based on pre-defined and transparent selection criteria. All phases of the PPP Cycle require transparency but it is of particular importance to maintain a transparent tendering process as a poorly managed tendering process for one project can jeopardise the development of a country's whole PPP programme. Furthermore, the private sector will only participate in a bidding process if it believes that the chances of successfully being awarded the eventual contract are proportionate to the costs incurred in bidding.

Request for Proposal (RFP) bidding documents

RFP documents should contain a full and clear description of the project and technical requirements, bidding process calendar, required investment, participation criteria, criteria for selection of winning bidder, the proposed allocation of risks, risk matrix, output specification with required performance standard, and remedies against non-performance, etc. Once bids are submitted they should be evaluated according to the criteria specified in the RFP and scored based on specific weights assigned to each aspect of the project (on a project-by-project basis).

Bid selection

Bids are received in the form of one technical and one financial proposal, which are evaluated according to specific criteria established as part of the RFP documents. The selection process is as follows:

- Proposals should be received and opened in public, where one or more public notaries are invited to certify the transparency of the process.
- The technical proposals should be evaluated first, independently from the financial proposals.

- Only the technical proposals that meet all requirements and achieve a score equal to or greater than the minimum score established in the evaluation criteria should be qualified as technically feasible. Those proposals that do not meet the minimum should be immediately disqualified without opening the corresponding financial proposal.
- Financial proposals are opened publicly and scores are calculated based on the weights given to the technical and financial proposals in the established evaluation criteria.

The bid with the highest score from the combined technical and financial proposals is the winning bidder and the draft contract included in the bidding documents becomes the concession contract. The contract should clearly state the amount of government support that will be provided to the project and also the roles and responsibilities of each party and permit further contract negotiations, where necessary.

2.4.3 Project construction and contract monitoring

The government must ensure that the PPP project is constructed in a safe and prudent manner and complies with the requirements set forth under the Concession Contract. For PPPs that include significant construction components, it is recommended that the government hires a third party company to supervise construction of the project. The construction supervisor ensures that the project is on schedule, on budget, and in compliance with all regulations and specifications under the PPP agreement.

Project contracts should incorporate comprehensive oversight and regular review mechanisms. Performance targets should be easily measurable, incentives should be meaningful and rewards and penalties effective. All PPPs should be coordinated and monitored by the main contracting authority; as well as the relevant economic, technical, and environmental regulating bodies. These regulators monitor projects to ensure competition, avoid monopolistic practices and protect users' rights.

2.6 Government capacity required throughout the PPP cycle

The successful development of PPP projects requires a very specific set of skills and expertise. For the public sector, PPP projects impose large capacity requirements. At each phase of the PPP cycle, skilled personnel are needed for project identification, evaluation and analysis, administration and monitoring. Essential skills required for PPP implementation include:

- Project management and coordination
- Investment due diligence
- Financial analysis and financial modelling
- Engineering
- Budgeting
- Economic analysis and demand forecasting
- Legal and regulatory analysis
- Contract management and monitoring
- Accounting
- Procurement
- Dispute resolution

Government capacity can be developed either through the use of external advisors that, in addition to a specific role in the development of a PPP project, develop manuals and guidance to train local counterparts, or through the creation of a national or subnational PPP Unit staffed with experts trained in the required skills. Functions and responsibilities may vary but, at a minimum, PPP units should be responsible for:

- **Policy guidance and advice** on the content of national legislation. Guidance also includes defining which sectors are eligible for PPPs as well as which PPP methods and schemes can be carried out.
- **PPP development oversight**, approving or rejecting proposed PPP projects i.e. playing a gatekeeper role that can occur at any stage of the process.
- Providing **technical support** to government bodies at the project identification, evaluation, procurement or contract management phase. This can include performance monitoring during the operation of the PPP project.
- **Capacity building** of public sector officials that are involved in PPP or are interested in the PPP process.
- **Promote PPPs** within the private sector and general public.

3 Public-Private Partnership models

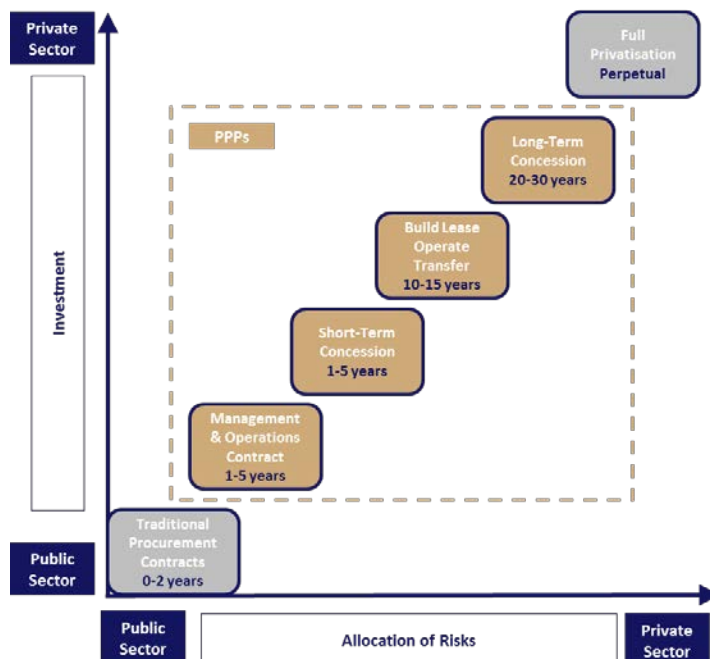
3.1 Introduction to common PPP structures

The *Public-Private Partnerships Reference Guide 2.0* from the World Bank defines structuring a PPP project as “allocating responsibilities, rights, and risks to each party in the PPP contract.” The range of structures that can be considered for a PPP project is broad, differing in purpose, service, scope, contract length and risk/benefit sharing. Although the specific structure of the PPP arrangement is determined on a case by case basis, there are several issues that should be considered when assessing the suitability of a specific type PPP structure:

- Objectives & desired outcomes
- Required investment
- Revenue generation potential
- Fair for risk/reward allocation
- Timing and size of project
- Market appetite
- Government capacity to implement

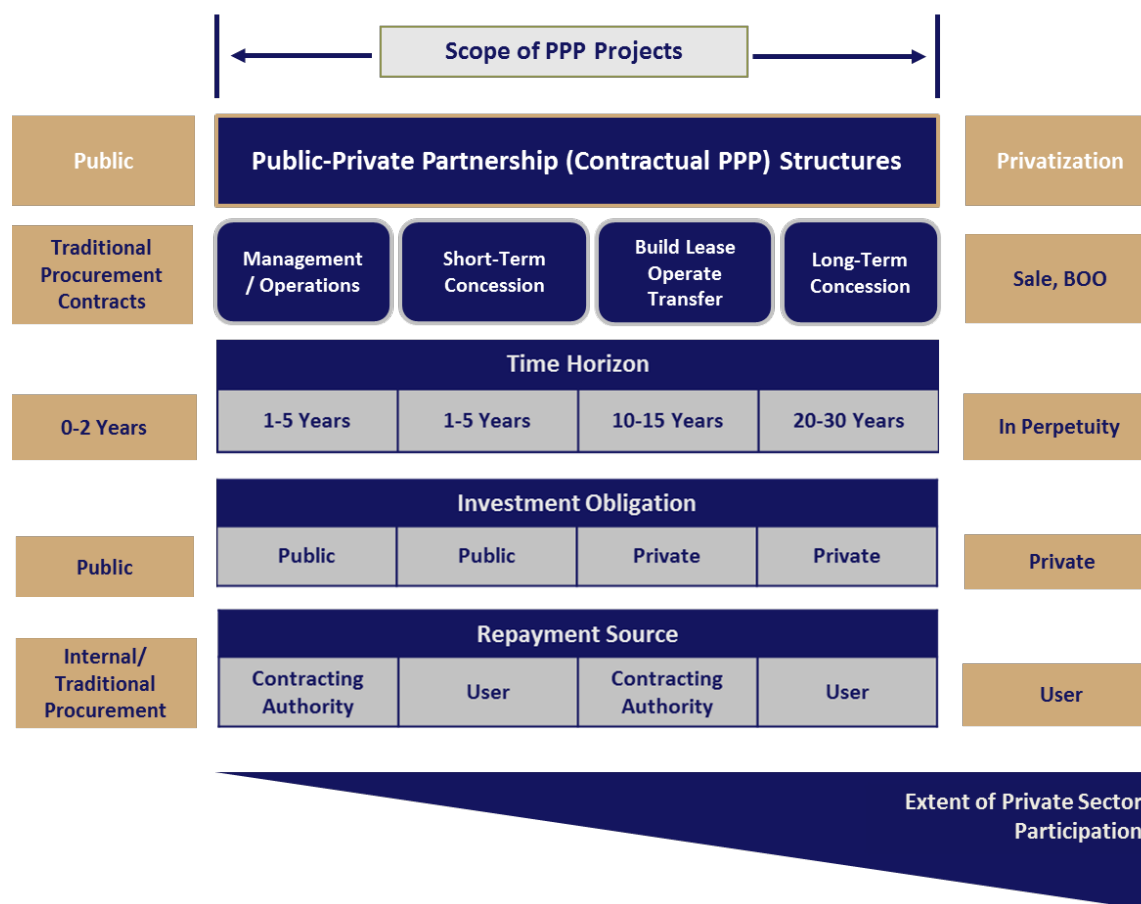
The figures below show the progression from low private sector participation to high private sector participation. At one end of the spectrum are management contracts where the private sector operates and manages existing public assets, whilst at the other end are long-term concessions where the private sector could be responsible for structuring, designing, financing, constructing, operating, and maintaining an infrastructure asset. Full public sector ownership or full privatisations are not considered to be PPPs. In the case of PPP, ownership is temporary and partial while under privatisation it is indefinite and complete, restricted only by general legislation. The advantage of the partial control in PPPs is that the government can use their involvement to solve coordination and planning problems which is not a possibility for full privatisations.

Figure 1: Spectrum of private and public sector involvement for PPP structures



Source: Nathan Associates

Figure 2: Scope and DETAILS of PPP structures



Source: Nathan Associates

Management and operation contracts

As can be seen from Figure 2, the private sector's role in management and operation contracts is relatively small. This type of contract can be beneficial for the maintenance of utilities that have been struggling financially, as described in the case study for the Management Contract for the Liberia Electricity Corporation presented in Chapter 4. In the case of a toll road, a management contract could be an ideal PPP structure if traffic forecasts are low (due to either low demand or low willingness and capacity to pay from potential users; but it has the potential for high economic impact and the private sector offering cost effective operations and savings in long term maintenance costs through initial capital investments, hence the government's interest in its development. This PPP structure allows the government to construct greenfield projects, assume the demand risk and then transfer them to the private sector for operation and maintenance.

Concessions

Most PPP projects involve design, build, finance, operate, transfer and management phases; although structures differ based on what roles the private and public sector play during each of these phases. Additional phases, for less common PPP models may include buy, develop, lease, rent, and own. One of the most important aspects of the PPP concession is whether or not there is a "transfer" between the private sector and public sector. If there is a transfer of the asset, the timing of when the transfer takes place is key (determining if it is a short-term or long-term concession). In many transport projects, the public sector will give the private sector the right to design, finance, build, own, operate and maintain the asset for a specified number of years; typically the private sector will then transfer the ownership rights back to the public sector once the PPP contract has expired. Although this model is common, it is not the only recommended option. The model

chosen depends on the specific project characteristics, the PPP enabling environment, and the overall objectives for the project.

Short term concessions

Short-term concessions are appropriate for situations where the asset does not require substantial initial investment. With a smaller investment, the time period for the investment to amortize is much shorter. An example of a short-term concession could be the development of a duty free store in an airport.

Long term concessions

Long-term concessions have a duration of typically 25 to 30 years, as this allows enough time for profit to surpass the initial major investments that were made. An example of a long-term concession could be the development of a container terminal where the port authority grants a concession to a private party for 50 years to design, build, finance, operate, maintain and then transfer back to the government. The government agency then retains the regulatory oversight (customs, health and security, immigration and other functions), economic regulation of the tariffs, and port management and development.

Build lease operate transfer

Build-Lease-Operate-Transfer (BLOT) contracts have a repayment source from the public sector rather than the users (i.e.: a lease) that is for a fixed amount regardless of the level of demand and tariff collection (if any). A form of payment for this type of contract typically uses availability payments where the private operator receives payments from the government if the asset meets requirements (such as the availability or the condition of the facility) specified in the agreement. An example of a BLOT contract could be the construction of a hospital or a non-toll road in which the repayment of the private sector's investment cannot be recouped using user fees.

Monetisation

For *brownfield* projects with an established demand and cost history, governments can opt to monetise assets by receiving a large upfront sum in exchange for the right to use/operate an existing revenue-generating asset. Typically, the public sector pursues this type of arrangement to increase capacity of an existing asset, and reinvest the large payment back into other infrastructure projects (such as projects where the demand risk is high).

In Australia, monetisation has become an alternative way to conduct project development through the new "Asset Recycling Initiative" (effective 2014-2019). Instead of developing new projects directly as PPP *greenfield* projects, governments develop these projects themselves; using the proceeds from monetisation of other assets, and once the projects have a few years of established demand, they are issued as *brownfield* monetisation projects.

3.2 Financing PPPs in Low Income Countries

Financing PPP projects in low income countries presents a different challenge to projects in advanced economies and developed countries. PPPs can be structured under two main project financing categories:

Demand-risk PPPs where the private sector concessionaire receives payment directly from the users of the infrastructure asset e.g. toll users rather than from the government. In these cases, the private sector operator is taking on the demand-risk.

Availability-payment based PPPs are payments made by the public sector to the private sector that depend on the asset/ service being available in the quantity agreed and at the quality defined in the contract. Availability-payment-based PPPs typically include social infrastructure PPPs, such as health care, education and justice.

A selection of funding sources for PPP infrastructure projects are detailed below.

Main sources of funding

Government

Government financing for infrastructure can come in many forms, depending on the project characteristics, perceived risks, and stage of the project cycle. Project development funds can be applied during project preparation and government subsidies and loan guarantees can be applied during the project's operational phases. Funding can also be awarded as a concession contract, providing land for development, fiscal incentives, and other permits, among others. These resources come either directly from government budgets or can be financed through line ministry budgets (through tax collection), official development assistance (donor) funds or other means including sovereign bond issuance. Governments are often limited by the amount and type of funding that they can provide for projects, and traditionally focus efforts on socially important projects that would not be commercially viable without government support.

Private sector operators (Concessionaires)

Private sector operators are the majority equity holders and they provide financing through capital contribution in money and/or in kind (knowhow, transfer of technology, etc.). In traditional PPP arrangements, private sector capital contributions are paid back through user fees and/or government availability payments. Private sector operators can also lend to a project through shareholder loans, mezzanine financing and even senior debt. These "active" investors are generally motivated not only by their equity position in the project but also will often be by the margins that they earn on separate project contracts (construction, management, etc.).

One of the important motivations for introducing the private sector into the management of transport infrastructure is the development of commercial services and real estate opportunities. For example, some airports cannot rely on aeronautical charges to fund operations, so private operators have developed strategies that improve the commercial segments of the airport and finance infrastructure. In small and mid-size airports, commercial revenue has evolved into a significant and previously-untapped revenue source.

Table 4: Sources of PPP Infrastructure Financing in LIC

Source	Equity	Other 'in Kind' Contributions	Traditional Debt	Concessional Debt	Grant	Other (Mezzanine, Subordinated debt.)	Availability of Funding	Required Return on Investment
Government	✓	Concession Permit, Land, other permits	✓	✓	✓		Limited	Linked to macro-economic results and social services
Private Sector Investors/ Operators	✓	Knowhow, technology transfer					Low	High
Multilateral Development Banks				✓	✓		Medium	Low Interest rate
Development Finance Institution	✓		✓	✓		✓	Medium	Low
Equity Investors (VC, Equity Fund)	✓					✓	Limited	High
Institutional Equity Investors (Pension, Insurance)	✓					✓	Limited	Market conditions
Regional Capital Markets (Bonds)			✓	✓			Limited	Market conditions
Commercial Banks (Intl, Regional & Local)			✓				Limited	Market conditions
Bilateral, Multilateral Donors	✓			✓	✓	✓	Medium	None

Source: Nathan Associates Inc.

Other sources of funding

Bilateral/Multilateral Donors and Multilateral Development Banks, such as the Department for International Development of the United Kingdom (DFID), U.S Agency for International Development (USAID), the African Development Bank (AfDB), World Bank and others, play a critical role in supporting infrastructure project development not only through technical or legal (regulatory frameworks and capacity building) assistance, but also through direct and indirect grants, debt instruments, contributions to infrastructure financing facilities and other funding to support the entire project development cycle. Direct grants can make a project financially viable and attractive to private sector investors. Grants can facilitate the development of projects that provide necessary economic and/or social benefits, such as environmental (low carbon power production) and/or social (poverty reduction) centric projects. Multilaterals can also issue partial credit guarantees to reduce the probability of default of a debt instrument (loan or bond) from a concessionaire and increase the recovery if default occurs. They can guarantee to pay principal or interest up to a specified amount which may change over time. In addition to financial support, these funders provide significant technical assistance for PPP programme development, such as promoting PPP Units, assisting in implementing new PPP legal and regulatory frameworks, and providing capacity building for institutions involved in the PPP process. **Development Finance Institutions (DFIs)** also provide valuable funding for infrastructure projects, particularly in the form of debt and equity at financial close where private sector resources are lacking and projects need a boost to become bankable.

Equity Investors, aside from project promoters, can include infrastructure equity funds (e.g. Africa Infrastructure Investment Fund), DFIs (e.g. Deutsche Investitions- und

Entwicklungsgesellschaft (DEG)), private equity groups, pension and insurance funds, venture capital funds and even bilateral donors, all with a major role to play in financing infrastructure in LICs.

Commercial Banks often provide significant lending to project finance structures, although in certain LICs it can be difficult to secure the required long-term commercial funding due to the inability of banks to offer the longer-term financing necessary for such projects; or in some cases the lack of capacity within smaller regional and national banks, to evaluate complex PPP transactions.

4 PPPs in infrastructure sectors

4.1 Transport

Transport projects are the most common type of PPP projects. The first transport PPP projects were based on the collection of user charges, but transport PPPs have grown more complex over time. Individual transport projects that are likely to be highly utilised due to their characteristics including location and market, can today be promoted either individually or as an anchor supporting a group of facilities. The commercially strong project can then help mobilise resources to develop smaller, less profitable projects.

4.1.1 Sector specific considerations and key factors

The success of a transport PPP is largely determined by the level of political support for the project, clear objectives, strong capacity on both sides of the partnership, and a transparent and well-structured procurement process. Key considerations specific to transport sector PPPs include:

- Transport sector PPPs can be divided into greenfield and brownfield projects. Greenfield projects, since they are new projects with no history of operation, have very high demand risks. Alternatively, brownfield projects have a history of operations and present moderate demand risks.
- Land acquisition for most transport projects is critical to ensure viability of the project but they bear considerable risks because the purchase of land is subject to the acquisition rules of each country. Some countries do not allow for foreign ownership and/or private ownership.
- The collection of user fees differs across the various transportation subsectors. While port and airport fees are often bundled with transport services and collected at the same time, toll road fees are paid directly by the user. This creates more visibility to the charges, making toll roads more susceptible to political and social pressure (which can lead to forced rate reductions and/or project cancellations).
- It is important to engage with labour union representatives early in the process to ensure their agreement and support.

The transportation sector is a broad sector in which each subsector presents its own unique challenges and opportunities. A few considerations for each sub-sector (airports, ports, roads and rail) are presented below:

Airport sector considerations:

- Airport and port projects are subject to stringent international regulations on safety and security that restrict access to the facilities and mandate allowable cargo, personnel and users. The relevant regulations for airports are released by ICAO for airport airside and landside operations, as well as for security regulations.
- Airport operations can be divided into air traffic control, airside, landside and commercial space. Typically, air traffic control is managed by the government, while the other areas can be included in a PPP or remain under government control.
- As airport services are monopolistic by nature, a maximum tariff per passengers or cargo is set in the PPP agreement and is subject to regular revisions to ensure that they provide sufficient revenue to offset investment and operation costs. They are set based on realistic and agreed investment plans.

Port sector considerations:

- Ports are typically developed following the landlord model, meaning that the government retains the management and development responsibilities of the port. The government develops individual terminals on a lease/concession agreement. This approach ensures that the threat of intra-port completion keeps monopolistic behaviour in check.
- An alternative approach is to lease/concession the port to a single entity, when there is direct competition from other ports and relatively low demand.
- In case of monopolistic behaviour, economic regulations should be applied to ports projects.
- Port contracts should include minimum operating indicators and tariffs for all standard services to be regulated. This ensures that the tariffs charged enable the port to deliver competitive services, thus facilitating further trade.

Toll road sector considerations:

- Toll roads can be developed as open or closed systems based on how the tolls are collected. Closed systems have a toll collection point at every entrance and exit. This ensures that no trip is taken without paying; however, it is very expensive to operate. An open toll system places toll collection points at strategic locations where they capture most of the traffic. This is a more economical operation and a new collection point can be installed if there is a significant flow increase in areas not captured.
- The most significant risk in the development of toll roads is demand risk. Recently, projects have shown demand at 30-40% of projections.
- Toll collection has evolved from manned gates to high speed transponders that lower operating costs and expedite processing to avoid congestion at high volume locations.

Rail sector considerations:

- Given the distance and cost/km of the infrastructure required, rail projects are the most challenging to develop. The high costs put undue stress on the required levels of traffic and revenue/ton to generate sufficient cash flow to support the debt.
- An alternative structure would be to develop the infrastructure through government finance and leave the operation and maintenance to the private sector.

4.1.2 Case studies**Development of a New Passenger Terminal at the Daniel Oduber Quiros International Airport****Background:**

The Daniel Oduber Quiros International Airport in Liberia, Costa Rica (LIR) had been struggling to provide good quality service for its users; passenger traffic had grown, while the airport had not. At the time of the concession for a new terminal, passengers waited for flights in an empty hanger which had been converted into a waiting area. In order to improve service quality the Government of Costa Rica, through CNC and CETAC, recently granted a 20-year concession agreement to Coriport to design, finance, construct, rehabilitate, expand, maintain, exploit and operate a new passenger terminal. The concession also included approximately 36,000 m² of airport land which was then occupied by the old terminal. LIR serves as a tourism hub for those who visit the Pacific coast and western region of Costa Rica. The Project required a total investment of USD 40.5 million, out of which USD 26.5 million was financed through a BISCA-structured credit. Construction began in 2010 and was completed in January of 2012.

Successes & lessons learned:

The Liberia project was successful largely due to the clear, transparent legal and regulatory framework in Costa Rica; the Concession Contract that resulted was concise and transparent, a balanced agreement between both parties. The parties had a solid financial structure, strong market analysis and demand forecast, and clear allocation of risks and benefits. Furthermore, the private sector concessionaire had a strong reputation internationally and significant experience with concessions of this nature. Its key provisions were consistent with comparable international airport (landside) concessions.

Concession for the South Wharf Container Terminal at the Port of Cotonou, Benin

Background:

The Port of Cotonou serves Benin, Niger and the north of Nigeria. As such, 40% of its traffic is domestic cargo with the remaining 60% divided between Niger and Nigeria. Between 2001 and 2007, the traffic at Cotonou nearly doubled (from 3.1 to 6.1 million tons). As a result, the port infrastructure (berth length and draft, storage area, equipment and truck parking) was close to its maximum capacity leading which lead to congestion. The terminal was also saddled with high shipping costs, lengthy customs clearance, low efficiency and poor logistical facilities. These constraints were viewed to be limiting the growth potential of domestic and foreign trade.

The “Port Autonome de Cotonou” (PAC) is a financially independent Port Authority which is responsible for port planning, management and development. From 1998 to 2007, PAC used three companies (one public and two private) as container handling operators. In 2007, PAC signed 25-year lease agreements with the two private operators. In November 2008, the International Finance Corporation (IFC) was selected to provide Transaction Advisory services for the concession of the container terminal. The first phase included a diagnostic of the proposed 540,000 Twenty Foot Equivalent Unit (TEU) Container Terminal (public and private investment required, and financial and legal viability) and the preparation of development options. The second phase included reforms to improve the enabling legal and regulatory framework applicable to the PPP project. And finally, the third phase focussed on the structuring and implementation of the transaction. The proposed transaction structure was for a 25-year concession agreement to invest in, and manage, the South Wharf Container Terminal.

Successes & Lessons Learned:

The IFC was selected as Transaction Advisor, and the open dialogue between all stakeholders facilitated an efficient flow of information and helped to ensure a well-defined pre-qualification and bidding process that was, interactive, transparent and competitive. The winning consortium was composed of Groupe Bolloré (France) with 75% and SMTC (Benin) with 25%. The concessionaire agreed to develop the terminal (investing USD115 million for civil works and equipment over the first five years of the concession); to maintain the shareholding structure unchanged for 5 years; and to pay variable fees per TEU according to the bid.

The PAC committed to deepening the access channel from 12.5 meters to 14 meters; to perform maintenance dredging at regular intervals; to refrain from making major developments which could compete with the concession within the first eight years; to ensure that access to the terminal is available; and to provide the Concessioner with access to water, electricity and telecommunications networks.

During the concession client satisfaction improved because of reduced vessel waiting time, handling time and waiting time at the port entrance. As a result, the port doubled its container traffic in the first eight years of operation, from 300,000 TEUs to more than 723,000 TEUs.

4.2 Energy

The World Bank estimates that more than 1.1 billion people currently live without access to electricity, with a large proportion of this number attributed to Sub-Saharan Africa where 75% of the continent does not have reliable access to electricity. According to the International Energy Agency, meeting the world's energy needs will require an investment of USD \$48 trillion over the next 20 years. Countries around the globe are therefore increasingly turning to the private sector to help bridge the funding gap for energy projects, often using PPPs. Typically, PPPs have been used in the generation phase of the power cycle (including renewables) but, more recently, there have also been movements towards introducing PPPs to the transmission and distribution phases.

In addition, PPPs have been implemented across different types of energy sources. Although renewable energy (geothermal, hydropower, solar, biomass and wind sources) is not yet cost competitive with sources like coal and gas, other benefits which include increased energy security, reduced exposure to fuel price volatility and limited environmental impact, are likely to generate on-going interest and investment in this sector. Each phase and source of power generation presents its own unique opportunities and challenges when financed using private sector capital, as is explained in further detail below.

4.2.1 Sector specific considerations and key factors

Regulation for the energy sector, as in all sectors, must be transparent, accountable and credible, particularly in the transmission and distribution phases. Regulations must set limits with regards to market power for distribution utilities but that while also allow for competition in the generation phase. Rules must be well-defined and understood for distribution PPPs, specifically because they will set out; how investors receive remuneration; the process for setting tariffs; and the mechanisms for mitigating commercial losses (such as enforceable rights to disconnect non-paying customers). Ideally, a country will have an independent regulator that promotes quality of service but at reasonable tariffs.

Political support is also an essential aspect of any energy PPP project because these types of projects receive a lot of public attention. In many cases, citizens are frustrated with unreliable power systems, but they are not willing to pay more or at all if the, albeit unstable, resource has previously been provided free of charge. The government must be sufficiently supportive to sway public opinion in favour of an energy PPP, it must convey the clear benefits of an improved power system. In order to guarantee the success of a PPP arrangement the Government must also be willing to give up some degree of control over the power sector.

A number of other considerations, specific to the energy sector, are as follows:

- Public sector oversight must ensure that projects are compliant with environmental restrictions and regulations.
- The growing climate change crisis has led many countries to consider renewable energy sources as a way to mitigate threats to the climate. Many governments are changing the sector landscape by offering policy incentives, such as tax credits, long-term elevated "feed-in" tariffs, or requirements for utilities to have a certain percentage of their portfolio from renewable energy sources.
- Many generation projects involve a Power Purchase Agreement (PPA), a contract between a party that generates and sells electricity and the buyer purchasing electricity. The Independent Power Producer (IPP), or other party generating electricity, is required to ensure that the power purchaser is financially viable and, where necessary, consider a government guarantee of the purchaser's obligations.

- The success of an energy project is largely dependent on a country's already existing electricity infrastructure; the condition of the grid, capacity of the transmission system, energy storage systems, etc.
- Specifically for transmission PPP projects, the availability of land is a critical consideration because transmission networks can cover hundreds of miles. It is essential to have adequate support from the public sector and the general public, in order for the private sector to receive appropriate land-use rights.
- Specifically for distribution PPP projects, a common risk is the lack of reliable information about the condition of distribution networks and about the customers such as: who they are, where they are, if they pay on time or at all etc.

4.2.2 Case studies

Management Contract for the Liberia Electricity Corporation

Background:

Liberia's energy infrastructure was severely damaged during the country's fourteen year civil war, ending in 2003; by the end of the war, there were no generation facilities or flowing electricity in the country and there was no customer base. When President Johnson-Sirleaf took office in 2006, she placed a priority on power and launched an emergency power programme to restore electricity to the capital city, Monrovia. It was determined that a five-year performance-based management contract for the Liberian Electricity Corporation (LEC) was the best first step in reinvigorating the city's electricity. The contract was awarded to Manitoba Hydro International (MHI) in July 2010. The key performance indicators in the contract required for MHI to receive the performance based payments involved were: improving collections, increasing the number of customers and reducing the amount of system losses.

Under MHI's management, the electricity sector quickly began to grow and there was a sudden need for more generation capacity to meet the growing demand for electricity. MHI's management contract was amended in January 2013 to include the \$230 million reconstruction of the 78MW Mount Coffee hydropower plant. The plant was destroyed following the war and most metal and materials had been looted and sold. The rebuilding of the plant was critical because existing tariffs were very expensive since LEC was dependent on diesel generation. At the time, Liberia was paying \$0.53/kilowatt hour of electricity (compared to US rates of \$0.12/ kilowatt hour). The amended contract included a tariff framework to help address this concern; as well as details on governance structure and requirements for plant operations, maintenance, and additional connections. The completion date of the Mt. Coffee rehabilitation project was delayed until the end of 2016 due to the Ebola outbreak, however, it is expected that installed power generation capacity will grow to more than 100 MW with Mt. Coffee, providing an estimated 75,000 people in Monrovia with access to electricity.

Successes & Lessons Learned:

As of 2013, MHI had successfully met and exceeded the targets stipulated in its contract. Originally, the contract aimed to add 33,000 customers to the network within 5 years but this number was quickly reached and MHI declared a new target of 87,000 new customers. According to the IFC, as of 2013, it was expected that 390,500 people would have access to better services over the lifetime of the project. In addition, peak load more than doubled, fuel efficiency increased by 33; LEC's revenue collection increased by 160% and losses decreased by 21%.

There were significant challenges with the project, however, at the outset-when MHI began managing LEC- the principal issue was the failure of the utility to collect payments. MHI addressed this by introducing pre-paid metering which helped resolve the collection issue and dramatically improved LEC's cash flow. Once transmission and distribution lines were revitalised, LEC and MHI encountered another challenge: a sharp increase in the number of illegal connections to the grid. At one point, LEC was suffering 30-40% of losses due to illegal connections and, in response, an anti-theft sweep was instigated. Low technical capacity within the country was another challenge as during the civil war education virtually ceased. To counter the resultant skills gap MHI has been providing on-the-job training via a \$4 million dollar training programme; instruction and learning modules have been provided for a wide range of jobs, from technicians to management.

Cabeólica Wind Power Project in Cape Verde

Background:

Cape Verde has historically been a country that was highly dependent on oil. In 2009, 97% of the country's 86 MW-installed power capacity came from fuel oils. Since the early 1990s, the Government of Cape Verde (GovCV) has been seeking ways to introduce renewable energy, specifically wind power, into the energy mix. However, limited technical capacity and the lack of strategic partners has made it difficult for GovCV to accomplish this goal. In 2006, GovCV set the target of supplying 25% of the country's energy through renewable energy supplies by 2011, which helped attract investors to the island nation for the country's first PPP (and Sub-Saharan Africa's first wind energy PPP): the Cabeólica project.

The development, financing, construction, ownership and operation of four wind farms, with a total installed capacity of 25.5 MW, was released as an open tender through a PPP. The Special Purpose Vehicle (SPV) created to implement this project was Cabeólica S.A, which was established between InfraCo Limited, GovCV and Electra SARL. The EPC contract comprised construction of the four wind farms, including installation of thirty wind turbines, construction and installation of 30 km of transmission lines, construction of 15 km of access roads and construction of four control station buildings. The total project costs were EUR 63 million.

Successes & Lessons Learned:

Today, the Cabeólica Wind Power Project is fully implemented and is viewed as 'very successful'. Only ten months after signing the contract, all four wind farms had been commissioned and full commercial operations had begun. Cabeólica covers 25% of the country's electricity demand each year, offers 25% cheaper electricity than market alternatives and has served around 200,000 people. Furthermore, the project has lowered carbon emissions by 85,000 metric tons/year thus helping to secure carbon credit financing.

The project has also been successful due to its long-term offtake agreement that is supported through certain government guarantee arrangements and tax exemption agreements which ensure that the company has secured activity throughout the lifespan of the agreement. The Cabeólica project is now used as a model for other countries.

4.3 Urban and municipal services

Urban PPP projects cover a wide range of sectors, including transport, water, energy and social sectors. Examples of sectors and subsectors that are specific to cities include metropolitan transport projects (ring roads, elevated roads, public transportation and parking garages) and water projects (water supply and distribution, sewerage and water treatment plants).

4.3.1 Sector specific considerations and key factors

The success of urban PPPs, across all sectors, is largely determined by, clear objectives, a transparent process, strong capacity and political support. However, there are a number of additional considerations that are specific to urban projects, for example, urban PPPs tend to be more expensive on a per unit basis than interurban or rural projects. This is because the land is more expensive and utility relocation work and grade separation structures are often required. There are some cities e.g. Santiago, Chile that have transferred significant areas of city management and public works to the private sector under a PPP arrangement in pursuit of synergies that result from an integrated management system with greater flexibility within procurement and commercial arrangements. Key considerations for urban sector PPPs include:

- The reasons to pursue PPP arrangements typically include operational efficiency, innovation, new technology, and faster project development.

- Road maintenance, signage, lighting, trash collection and water treatment can be managed by the private sector based on agreed performance indicators; it can be financed with availability payments.

Urban transport sector considerations

- Public transport projects can include bus, bus rapid transit, tram and light rail and metro.
- Road projects include ring roads, elevated roads, bridges and tunnels.
- Revenue is generally collected via user fees or availability payments (where government assumes demand risk).
- Given the relatively high value of land near urban transportation, sponsoring transit agencies can purchase land beyond what is needed for the project (in the vicinity of stations) and partner with real estate developers to construct mixed-use buildings (residential and commercial) to be sold or rented for additional income.

Water sector considerations

- Impacts of PPPs in the water sector are evaluated in terms of changes in access to water, the quality of service, operational efficiency and the tariffs charged.
- Studies have found that private sector participation in the water sector can produce gains in performance and labour productivity; the greater the private sector participation, the higher gains.
- PPPs can also be used in the water sector to restructure and reform water utility operations and then return them to the government
- Many water PPPs in Sub-Saharan Africa have followed the affermage model, often leveraging significant donor funding. Greater availability of funding both on affermages and concessions will lead to larger coverage gains.

4.3.2 Case studies

Gautrain Rapid Rail Link – Nauteng Province, South Africa

Background:

Traffic congestion along South Africa's N1/ M1 highway corridor increased 7% per year between 1995 and 2005. It is estimated that the value of the negative effects of this increased congestion at USD 47 million annually when accounting for direct costs, lost work time and expenses related to increased accident rates. Commutes along the 50 km route could average up to two hours; by comparison, Gautrain's service reduced travel times to 42 minutes.

The Gautrain Rapid Rail project consisted of 77 km of track and 10 stations; selected stations included park-and-ride areas, to capture drive trips. Given the prevalent problem of integration between different public transport systems that exists in South Africa, the Gautrain concessionaire also operated its own fleet of feeder buses. The project cost was around USD 3.28 billion, of which approximately USD 2.82 billion was a capital grant (86% of the capital expenditures) from the Gauteng province with the remaining capital expenditures of USD 456.68 million coming from private capital investment (85% of which was debt). Phase one linked Sandton to O.R. Tambo International Airport (airport express) and entered service in 2010, in time for the 2010 World Cup. The other two lines were completed in 2012: North-South (Johannesburg to Pretoria) and East-West (Sandton to Rhodesfield park-and-ride).

Successes & lessons learned:

The objective of this PPP was to house risks associated with integrating the rail system's complex design, construction, operational and maintenance obligations within one organisational structure. Planners estimated that achieving similar outputs using traditional public procurement would have required something around 40 separate contracts. The arrangement is a 20-year concession which includes the design, build and part-finance of the Gautrain. The concession also includes the operation of the Gautrain and all services related to the train and feeder buses: safety, stations, revenue collection, marketing and passenger communication. The concession takes responsibility for all management as well as maintenance of all assets. There is flexibility in the tariff setting which can be applied to the airport route in order to generate revenue to support (cross-subsidise) operation of less profitable lines; in this way, the system can be structured to maximise ridership and revenue through additional efficiencies and incentives. The services provided by the concessionaire on the Gautrain and its feeder bus network were required in order to meet specific performance targets, which included security.

The government guarantees a minimum revenue level but also requires revenue sharing above a specified threshold. Gauteng province provided bidders with an estimate for system revenues throughout the concession's life. Bidders in turn specified two things in their proposals: 1) Their own expectations for system revenues; and 2) The minimum revenue level required to meet contractual obligations and achieve return on investment. The difference between minimum required revenues and bidder projected revenues set the basis for a minimum required government operating subsidy. Revenues above the specified minimum require sharing on a 50/50 basis between the concessionaire and the province; this methodology protects the concessionaire from downside revenue risks whilst still offering incentives to maximise system ridership. The duration of the concession was chosen to limit the Government's downside revenue risks whilst splitting potential upside with the concessionaire. In addition, financial analysis showed that longer concession periods would not result in more favourable bid prices.

Durban Water Recycling

Background:

Durban is the third largest city in South Africa, located in the eThekweni municipality on the east coast. In 2001 it was suffering from both a shortage of water resources and a limited sewerage capacity. At that time, the city was producing 450 million litres of wastewater per day. To address the shortage of water and excess of sewerage discharge, the city issued a 20 year Build-Operate-Transfer (BOT) project for the construction and operation of South Africa's first water recycling PPP project. The capacity of the existing recycling plant was expanded and a new tertiary plant was constructed for improved quality treatment.

Successes & lessons learned:

The objective of the PPP was to treat water to a standard that would be adequate for industrial use whilst saving potable water to expand supply to previously unserved households. The recycling plant was designed to treat 47.5 million litres of domestic and industrial wastewater (equivalent to 7% of the city's potable water demand) and at the same time reduce the treated waste water output by 10%). In addition to the increased recycling capacity, the concessionaire would pay the city for the wastewater as well as for the rental costs of the land where the construction of the new facilities took place.

The project risk profile was significantly reduced by an agreement with a nearby industrial company to supply them with all their water needs. The industrial partner in the agreement ensured that all of its water needs would be met at the standard required for their processes and at a lower cost compared to that of potable water; the PPP project the agreement guaranteed the sale of a significant share of the recycled water.

4.4 Health

According to a 2011 IFC *Handshake* report, low income countries spend much less on health (5% of GDP) than high income countries (11% of GDP). Due to a growing need for health services, many governments have turned to the private sector to help deliver these services in an attempt to lighten the public sector's financial burden. This movement to private sector provision of health services has been seen worldwide, and by 2011, 50% of healthcare in Africa was provided privately.

Private sector capital contributions are usually lower in social sector PPPs (such as in the health and education sectors) because the majority of funding is received from the government. In addition, social projects incur frequent ongoing expenses (rather than the upfront capital expenditures of typical infrastructure projects) meaning that PPPs must be arranged in ways that ensure money will be readily available during post-construction phases. Although social sector PPP projects present a unique set of challenges, leveraging private sector know-how and financing can provide many benefits for social sector projects, especially in the health sector. Well-structured health sector PPPs can provide some of the following benefits in particular:

- Facilitating the development of new (or rehabilitating existing) health infrastructure
- Improved quality in health services
- Greater access to health services
- Better trained health workers
- Better maintenance and technology

As for all PPPs, there are various arrangements that a health sector PPP can adopt. The following range of PPP models, presented in a report by Hogan Lovells Lee & Lee, details different approaches for the health sector where each approach addresses different goals (and involves different risks and contractual elements).

PPP Arrangement	Description
Services	Private partners manage operations and/or maintenance within publically constructed facilities under an operating or management contract.
Facilities & Finance	The public sector contracts the private sector to finance, design, build and operate a hospital facility, but the health services within the facility are provided by the public sector.
Combined	PPPs where the private party is responsible for the infrastructure and service delivery.
Co-Located	Public sector transfers ownership of a portion of public hospital grounds to the private sector in exchange for payments or other benefits.

4.4.1 Sector specific considerations and key factors

Success for social sector PPPs is largely determined by the level of political support for the project, as well as by the effective management of the interdependent relationship between the public and private sectors. PPP contracts must allow for flexibility as many features of a health PPP cannot be planned out in advance, and active discussion and renegotiation are often required. Additional key considerations for health sector PPPs include:

- In certain countries, healthcare PPPs have faced barriers because the public sector does not wish to relinquish management or control of health services.
- The success of a health PPP is dependent on a stable and transparent regulatory and legal framework for healthcare provision.
- Assessment of project affordability must be completed early in order to predict the annual availability payment based on estimations of key capital costs, operating expenses and revenue drivers which must be benchmarked against projects of similar scope. Financial indicators can include:

- Estimated Capital Expenses: number of beds, construction costs, equipment costs.
- Estimated Operating Expenses: salaries, maintenance costs, supplies, utilities.
- Revenue Drivers: estimated demand, co-payments, public funding.
- The health sector sees rapid technology change, and the contract must therefore be flexible to accommodate these changes.
- The contract must also be flexible to account for the variability of outputs over time due to likely changes in demographics and disease.
- Health PPPs are largely financed through performance-based availability payments, for this reason there must be clearly defined KPIs to determine how the private sector will receive payments. However, it is very difficult to quantify health outcomes in a way that is measurable, attributable, and incentivises the private sector to provide the highest quality of care. The table below highlights examples of PPP performance metrics:

Patient Satisfaction	Clinical Performance	Workforce Performance
Pain levels after X amount of days following a procedure	Number of admissions, surgeries	Timely reporting
Waiting times	Sufficient availability of appointments	Average no. of staff sick days
Facility cleanliness	Patient safety indicators	Ratio of credentialed staff
Staff/patient interaction	Infection rates	Diagnostic reporting within one week of test

4.4.2 Case studies

Lesotho's Health Services PPP

Background:

Lesotho had, for a long time, faced challenges in providing high-quality healthcare services to its population. Queen Elizabeth II Hospital, the national referral hospital, was 100 years old, had high expenditures and operating costs and deteriorating infrastructure. As a result, patients were often transferred to South African clinics for treatment. It was in this context that the Government of Lesotho analysed financing options to help develop much-needed health facilities and provide greater coverage and better quality services. The IFC was chosen as the transaction advisor to help the Government of Lesotho build a new 425-bed national referral hospital, construct a new gateway clinic, refurbish three primary care clinics and provide all clinical services (which included the recruitment of doctors, nurses, health professionals; and the provision of medical equipment and pharmaceuticals). Following an open and competitive bid process, Netcare was awarded the contract in 2007; the company then formed a consortium called Tsepong which signed the 18-year PPP agreement with the Government. Construction began a short time later on the replacement national referral hospital, Queen Mamohato Memorial Hospital, and a filter clinic opened in October of 2011.

Successes & lessons learned:

The Lesotho Health Care PPP has demonstrated that it is possible for a LIC to procure a health sector PPP project that expands service coverage and increases quality of service. A study by Boston University's Centre for Global Health and Development, showed that the PPP had achieved:

- A decrease in the overall death rates by 41%
- A decrease in maternal deaths by 10%
- A decline in hospital deaths within 24 hours of admittance by 17%
- A decline in paediatric pneumonia deaths by 65%
- A decrease in the number of still births by 22%
- An increase in the survival of extremely underweight babies to 70%(most had previously died in the non-PPP facility)
- An increase in the number of patients seen per day by 30%

- An overall increase in the total annual outpatient visits by 110%
- In summary, a 22% increase in efficiency (on a per patient basis) across the new health network

The new health facilities were cleaner, saw faster lab results, and had more advanced technology than the previous hospitals and clinics. Furthermore, the new health clinics benefitted the local economy, for example, the curtains and bed screens in the clinics were sewn by local women and the clinic's interior decorations were also created by locals.

The Lesotho health PPP did, however, encounter significant challenges. Primarily, the new health network has become a considerable financial burden on the government. Universal health care is provided for Lesotho's citizens, so given the choice between an older health facility and the modern PPP facilities, many citizens are choosing the PPP hospitals. Under the original PPP contract, Tsepong agreed to treat up to 20,000 inpatients and 310,000 outpatients per year in exchange for an annual fixed payment. Any number of patients exceeding the agreed-upon total would be an additional cost for the public sector. In 2015 alone, the new health facilities treated more than 27,000 inpatients and nearly 350,000 outpatients. To further the strain on the government's budget, there has been insufficient monitoring of variation orders (orders for services requested by the operator not included in the original agreement). In addition, it was contractually agreed that the fixed annual payment would increase each year according to inflation but there has been some discrepancy concerning the base price (to which the cost of inflation should be added) which has in turn caused some tension in the partnership.

Various key lessons should be remembered for other countries hoping to replicate the successes of the Lesotho healthcare PPP. Primarily, healthcare PPP projects consider the significant increase in demand created by improved health services. Improved hospital can change historical user behaviour, and this should be factored into the agreement. Furthermore, improved health facilities should go hand in hand with improved processes and additional initiatives to avoid bottlenecks in the system and help to manage the increased demand. Currently, the World Bank Group is working with the Government of Lesotho to try and resolve some of the pressing concerns and constraints on the federal budget.

Pakistan's Earthquake Relief Health Care PPP

Background:

In 2005, a devastating earthquake hit Pakistan killing more than 73,000 people and injuring over 70,000 people. A large portion of Pakistan's health infrastructure was destroyed, including 575 health facilities and numerous vehicles, pharmacies, medical equipment and offices; the earthquake left nearly four million citizens without access to healthcare. Following the earthquake, international aid arrived to the country providing support in a number of ways. In the city of Battagram, healthcare services were provided using a PPP model through support from the World Bank and the Japan Social Development Fund (JSDF); the main goals for the Battagram project were to revitalise health care services and strengthen the health management capacity within the district. The Department of Health released a competitive public tender and moved the management and delivery of primary health care services to the winning bidder, Save the Children USA. The agreement clearly defined the roles of both the NGO and the public sector; the NGO was responsible for management and implementation of a package of different primary care and community services, including full administrative control of all health facilities and staff, and full financial powers; the public sector fulfilled the role of financier and also had considerable monitoring and oversight responsibilities. The project successfully redeveloped the destroyed facilities in Battagram whilst increasing services through efficient management e.g. During 2008-2010, child deliveries with skilled birth attendants increased by 150% and immunisation increased by 89%.

Successes & lessons learned:

The Battagram health project was successful in part due to a number of characteristics included in the PPP contract. First and foremost, the contract provided enough flexibility that Save the Children could be innovative in their delivery and management of the health services. Save the Children hired staff at market rates rather than the rates previously paid by the government (nearly triple the government rate). Existing staff hired by the government were eligible for increased salaries (through a Performance Based Incentive scheme) which contributed to better

and more efficient management. Furthermore, Save the Children created strong alliances with the local community which was essential due to deteriorating security in the region following the earthquake. Due to the close relationship and consultations with the users, project activities could continue even when faced with unprecedented security threats. The success of the health services continued as a result of training, implemented by the NGO, for district officials in planning, budgeting and information analysis.; this supported the health programme to grow once Save the Children returned management of the health programme back to the public sector.

4.5 Education

According to a report by the United Nations, 57 million children around the world were not enrolled in school in 2013, with 30 million of these children in Africa. Through PPPs, the private and public sectors can work together to address the great demand and need for better access to quality education, including in LICs. According to the World Bank report *Emerging Evidence on Vouchers and Faith-Based Providers in Education*, it was commonly observed that half, or an even higher share, of education services for countries in Sub-Saharan Africa were provided by the private sector.

In a UNICEF and ADB report, *Non-State Providers and Public-Private Partnerships in Education for the Poor*, different classifications of PPPs in education are discussed in detail. Five of these models are considered in this guide, and are presented in Table 5. The benefits, risks and level of success for each model is largely determined by the country's regulatory environment and project details, such as the level of education or the targeted population for inclusion into the school system.

Table 5: PPP Arrangements for the Education Sector

PPP Arrangement	Description
Education Service Delivery Initiatives	Government purchases places for students in private schools as it can be a cheaper alternative to <i>greenfield</i> or <i>brownfield</i> school investments. In this arrangement, payments are demand-driven where the school is paid for each student enrolled (payment can differ based on grade level, gender, etc.). The school cannot charge fees above the subsidy amount and so students can enrol for free. In this scenario, the schools are held accountable for performance.
Non-State Management of Public Schools	Government contracts directly with the private sector to manage and operate the public school (or school system). The government still owns the school and is ultimately accountable and responsible for performance, however, the private sector is measured with performance benchmarks. Schools are paid a fixed amount per student or can be paid a management fee.
Voucher and Voucher-Like Initiatives	Voucher programmes allow parents to choose the school (public or private) where they would like to enrol their students. Vouchers are paid for and provided by the public sector. In this scenario, the public sector does not contract one specific school for the enrolment of a larger number of students.
Professional and Support Services	Some degree of professional or support services contracts exist in most school systems around the world; this can involve ancillary services, such as meals and transportation as well as technical services such as teacher training, educational testing and evaluation services. Using PPP for these types of services allows the public sector to utilise resources to focus on teaching rather than support services, and the support services are then received in a more efficient manner.
Infrastructure Initiatives	This type of arrangement resembles the types of PPP projects seen in the typical infrastructure sectors (transport, energy, urban). The most common type of arrangement is a BOT, in which the private sector would finance, build and operate an educational facility (public school, university building, etc.) under a long-term contract with the public sector. When the contract expires, the facility is transferred back to the public sector.

4.5.1 Sector specific considerations and key factors

There are many considerations and key factors that differentiate education PPPs from PPPs in more traditional infrastructure sectors, principally their design. A clear objective must be established, and for education PPPs this typically involves either improvements to access to education or a higher quality education. If the objective relates to improved access to education then the target group should be explicit (e.g. girls, ethnic groups, and remote geographical areas). Market conditions specific to the education sector should also be considered such as the existing private school network, the potential for new service providers in the country, enabling legal and regulatory environment and the extent/reach of the public school system. Additional considerations specific to the education sector that should be accounted for when pursuing a PPP arrangement, include:

- The demand risk should not lie with the private sector but rather with the public sector.
- In cases where the project involves construction or rehabilitation of an infrastructure asset (such as a building), the responsible party must operate under a very strict timetable to avoid the displacement of students during the academic year.
- If existing employed personnel are to be transferred to a private sector contractor then provisions for this must be specifically identified in the agreement.
- Education PPPs may face strong resistance from teachers, public sector unions, or Ministries of Education for fear of threatened job security and loss of control.

As seen previously, there are inherent challenges and benefits associated with pursuing an education PPP project. The primary risks relate to the government's capacity to design, implement and monitor the project as well as the private sector's capacity to deliver education services in poorer areas. Further risks involve the existing regulatory and policy frameworks and the reluctance of related ministries to relinquish control to private partners. However, as demonstrated in the case studies presented in the following section, PPPs in education also offer many benefits, including: (i) Increased choices in the education market; (ii) Improved quality standards (as these standards are stipulated in the PPP contract); (iii) Greater access to education; (iv) Increased accountability for education results; (v) Increased efficiency of education delivery (due to the ability of governments to transfer responsibility for certain functions and overcome rigid regulatory frameworks); and (vi) Innovations and flexibility in school and teacher management.

4.5.2 Case studies

Uganda's Universal Secondary Education (USE) Policy

Background:

In 2007, the Government of Uganda (GoU) implemented the Universal Secondary Education (USE) Policy to address Uganda's low-level of enrolment in secondary education. The USE Policy provides an option for students - who previously did not have this opportunity - to attend secondary school by contracting the GoU to pay a subsidy for each student enrolled in eligible non-state secondary schools. Schools participating in the USE programme are limited to schools in areas that are not served by public schools and that charge no more than 75,000 Ugandan shillings (UGX) (USD 32) per student per term. Participating schools, chosen by the Ministry of Education and Sports (MoES), receive a subsidy of 47,000 UGX per student per term; they then enter into a contractual arrangement with the MoES which ensures that the school is in compliance with all of the implementation guidelines.

Successes & lessons learned:

The programme has been widely successful when considering the transition rate for students between primary and secondary schools which has increased. In 2006, prior to the USE Policy, the transition rate was 51%; the passage of the USE Policy helped increase the transition rate to 69%

by 2007. In 2008, around 430 private secondary schools were participating in the USE programme and by 2014 this number had grown to 874. The USE Policy was implemented as part of a larger programme, the Universal Post Primary Education and Training (UPPET) programme, which was also launched in 2007. UPPET's main objectives were to increase the number of students enrolled in education (largely achieved through the USE policy) and to increase the quality of the education, including additional and better-trained teachers. The UPPET programme was financed through the UPPET programme budget (20%) and also received support from the World Bank, African Development Bank, Belgian Embassy, Embassy of Ireland, JICA, the UN Population Fund and the Netherlands Embassy. In order to accommodate the increased number of students enrolled as a result of the USE policy, the UPPET programme provided for the construction of 4,297 new classrooms, the rehabilitation of 1,864 classrooms, and the hiring of new teachers (1,400 teachers were recruited in 2009).

The programme has seen a number of successes but challenges still remain; the need for additional facilities, teachers, textbooks, and supervision services. A dramatic increase in student enrolment requires increased facilities and resources to accommodate this new population of students. Similarly, another issue facing some schools is large class sizes; in 2007, 243 of the 791 schools participating in the programme had class sizes of more than 80 students. In 2010, the GoU adopted additional measures to try and mitigate some of these challenges, including the optimisation of teachers' time on task, greater utilisation of classrooms through double shifts, strengthening the partnership with the private sector. As a lesson learned, it is important that other projects acknowledge the extra facilities and resources necessary into their development plans. A greater number of students will mean higher demand on the infrastructure and teachers; two issues that must be effectively incorporated into contracts with the private sector.

Colombia's Education Voucher Systems

Background:

In an attempt to increase secondary school enrolment rates, the Colombian government, with partial funding from the World Bank, established the Programa de Ampliación de Cobertura de la Educación Secundaria (PACES), which was in effect between 1991 and 1997. The PACES programme was implemented in all large cities and targeted the poorest families in the country. These low-income families were offered vouchers to pay for their children to attend any private school participating in the programme.

The maximum value of the voucher was set at US \$190. If students planned to attend schools with a higher tuition, the additional funding was to be covered by personal funds. Students participating in the programme were eligible for renewal up to 11th grade depending on their academic performance. Any student who failed a grade lost their voucher privileges. Students on voucher programmes had a pass rate of 77% which compares with 70% at national high schools.

Vouchers were funded by both the municipal and federal governments with 20% paid by the municipalities and 80% paid by the state. Due to the popularity of the programme some municipalities faced a demand higher than the available voucher supply, in these instances many municipal governments used a lottery system to allocate vouchers to those in need.

Successes & Lessons Learned:

During the project's lifespan, PACES provided more than 125,000 pupils with vouchers covering more than half of the average costs of private secondary school. The greatest success from students in the voucher programme was that they had higher high school graduation rates than those students who were not in the programme. Furthermore, students using the voucher programme were more likely to score in the top quartile on the national university entrance exam. The programme is further viewed as successful due to the per-beneficiary cost which was only around 77% of the unit cost for public secondary education.

5 Lessons learned

5.1 Keys to success

PPPs can bolster economic growth, unlock revenue generation potential, enhance innovation and improve operational efficiency in the provision of public services. In order to implement successful PPPs, however, there are a number of important considerations:

- • Maintain realistic expectations of the PPP project
- • Ensure value for money for the government
- • Maintain benefits for the greater public interest
- • Ensure transparency
- • Allow for adequate access to information for all stakeholders
- • Ensure accountability
- • Promote competition
- • Ensure a proper balance and allocation of risks and rewards
- • Support environmental and social protection

5.2 Lessons learned

Private sector participation in infrastructure development is still evolving, however, below are various lessons learned that can provide guidance and should be considered when pursuing PPP projects:

As described in Chapter 1, it is of critical importance for governments to **clearly understand their objectives** for pursuing PPP. In order to align PPP projects with government objectives and implementing principles, projects should be based on desired outcomes or results, rather than required inputs. This allows the private sector investor/operator a greater degree of flexibility and creativity in the delivery of infrastructure facilities and services, whilst ensuring that those facilities and services provide the required results or operating capacity established by the government.

PPP in infrastructure is a **relatively new experience for most LICs**. Although many governments have promoted PPP strategies in their countries, a lack of well-developed financial sectors, low purchasing power of infrastructure users, and a lack of capacity in the public and private sectors remain major impediments for implementing sound PPP projects. Only a small number of LICs have established PPP units and developed manuals and resource materials to promote capacity-building of their public officials. In the absence of these established institutional arrangements, public officials face difficulties in PPP project development and implementation, and the general public may not understand the benefits.

- To successfully attract private sector investment, there must be a **clear legal and regulatory framework** in place to increase the certainty and ensure the effectiveness of long-term PPP contracts. The legal, regulatory and policy framework must clearly specify the rights and obligations for private sector investment and must facilitate private sector participation in developing infrastructure assets. The most dynamic environments will have a PPP or Concessions Law as well as general PPP guidelines; the inclusion of PPP-specific legislation often sends a message to the private sector that there is stable political and legal support for these types of projects.
- Many countries encounter **barriers for approval of new PPP legislation**. Parliamentary approval can take significant time to achieve, with lawmakers halting progress (often because of their lack of understanding about PPPs). In

this case, a country can try to mitigate the delays of establishing PPP Laws or Regulations by releasing PPP Guidelines.

- In countries trying to establish a PPP Programme, it is important to have a **“PPP Champion”**. This is someone involved in high-level government decision-making who can spearhead and effectively advocate for PPPs.
- The key government bodies involved in the PPP process must have sufficient capacity to carry out the responsibilities necessary for PPP implementation. It is not essential for a PPP programme to have a central PPP Unit in order for it to be successful, however, it is highly recommended. A central PPP Unit can **help to ensure consistency, efficiency and quality across a wide range of PPP transactions**; and the expertise of the unit can be leveraged across various sectors thus making the process more efficient, rather than a number of independent teams working separately to understand and structure projects.
- Governments pursuing PPPs must consider a **market oriented approach**, meaning that the project promotes stakeholder consultation during all stages of the PPP cycle, from the policy making and planning stage to the monitoring stage.

Figure 3: Market oriented approach for PPPs



One of the most important aspects of any PPP is **clear allocation of responsibilities and accountability between all parties involved** - it is essential that any PPP arrangement clearly establishes the allocation of rights, obligations, and responsibilities between the private and public sectors.

Successful PPPs require a **well-defined planning and project selection process** in line with national development plans, sector strategies and medium term investment programmes. Governments must clearly define and rank objectives, and understand that each PPP is unique and is structured to address specific project needs. Many failed PPP projects can be attributed to ill-conceived strategies, unrealistic objectives and shortcomings in policy, institutional and regulatory frameworks.

The **selection of the pilot (flagship) project** for a country developing their PPP programme is crucial as it will set the tone for the future success of the programme. Initial PPP projects will likely be slower and more expensive to develop, but establishing a credible and sustainable PPP programme is more important in the long run. If successful, the first projects show investors that the market and the country's capacity for PPP are both stable and profitable.

Projects under consideration for PPP arrangements should be prioritised and **their timing managed** based on local and international market conditions. Pursuing several projects concurrently could significantly impact the successful implementation of those projects given the limited availability of private sector funding and resources. Projects should be launched at the most appropriate time to maximise the interest and participation of private sector investors, and the potential benefits to the government.

Economies around the world are competing for private sector investors and operators for financing infrastructure PPPs. An **updated and accessible pipeline of bankable projects** is a powerful tool to attract these domestic and international private sector investors because it provides the necessary information for both the private and public sectors to develop their long-term strategic plans. A sound sector strategy, in addition to including important project background, provides critical information on the economy's commitment to the sector which in turn helps investors to evaluate project risks. Investors seek to leverage economies of scale, and with an easily-accessible project pipeline, investors can analyse whether or not an economy is offering the best long-term opportunities for them.

Transparency in all stages of the PPP process is a fundamental condition for any PPP project and should be ensured through proper mechanisms and formal processes. These mechanisms and processes will also enable the government to achieve a balance between transparency and flexibility. Access to timely information is a critical element for ensuring transparency in a PPP project which will help to attract first class private sector operators/investors and keep the general public informed.

Typically, a country begins to use PPPs for projects where benefits are easiest to achieve, such as projects that earn **revenue from the users** (e.g. toll roads, energy). Once a PPP programme in a given economy becomes more developed, however, governments will have the institutional capacity and know-how to target sectors (e.g. education, water sanitation, and health), that use more complex financing methods. These methods may include **availability payments** - payments made that depend on the asset/service being available in the quantity agreed and at the quality defined in the contract, shadow tolls - free for users, but for which the government pays a fee per user (vehicle or person) to the operator, or other innovative financing methods such as warranties and gap financing.

Key PPP resources

African Development Bank: <http://www.afdb.org/en/topics-and-sectors/sectors/private-sector/areas-of-focus/public-private-partnerships/>

The Economist Intelligence Unit - Infrascope Reports:
https://www.eiu.com/public/topical_report.aspx?campaignid=AfricaInfrascope2015

European Bank for Reconstruction and Development: <http://www.ebrd.com/what-we-do/sectors/legal-reform/ppp-concessions.html>

European PPP Expertise Centre: <http://www.eib.org/epec/>

Global Infrastructure Hub: http://globalinfrastructurehub.org/?ref_site=kl

Handshake, World Bank's PPP Journal: <https://www.handshakejournal.org/>

Infrastructure Australia National PPP Guidelines:
https://infrastructure.gov.au/infrastructure/ngpd/index.aspx#anc_public-private

Multilateral Investment Fund: <http://www.fomin.org/en-us/Home/Projects/AccessstoBasicServices/Public-PrivatePartnerships.aspx>

PPP Canada: http://www.p3canada.ca/?ref_site=kl

PPP Knowledge Lab: <https://pppknowledgelab.org/>

SADC PPP Network: <http://www.sadcpppnetwork.org/>

United Nations Comisión Económica para América Latina y el Caribe (CEPAL):
<http://biblioguias.cepal.org/c.php?g=159547&p=1044454>

United Nations Economic Commission for Europe's International PPP Centre of Excellence:
<http://www.unece.org/ceci/ppp.html>

United Nations Economic and Social Commission for Asia and the Pacific (ESCAP):
<http://www.unescap.org/our-work/transport/financing-and-private-sector-participation>

World Bank's Public-Private Infrastructure Advisory Facility (PPIAF): <http://www.ppiaf.org/>

World Bank's Public-Private Partnership in Infrastructure Resource Centre:
<http://pppirc.worldbank.org/public-private-partnership/>

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