

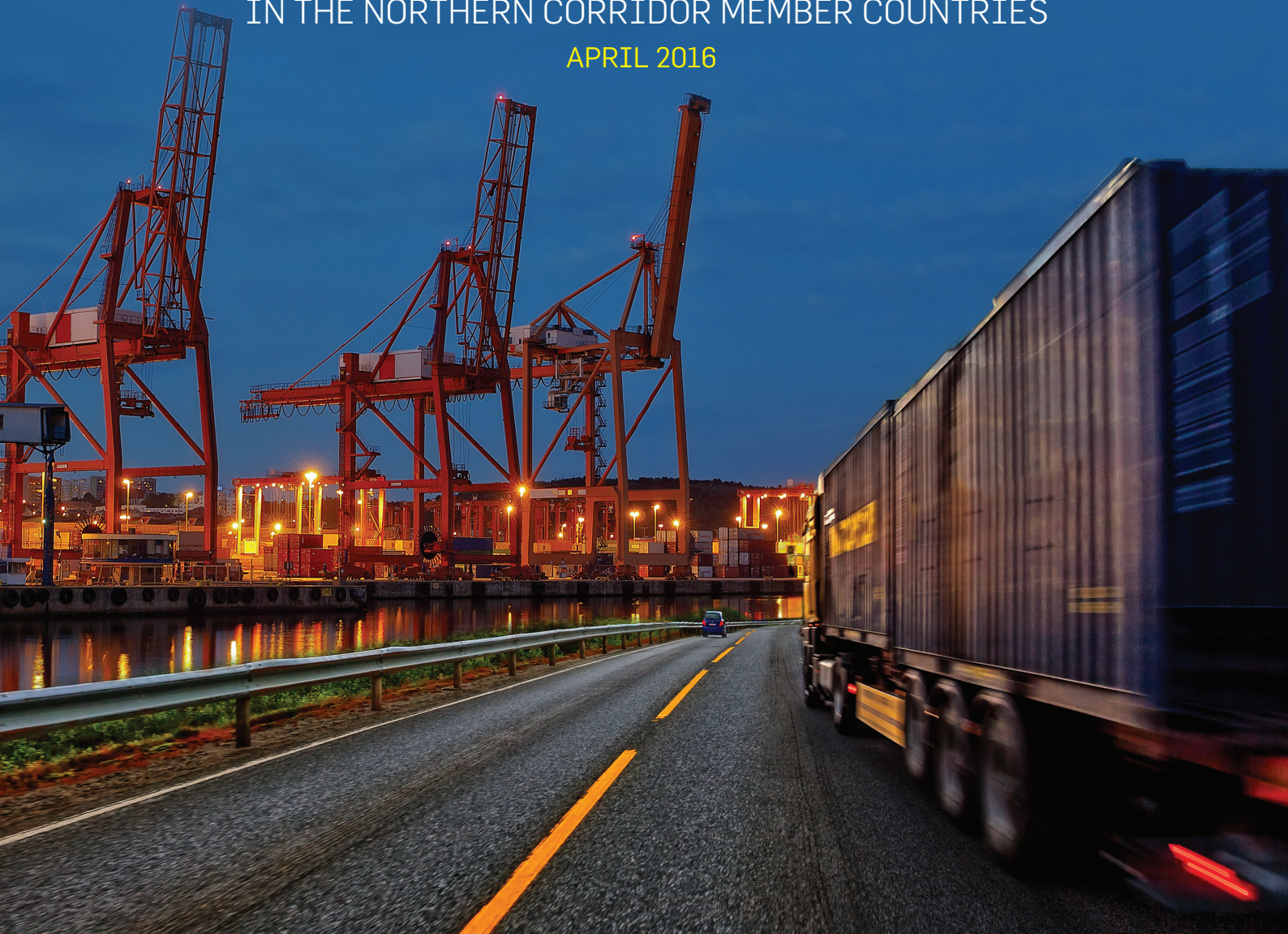


GUIDELINES & HANDBOOK

FOR PPP MANAGEMENT OF INFRASTRUCTURE PROJECTS IN THE NORTHERN CORRIDOR MEMBER STATES

MOBILIZING PRIVATE SECTOR FUNDING
THROUGH PPPS FOR ECONOMIC AND SOCIAL DEVELOPMENT
IN THE NORTHERN CORRIDOR MEMBER COUNTRIES

APRIL 2016



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ACRONYMS AND ABBREVIATIONS

ACP	Africa, Caribbean, Pacific	EACSO	East Africa Civil Society Organizations Forum
ADB	Asian Development Bank	EADB	East African development Bank
AFC	Africa Finance Corporation	EA	Electric Arc Furnace
AfDB	African Development Bank	EAEN	East Africa Environmental Network
AGOA	African Growth and Opportunity Act	EA-ITF	EU-Africa Infrastructure Trust Fund
AICD	Africa Infrastructure Country Diagnostic	EALGA	East Africa Local Government Association
AIFF	Africa Infrastructure Finance Facility (AIFF)	EAPP	East Africa Power Pool
ANAPI	Agence Nationale de Promotion des Investissements (DRC)	EARRC	East Africa Regional Resource Renter
AU	African Union	ECCAS	Economic Community of Central African States
AUC	African Union Commission	ECOWAS	Economic Community of West African States
BBO	Buy – Build – Operate	EBRD	European Bank for Reconstruction and Development
BLOT	Build – Lease – Operate – Transfer	EDF	European Development Fund
BOO	Build – Own – Operate	EEZ	Exclusive Economic Zone
BOOT	Build-Own-Operate-Transfer	EGL	Energie des Grands Lacs
BOT	Build – Operate – Transfer	EIB	European Investment Bank
BEE	Business Enabling Environment	EUD	EU Delegation
CADF	China-Africa Development Fund	EPA	Economic Partnership Agreement
CAPEX	Capital Expenditure	EPC	Engineering, Procurement, Construction
CEMAC	Communauté Economique et Monétaire de l'Afrique Centrale	EPEC	European PPP Expertise Centre
CEPGL	Communauté Economique des Pays des Grands Lacs	EPZ	Export Processing Zone
CICOS	International Commission for the Congo, Oubangui and Sanga River Basins	EU	European Union
CIGL	Conférence Inter-Gouvernementale des Pays des Grands Lacs	FTA	Free Trade Area
COMESA	Common Market for East and Southern Africa	GDP	Gross Domestic Product
DAC	Development Assistance Committee	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
DB	Design-Build	HBI	Hot Briquetted Iron
DBSA	Development Bank of South Africa	HFO	Heavy Fuel Oil
DBFO	Design – Build – Finance – Operate	ICA	Investment Climate Assessment
DC	Development Corridor	ICA	Infrastructure Consortium for Africa
Dfid	Department for International Development	ICGLC	International Conference on Great Lakes Countries
DEVCO	European Commission's Development and Cooperation Office	IDA	International Development Association
DRC	Democratic Republic of Congo	IDC	Industrial Development Corporation (South Africa)
DRI	Direct Reduced Iron	IFC	International Finance Corporation
EABC	East Africa Business Council	IFRS	International Financial Reporting Standards
EAC	East African Community	IGAD	Inter-Government Authority on Development
EACCIA	East Africa Chamber of Commerce, Industry and Agriculture	IMP	Infrastructure Master Plan
EAC DF	East African community Development fund	IP	Intellectual Property
EACPF	EAC Partnership Fund	IPA	Investment Promotion Agency
		IPP	Independent Power Producer
		IRCC	Inter-Regional Coordinating Committee

GUIDELINES AND HANDBOOK
for PPP Management of Infrastructure Projects
in The Northern Corridor Member States

IsDB Islamic Development Bank	RSDIP Regional Spatial Development Initiative Programme
ITF Infrastructure Trust Fund (ACP-EU)	RVR Rift Valley Railways
KfW Kreditanstalt für Wiederaufbau	SADC Southern African Development Community
KRC Kenya Railways Corporation	SCEP Service Chargé des Entreprises Publics (Burundi)
LED Local Economic Development	SDI Spatial Development Initiative
LEP Local Education Partnership	SDP Spatial Development Programme
LIFT Local Investment Finance Trust	SEA Strategic Environment Assessment
LPVR Least Present Value of Revenue	SME Small & Medium Enterprises
LVBC Lake Victoria Basin Commission	SMME Small, Micro & Medium Enterprises
LVFO Lake Victoria Fisheries Organization	SWF Sovereign Wealth Fund
MCC Millennium Challenge Corporation	TA Technical Assistance
MEAC Ministry in Charge of EAC Affairs	TBT Technical Barriers to Trade
MSATR Mozambique to South Africa Toll Road	TF Trust Fund
M&E Monitoring & Evaluation	TMEA TradeMark East Africa
NBI Nile Basin Initiative	TTCANC Transport and Transit Coordinating Authority of the Northern Corridor
NC Northern Corridor	UACC Upper Area Control Center
NCIMP Northern Corridor Infrastructure Master Plan	UNCITRAL United Nations Commission on International Trade Law (UNCITRAL)
NCSDP Northern Corridor Spatial Development Programme	UNCTAD United Nations Conference on Trade and Development
NCTTCA Northern Corridor Transit Transport Coordination Authority	UFIR Upper Flight Information Region
NEPAD New Partnership for Africa Development	UNCITRAL United Nations Commission on International Trade Law
NEPAD-IPPF NEPAD Infrastructure Project Preparation Facility	UNDP United Nations Development Program
NIC New Industrialised Countries	UN-ECA United Nations Economic Commission for Africa
NIP National Indicative programme	UNIDO United National Industrial Development Organization
NTB Non-Tariff Barriers	USAID US Agency for International Development
ODA Official Development Assistance	USGS United States Geological Survey
O&M Operation and Maintenance	VGf Viability Gap Fund
OPIC Overseas "Private Investment Corporation	WAGP West Africa Gas Pipeline
OSBP One-stop Border Post	WB World Bank
PDF Project Development Fund	WBG World Bank Group
PE Private Equity	WSP Water and Sanitation Programme
PFG Private Finance Group (of the EIB)	WTO World Trade Organisation
PFI Private Finance Initiative	
PIDA Programme for Infrastructure Development in Africa	
PPIAF Public-Private Infrastructure Advisory Facility	
PPP Public-Private Partnership	
PSC Public Sector Comparator	
PSF Private Sector Foundation	
PTA Preferential Trade Area	
RADS Resource-based African Development Strategy	
RAIDS Resource-based African Industrialization Development Strategy	
RDB Rwanda Development Board	
REC Regional Economic Community	

FOREWORD

The Northern Corridor Regional Transport Infrastructure Program requires substantial private and public investment to cope with the rising regional trade volumes.

Studies have shown that there is great potential in terms of demand and financial resources for application of PPP in transport infrastructure development in the region. In addition, the PPP regulatory as well as legal environment has in the recent past received a boost by enactment of PPP laws.

The provision and project financing through public private partnerships is relatively a new phenomenon for most developing countries in general and the Northern Corridor countries in particular.

In an increasingly competitive global environment, most developed countries focus on new ways of financing infrastructure development and delivering services, such as PPPs. However, developing countries are yet to fully comprehend and utilize such financing methods.

PPP is viewed as one of the avenues of mobilizing and leveraging resources from Private Sector for financing projects in various sectors. But however, PPP being a new concept in most of Northern corridor Countries, there are no clear guidelines and procedures for its implementation and projects' monitoring.

Due to the foregoing, NCTTCA is initiating a program of promoting PPP as a mechanism for procuring and financing infrastructure and other interrelated investments. The proposed program aims to build the capacity of Northern Corridor countries in developing policy and legal frameworks, identification, management and delivery of PPP projects.

For this purpose NCTTCA had signed a collaboration agreement with East African Chamber of Commerce, Industry and Agriculture (EACCIA) in order to achieve the PPP Guidelines and Hand Book. This collaboration has received the support from European Union through Business Climate initiative (BizClim).

This PPP handbook, guideline document and reference book seeks to contribute to filling current information, knowledge, technical capacity, institutional, and investment and service gaps in the area of public-private partnerships (PPPs) in the infrastructure sector of the six countries (Burundi, Democratic Republic of Congo, Kenya, Rwanda, South Sudan and Uganda) linked to the Northern Corridor. The PPP guideline and reference book will do so by providing the regional public sector and private sector stakeholders with the conceptual knowledge base to:

- 1/ articulate and implement effective PPP policies, strategies and programs;
- 2/ plan and manage PPP projects efficiently; and
- 3/ maximize local content and local private sector participation in the regional and national PPP projects.

The handbook or reference book is structured into separate sections that focus on critical areas in the PPP management process, namely:

- (i) definition and conceptual framework on infrastructure and PPPs; rationale for the use of PPPs, as well as the merits and shortcomings of PPPs in relation to public provision of infrastructure;
- (ii) the policy, legal, regulatory and institutional framework conducive to PPP development in the regional infrastructure sector;
- (iii) the planning, implementation and management of PPP projects and related contracts;
- (iv) regional private sector participation and local content maximization in PPP/infrastructure projects;

- (v) financing and funding sources, solutions and products for PPPs as well as technical assistance and project development facilities and financial structuring/engineering options in support of the regional PPP/infrastructure sector; and
- (vi) the feasibility of smaller PPP projects in the region's infrastructure sector.

This handbook or PPP guidelines and reference document takes cognizance of the recent East African Community-led PPP initiatives in the regional infrastructure sector, namely the "Regional Public-Private Partnership Diagnostic Study" prepared jointly by the World Bank, the EAC Secretariat and Trade Mark East Africa (TMEA) and the Conclusion Report of EAC Regional Match-making Conference "Financing Infrastructure for the Future Generation in the EAC Region". The document also draws from the planning and diagnostic work of the African Union/

NEPAD (namely PIDA-Program for Infrastructure Development in Africa), the African Development Bank, the Africa Infrastructure Country Diagnostic (AICD) as well as the Infrastructure Master Plan and the Spatial Development Programme of the NCTTCA. From a good practice standpoint, the PPP guideline and reference document builds on the numerous handbooks and other guideline reports produced by multilateral development partners (World Bank Group and related institutions and facilities: PPIAF - Public-Private Infrastructure Advisory Facility, WSP - Water and Sanitation Programme, WBI - World Bank Institute; OECD; European Commission and related institutions: EPEC-European PPP Expertise Center and EIB-European Investment Bank; Asian Development Bank.); Governments and their PPP units across the five continents; and experts, practitioners and Think Tanks in the area of PPPs in the infrastructure sector.

INTRODUCTION

One of the challenges Northern Corridor and African governments face in promoting PPPs is articulating comprehensive policies, strategies and programs and putting in place efficient procedures and processes and effective institutions for the planning and delivery of successful PPP to fill the regional infrastructure gaps. The task of bringing the regional infrastructure sector up to par or near to world standards to support production, trade and competitiveness is all the more challenging that PPPs, by virtue of the large amount of investment involved and their long duration, are very complex, knowledge and skill-intensive, and hence risky.

For the African and Northern Corridor region in particular, additional challenges involve

- (i) how to make sure that local private sector participation and local content development are maximized in the growing number of actual and planned PPP projects across the region; and
- (ii) how to leverage the PPP model to help address infrastructure gaps at the levels of counties, municipalities and other underserved communities.

Hence, the handbook and guideline document will help answer the following questions that are relevant to Northern Corridor and African countries' infrastructure-related PPP sector.

- (a) How can PPP sector framework conditions be improved?
- (b) What technical, financial, legal, institutional, knowledge skills and other challenges must be overcome to successfully promote PPPs in the region?
- (c) How to successfully structure PPPs, attract private sector investment, and manage PPPs?
- (d) What policy and program framework should be put in place to maximize local private sector participation, SME participation and

overall local content in regional/national PPPs?

- (e) What is the feasibility of small PPPs in the Northern Corridor and African context?

The PPP Handbook, Guidelines Document and Reference Book is intended to provide a fairly substantive end-to-end overview of the key processes. These include planning and appraisal, transaction structuring, bidding and procurement, contractual and legal structuring, financing and financial engineering, supervision, and monitoring and evaluation related activities involved in the complex management cycle of large-scale PPP operations in Northern Corridor.

While many other handbooks and guideline documents on PPP exist, the **value addition of this report** includes the following:

- (i) its contextualization to the Northern Corridor and African region;
- (ii) its exploration of the policies, strategies and programs, the public sector could envisage for enhancing the participation of the local private sector and the maximization of local content in national and regional PPP projects;
- (iii) the provision of guidelines on the feasibility and requirements for the successful delivery of infrastructure services through small-scale PPPs;
- (iv) the identification of the potential sources, financial engineering solutions and financial products that could be leveraged in the financing and funding of PPPs in East Africa and Africa in general;
- (v) its comprehensive review of the innovations in the evolving global PPP market.

The PPP Handbook, Guideline Document or Reference Book for the Northern Corridor Countries is divided

into the following nine (9) sections that mirror the challenge areas and value chain in the management of PPPs in the infrastructure sector of the region.

Section 1: PPPs and Infrastructure Development: Definition and Conceptual Framework

The section deals with the definitions of the two driving concepts of the assignment: infrastructures and PPPs. It specifies what a PPP is in a context of infrastructure development and what is not a PPP. It also identifies the different models of PPPs in the infrastructure sector and their respective differentiating factors. It identifies the potential value addition areas, shortcomings and challenges of PPPs in relation to public procurement of infrastructure assets and services.

Section 2: PPP Framework: Policy, Legal/Regulatory, Institutional Framework

The section covers the policy areas, tools and objectives as well as the laws and regulations that control whether, or how, PPPs can be implemented. The section also covers the institutional framework that supports the implementation of the defined PPP policy and strategy, namely in the areas of permissible PPP models; prioritization, selection and appraisal of PPP projects; government and sector-level coordination; streamlined processes; capacity building of national stakeholders; engagement process with the private sector, procurement, bidding process and contracting; construction; asset management and PPP performance monitoring.

Section 3: Selecting, Planning and Designing PPP Projects

This section deals with the ways the public sector should design a comprehensive and systematic approach to PPP project prioritization, selection, planning and overall coordination. It involves three main phases:

- 1/ PPP project identification phase (i.e.
 - (i) origination of infrastructure project idea,
 - (ii) screening of candidate projects for PPP,
 - (iii) prioritization of potential PPP for development,

(iv) prefeasibility analysis and/or due diligence (technical, financial and legal), and establishment of the business case);

- 2/ PPP project structuring (i.e. identify and allocating risks, allocating functions and responsibilities, and defining payment mechanisms); and
- 3/ Appraisal of PPP projects (i.e.
 - (i) establishing project feasibility,
 - (ii) establishing commercial viability of project,
 - (iii) establishing whether PPP will deliver value for money,
 - (iv) establish whether project is fiscally responsible).

The overall objective being to come-up with an overarching infrastructure strategy and PPP management processes that:

- 1/ match PPP project size, number and structure with financial, institutional, technical and knowledge resources available within the public sector and the country;
- 2/ maximize the allocation of PPP functions and risk to parties best able to manage them; and
- 3/ maximize value for money.

This section is particularly important in the PPP management process as it helps address the following major issues:

- 1/ avoid the risk of PPP projects being canceled or abandoned after significant up-front investments are made;
- 2/ avoid situations where revenue accrues much more slowly than anticipated due to massive delays in delivery and overly optimistic forecasts;
- 3/ address poor planning and management of future interface risks (i.e. misjudgment of interdependencies with other projects);
- 4/ consider fiscal implications and cross-border capacity implications of all PPP projects in relation to national capacity; and
- 5/ align people and management toward a more value for money and risk-conscious set of processes.

Section 4: Contractual Design of PPP Projects

The section provides guidance on the legal design/ structuring of PPP contracts. This includes:

- (i) defining performance requirements,
- (ii) defining payment terms,
- (iii) creating adjustment mechanisms,
- (iv) providing for termination, and
- (v) establishing dispute resolution mechanisms.

Section 5: Managing the PPP Transaction: Procurement, Bidding and Financial Close

In the transaction stage, the government selects the private party that will implement the PPP. This stage follows the structuring, appraisal, and detailed preparation of the PPP and deals with the management of the procurement and the bidding process. It covers the following steps of the process:

- (i) deciding on the procurement strategy,
- (ii) marketing the PPP,
- (iii) qualifying bidders,
- (iv) managing the bid process, and
- (v) reaching financial close.

Section 6: Construction, Asset Operation and Monitoring of PPP Contract and Performance

The key risks of the construction delivery phase for the public sponsor or developer are related to contractual defaults, claims, keeping public and political stakeholders aligned, and monitoring for any mismanagement by the contractor.

The correct delivery of construction is a function of the quality of the front-end planning which includes several key risk levers:

- 1/ conceptual design (what sponsor will ask the contractors to design and build);
- 2/ the procurement model (how sponsor selects contractors);
- 3/ contracting model (under what terms the contractors work);
- 4/ the project management model (how sponsor will manage the contractors to deliver the project). The section deals with the steps to be taken by the public sector to make sure that the contractor deliver construction

to technical and financial specifications. These include both front-end planning and supervision and monitoring activities.

The section also deals with steps to be taken by the sponsor to make sure that O&M contractor meets contractually agreed-upon key performance indicators (KPIs) for service quality or availability. These include:

- 1/ the establishment of contract management structure and processes;
- 2/ monitoring and managing PPP delivery and risk; and
- 3/ dealing with changes.

Section 7: Sources, Solutions and Instruments of PPPs Funding in Infrastructure Projects

The section identifies potential sources, solutions, instruments and related financial engineering works the public sector and the private sector can leverage to finance PPP projects from its two interrelated perspective:

- (i) PPP transaction structuring and
- (ii) financial structuring. In particular, the section will articulate how the interaction between the project asset base and cash flow profile, the selected PPP modes, the local conditions (macroeconomic, financial market, legal, etc.) and the available financial tools (debt, equity, mezzanine products, and credit/risk enhancement and risk mitigation) will determine the financial structuring/ engineering of the specific PPP project.

The section also explores the financing solutions provided by emerging partners such as BRICS countries and others such as the Arab World.

Section 8: Notes of the Feasibility of Small-scale PPPs in the Infrastructure Sector

The section visits the feasibility, challenges and critical success factors for small PPP projects at national and sub-national levels (municipality, local government and remote rural, peri-urban, and small town communities) in the context of a developing region like Africa in general and East Africa in particular.

The section will cover the requirements for simplicity and clarity in the project management cycle of PPPs in the infrastructure sector, namely in the following areas: due diligence, forms of PPP contracts, alignment of incentives and performance targets of contractors and operators, needs for clustering of projects to achieve efficiency and economies of scale, procurement of operators and the management of the contracting process, and standard operating procedures for small-scale PPP projects involving local contractors and operators.

Section 9: Local Private Sector Participation and Local Content Development in PPP Projects

The sections expands on policies, strategies and programs, namely, local content ones and financial and technical capacity requirements aimed at maximizing local private sector participation and

local content in national/regional PPP projects. Overall, critical policy and program areas to maximize local private sector and local content in national and regional PPP project will include:

- 1/ enabling environment/legislation;
- 2/ enabling capacity building and financial support to potential local/regional investors and contractors;
- 3/ outright PPP contracts targeted at local firms/medium enterprises;
- 4/ the involvement of local consortia or joint ventures of firms in PPP projects; and
- 5/ a systematic/blue print approach to business linkages programs in local and regional PPP projects.

SECTION 1

PPP AND INFRASTRUCTURE DEVELOPMENT: DEFINITION AND CONCEPTUAL FRAMEWORK

1.1 Definitions of PPP: What is and what is not a PPP?

1.1.1. What is a PPP?

There is no single, internationally accepted definition of "Public-Private Partnership" in the context of infrastructure development.

Definition 1: A public-private partnership (PPP) in infrastructure is a partnership between a public sector entity (i.e. the sponsoring authority) and a private sector entity (a legal entity in which 51% or more of equity is with private partners) for the creation and/or management of infrastructure for public purpose for a specified period of time (concession period) on commercial terms in which the private partner has been procured through a transparent and open system (IIPDF, 2008).

Definition 2: "Public-Private Partnership" is a generic term for the relationships formed between the private sector and public bodies often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services. The term PPP is, thus, used to describe a wide variety of working arrangements from loose,

informal and strategic partnerships, to design build finance and operate (DBFO) type service contracts and formal joint venture companies. (European Investment Bank, 2010).

Definition 3: A "Public-Private Partnership" is a long-term contract between a private party and a government agency, for providing a public asset or service, in which the private party bears significant risk and management responsibility (PPIAF, World Bank Institute, 2012).

This definition encompasses PPPs that provide new assets and services, and those for existing assets and services. It can include PPPs in which the private party is paid entirely by service users, and those in which a government agency makes some or all of the payments.

Definition 4: PPPs have the following key elements:

- 1/ a long-term contract (a 'PPP Contract') between a public-sector party and a private-sector party;
- 2/ for the design, construction, financing, and operation of public infrastructure (the 'Facility') by the private-sector party;
- 3/ with payments over the life of the PPP Contract to the private-sector party for the use of the Facility, made either by the public-sector party or by the general public as users of the Facility; and

- 4/ with the Facility remaining in public-sector ownership, or reverting to public-sector ownership at the end of the PPP Contract (E. R. Yescombe, 2007).

Definition 5: 'Contractual arrangement between a Contracting Authority (Public Authority that is legally empowered to implement a PPP project) and a Private Partner which involves the sharing of Risks for a significant period of time in terms of functions related to financing, design, construction, rehabilitation, operation and/or maintenance or management of an Infrastructure Facility, other asset, or a public service based on pre-defined output specification on behalf of the Contracting Authority. The Private Partner receives financial remuneration for provision of assets or services either by way of government contributions, charges or user fees, or a combination of such contributions, and such charges or user fees (Rwanda PPP Law).

Definition 6: Public-Private Partnership is about:

- 1/ Mobilizing private sector "money, expertise and capacities for government "infrastructure development;
- 2/ Long-termed relationship between government and private sector (usually >10 years);
- 3/ Sharing of risks and rewards (mutualizing profits and losses);
- 4/ Private sector agreeing to performance level and the need to monitor performance of private company around the SLA and related KPIs; and
- 5/ Life cycle costing (i.e. understanding maintenance and introducing incentives to integrate O&M aspects in the design of the project.
(India Draft National Public Private Partnership Policy, 2011)

The comprehensive nature of definition 5 makes it the definition of choice of this Handbook.

1.1.2. What is not a PPP?

- 1/ The privatization of state-owned assets does not fall under PPPs because state-owned assets are completely divested by government with all risks and rewards passing to the private party whereas in PPPs risks and rewards are shared.
- 2/ Government equity participation in JVs does not fall under the PPP model unless key elements of PPP definition are fulfilled. Notably, the delivery of a public service or institutional function must be fulfilled by the private party to be considered a PPP.
- 3/ Private-sector acquisition or management of existing public infrastructure without any major new capital investment or upgrading is not considered to be a PPP.
- 4/ Private-sector provision of soft infrastructure, which involves no significant investment in fixed assets (and hence no need for private-sector financing), falls into the category of 'outsourcing' rather than PPPs, although obviously the boundary is not precise as soft services are often associated with hard infrastructure.
- 5/ Nor is a PPP a simple joint-venture investment between the public and private sectors, unless this is also linked to a PPP Contract.
- 6/ IPP (independent power production) project by private parties, though enabled by the public sector, are not considered PPPs.
- 7/ A donation of an infrastructure (road, borehole or water well, hospital, etc.) is not a PPP either.

1.1.3. Alternative Terminology for PPP

A PPP in infrastructures is only one of the many forms of private sector participation in infrastructures. The following alternative names are used for PPPs: Private Participation in Infrastructure (PPI); Private-Sector Participation (PSP) in infrastructure; and Private Finance Initiative (PFI).

Both PPI and PSP include PPP as defined above but also full private sector control over infrastructure project such as in an Independent Power Production (IPP) scheme. PFI is a term originating in Britain and now also used in Japan and in Malaysia to describe PPP in the provision of infrastructures services.

1.2 Definition of Infrastructures

Definition 1: "Infrastructure" relates to the "basic physical and organizational structures" needed to make economic, social, and government activity possible. It comes basically in three forms: economic, social, and government infrastructure (PPIAF, World Bank Institute, 2012).

Definition 2: "Infrastructure" " includes relatively permanent and foundational capital investment of a country, firm, or project that underlies and makes possible all its economic activity. It includes administrative, energy, telecommunications, transportation, utilities, and waste removal and processing facilities. Some definitions also include education, health care, research and development, and training

facilities (http://www.answers.com/Q/What_is_'infrastructure').

A public utility (usually just utility) is an organization that maintains the infrastructure for a public service (often also providing a service using that infrastructure). Public utilities are subject to forms of public control and regulation ranging from local community-based groups to state-wide government monopolies. The term utilities can also refer to the set of services provided by these organizations consumed by the public: electricity, natural gas, water, and sewage. Telephone services may occasionally be included within the definition.

Definition 2 will be adopted in this report.

Key infrastructure categories and types are listed in Table 1.1 below.

Table 1.1 KEY INFRASTRUCTURE CATEGORIES AND TYPES	
Power or Energy Infrastructures including renewable energy infrastructures (wind, solar, geothermal, hydro-electric, etc.) <ul style="list-style-type: none"> • Generation infrastructures • Transmission infrastructures • Distribution infrastructures 	Water and Sanitation Infrastructures <ul style="list-style-type: none"> • Water supply (drinking water) • Storage dams and irrigation networks • Sewage and waste water canals and treatment plants • Navigable waterways and waterways • Solid waste incineration/treatment plants
Road and Rail Transport Infrastructures <ul style="list-style-type: none"> • Roads • Highways, expressways and toll roads • Corridors • Bridges and tunnels • Railways • Tramway and metro-station 	Air and Sea Transport Infrastructures <ul style="list-style-type: none"> • Airports • Seaports • Inland ports, river/lake ports and waterways • Dry ports • Cruise terminals
Industrial and other Economic Infrastructures <ul style="list-style-type: none"> • Integrated special economic zones • Business, industrial, technology and research parks • Logistics parks • SME zones • Mega complexes (chemical, etc.) • Warehouses and silos • Physical markets 	Real Estate Infrastructures <ul style="list-style-type: none"> • Low cost townships, residential townships • Integrated township, "new city" • Mixed-used (office, residential, commercial) properties • Sports and stadia • Government accommodations • Urban regeneration

Table 1.1
KEY INFRASTRUCTURE CATEGORIES AND TYPES

Information, Communication and Media Infrastructures <ul style="list-style-type: none"> • Telecom infrastructures (fixed, wireless, satellite, GMS & UMTS) • Broadband infrastructures 	Oil, Gas, Mining and Natural Resources <ul style="list-style-type: none"> • Pipelines for oil and gas • Oil refineries • Storage tanks
Social infrastructures <ul style="list-style-type: none"> • Schools, universities and R&D complexes • Hospitals • Prisons, etc. 	

1.3 Infrastructure and Socio-economic Development

Cost-effective, reliable, and affordable infrastructure services are critical for private sector development, international competitiveness and economic growth. It is also widely documented that infrastructure directly affects progress in achieving MDG, part of which is to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. Furthermore, by one estimate, raising infrastructure services of all Sub-Saharan countries to the level of the regional leader Mauritius could add 2.2 percentage points to per capita growth¹. Catching up to the level in the Republic of Korea would raise economic growth per capita by up to 2.6 per cent percentage points per year. South Asia and Sub-Saharan Africa confront the largest gaps in essential infrastructure for households and businesses. African firms remain and will remain at a competitive disadvantage without effective, reliable, affordable infrastructure. Power shortages cost the region 12.5% in lost production time, compared to 7% in South Asia. Infrastructure services in Africa cost twice as much on average as in other developing regions and tariffs are exceptionally high by global standards². By comparison, East Asian firms save close to 70% in transportation costs, while Latin America and South Asian firms save approximately 50% relative to their African counterparts.

Despite the clear link between growth, development and infrastructure, and consequently high payoffs to investment in infrastructure, a variety of studies have identified a significant infrastructural deficit in Africa. This deficit applies to both economic and social infrastructure and has major implications for economic growth and development. Studies estimate that infrastructure deficits depressed enterprise productivity by around 40% in SSA (Escribano et al, 2008 cited in Foster et al, 2008), and that this negative impact was greater the lower the per capita income of the economy. A World Bank review of the state of infrastructure in Africa concluded that “[f] or most countries, the negative [economic] impact of deficient infrastructure is at least as large as that associated with crime, red tape, corruption, and financial market constraints” (Foster et al, 2008).

¹ AICD (2009).

² AfDB. 2010. *Infrastructure Deficit and Opportunities in Africa. Economic Brief, Volume 1. September 2010*

1.4 Value Addition of the PPP Model

How can East Africa and Africa close its infrastructure gap? New construction for infrastructure generally involves substantial up-front costs. Traditionally, government agencies have had two main options for financing their infrastructure needs: pay-as-you-go financing and debt financing. With pay-as-you-go financing, government accumulates revenues sufficient to pay for the new infrastructure before beginning construction or as construction occurs, thereby lengthening the construction period. Given

the challenges associated with generating such savings and securing approvals from the multiple authorizing bodies, there can be considerable lag time between when an infrastructure need arises and when it actually gets met.

Debt financing, whether from a loan or the issuance of bond, on the other hand, allows infrastructure needs to be met when sufficient public funds aren't immediately available. Each option comes with its own set of pros and cons.

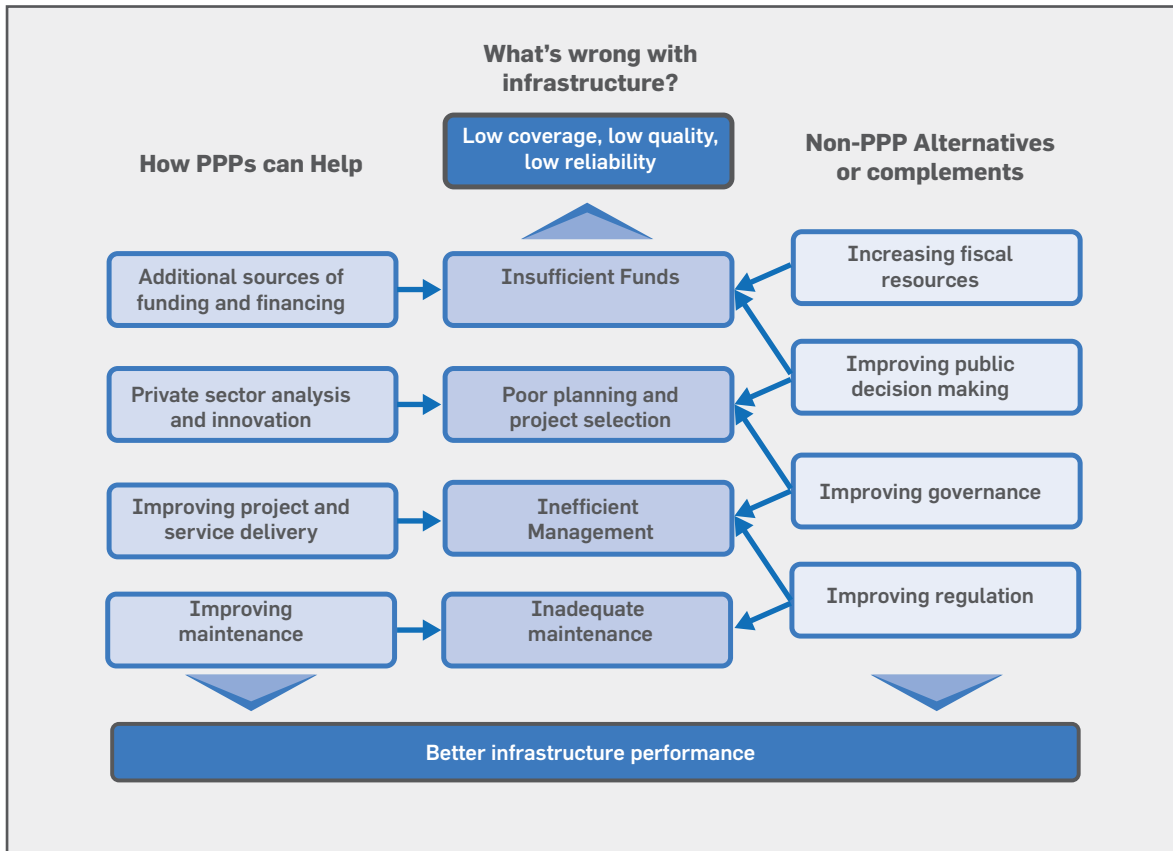
FINANCING METHOD	PROS	CONS
Pay as you go	Future funds are not tied up in servicing debt payments	Long wait time for new infrastructure
	Interest savings can be put toward other projects	Large projects may exhaust an agency's entire budget for capital projects
	Greater budget transparency	Inflation risk
	Future funds are not tied up in servicing debt payments	
Debt financing	Infrastructure is delivered when it's needed	Potentially high borrowing rate
	Spreads cost over the useful life of the asset	Debt payments limit future budget flexibility
	Increases capacity to invest	Diminishes the choices of future generations forced to service debt requirements
	Projects are paid for by the beneficiaries of the capital investment	

Source: Deloitte quoting Transportation Research Board

Figure 1.1 illustrates how PPPs-when implemented well-can help overcome some of these pervasive challenges. PPPs can mobilize additional sources of funding and financing for infrastructure. PPPs can help improve project selection, subjecting assumptions to the market test of attracting private

finance. Countries with relatively long PPP histories have found that PPPs manage construction better than traditional procurement, with projects coming in on time and on budget more often. PPPs can also help to ensure adequate maintenance keeps assets in a serviceable condition.

Figure 1.1:
How PPPs can help address infrastructure challenges in Africa



The mechanisms by which PPP can help improve infrastructure delivery are often summarized as “value drivers”- that is, how using PPPs to provide

infrastructure can achieve value for money. These value drivers, as described in the below box, are often integrated into PPP policies.

Box 1.1 **PPP VALUE DRIVERS**

PPP “value drivers” are the ways in which PPP can improve value for money in infrastructure provision. They include the following:

Risk transfer - risk retained by the Government in owning and operating infrastructure typically carries substantial, and often, unvalued cost. Allocating some of the risk to a private party which can better manage it, can reduce the project’s overall cost to government.

Whole of life costing - full integration, under the responsibility of one party, of up-front design and construction with on-going service delivery, operation, maintenance and refurbishment, can reduce total project costs. Full integration incentivizes the single party to complete each project function (design, build, operate, maintain) in a way that minimizes total costs.

Innovation - specifying outputs in a contract, rather than prescribing inputs, provides wider opportunity for innovation. Competitive procurement of these contracts incentivizes bidders to develop innovative solutions for meeting these specifications.

Asset utilization - private parties are motivated to use a single facility to support multiple revenue streams, reducing the cost of any particular service from the facility.

Focus on service delivery - allows a sponsoring department or agency to enter into a long-term contract for services to be delivered when and as required. Management in the PPP firm is then focused on the service to be delivered without having to consider other objectives or constraints typical in the public sector.

Predictability and transparency of costs and funding - whole-of-life costing and budgeting are considered, providing infrastructure and related ancillary services to specification for a significant period, and including any growth or upgrade requirements. This provides budgetary predictability over the life of the infrastructure and reduces the risks of funds not being available for maintenance after the project is constructed.

Mobilization of additional funding - charging users for services can bring in more revenue, and can sometime be done better or more easily with private operation than in the public sector. Additionally, PPPs can provide alternative sources of financing for infrastructure, where governments face financing constraints.

Accountability - government payments are conditional on the private party providing the specified outputs at the agreed quality, quantity, and timeframe. If performance requirements are not met, service payments to the private sector party may be abated.

1.5 Limits and Criticism of PPP – Myths and Fallacies

However, PPPs have also raised concerns in some mature markets such as the UK. During a review session of the UK PPP projects in 2010, The Chairman of the UK multi-party Parliament Treasury Select Committee, Andrew Tyrie MP revealed that, contrary to theoretical belief, number of PFI projects in the UK have failed to deliver on the anticipated expectations:

The anticipated value creation benefit through innovation has not materialized for number of PPPs: The Committee reported that there was no conclusive evidence that PFI has created value through innovation. In fact, it was reported that some PFI projects were poor in design and construction. The poor quality of the building designs lead to a number of issues such as rising maintenance costs over the lifetime of the building' (RIBA, 2011).

The timely and on-budget completion of many PPPs has not materialized: PFI projects are supposedly procured with more certainty regarding the price and time. The Committee concluded that not only was there no convincing evidence that this was true, but PFI projects also took more time to conclude due to the lengthy procurement process, usually two to three years longer than traditional procurement methods.

Inflexibility of PFI: Once a PFI contract is signed, it is cumbersome to amend the terms for the duration of the contract.

The value for money objective of many PPPs has not been achieved: An example was given that if the government were to borrow the money itself, it would have been able to build 1.7 times the project procured through PFI. This was due to the differential borrowing rates of the private sector and the government. Other methods could have been used in the place of the more expensive PFI to ensure that facilities were maintained properly.

Some of the claimed risk transfer of PPPs may be illusory: In PFI projects, the construction risk is generally transferred to the private company,

which is supposedly better able to manage this risk. However, the logic of this is questioned in the report as the cost of construction is then 'fossilised' and is charged to the government at a higher interest rate for the next 20–30 years, resulting in a loss in value to the government. Other methods such as design-build could have been used to achieve the same results at a much lower life cost to the government. Moreover, some of the claimed risk transfer may be illusory – the government ultimately is accountable for the delivery of the services and would therefore not allow the PFI contract to cease.

IFRS does not allow for the off-balance sheet treatment of PPPs: For a long time, PFI allowed government agencies that did not have the capital budget to complete public facilities using private money. The cost did not appear on their 'balance sheet' or liability list. This was allowed under EU public accounting rules. However, under International Financial Reporting Standards 2009/10, all PFI debts have to be included in the financial accounts of government departments for financial reporting purposes. This will result in not only the capital cost of the PFI project being included but also all future maintenance cost. At the end of 2010, the government estimated that £40 billion of PFI liabilities had to be reclassified as 'on balance sheet' (Office for Budget Responsibility -OBR, 2011).

Weak public sector expertise: It was acknowledged that the public sector lacked the experiences and capacities of the private sector in PFI contracts. Evidence was provided on the importance of improving procurement and project management skills in the public sector. One expert witness said, 'In terms of commercial skills and capabilities, the UK public sector has spent the 20-year life of UK PFI attempting to create the necessary capacity. In many ways, PFI has exacerbated the problems in this area. Owing to the complexity of PFI, the public sector has become too reliant on expensive external expertise, and the expertise has tilted towards financial skills.

Lack of competition in the market: Competition is generally required to drive costs down and result in value for the government. The Committee pointed to a lack of competition in the UK PFI

market due to the high cost of bidding. The long, complex and costly procurement process limits the appetite for consortia to bid for projects and also meant that only companies with deep pockets who can afford to lose millions of pounds in failed bids can be involved. Smaller companies have often been excluded.

Lack of fiscal clarity

PPPs also create fiscal commitments. These commitments are typically long-term, and can be contingent—that is, payments depend on risks such as demand, exchange rates, and costs. This makes it harder to assess the fiscal cost of a PPP than it is for a traditional government project, where the capital cost is incurred upfront.

Lack of fiscal clarity can lead governments to overestimate the extent to which PPPs are genuinely increasing the resources available to pay

for infrastructure. It can also create a temptation to spend more now, in response to political and other pressures to deliver new and improved infrastructure. As a result, governments may accept higher commitments and greater fiscal risk under PPPs than would be consistent with prudent public financial management.

In addition to the government's explicit liabilities such as guarantees, PPPs can give rise to implicit liabilities—that is, non-contractual liabilities that arise from moral obligation or public expectations—that create further fiscal risk. Weak contracts and ineffective enforcement can mean that governments fail to really achieve risk transfer to the private sector.

1.6 Use of PPPs in the Global Infrastructure Sector: The PPP Market Maturity Model

Despite the recent impetus in the use of PPPs across the globe, different countries are at different levels of the so-called PPP market maturity. Deloitte³

suggested the “PPP Market Maturity Model” as an indicative model for appreciating the respective position of countries in the PPP market maturity curve.

Box 1.2 below illustrates the PPP market maturity model and indicates the level at which number of key players of the global PPP market⁴ operate.

Box 1.2 THE PPP MARKET MATURITY MODEL

STAGE ONE

- Establish policy and legislative framework
- Initiate central PPP policy unit to guide implementation
- Develop deal structures
- Get transactions right & develop public sector comparator model
- Begin to build marketplace
- Apply early lessons from transport to other sectors
- Selected players at stage one: South Africa, Belgium, Denmark, Mexico

STAGE TWO

- Establish dedicated PPP units in agencies
- Begin developing new hybrid delivery models
- Expand and help shape PPP marketplace
- Leverage new sources of funds from capital markets
- Use PPPs to drive service innovation
- PPP market gains depth-use is expanded to multiple projects and sectors
- Selected players at stage two: Spain, France, Netherland, Canada, Japan

STAGE THREE

- Refine new innovative models
- More creative, flexible approaches applied to roles of public and private sector
- Use of more sophisticated risk models
- Greater focus on total lifecycle of project
- Sophisticated infrastructure market with pension funds and private equity funds
- Public sector learns from private partner methods as competition changes the way government operations function
- Underutilized assets leveraged into financial assets
- Organizational and skill set changes in government implemented to support greater role of PPPs
- Selected players at stage three by order of sophistication: UK, Australia, Ireland

Source: Deloitte Research – Closing America's Infrastructure Gap

While the above model cannot be taken at face value, it provides insights with regard to the learning curve, expertise and experience that potentially come with

the full adoption and disciplined management of a country's PPP agenda.

³ Deloitte Research – Closing America's Infrastructure Gap.

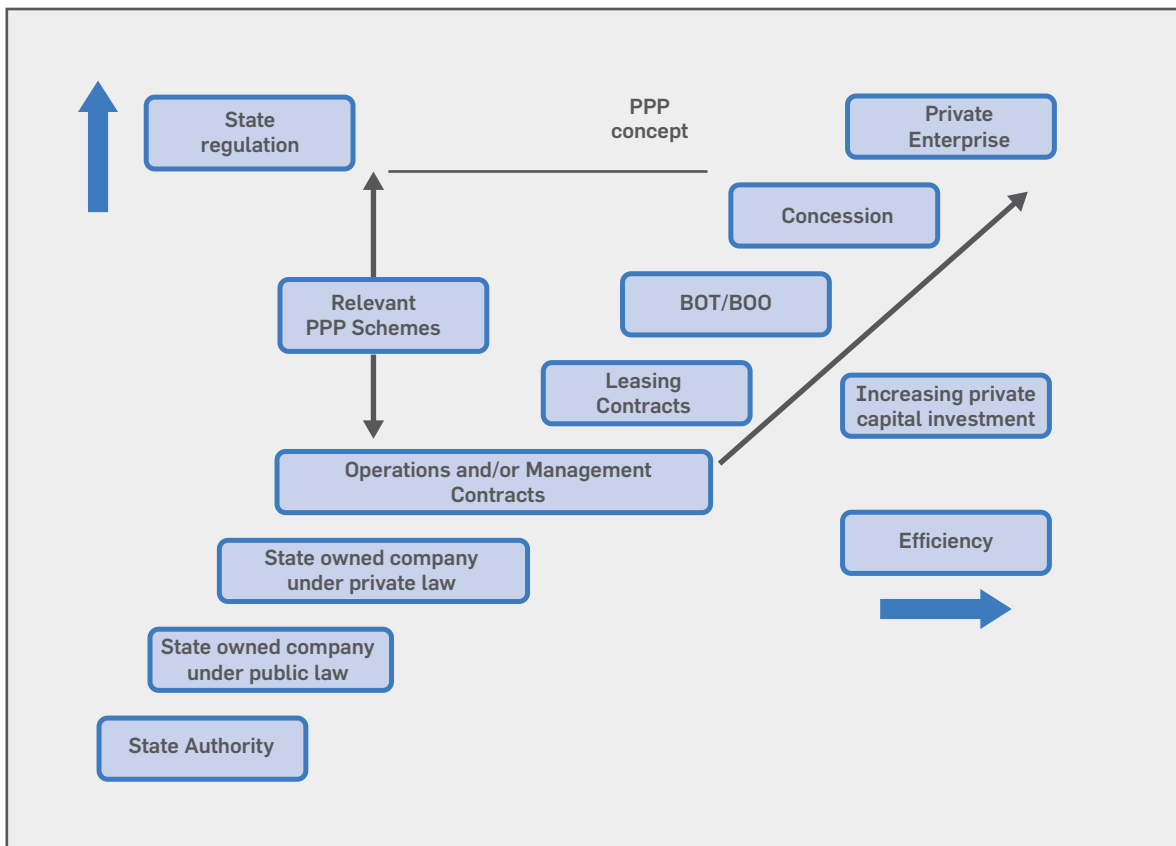
⁴ It is reported that, except South Africa, Sub-Saharan Africa countries have not yet reached the stage one of the PPP market maturity model. However, differences in progress is quite marked among countries.

1.7 PPP Schemes in Infrastructure Projects

The graphics below illustrates the various private sector participation options in infrastructure projects, their related state regulation intensity, as well as their respective level of potential efficiency gain.

In the following table, each of the specific options is illustrated in terms of its definition, selected roles of the operator, typical profit model, operator risk and total project risk sharing, ownership of the operating assets and the infrastructures assets, the level of regulatory capacity needed, as well as the relative importance of country risk rating vis-à-vis the specific option.

Figure 1.2:
FORMS OF PRIVATE SECTOR INVOLVEMENT IN INFRASTRUCTURE



Source: KfW

1.8 The Main PPP Modal Families

PPPs come in a variety of types encompassing various roles, ownership arrangements, and allocations of risk between the private and public partners. These different types are called PPP modes. Common examples of different modes are management contracts, lease, build-own-operate (BOO) contracts, and build-operate-transfer (BOT) contracts. In the roads sector, BOT is a common PPP mode, with revenues for the private operator often being from tolls (BOT Tolls contract) or from a fixed annual/semi-annual payment (BOT Annuity contract).

It is important that practitioners understand the various PPP modal options and their applicability or appropriateness to specific project types and sectors.

The PPP modes that have common characteristics can be grouped into 'families'. Within these families lie a vast range of possible modal combinations and variations to suit the particular project.

These variations, which are sometimes subtle and embedded deep in the contractual detail of the project, are too many to be discussed here. The task of defining a project to this level of detail and defining it in the contract will usually be carried out by specialist transaction advisors. What follows is a focus on the major PPP modal families.

The understanding of the PPP modal families is important because in the planning stage of a PPP project, a qualitative assessment of the PPP modal options must be carried-out by comparing possible allocations of the project risks against the typical allocations under the different PPP modes.

Different PPP modes can be compared on a spectrum ranging between low and high levels of private participation and involvement. The four major "families" of PPP modes are:

- Management contracts
- Lease contracts
- Concessions and
- Build-operate-transfer (BOT) and its variants

PPPs have given rise to an array of acronyms for the names that describe the variations in each modal family. The main ones are also described in the table below.

Characteristics of major PPP modal families and their main variants are presented in Table 1.2 below:

Table 1.2 CHARACTERISTICS OF MAJOR PPP MODAL FAMILIES AND THEIR MAIN VARIANTS						
KEY DIFFERENTIATING FEATURES OF THE MAJOR PPP MODAL FAMILIES AND THEIR VARIANTS						
	Asset ownership during contract	PPP duration	Capital investment focus Responsibility	Private partner revenue risk and Compensation terms	Private partner roles	Features, relevance
MODAL FAMILY / MODE FEATURES						
Management Contract	Contractual arrangement for the management of a part or whole of a public facility or service by the private sector. Capital investment is typically not the primary focus in such arrangements.					
Management Contract	Public	Short – medium (e.g. 3-5yrs)	Not the focus Public	Low Pre-determined fee, possibly with performance incentives	Management of all aspects of operation and maintenance.	This involves contracting to the private sector most or all of the operations and maintenance of a public facility or service. Although the ultimate obligation of service provision remains with the public authority, the day-to-day management control is vested with the private sector. Usually the private sector is not required to make capital investments. Prevalent in many countries across sectors . Performance based maintenance contracts is key.
Management Contract (with rehabilitation/ expansion)	Public	Medium – long	Limited Focus Brownfield (Rehabilitation / expansion) Private	Medium Tariff / Revenue share	Minimum Capex, Management, Maintenance	This is similar to management contracts but include limited investments for rehabilitation or expansion of the facility. This mode has been adopted in the power distribution and water supply sectors

Table 1.2 CHARACTERISTICS OF MAJOR PPP MODAL FAMILIES AND THEIR MAIN VARIANTS						
ASSET IS LEASED, EITHER BY THE PUBLIC ENTITY TO THE PRIVATE PARTNER OR VICE-VERSA.						
LEASE CONTRACT	Public	Medium (e.g. 10-15yrs)	Not the focus Public	High revenue from operations	Management and maintenance	e.g. Leasing of retail outlets at railway stations by national railways companies
Lease	Public	Medium (e.g. 10-15yrs)	Public	High revenue from operations	Management and maintenance	e.g. Leasing of retail outlets at railway stations by national railways companies
Build Lease Transfer (BLT) or Build-Own-Lease-Transfer (BOLT)	Private (Leased to the government)	Medium (e.g. 10-15yrs)	Greenfield Private	Low-medium Pre-set lease from the government.	Capex	Involves building a facility, leasing it to the Government, and transferring the facility after recovery of investment. Primarily taken up for railway projects such as gauge conversion (e.g. in India in the past with limited success)
Build-Transfer-Lease (BTL)	Public	Medium (e.g., 10-15yrs)	Greenfield Private	High Revenue from User Charges	Capex and Operations	Involves building an asset, transferring it to the Government, and leasing it back. Here the private sector delivers the service and collects user charges.
RESPONSIBILITY FOR CONSTRUCTION (TYPICALLY BROWNFIELD / EXPANSIONS) AND OPERATIONS WITH THE PRIVATE PARTNER WHILE OWNERSHIP IS RETAINED BY THE PUBLIC SECTOR.						
Area Concessions	Public	Long (e.g. 20-30 yrs)	Brownfield/ Expansions- Private	High Tariff revenue	Design, finance, construct, manage, maintain	Herein the private sector (concessionaire) is responsible for the full delivery of services in a specified area, including operation, maintenance, collection, management, and construction and rehabilitation of the system. Importantly, the operator is now responsible for all capital investment while the assets are publicly owned even during the concession period. The public sector's role shifts from being the service provider to regulating the price and quality of service. For example, water distribution concession for a city or area within the city. The main types of concession contracts are: (i) concession of public works (ii) concession of services (called "affermage") and (iii) concession of public assets.

Table 1.2 CHARACTERISTICS OF MAJOR PPP MODAL FAMILIES AND THEIR MAIN VARIANTS						
RESPONSIBILITY FOR CONSTRUCTION (TYPICALLY GREENFIELD) AND OPERATIONS WITH THE PRIVATE PARTNER WHILE OWNERSHIP IS RETAINED BY THE PUBLIC SECTOR.						
B-O-T CONTRACT						
Design-build-operate (DBO)	Public	Short-medium (e.g. 3-5 yrs)	Greenfield Public	Medium-High Tariff revenue	Design, construct, manage, maintain	Design element can be fully or partially transferred as government can decide to have full control over it or let it to the contractor based on technical specifications. Typically financing obligation is not retained by the public sector.
BOT/ DBFOT (Design-Build-Finance-Operate-Transfer)	Public	Long (e.g. 20-30 yrs)	Greenfield Private	High Tariff revenue	Design, finance, construct, manage, maintain	Most common form of BOT concessions in many countries. e.g. Salt Lake Water Supply and Sewage Disposal System, International Container Terminal, Interstate Bus Terminal, Expressway, Hyderabad/India Metro,
BOT Annuity	Public	Long (e.g. 20-30 yrs)	Greenfield Private	Low Annuity revenue / unitary charge	Design, finance, construct, manage, maintain	More recently, it is the preferred approach for socially relevant projects where revenue potential is limited. e.g. Sewage projects in underprivileged areas
Private partner has the responsibility for construction and operations. Ownership is with the private partner for the duration of the concession.						
BUILT-OWN-OPERATE-TRANSFER (BOOT) or DBOOT	Private	Long (e.g. 20-30 yrs)	Greenfield Private	High Tariff revenue	Design, construct, own, manage, maintain, transfer	Common form of BOOT concession for medium-size projects in secondary cities. For example, Greenfield minor port concessions in Gujarat/India are on a BOOT basis.
BUILT-OWN-OPERATE (BOO)	Private	Perpetual	Greenfield Private	High Tariff revenue	Design, finance, construct, own, manage, maintain	Under this structure the asset ownership is with the private sector and the service / facility provision responsibility is also with the private sector. A form of full private sector project with the difference that it is based on government-specified investments and service level/ quality agreements .

Source: India's PPP Toolkit at <http://toolkit.pppinindia.com/highways/module1-oopmv-tmpmf.php?links=oopmv1b>

The characteristics in the above table are meant to be indicative of the typical differences between the modes. Further variations on each mode and blends of modes are possible and common. It is also likely that new variations will be developed as the PPP market evolves globally.

Difference between Concession and BOT:

Typically, BOT contracts are awarded based on the same principles as concession contracts; the **main difference** being that the accomplishment of the BOT project is always made via a project company, in which the public authority and the private investor are shareholders. Another difference between the two modes of procurement of infrastructure asset and service relates to the fact that most concession contracts involve brownfield projects while B.O.T projects relates to greenfield ones.

1.8.1 Sector-specific PPP modal characteristics - Roads sector

The PPP mode for roads sector projects are largely affected by:

- 1/ the land ownership regime in the specific country; in other words, whether ownership of land for roads is public or whether private ownership is allowed or not under the specific law; and
- 2/ whether the road project involves or not a capital investment (greenfield – i.e. new build or brownfield – i.e. expansion or addition to existing roads).

PPPs in the roads sector are grounded on certain specific features:

- The private sector roles can cover a broad spectrum from design and finance through construction, operation, revenue collection and management of the facility.
- Roads projects that do not involve major capital investment (e.g. O&M only) are typically carried out as performance-based maintenance contracts
- Capital projects are typically carried out as BOTs
- BOT contracts have a long duration to match the lifetime of the assets created
- An important defining feature of a road BOT is the revenue type. This can be:
 - user charges collected by the contractor (toll),
 - an annuity paid by the public partner, or
 - an indirect user charge that is paid by the public sector rather than being collected from users (shadow toll).

The main road sector PPP modes and their characteristics are summarized in the Table 1.3 below.

Table 1.3 CHARACTERISTICS OF TYPICAL PPP MODES IN THE ROADS SECTOR					
MODES / FEATURES	ASSET OWNERSHIP DURING THE CONTRACT	PPP DURATION	CAPITAL INVESTMENT FOCUS RESPONSIBILITY	PRIVATE PARTNER REVENUE RISK & COMPENSATION TERMS	PRIVATE PARTNER ROLES
Build-operate-transfer (BOT) Toll	Public	Long (e.g. 15-30 yrs)	Brownfield or Greenfield Private	High Toll revenue	Design, finance, construct, manage, maintain and collect tolls
Build-operate-transfer (BOT) Annuity	Public	Long (e.g. 15-30 yrs)	Brownfield or Greenfield Private	Low Annuity revenue / unitary charge	Design, finance, construct, manage, maintain
Build-operate-transfer (BOT) Shadow Toll	Public	Long (e.g. 15-30 yrs)	Brownfield or Greenfield Private	High Shadow Toll revenue	Design, finance, construct, manage, maintain
Performance-based Maintenance Contracts	Public	Medium (e.g. 5yrs)	Not the focus Public	Low Pre-determined fee, based on performance	Management of all aspects of operation and maintenance.

Toll revenue: Tolls are user charges for use of a facility. They are considered a revenue source for a project, thereby providing a stream of payments that the bidders can use to determine their return on investment and to obtain financing.

Shadow tolls: Shadow tolls are typically a means by which the government sponsor can make payments, based on usage of the facility, to the private sector operator.

Availability payment: Availability payments are financial payments from the government to the private partner stipulated in a transaction to make up the difference between the government-imposed user fee (if any) and the cost of usage of the delivered service. Such payments can be in the form of tranches or in one lump sum (such as at the successful completion of the facility or for the agreed-upon maintenance requirements of the facility).

1.8.2 Project characteristics that affect the choice of PPP mode

The different modes and variants of PPPs will be appropriate to different projects. This will depend in particular on the nature of the service or output required, which in turn depends on the sector and sub-sector, and the political and economic climate in which the PPP will be carried out.

The key aspects that define the PPP mode are:

Type of asset: Does the PPP involve building new assets to provide the service (capital expenditure project), or are the required services for operations and management only?

Role of the private sector: Which roles will the private sector carry out? For example, who will provide finance? Who will design and construct?

Ownership of assets: Who will have ownership of the assets during the PPP and when the PPP ends?

Contract duration: What will be the duration of the PPP contract?

Risk allocation: How are the various project risks allocated between the private and public partners?

Sources of revenue: What will be the major revenue source for the project? For example, will it be from charges to users (direct tolls), or payment from Government (eg, shadow toll or annuity)?

Stability of demand: Is demand for the infrastructure service expected to be stable over the period of the contract?

New (“Greenfield”) or existing assets – Greenfield developments, which include major capital expenditure to build new infrastructure, have different requirements to the rehabilitation or management of existing assets in Brownfield developments.

Private sector role: The scope of potential private sector roles is broader in Greenfield projects. The chosen PPP mode will reflect whether the private sector will be responsible for the design, finance and construction of the project (eg DBO agreement or a variation) or only some of these roles.

Ownership flexibility – There may be legal restrictions on public ownership (as is the case in India for highways or port frontages). Other practical issues need to be taken into account in deciding ownership, such as political acceptability (eg due to resistance to public ownership of certain facilities that are seen as providing strategic or ‘vital’ services, such as may be the case in electricity).

Restrictions on ownership rule out PPP modes that specifically contain ownership aspects, such as Build-own-operate (BOO) and its variants (eg. BOOT). In this case other options such as lease management contracts, BOT, BTL, could be considered.

Lifetime of the asset and scale of capital costs – infrastructure assets that involve large upfront capital costs, such as roads, require long timeframes for cost recovery. Such assets may be suited to long-term contracts (eg BOT, BLT etc).

However, long timeframes also bring greater risk of future unknowns. The public sector may be required to take on some of these risks by providing some guarantee to cost recovery in order to attract private sector project finance. For example, for a road project where future traffic volumes are uncertain the PPP might be structured with annuity payments rather than being toll-based, to reduce the revenue risk to the private operator. Alternatively, if long-tenor finance from the private sector is not available public sector financing may need to step into the gap.

The willingness or ability of the public sector partner to meet these risks is a further factor to be considered in determining the length of contract. For example, if facilities to support long-tenor debt are not available shorter term contracts with renewal clauses may be appropriate.

The nature of the service to be provided and the supporting infrastructure assets – More broadly, the nature of the end-user service itself will tend to favor a type of contracting structure. This is related to the capital cost structure (scale and timing) and the nature of the assets (physically fixed to their location or transportable).

Large capital-intensive network infrastructure assets tend to be natural monopolies and require some form of institutional price and quality regulation, either within the terms of contract or by a dedicated regulatory agency.

By contrast, some services such as those that are provided on the network (e.g. municipal buses, electric energy) or solid waste collection can be subject to market competition. A different contracting structure is possible in this case, including greater opportunity for shorter contracts and periodic competitive re-bidding to maintain pressure on costs.

Cost recovery options – Whether the revenue from the PPP will be from a user-charge or a management fee or annuity paid by the public sector has important implications for the nature of the risk sharing.

Stability of demand for the services required – long-term PPP contracts are best suited to the provision of infrastructure services which are not expected to change much through time. These projects have lower risk of unforeseeable outcomes compared with projects whose services are subject to change, for example in sectors that are subject to rapid technological change.

In some cases it may be necessary to provide the project with some protections from competition in order to reduce volume and revenue risk. For example, a roads project might have a guarantee from the public sector that an alternative route won't be allowed nearby within a set number of years or until traffic has reached a specified level.

1.9 Innovation in the PPP Market

1.9.1 Introduction

While PPPs hold significant benefits, they also present formidable challenges, both at earlier and later stages of market development. A big part of moving up the maturity curve entails improving government capacity to execute and manage innovative partnerships. Lessons learned from PPP leaders worldwide suggest several strategies for successful execution of PPPs.

First, governments need a clear framework for partnerships that confers adequate attention on all phases of a life-cycle approach and ensures a solid stream of potential projects. This can help avoid problems of a poor PPP framework, lack of clarity about outcomes, inadequate government capacity to manage the process, and an overly narrow transaction focus.

Second, a strong understanding of the new innovative PPP models developed to address more complex issues can help governments to achieve the proper allocation of risk-even in conditions of pronounced uncertainty about future needs. This allows governments to better tailor PPP approaches to particular situations and infrastructure sectors. Last, in addition to providing higher-quality infrastructure at lower cost, governments can use PPP transactions to unlock the value from undervalued and underutilized assets, such as land and buildings, and use those funds to help pay for new infrastructure.

Sector Opportunities: Jurisdictions that have reached the second and third stages of maturity (e.g. UK and Australia) typically employ partnerships in more than one or two infrastructure areas. Among the major infrastructure sectors where PPPs have been successfully applied are transport (including road, rail and ports), water, wastewater, schools, prisons and defense. Each sector carries with it different challenges across each phase of the PPP life cycle. Budgeting is a challenge for the education sector, for example, because of high procurement costs for small projects and the uncertainty of alternate revenue streams. Moreover, future demographic and policy changes make overly rigid, long-term contracts less suitable for schools. The bottom line:

PPP policies, approaches and political strategies must be tailored to the unique characteristics of each individual sector.

PPPs alone are not a panacea. Rather, they are one tool states, counties, cities and federal agencies have at their disposal for infrastructure delivery—a tool that requires careful application. Without seeing the partnership as a true partnership—not simply a different type of transaction—and adopting a tailored approach that suits the relative uncertainty and scale of the project at hand, governments are likely to repeat the errors of those before them.

1.9.2 Hybrid PPP Models⁵

A variety of new and innovative PPP infrastructure delivery models have been developed in recent years to address various challenges posed to public-private partnerships in specific situations and sectors.

Alliancing: Under this model, the public and private sectors agree to jointly design, develop, and finance the project. In some cases they also work together to build, maintain and operate the facility.

Bundling: This entails contracting with one partner to provide several small-scale PPP projects in order to reduce the length of the procurement process as well as transaction costs.

Competitive Partnership: Several private partners are selected, in competition with each other, to deliver different aspects of a project. The contract allows the public sector to reallocate projects among partners at a later date, depending upon performance. The public partner can also use the cost and quality of other partners' outputs as a benchmark for all partners.

Incremental Partnership: The public sector contracts with a private partner, in which certain elements of the work can be called off, or stopped, if deemed unproductive. The public sector can commission work incrementally, and it reserves the right to use alternative partners if suitable.

Integrator: The public sector appoints a private sector partner, the integrator, to manage the project development. The integrator arranges

the necessary delivery functions and is rewarded according to overall project outcomes wherever possible, with penalties for lateness, cost overruns, poor quality, and so on. The integrator has a less direct role in service provision and in some cases is barred from being involved in direct delivery at all. In other cases, the integrator is appointed to carry out the first phase of work, or specified works but is then barred from carrying out subsequent phases of work to remove the potential for conflict of interest between achieving best value for the public sector and maximizing private returns through the supply chain.

Joint Venture: A joint venture company is set up, a majority of which is owned by a private sector partner. The public sector selects a strategic partner through a competitive process that includes a bid to carry out the first phase of work. The typical contract is for 20 years.

Subsequent phases are commissioned by the public sector partner, but carried out by the strategic partner using the first phase of work as a benchmark to determine the appropriateness of future costs. The United Kingdom has used a variant of this model, called local improvement finance trust (LIFT), for its hospital PPPs.

1.9.3 UK Private Finance Initiative (PFI)

Definition and features:

PFI is essentially a **design, build, finance and operation (DBFO)** method of financing public infrastructure, which has included hospitals, defense, schools, roads and social housing. Under PFI, the private company has to raise the finance to design, build and maintain the public facility for a certain period, which typically exceeds 20 years. In return, the private company is paid a regular fee by the government. In the UK, the fee is called the Unitary Charge and is linked to performance; that is, penalties are imposed if the facility is not maintained to agreed standards. Hence, the private company is encouraged to be 'clever' in its design-and-build to ensure that future maintenance costs are kept low. Penalties imposed on a private company for non-performance can sometimes exceed the maintenance cost of the facility.

⁵ Deloitte 2005.

Hence, the private finance initiative (PFI) is a procurement method which uses private sector capacity and public resources in order to deliver public sector infrastructure and/or services according to a specification defined by the public sector.

PFI is a sub-set of the broader procurement approach termed Public Private Partnership (PPP), with the *main defining characteristic being the use of project finance (using private sector debt and equity, underwritten by the public) in order to deliver the public services.*

Mechanics of the PFI

Contracts: In a PFI, a public sector authority signs a contract with a private sector consortium, technically known as a Special Purpose Vehicle (SPV). This consortium is owned by a number of private sector investors, usually including a construction company and a service provider, and often a bank as well. The consortium's funding will be used to build the facility and to undertake maintenance and capital replacement during the life-cycle of the contract.

PFI contracts are typically for 25–30 years (depending on the type of project); but variations are possible. During the period of the contract the consortium will provide certain services, which were previously provided by the public sector. The consortium is paid for the work over the course of the contract on a "no service no fee" performance basis.

The public authority will design an "**output specification**" which is a document setting out what the consortium is expected to achieve. If the consortium fails to meet any of the agreed standards it should lose an element of its payment until standards improve. If standards do not improve after an agreed period, the public sector authority is usually entitled to terminate the contract, compensate the consortium where appropriate, and take ownership of the project. Because termination procedures are highly complex; in practice, termination is considered a last resort only.

Whether **public interest** is at all protected by a particular PFI contract is highly dependent on how well or badly the contract was written and the determination (or not) and capacity of the contracting authority to enforce it. In the UK Many steps have been taken over the years to standardize the form of PFI contracts to ensure public interests are better protected.

Structure of providers: The typical PFI provider is organized into three parts or legal entities: a holding company (called "Topco") which is the same as the SPV mentioned above, a capital equipment or infrastructure provision company (called "Capco"), and a services or operating company (called "Opco"). The main contract is between the public sector authority and the Topco. Requirements then 'flow down' from the Topco to the Capco and Opco via secondary contracts. Further requirements then flow down to subcontractors, again with contracts to match. Often the main subcontractors are companies with the same shareholders as the Topco.

Method of funding: Prior to the financial crisis of 2007–2010, large PFI projects were funded through the sale of bonds and/or senior debt. Since the crisis, funding by senior debt has become more common. Smaller PFI projects - the majority by number - have typically always been funded directly by banks in the form of senior debt. Senior debt is generally slightly more expensive than bonds, which the banks would argue is due to their more accurate understanding of the credit-worthiness of PFI deals - they may consider that monoline providers underestimate the risk, especially during the construction stage, and hence can offer a better price than the banks are willing to.

Refinancing of PFI deals is common. Once construction is complete, the risk profile of a project can be lower, so cheaper debt can be obtained. This refinancing might in the future be done via bonds - the construction stage is financed using bank debt, and then bonds for the much longer period of operation. In most PFI contracts, the benefits of refinancing must be shared with the government.

The banks that fund PFI projects are repaid by the consortium from the money received from the government during the lifespan of the contract. From the point of view of the private sector, PFI borrowing is considered low risk because public sector authorities are very unlikely to default

1.9.4 Alternative PPP Financing Models to PFI

PFI is indeed the most widely used form of public private partnership in the UK, but it is not the only one.

Industry is increasingly considering a number of different funding structures and there is a lot of debate around what would be appropriate, including the regulated asset based (RAB) and tax increment funding (TIF) models. And other models such as LEP-Local Education Partnership, Local Improvement Finance Trust (LIFT) and Local Asset-backed Vehicle (LABV).

UK Regulated asset-based (RAB) funding model:

The model involves investment in a regulated asset via long-term borrowing. Money is raised from an income generating asset and regulation helps to ensure that risks are kept to a minimum to enable affordable financing. It de-risks investment in infrastructure by passing on the sunk costs associated with capital investment to the customer hence the key feature being that the risk needs to be transferred to the customers. Until now, in the UK, the RAB model has mainly been used in the regulated utilities sector, with successful projects well established in airports, energy and social housing. The government, however, indicated in recent National Infrastructure Plan that it was keen to extend RAB to other sectors. Indeed, it is already being considered by the London First Infrastructure Commission as an alternative to PFI for future London Underground upgrades.

Waste is another potential sector where regulation and a charging mechanism for consumers could be introduced. The waste assets could be contained within RAB with a duty on the regulator to ensure funding from consumers.

But RAB can only be used where there is a revenue stream, making it unsuitable for some sectors – for example roads. Raising revenue from roads requires imposing tolls, and toll roads have not been successful in the UK to date while the need to pass the risk on to the customer in the RAB model also raises affordability issues.

UK Tax-increment funding (TIF) model:

Another form of financing gaining attention is TIF. This uses future tax gains to finance

current projects. Last month the Scottish Government formally approved the Edinburgh city council's £84m proposal to use TIF to fund the redevelopment of Edinburgh's waterfront. Edinburgh city council's TIF project will be the first of its kind in the UK and will fund "enabling" infrastructure works, such as the development of a cruise liner terminal, lock gates, esplanade and link road.

UK LEP/ Local Education Partnership and LIFT - Local Improvement Finance Trust:

Applied in the UK, these two models allow a combination of new build and upgrading to be carried-out in successive phases without the need for multiple and lengthy procurements. The models also allow work to begin and be executed by a single strategic partner even when there is uncertainty on timing and cost of the work to be carried out during the project lifetime. The models are suitable when there is benchmarking opportunity (i.e. similar homogenous project with same expectation on quality and cost) against which to evaluate the value for money (VfM). The benefits and advantages of the models include: procurement efficiency as costs are lowered and procurement flexibility. The shortcomings and disadvantages of the two models include: conflict of interest at strategic partner's level who must deliver VfM for the public sector and at the same time carry-out the construction work; procurement is done without competition; even though the public sector can change the strategic partner if value is not seen, it seldom does it as this will result in losing the main value driver of the model which is to use a single contractor or strategic partner for construction and continuous improvement.

UK LABV - Local Asset-backed Vehicle:

A LABV is a PPP delivery model that enables the public sector to exploit latent value in its asset base to finance and deliver land and property-based projects. A LABV is a corporate JV involving one or more public sector bodies and the private sector with the public sector injecting land and property asset (and cash if necessary) and the private sector providing cash to the deemed value of the assets (in addition to in-kind expertise). A LABV is suitable for economic development, regeneration and asset management. The

disadvantages of the model include: minimal risk transfer to the private sector, high administrative costs to manage the process, and the difficulty to maintain control parity among others.

Germany's Construction Finance/Forfeiting Model in PPP: A finance structure sometimes used to reduce the cost of finance for PPPs is the forfeiting model, which can be used for "government-pays" PPP projects. Under this model, once construction is completed to a quality accepted by the government by issuing a "waiver of objection", the government is responsible for the debt service payments to the lender. This can lower the project's financing costs. However, it means the government retains more risk under the PPP, and as debt service payments are no longer conditional on performance, the lender has no interest in project performance during operations. The forfeiting model has been widely used in Germany namely during the last decade.

France Receivables Assignment or "Cession Daily Acceptée": The France "Daily" PPP Model is a PPP financing model that is based on a receivables assignment. The receivables assignment mechanism involves a transfer by the borrower to the financing institution funding capital investment costs of its right to receive certain specified cash flows in such a way that they become isolated from performance risk following satisfaction of predefined conditions (invariably completion of the works). Once isolated from performance risk in this way, the assigned cash flows invite a credit analysis and risk-weighting approaching that of the underlying debtor (being the granting authority) and hence attract greatly reduced margins as against the construction phase. In this respect, the appeal of a financing based on a receivables assignment in some ways resembles that driving the UK PFI's credit guarantee programme – both techniques seek to harness the public sector's capacity to raise cheap financing.

Australia/UK Mini-Perm PPP Structure: Mini-perm financing is short-term financing typically used to pay off income-producing construction or commercial or multi-family properties, usually payable in three to five years. In this case, "perm" is short for "permanent", alluding to permanent

financing. Commercial properties often cannot qualify for long-term, permanent financing until they've established operating histories. Mini-perm loans, therefore, are used to pay off the construction loans and bridge the gap until the property can qualify for permanent financing. In other words, a developer will use this type of financing prior to being able to access long-term financing or permanent financing solutions.

All these structure come with their challenges. Therefore, the public sector will need to consider carefully these funding models and mitigate their adverse effects.

1.10 Main Causes of Failure in PPP Projects

It is difficult to determine what is a failure or a success in a PPP project. Another challenge in assessing whether a PPP project is a failure relates to the fact that it is not possible to evaluate a rate of failure of a PPP which has not reached financial close, as many projects are envisaged at some point as PPP and then end-up being structured as public sector project, abandoned or postponed. As a result, some experts are of the view that PPP projects should be assessed as a failure or success at least after financial close is reached.

World Bank data suggests that approximately only 50% of PPP Projects reach financial close suggesting that most projects intended to be a PPP fail during procurement. There are various reasons for this but one of the main causes is the lack of a robust and bankable business case.

For example, in road transport projects generally projects are awarded on the basis of the lowest toll or the highest payment to government which means that bidders have to be aggressive with their traffic projections. Also, the traffic advisor is invariably employed on the basis of no project, no fee. All of this creates significant upward pressure on predictions.

In the analysis of causes of failure, the focus needs to be on aspects which are predictable or measurable ex-ante through due diligence.

Box 1.3
CAUSES OF PPP PROJECT FAILURE**Project Environment**

- Inadequate regulatory and institutional environments
- Political instability
- Lack of capacity in government

Project Planning

- Weak business case
- Inadequate feasibility studies
- Lack of capacity in government
- Inaccurate demand forecast
- Inappropriate business models
- Inappropriate risk allocation
- Poorly designed concession agreement
- Poorly designed payment mechanism or deduction regime
- Poor and inexperienced transaction advisors
- Weak capacity in government that can result in poorly-run tender processes, poorly drafted contracts, and frequent re-negotiation

Project Implementation

- Inadequate bidding
- Poor procurement system
- Poor technical specifications
- Improper project execution
- Completion delays

Post-completion Issues

- Regulatory change that impacts negatively the economics of the project
- Poor monitoring of the operations and maintenance activities

Source: Author

1.11 Measuring Success in PPP Projects

The measure of success in PPP projects depends on which stakeholders are considered. PPP evaluation process has to take into account parameters including:

- 1/ the support for the PPP project by the public, government, politicians, and private firms,
- 2/ the satisfaction of stated objectives (costs, demand, timetable),
- 3/ the extension of the project or undertaking of new projects with similar parties,
- 4/ the project improves the efficiency of the system, the equity of the system, the environment, and the experience of neighbors to, and users of, the project."

Box 1.4 **MEASURING SUCCESS IN PPP** **PROJECTS AND KPI**

PPP Company

- Reach, hand-back and make a profit

Equity Investors

- Achievement of predicted returns

Debt Providers

- Debt and Interest re-paid

Bond Holders

- Achievement of predicted returns

Grantor/government

- Predicted Cost Benefit Analysis Achieved
- Predicted Value for Money maintained through the life of the PPP Contract
- Required Level of Service provided consistently through the life of the PPP Contract

Users

- Benefits promised realized
- Value for money
- Consistent improvement in the level of service

Source: Authors

This is why it is essential that during the PPP project development process, a lot of thought be given to describing the outcomes required from the

project and then detailing these through the output specification, including how they are going to be measured. All outcomes should be measurable.

Box 1.5 CRITICAL SUCCESS FACTORS IN PPP PROJECTS

Level 1 factors: supporting environment for PPPs

- Legal environment and policy support for PPPs
- Institutional capacity and support for PPPs
- Political support for the project
- Public sector PPP capacity and experience
- Public sector funding assistance for PPPs
- Private sector appetite and capacity

Level 2 factors: planning, execution, contract management and orderly handover

- Comprehensive planning
- Efficient procurement, strong transaction/PPP structuring and financial structuring capability
- Rigorous management of construction phase
- Rigorous management of O&M
- Comprehensive PPP contract management
- Handover planning

Source: Authors

The complexity of PPP projects command a rigorous management of number of prequalification and contractual requirements including, but not limited to, the following:

- Precise articulation of what the public sector wants from the private sector so that the private sector can come up with the optimum solution.
- An objective and measurable pre-qualification criteria is a prerequisite to eliminate the 'adventurists' from jumping on the bandwagon.
- Employer/grantor (i.e. the public authority) cannot remain in the back seat and should be at the wheel to ensure the Project is geared to run at the right pace and in the desired direction by ensuring all conditions precedent are met..
- The Independent Engineer should have a more proactive role in ensuring the Engineering/ Design issues do not become bottlenecks.
- The Agreement should impose equal Responsibilities/Penalties on the Concessionaire (i.e. the private sector) and Employer (i.e. the public sector) in the event of delay on their respective part.
- The incentive to outperform should be higher than penalty to under-perform.
- The bid price should not be blindly accepted by the Employer but should be checked against empirical data/cost analysis by a Third Party before accepting it to avoid unrealistically priced bids.
- The time to complete should be scientifically fixed and not based on rule of thumb.
- No infrastructure/real estate project can be undertaken without the "unencumbered and encroachment-free land and statutory clearances/approvals". The public sector should not rush into the process of bidding without these essentials being place. He should not be guided by political compulsions or any other and pressures.
- While disputes best written Agreements are bound to have disputes/claims, a sound Dispute avoidance, Dispute Mitigation and Dispute Resolution mechanism should help to avoid turbulence and provide the much needed remedy and prevent Projects from becoming sick

Contractual arrangement must include:

- Very thorough Due Diligence by both the procuring agency and the bidders including full assessment of the contractor's capacity and other commitments at the time of the project
- Specific and absolute 'step-in' rights for the financiers only under the requirement (as in UK PFI) that sponsor's equity is the last finance to be repaid at the end of the contract
- A robust payment mechanism that incentivizes performance to the agreed standards in terms of level and quality of investments and/or level and quality of service
- A requirement for a very experienced Independent Engineer that is the arbiter of when the project is complete - that is absolute clarity that all the conditions in the contract have been reached and therefore the operational cash flow will begin
- Very robust and enforced anti-corruption

SECTION 2

THE PPP POLICY, LEGAL, REGULATORY AND INSTITUTIONAL FRAMEWORK

The “PPP framework” or “PPP Policy Framework” means the policy, procedures, institutions, and rules that together define how PPPs will be implemented. PPPs can be implemented on an ad-hoc basis, without any specific supporting policy framework. However, good practices suggest that PPP programs be implemented on the basis of a comprehensive PPP framework.

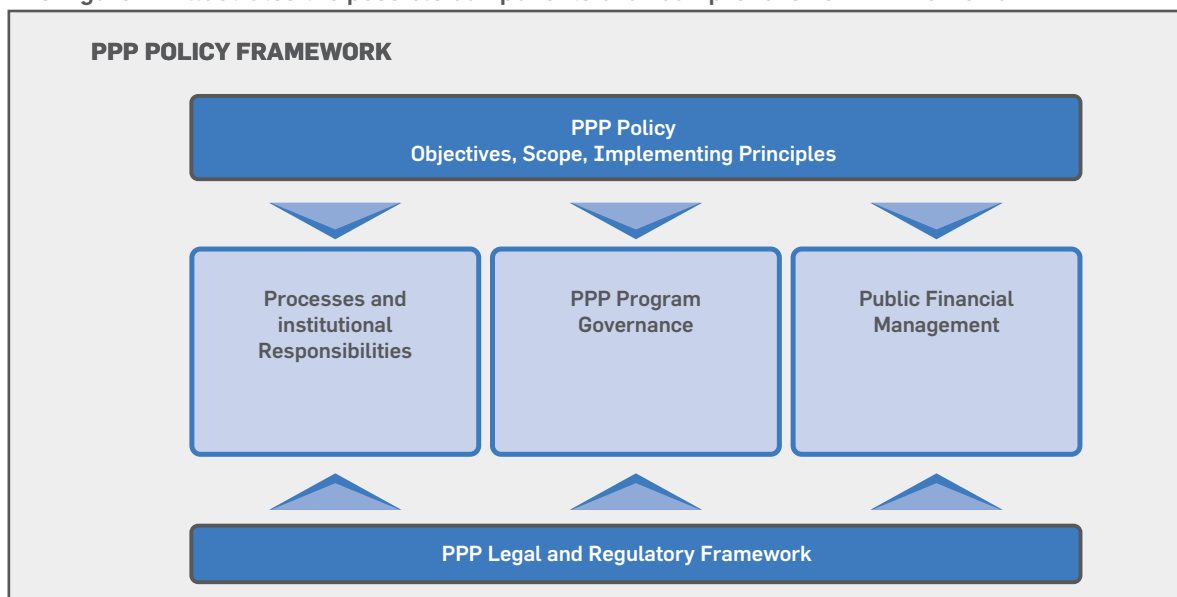
The benefits of a comprehensive PPP policy include:

- 1/ signaling and communicating the government’s commitment to PPPs;
- 2/ defining how projects will be implemented;
- 3/ helping ensure good governance of the PPP program in terms of efficiency, accountability, transparency, fairness, and participation; and
- 4/ helping generate private sector interest, and public acceptance of the PPP program.

2.1 Defining the PPP Framework

The “PPP framework” means the policy, procedures, institutions, and rules that together define how PPPs will be implemented. The “PPP framework” is also sometimes termed “PPP Policy framework” or “PPP policy, legal/regulatory and institutional framework”. In this report, these different terms will be used interchangeably.

The Figure 2.1 illustrates the possible components of a “comprehensive” PPP framework.



The components of a comprehensive PPP framework include, at least, the following:

PPP policy - articulation of the government's intent to use PPPs to deliver public services, and the objectives, scope, and implementing principles of the PPP program.

PPP processes and institutional responsibilities - the steps by which PPP projects are identified, developed, appraised, implemented, and managed; and the roles of different entities in that process. A comprehensive PPP process is efficient, transparent, and is followed consistently to effectively control the quality of PPP projects.

PPP program oversight - how other entities such as the legislature, auditing entities, and the public, participate in the PPP program, and hold those responsible for implementing PPPs accountable for their decisions and actions.

Public financial management approach - how fiscal commitments under PPPs are controlled, reported, and budgeted for, to ensure PPPs provide value for money, without placing undue burden on future generations, and to manage the associated fiscal risk.

Legal and regulatory framework - the laws and regulations that underpin the PPP program-enabling the government to enter into PPPs, and setting the rules and boundaries for how PPPs are implemented. This can include PPP-specific legislation, other public financial management laws and regulations, or sector-specific laws and regulations.

The knowledge and procedural complexity of PPPs has brought about the production of handbooks, guidelines, reference documents, toolkits as supplements to the "Policy Document" to avail public administration officials and PPP professionals, in developed as well as developing countries, with knowledge and standardized working documents such as legal contract templates, appraisal templates, appraisal and evaluation models and various checklist that facilitate the planning, execution, supervision and monitoring of PPP programs and projects.

Box 2.1

KEY OBJECTIVES & PRINCIPLES OF A PPP POLICY FRAMEWORK

Countries wishing to expand private sector partnerships need to develop a framework or policy statement, endorsed by Cabinet, which covers:

Objectives and plan: Plans for integrated expansion of infrastructure with defined priorities;

Scope of application: Scope for application of private sector partnerships;

Eligible PPP modes: Alternative models of PPP – national and regional;

Protecting public interest - regulation: Means of protecting the public interest, regulatory objectives and processes;

Value for money: Models for ensuring value for money – public-private comparators;

Risk allocation: Risk identification, allocation and management;

Market and public: Engaging the interest of the market; public relations;

Government accountability: Enhancing fiscal responsibility, auditing, supervision and M&E;

Support and support structure: Capacity building/ training and institutional strengthening initiatives to cover the above;

Skills, capacity and knowledge management: Framework for knowledge management; including lessons from projects implemented, adoption of best/good practices, technology/skills transfer, and structured capacity building;

Coordination: Institutionalized coordination mechanisms to maximize coherence, efficiency and effectiveness.

Source: Adapted from ADB 2007 report "Improving the Delivery of Infrastructure Services in the Pacific."

2.2 Definition of PPP

A PPP framework can be established in different ways. The options available typically depend on the legal system of the country, and on the norm for establishing government policies, procedures, institutions, and rules. They can include:

Policy statement: The policy statement formula is often applied in Common law countries such as UK. The PPP policy statements typically set out, at least, the objectives, the scope, and the implementing principles of the PPP program. Policy statements may also outline procedures, institutions, and rules by which the objectives and principles will be put into practice.

Laws and regulations: Civil law countries often use legislation to enable PPPs to be pursued, and set out the rules for how PPPs will be

implemented. Many Common law countries also introduce PPP legislation. This can be a dedicated PPP law, a component of broader public financial management law, subordinate legislation such as executive orders, presidential decrees, or regulations, or a combination.

Guidance materials: Guidance materials include: manuals, handbooks, directives and other tools. These may be used to establish PPP procedures upfront, or developed over time to supplement policy statements or legislation, as a codification of good practice.

In addition to cross-sector PPP frameworks, policies or laws at the sector level can enable the use of PPPs and create a framework for sector-specific PPPs.

Box2.2: INDIA PPP POLICY FRAMEWORK: OBJECTIVES AND GOALS

The National PPP Policy seeks to facilitate this expansion in the use of PPP approach, where appropriate, in a consistent and effective manner, through:

- Setting out the broad principles for pursuing a project on PPP basis;
- Providing a framework for identifying, structuring, awarding and managing PPP projects;
- Delineating the cross-sectoral institutional architecture and mechanisms for facilitating and implementing PPPs.
- Standardizing some of the vital interpretations and processes of PPP so that a clear and consistent common position is adopted in key issues.
- Identifying the next generation issues to mainstream, upscale, broaden and expedite PPPs.

The Policy aims to assist the Central and State government agencies and private investors seeking PPP opportunities in:

- undertaking PPP projects through streamlined processes and principles;
- ensuring that a value-for-money rationale is adopted with optimal risk allocation in project structuring with life cycle approach;
- developing governance structures to facilitate competitiveness, fairness and transparency in procurement; and
- attaining appropriate public oversight and monitoring of PPP projects

Source: Draft national PPP policy – draft for consultation (2011)

2.3 PPP Program Objectives

Governments pursue PPP programs for different reasons. Some countries begin using PPPs in a particular sector, simply as a way to meet investment needs given fiscal constraints.

Many governments define broader PPP program objectives when formulating and documenting PPP policies. The choice and relative priority of these objectives depends on the government's other policies and priorities.

They can include:

- Enabling more investment in infrastructure, by accessing private finance
- Achieving value for money in the provision of infrastructure and public services
- Improving accountability in the provision of infrastructure and public services
- Harnessing private sector innovation and efficiency
- Stimulating growth and development in the country.

2.4 PPP Program Scope

Many governments bound the scope of their PPP program to particular types of projects or contracts. The aim can be to focus on those projects that are most likely to successfully achieve the government's objectives and provide value for money as PPPs. Where the PPP framework includes particular processes and institutional responsibilities, it may also be necessary to define under what circumstances these will apply. Governments may define the PPP program scope by a combination of the following:

PPP contract types: Contract types—the policy lists preferred PPP contract types, as well as exclusions. The policy states that the government does not intend to use contracts involving private ownership of assets. It also clarifies that Engineering-Procurement-Construction (EPC) contracts, and divestiture of assets, are not covered by the PPP policy.

Sectors: The PPP program may be limited to the sectors most in need of investment or improvements in service performance, or those in which PPPs are expected to be most successful.

Project size: Many governments define a minimum size for PPP projects implemented under the PPP framework. Smaller Projects may not make sense because of the relatively high transaction costs of implementing a PPP. In some cases, smaller projects can be implemented, but are not subject to the appraisal and approval requirements defined in the PPP framework.

In other cases, a size limit may mean PPP-type contracts cannot be used for smaller projects. For example, Singapore's PPP policy (2004) states that initially, PPPs will be pursued only for projects with an estimated capital value of over US\$50 million. Brazil's PPP law sets a minimum size of US\$11.7 million for individual projects.

2.5 Implementing Principles

PPP policies often set out implementing principles—the guiding rules, or code of conduct under which PPP projects will be implemented. These principles set out the standards against which those responsible

for implementing PPPs should be held accountable. Principles are often supported by regulations and processes, detailing how the principles will be put into practice.

Box 2.3 PPP IMPLEMENTATION PRINCIPLES

Key guiding principles for a PPP Policy include the following:

Value for Money: a public service must be provided by the private actor that can offer better quality for a given cost or lower costs for a given quality outputs. This is how the policy seeks to maximize user satisfaction and optimize the use of public resources

Transparency: All quantitative and qualitative information used to make decision during the evaluation, development, implementation and monitoring stages, must be made public in accordance with the Transparency and Public Information Access Law.

Competition: Competition must be sought in order to ensure efficiency and lower costs in the provision of public infrastructure and services. The government must also avoid any anti-competitive or collusion behavior.

Adequate Risk Allocation: There must be an adequate risk allocation between the public and private parties. This means that the risks must be assigned to the party that has the greatest capacity to manage the risks at a lower cost, considering both the public interest and the project's characteristics.

Budgetary Responsibility: this is defined as the Government capacity to assume the direct and contingent financial commitments related to the implementation of PPP contracts without compromising the sustainability of public finances or the regular provision of the public service.

Source: India's PPP handbook

2.6 PPP Processes and Institutional Responsibilities

Governments need skill, capacity, and coordination to implement PPPs successfully. The private party will design, finance, build and maintain the infrastructure, and provide services. Government remains responsible for ensuring the service is provided to the expected quality, in a way that achieves good value for money. The government must select a competent partner, and set and enforce the parameters within which that partner operates.

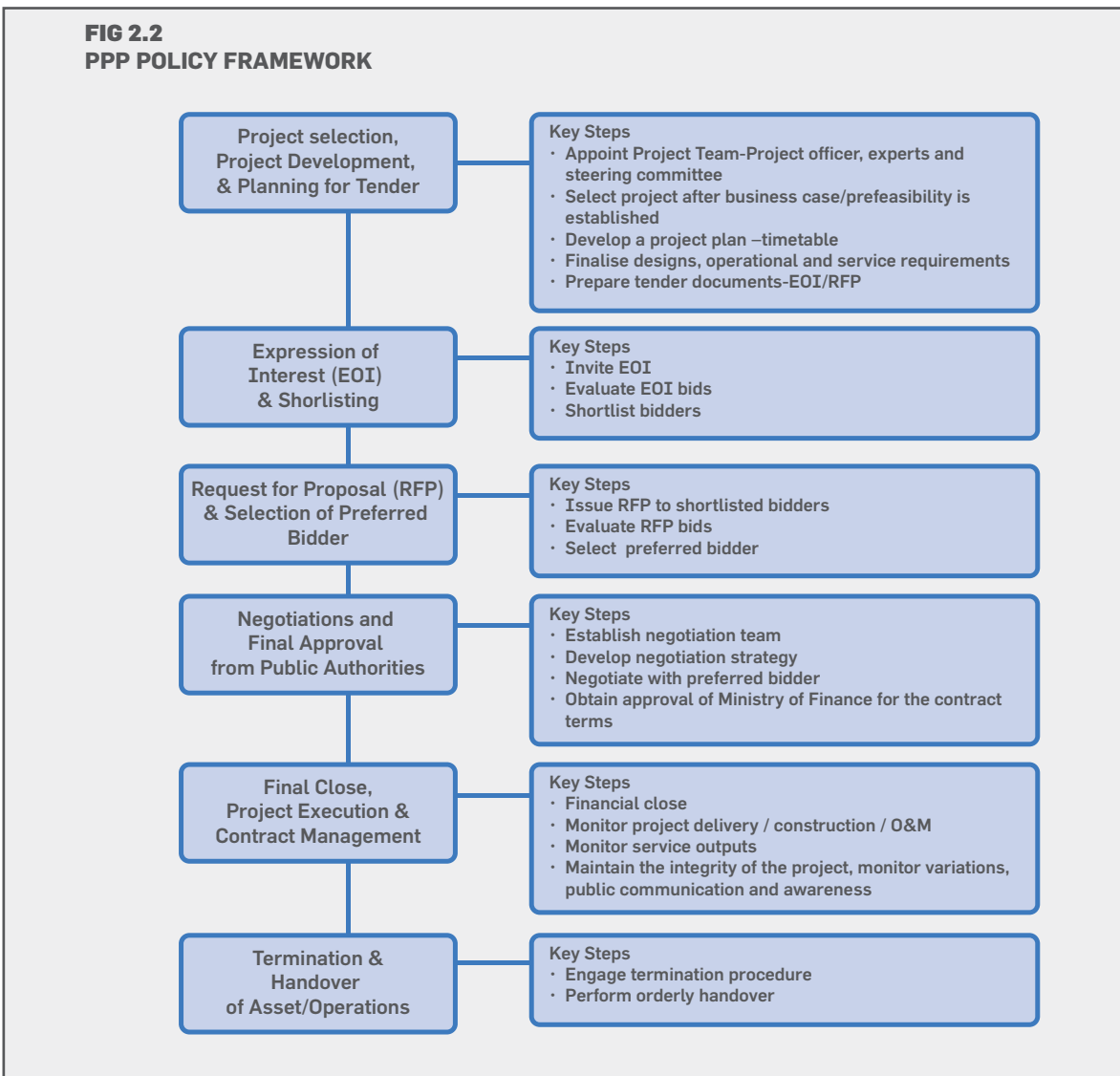
To this end, many governments define PPP processes and institutional responsibilities for PPPs—that is, the steps that must be followed when developing

and implementing a PPP project, and the entities responsible for each step. This section provides examples and resources for practitioners on.

2.7 Establishing the PPP Process

Many governments set out a process that must be followed to develop and implement every PPP project. Standardizing the PPP process helps ensure that all PPPs are developed in a way that is consistent with the government's objectives. It also helps achieve coordination between the various entities involved.

Figure 2.2 shows an example PPP process. The process in Figure 2.3 is broken down into several



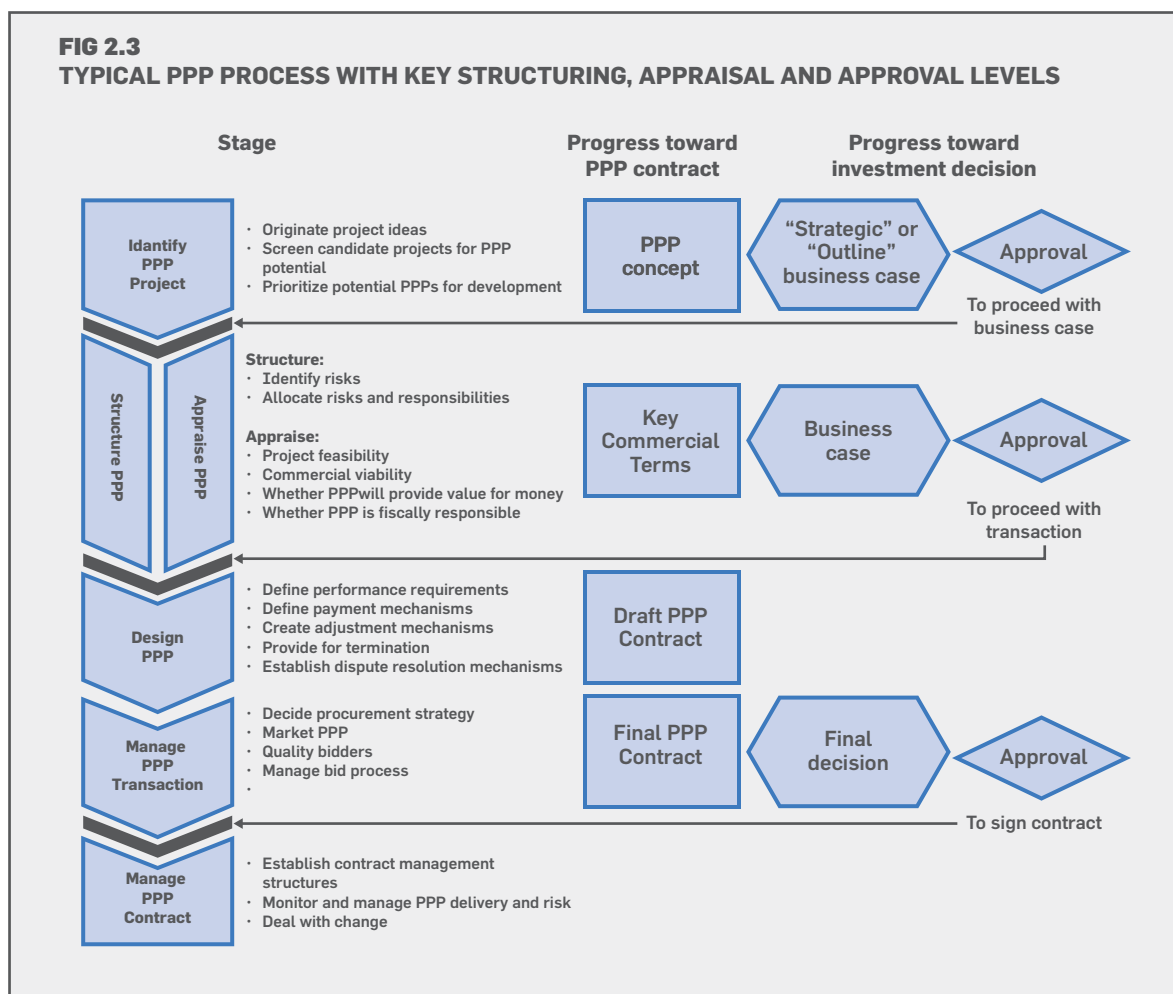
stages, in which the PPP is iteratively developed and appraised. At each key stage, approval is required to proceed. There are two reasons to use an iterative approach to developing a PPP project. First, it enables timely involvement of oversight agencies in approving projects. Second, it avoids wasting resources developing weak projects. Developing a PPP project is costly-early checks that the project is promising can help ensure development budgets are well-spent.

The two figures describe respectively:

- (i) the process flow of an already selected project for PPP with an emphasis on the direct role of the public sector Sponsor (Figure 2.2), and
- (ii) the integration of process flow and the required structuring, appraisal and approval functions in the management process of a PPP project (Figure 2.3).

As shown in Figure 2.3, typical stages in developing and implementing a PPP project can include:

- 1/ **Identifying the candidate project** - the first step is to identify projects with PPP potential. Where a government has already developed sector or infrastructure plans, these could provide the starting point. Often this stage involves developing the proposed PPP to a "concept" stage, and initial screening analysis to assess its potential to create value for money as a PPP. Approval may be required to continue to prepare a more complete "business case" for the project.
- 2/ **Structuring and appraising the project** - once a promising candidate project has been identified and initially approved, the next step is typically to study its feasibility from technical, economic, financial, legal, and environmental perspectives. On the basis of that information, the key commercial terms



Source: PPIAF, World Bank Institute, 2012. Public-Private Partnership Reference Guide version 1.0. 2012

can be developed-including the proposed contract type, risk allocation, and payment mechanisms. A "business case" is often also developed, to demonstrate why the PPP is a good investment decision. Typical appraisal criteria can include technical and economic viability, value for money as a PPP, and affordability, as well as likely marketability as a PPP. Approval is typically needed at this stage, based on the analysis in the business case, before going on to prepare for and implement the PPP transaction

- 3/ **Designing the PPP contract**-the final step to prepare the PPP for procurement is to draft the PPP contract and other agreements. This involves developing the commercial principles into contractual terms, as well as setting out the provisions for change and how the contract will be managed, such as dispute resolution mechanisms. Often the design of the draft contract is completed in the early stages of the procurement process, to allow for consultation with potential bidders
- 4/ **Implementing the PPP transaction**-in the transaction stage, the government selects

the private party that will implement the PPP. Usually, this involves preparing for and conducting a competitive procurement process. Bidders submit information detailing their qualifications and detailed technical and financial proposals, which are evaluated according to defined criteria-often in a multi-stage process-to select a preferred bidder. The transaction stage is complete when the project reaches financial close

- 5/ **Managing the PPP contract**-once the PPP has reached financial close, the government must manage the PPP contract over its lifetime. This involves monitoring and enforcing the PPP contract requirements, and managing the relationship between the public and private partners.

An alternative to the government carrying out all these steps is to allow private companies to identify and propose PPP projects. Some governments have introduced specific requirements and processes to ensure that these unsolicited proposals are subject to the same assessment, and developed following the same principles, as government-originated PPPs.

Box 2.4 **KEY PPP PROJECT APPRAISAL** **CRITERIA**

In deciding whether to pursue a project as a PPP, governments need to assess whether the PPP is a good use of resources. This typically involves assessing the project and proposed PPP against three key criteria:

Feasibility and economic viability of the project: whether the underlying project makes sense, irrespective of implementation as a PPP or through traditional public sector procurement. This usually involves feasibility studies to check the project is possible, demonstrating it is in line with sector and overall policy priorities and plans, and economic appraisal to check the project is cost-benefit justified, and the least-cost approach to delivering the benefits.

Value for money of the PPP: whether developing the project as the proposed PPP can be expected to best achieve value for money, compared to the other options. This can include comparing against the alternative of public procurement (where that would

be an option). It can also include comparing against other possible PPP structures, to check that the proposed structure provides the best value (for example that risks have been allocated optimally).

Affordability: whether the project's overall revenue requirements are within the capacity of users, the public authority, or both, to pay for the infrastructure service. This involves checking the fiscal cost of the project-both in terms of regular payments, and fiscal risk-and establishing whether this can be accommodated within budget and other fiscal constraints.

When identifying and developing potential PPP projects, governments also need to consider their commercial viability-that is, whether the project is likely to be able to attract good-quality sponsors and lenders by providing robust and reasonable financial returns. This is confirmed through the tender process.

Source: India's PPP Toolkit

2.8 Institutional Responsibilities for PPPs

Most governments define institutional responsibilities for PPPs—that is, which entity will play what role at each step of the process. There is no “right” institutional architecture for PPP—the allocation of functions varies between countries, depending on existing institutional mandates, capacities, and the priorities of the PPP program and framework.

2.8.1 Generic government responsibilities

Generic government responsibilities for PPPs include:

Implementing Projects—that is, driving forward the steps, from identifying potential projects, appraising, structuring, drafting the contract, bidding it out, and finally managing the contract after it is signed. This is typically the job of an agency with responsibility for the sector in which the PPP falls (the contracting authority). Often that agency will be assisted with input from other agencies with relevant skills and experience

Approving Projects—that is, giving the go ahead for the project to proceed. Figure 2.3, approvals may be needed at several stages of project development. This is often a Cabinet-level responsibility, in recognition of the importance of many PPP projects, and their implications for multiple portfolios

Regulating and controlling the process—that is, making sure that the correct processes are followed, that analysis of a proposed PPP is complete, the interest of consumer and the public is preserved and shows it meets any required criteria, that all the agencies that need to comment or give their go ahead do so, and that the body with approval authority gets all the information it needs to make a sound decision.

2.8.2 Overall institutional framework for PPPs

In most countries, the PPP Act provides for establishing an institutional framework to regulate, monitor and supervise the implementation of PPP projects. The functions and composition of these institutions are provided in the Act. These

institutions include the PPP Committee, PPP Unit, and PPP Nodes. In addition, the Act provides for the Cabinet and County Government to play an approval role in all PPP projects. Some of key institutions that could be considered for creation by the PPP Act, but not required in all countries, are reviewed below.

PPP Committee or PPP Steering Committee

The PPP Committee is typically established under the PPP Act to drive and promote the PPP process. It is mandated to serve as the PPP projects' clearing house as it approves project proposals and interfaces with higher levels of Government including the Cabinet. It also issues guidelines and related matters touching on the efficient and sustainable implementation of PPPs in the country. It authorises allocation from the Fund established under the PPP Act and ensures efficient implementation of any PPP project agreement entered into by contracting authorities.

Persons appointed as committee members could include the following:

- Representative of the Ministry of Finance - Chairman;
- Representatives of Key Infrastructure Sector Ministry;
- Representative of the Ministry of Planning;
- Representative of the Ministry of Lands;
- Representative of Provincial Government;
- Attorney General or his representative;
- Selected private sector representatives appointed by the President of the Republic or Prime Minister and/or National Treasury;
- The Director of the PPP Unit who is the secretary to the Committee

A further responsibility of the Committee is to approve the organisational structure of the PPP unit and provide oversight of PPP project procurement undertaken by contracting authorities.

NB: According to the PPP Act, the Cabinet should approve all the PPP projects while the Parliament has to ratify all Concessions related to natural resources in most countries.

PPP Unit

The PPP Unit is a specialized unit domiciled at the National Treasury, Investment Promotion Agency or the relevant Sector Ministry mandated by the PPP Act to serve as a national centre for PPP expertise. It should champion the PPP agenda in the country. It serves as a secretariat and the technical arm of the PPP committee. The PPP Act will typically require contracting authorities desirous of undertaking PPP projects, to engage the PPP unit at the start and during the entire project development cycle for advisory and other roles identified by the Act.

The PPPU can be mandated to amongst other things:

- Conduct education and promote awareness on PPPs among the stakeholders in Kenya, including the private sector;
- Build capacity in contracting authorities in planning, coordinating, undertaking and monitoring PPP projects;
- Assist contracting authorities in PPP procurement;
- Prepare a 'pipeline' of priority PPP projects;
- Establish and maintain a database of all PPP projects in the country;
- Review and assess requests for government support in PPP projects;
- Conduct research and gap analysis on PPP matters;
- Collate, analyze and disseminate information on PPPs;
- Monitor liabilities and accounting/budgetary issues related to PPP projects;
- Make recommendations on the approval or rejection of projects prior to submission to the PPP Committee;
- Support the PPP Committee in its statutory mandate; and
- Promote compliance of the PPP Act by all PPP participants.

The PPPU is typically headed by a Director. In support of its operation, the Director is to be supported by various experts in the following areas: financial, legal, communications, procurement, and technical. As the pipeline of PPP project develops, the unit may engage industry-specific consultants (energy, airport, seaport, transport, education, health), policy advisors and/or transaction advisors to assist in the planning and management of PPP transaction and/or policy matters.

The PPP Unit also regularly updates the list of priority PPP project pipeline. This pipeline, once approved, is posted in the public domain, mostly on the PPP Unit's website. For developing countries which are just entering the PPP market, it is advised that the PPP Unit work closely with relevant partners in order to get underway with what it sees as "catalytic" projects that may serve to demonstrate the practical application of PPPs to the development of the country's infrastructure and hence catalyse the widespread adoption of PPPs.

Contracting Authorities

A contracting authority is a state department, agency, state corporation, or county government that intends to have a function undertaken by it performed by a private party. To discharge their responsibilities, contracting authorities are required to conduct feasibility studies, prepare bidding documents, procure PPP projects, monitor implementation, and evaluate performance of PPP projects as well as seeking all the necessary approvals. In effect, contracting authorities are responsible for the development and management of PPP projects within their jurisdiction.

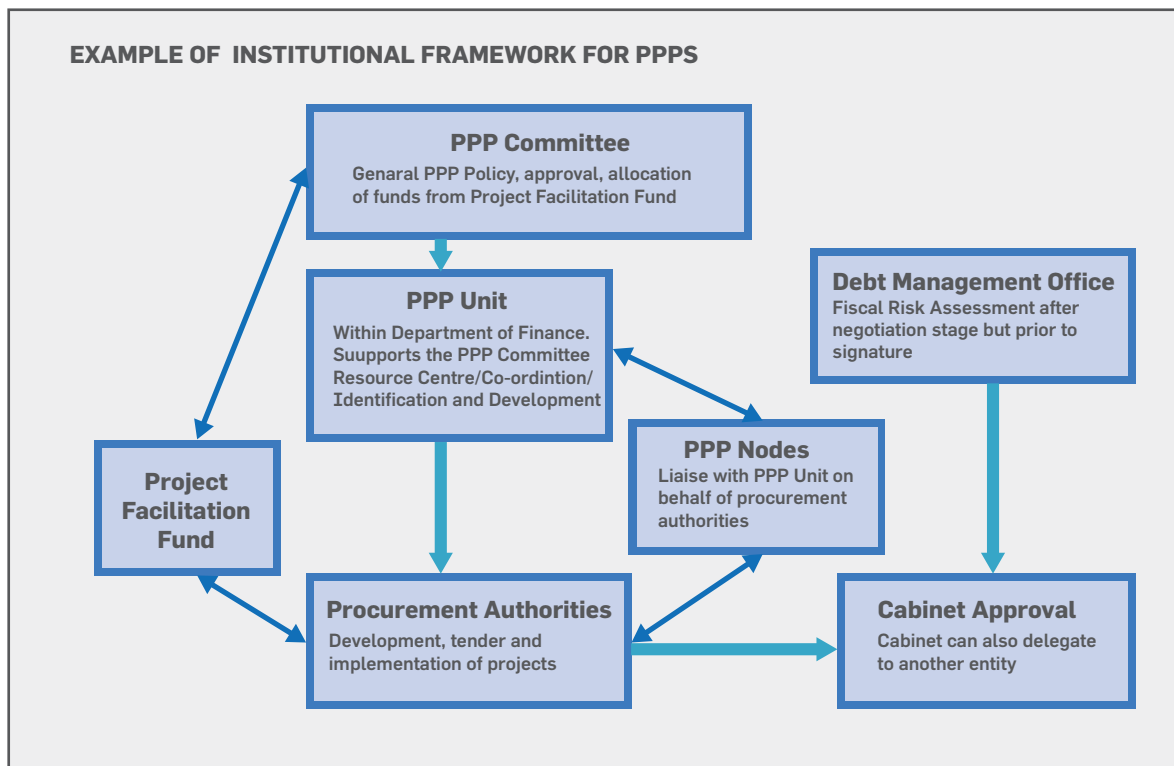
PPP Nodes

It is suggested that the PPP Act require the contracting authority to establish a PPP Node if it intends to enter into a PPP arrangement. The membership of the PPP node could include personnel in Financial, Technical, Procurement and Legal departments of the contracting authority.

The main functions of a PPP Node are to facilitate identification and screening of PPP projects; prepare and appraise each project agreement to ensure viability; ensuring parties comply with the PPP Act; and undertake tender processes and monitoring the implementation of the project agreement.

Private Parties

Private parties are crucial within the PPP framework. This is a set of players who channel private investments into public services and helps with delivery. The private parties come in different shades – some bring on board engineering, construction, and procurement services. Others bring design and financing services, while others bring operation and management services. There are also those who



offer supply chain management services. In effect, the scope for the partnerships contemplated under the PPP Act is broad, in a sense reflective of the country's need for public service development in virtually all economic sectors.

In many poor developing countries, it is advised that local banking pool be established to support local private sector participation in PPP projects.

Transaction Advisors

A Transaction adviser is a person/party appointed in writing by a contracting authority who has the appropriate skill and experience to assist and advise the contracting authority on matters relating to a PPP project. As such transaction advisers are specific to a PPP project. They advise on matters of preparation, accession, and conclusion of project agreement and the development of a project to achieve successful financial close.

2.9 Implementing a PPP Project

Implementing a PPP requires a range of skills and expertise. Agencies responsible for implementing projects need a sound understanding of the needs of the particular sector, skill in economic and financial appraisal of projects and PPPs, expertise in structuring privately- financed infrastructure project contracts, expertise in procurement and contract management, and experience in dealing with the private sector. The main challenge in designating the implementing agency is to ensure that all these skills are available to implement PPP projects successfully.

Responsibility for doing the PPP deal and managing the PPP contract typically falls to the entity with responsibility for ensuring the relevant asset or service is provided. This entity is often termed, for PPP purposes, the contracting authority, since it will usually be the public party to the PPP contract. The PPP law or policy may define the types of government entity that can be contracting authorities, and specify that these authorities are responsible for PPP implementation.

India's PPP Unit has developed a number of additional steps to their PPP approval process termed "Readiness Check" to be applied to the four (4) main steps of their PPP management process; basically, to

double check and prevent possible challenges in the submission of the specific PPP project by the Officer in Charge with regard to the approval process.

Box 2.5 **READINESS CHECK IN INDIA PPP** **MANAGEMENT PROCESS**

Readiness Check (RC) 1: Internal Quality Review - This check happens after the completion of the Pre-Feasibility Study Report in Phase 1. RC1 is part of the application for internal clearance to move to detailed PPP development in Phase 2. It focuses on the project's suitability as a PPP and the identification of aspects of the project that will need particular attention during its further development.

Readiness Check 2: Project Feasibility - This check follows the completion of the Feasibility Study Report and first drafts of bid documents in Phase 2. It happens before the submission of the report and documents for in-principle clearance. The purpose of RC2 is to check that the project is ready for to apply for in-principle clearance. RC2 focuses on assessing whether the Feasibility Study Report is sufficiently complete and whether clearance is likely to be granted given the current project design.

Readiness Check 3: Procurement Readiness - This check follows the completion of shortlisting of bidders and final drafts of project documents in Phase

3 and happens before the submission of the project for final approval. The purpose of RC3 is to check that the project is ready for final approval in order to maximize the likelihood that final approval will be granted.

Readiness Check 4: Implementation & Monitoring Readiness - This check happens at the start of Phase 4, after the technical and financial close of the project and before the start of implementation and monitoring that will continue throughout the operational life of the PPP.

The Readiness Check is not intended to replace the external clearance and approval requirements built into the process. Decisions on whether to submit the proposed PPP project for subsequent formal clearance and approval will be taken by the Project Officer and are not dependent on the conclusions of the Readiness Check. The review and approval process may reach different conclusions to those of the Readiness Check. However, the Readiness Check will help the Project Officer in deciding whether to submit the project or to further improve its readiness prior to submission.

Source: India's PPP Toolkit

2.10 Use of External Advisers

Even governments with long PPP experience do not have in-house all the expertise and skill needed to develop PPP projects. The extent and nature of external advisory support needed may change as the government and the country gains PPP

experience. Advisers are normally involved at every stage of the PPP project cycle, including the initial feasibility assessment, project preparation, project procurement, contract preparation and project implementation. Examples of the legal, financial, technical and environmental assistance typically provided by PPP advisers, in particular during the procurement phase, are indicated in the Box below:

Box 2.6 PPP ADVISORY SERVICES DURING PROCUREMENT

Legal adviser

Advise the public sector on the issue of the legal powers necessary to enter into the project contracts;
Assist in the assessment of the legal feasibility of the project;
Advise on the appropriate procurement route;
Advise on the initial contract notice;
Advise on procurement documentation such as pre-qualification questionnaires, invitations to tender and evaluation criteria;
Develop the PPP contract;
Ensure that bids meet the legal and contractual requirements for submission;
Evaluate and advise on all processes and contractual solutions throughout the procurement phase, including contract negotiation; and
Provide support in the clarification and fine-tuning of legal aspects

Technical adviser

Draft the output requirements and specifications of the PPP project
Develop payment mechanisms in the PPP contract (with the financial adviser);
Evaluate and advise on all technical solutions during the procurement phase;
Undertake technical due diligence on bidders' solutions;
Carry out any site condition, planning and technical design work.

Financial adviser

Support the development of all financial aspects of the project;
Advise on how to secure the public funding for the project (if any);

Advise on the applicability of specific sources of funding, and how these can be optimized in the funding structure;
Ensure that all financial aspects of the bidders' solutions meet the requirements for submitting a bid;
Optimize, scrutinize and possibly audit the financial models submitted by bidders;
Evaluate and advise on financial proposals throughout the procurement phase;
Advise on financial structuring and financial engineering matters;
Advise on the bankability issues raised by the PPP contract;
Undertake financial due diligence on the submitted bids;
Assist in the negotiations with the lenders; and
Assist in the strategy and completion of the interest rate and currency hedging at financial close.

Environmental adviser

Examine the potential environmental impact of the project;
Assist in environmental due diligence, including required permits and certifications;
Identify potential environmental risks and how submitted bids address them; and
Consider the mitigation of such risks and the impact on the scope and technical design of the project.

Source: Adapted from EPEC, 2008 – The Guide to Guidance: How to prepare, procure and deliver PPP projects (page 21)

2.11 Approving Capital Investment Projects

Most governments have rules for approving capital investment projects—that is, defining who can give the go ahead for a project to be implemented. At a minimum, approval is typically needed to enter into a PPP transaction. Because the final cost of a project is not known until procurement is concluded, final approval may be needed before the contract is signed.

Jurisdictions vary as to which entity can approve a PPP. A few countries require legislative approval of projects. More often, approval may come from Cabinet or a Cabinet-level committee, the finance ministry, or a combination. Approval power may depend on the size of the project, as is typically the case for other capital investments.

State of Victoria – Australia: A “gateway” approval of the PPP (by special committee) is required at four stages: project selection (to proceed to develop the business case); before issuing the requests for expressions of interest; before issuing project briefs and contract; and before the contract is executed

Chile: Final approval of a PPP—through signing the decree that formalizes the concession—rests with the President and the Ministry of Finance together. Contracts cannot be bid out unless the Ministry of Finance has approved the bidding documents. The Ministry of Finance must also approve any changes to economic aspects of the bidding documents, as well as certain changes during implementation

Regulating and controlling the process

In most successful PPP programs, one entity is responsible for making sure that the right process is followed, that all the appropriate agencies in government are involved, and that the final decision-maker gets the information it needs. This responsibility is generally given to a central agency that already exercises a cross-government coordination and control function—typically a Ministry of Finance or Planning Agency. The “regulatory” function is often exercised through defined check-points or “gateways” in the course of PPP development.

Role of the finance ministry

The finance ministry is often central to the controlling function for PPPs. In some governments,

the finance ministry has approval power for PPPs. Even where this is not the case, in successful PPP programs the finance ministry typically has a control role throughout the process. This helps ensure that the PPP program is focused on achieving value for money, and that fiscal risks are managed. At several stages, the finance ministry must check and may stop a PPP from proceeding if it believes it is not affordable, or that the proposed PPP structure will not offer value for money.

Role of planning agencies

In countries where planning agencies perform a strong coordination function in infrastructure or economic policy generally, they may also be given the role of regulating the PPP process

Input from other oversight agencies

An important function of the “regulating agencies” can be to make sure that the necessary reviews and input from other government entities is brought in at the right time. This could include sign-off from the attorney general, or other agencies with regulatory responsibilities relevant to the PPP, such as environmental agencies, or bodies responsible for land use.

2.12 Establishing a PPP Unit

Many Governments with successful PPP programs have created a dedicated entity tasked with implementing, facilitating, or advising on PPPs. These are referred to as PPP Units.

The **roles played by different PPP units** often include:

Regulating the PPP process—as described in Section 2.2.2.3, this includes making sure that the right steps are taken in developing a PPP, that the required analysis shows the project is consistent with appraisal criteria, and that all required approvals have been obtained

Promoting PPPs within government—for example, reminding implementing agencies that it may be desirable to do large new projects as PPPs

Helping agencies to implement PPPs—offering experience and special skills acquired because

of their focus on PPPs and involvement in so many projects.

Providing communication channels to investors - helping bidders and financiers who may otherwise be unsure who to ask for information about the program and up-coming opportunities

Many PPP units fulfill a combination of these functions. The mix of functions performed is a matter of design, history, and local context.

A World Bank's review of PPP Units highlights that the design of the unit also needs to reflect its functions. For example, units that focus on regulating and controlling the PPP process may often be located in finance ministries or planning agencies. In some Latin American jurisdictions, an investment promotion agency leads in promoting and structuring PPP projects, with finance ministry approval needed for fiscal commitments. Some countries have housed PPP units in development banks, whose experience with private sector investments can help in implementing PPPs.

If a unit is both guiding and advising and approving, then it needs to be designed to handle the potential conflict of interest. This can be handled by internal firewalls, involving other entities in approvals, or adding scrutiny by audit or other oversight agencies.

The World Bank review also points out that despite the wide spread tendency to create PPP units, they are not always required, nor will they always succeed in creating successful PPP programs. In particular, PPP's will probably not help much where high-level political commitment to a quality PPP program is lacking.

2.13 PPP Program Governance and Oversight

The executive branch of government is largely responsible for implementing PPP projects. PPP program governance deals with the process and rules that govern the way other entities and the general public participate in the PPP process and hold the executive accountable for its decisions and actions.

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

The legislature-the legislative branch of government often defines the PPP framework, by passing PPP legislation. In some cases, the legislature may be directly involved in the PPP process, approving PPP projects. More commonly, it exercises ex-post oversight, scrutinizing reports on the government's PPP commitments.

Auditing entities-many jurisdictions have independent audit entities, which can have a role in ensuring good governance of PPP programs.

The public-the public can directly participate in PPP project design, through consultation processes, and in monitoring service quality by providing channels for feedback. Transparency of the PPP process as a whole, and an active media, can inform public opinion and-if the issues are serious enough-influence elections.

Creating mechanisms through which the legislature, audit bodies, and the public can engage in the PPP process strengthens accountability, and helps make the PPP program more participatory, transparent, and legitimate.

Role of the Legislature

The legislative branch of government-that is, the elected, law-making parliament or assembly-may engage in the PPP process in several ways. These include:

Defining the PPP framework-the PPP Framework is often established in specific PPP legislation. As described in Section 2.5: PPP Legal and Regulatory Framework, one rationale for introducing a PPP law is to enable the legislative branch of government to set rules for how PPPs will be developed and implemented, against which those responsible can be held accountable

Defining limits on PPP commitments-the legislature may limit total PPP commitments, or the amount taken on in a year, or otherwise govern the risk and inter-generational equity issues that PPPs can create

Approving PPP projects-PPP projects may require parliamentary approval. This requirement can be limited to PPP projects above a certain size.

Receiving and reviewing reports on the PPP program-Public Financial Management Framework for PPPs, many governments include information on the PPP programing budget documents and other financial reports.

Role of Audit Entities

Supreme audit entities are an important link in the chain of accountability for public expenditure decisions-providing independent reviews of government finances and performance to parliaments and to the public.

Regularity auditing for PPPs

When carrying out regularity audits of contracting authorities, audit entities may need to check that PPP commitments are appropriately reflected in accounts, and that PPP processes have been followed. These auditing activities include:

Checking compliance-the Auditor General is required to check that the requirements of the PPP Regulations have been met, for example that the appropriate treasury approvals were sought and granted

Checking financial reporting-the Auditor General must also check the financial implication of the PPP for the institution. This includes checking that information on PPPs in "notes to the financial accounts" is correct, and that commitments to PPPs have been accounted for appropriately.

Forensic audit: The Auditor General may also carry out forensic audits (should the regular audits raise any suspicion of fraud or corruption), or performance audits.

Auditing the PPP program

In some countries with well-developed PPP programs, audit entities have undertaken value for money reviews of the PPP program as a whole. This has been the case in the UK.

Role of the Public

PPPs are meant to provide value to the public. Getting the right level of public involvement in the PPP process and program can make or break the legitimacy of a PPP program, and directly contribute to good governance. Direct public participation at various points in the PPP process can improve project design. Equally important, making PPP projects and processes transparent enables PPP performance

to be a factor in public policy debate, and in the formation of public opinion on the government's overall performance.

Public participation in the PPP process

Public participation can be introduced into the PPP process at three stages:

PPP program development-engaging the public from the onset, by involving them in the development of the PPP policy framework and continuing to seek feedback as the program is developed

PPP project development-introducing stakeholder consultation in the PPP development process, so public concerns can be taken into consideration when structuring and implementing PPPs

PPP contract monitoring-building mechanisms for user feedback and grievance resolution into contract agreements and management frameworks.

Transparency of the PPP program

Many governments make information about the PPP program publicly available. This enables the media to report on the program, and the public to develop informed opinions on the government's performance in implementing PPPs.

Where the performance of PPP projects is a sufficiently serious concern, the public may in turn exert pressure on government to improve its performance-for example, through protests, and ultimately through elections. For example: In the UK, there is a robust debate over the use of PPPs and their advantages and disadvantages. Advocates against PPPs have used many forms of media to mobilize opposition to PPPs. For example, a group called Globalize Resistance has openly criticized the PFI program.

International standards require disclosure of financial commitments to PPPs in national accounts. Some governments go further, requiring disclosure of key contract clauses, or entire PPP contracts. Typically, any commercially sensitive elements of the contract are excluded from the published version. However, in general, a project summary is required, providing information on the key project features and commercial terms of the project.

2.14 Public Financial Management Framework for PPPs

PPP contracts often have financial implications for Governments. Payment commitments under PPP contracts are often long-term, and can be contingent

on one or more risks. This can create particular challenges for public financial management, which is generally geared to annual appropriations for expenditure. For this reason, PPP-specific approaches to public financial management have been developed.

Box 2.7 TYPES OF FISCAL COMMITMENTS TO PPPS

Fiscal commitments to PPPs can be regular payments constituting all or part of the remuneration of the private party, a means to share risk, or a combination of the two. Common types of government fiscal commitments to PPPs include the following:

Direct liabilities

Direct liabilities are payment commitments that are not dependent on the occurrence of an uncertain future event (although there may be some uncertainty regarding the value). Direct liabilities arising from PPP contracts can include:

- *Upfront “viability gap” payments*-an up-front capital subsidy (which may be phased over construction, or against equity investments)
- *Availability payments*-a regular payment or subsidy over the lifetime of the project, usually conditional on the availability of the service or asset at a contractually specified quality. The payment may be adjusted with bonuses or penalties related to performance
- *Shadow tolls, or output-based payments*-a payment or subsidy per unit or user of a service-for example, per kilometre driven on a toll road.

Contingent liabilities

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

Contingent liabilities under PPP contracts can include:

- *Guarantees on particular risk variables*-an agreement to compensate the private party for loss in revenue should a particular risk variable deviate from a contractually specified level. The associated risk is thereby shared between the government and the private party. For example, this could include guarantees on demand remaining above a specified level; or on exchange rates remaining within a certain range
- *Compensation clauses*-for example, a commitment to compensate the private party for damage or loss due to certain, specified, uninsurable force majeure events
- *Termination payment commitments*-a commitment to pay an agreed amount, should the contract be terminated due to default by the public or private party-the amount may depend on the circumstances of default
- *Debt guarantees or other credit enhancements*-a commitment to repay part or all of the debt used to finance a project. The guarantee could cover a specific risk or event. Guarantees are used to provide more security to a lender that their loan will be repaid.

Source: PPIAF, World Bank Institute, 2012. Public-Private Partnership Reference Guide version 1.0. 2012

Assessing and controlling fiscal commitments to a PPP project can be addressed by:

- Assessing whether a PPP will provide value for money
- Assessing whether a PPP is affordable
- Controlling total exposure to PPPs
- Budgeting for fiscal commitments to PPPs (budgeting for direct commitments to PPPs and budgeting for PPP contingent liabilities)
- Disclosing/reflecting fiscal commitments to PPPs in government accounts and reports

2.15 PPP Legal and Regulatory Framework

The “PPP legal and regulatory framework” can be thought of as all the laws and regulations that control whether, or how, PPPs can be implemented. These laws and regulations can include PPP-specific legislation, public financial management laws and regulations, and sector-specific laws and regulations, as summarized in Box below.

Box 2.8 COMPONENTS OF THE PPP LEGAL AND REGULATORY FRAMEWORK

The PPP legal and regulatory framework can include specific PPP legislation. A wide range of other law and regulations can also apply to PPPs, including:

- Administrative law-in many civil law countries, government agencies are governed by administrative laws that govern their functions and decision-making processes
- Procurement law-the transaction process for a PPP must typically comply with public procurement law and regulations, unless PPPs are specifically exempt
- Public financial management law-institutional responsibilities, processes, and rules established in public financial management laws and regulations can contribute to the PPP framework. For example, this could include project approval requirements, fiscal limits, budgeting processes, and reporting requirements

- Sector laws and regulatory frameworks- PPPs are often implemented in sectors that are already governed by sector-level law and regulatory frameworks. These may constrain the government’s ability to contract with the private sector, or provide rules for doing so.

Other laws affecting the operation of private firms also apply to PPP companies, and should be taken into consideration when defining PPP projects and processes. These can include:

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

Source: India’s Draft PPP Policy

2.16 Dedicated PPP Legislation

Some countries enact special PPP laws. Whether a PPP law is needed or beneficial typically depends on the country’s legal and administrative systems. In civil law countries, a law is commonly used empower

government to enter PPP contracts, and to resolve other limitations in existing administrative law that may constrain how PPP contracts can be structured or managed. In common law countries, a law is often not required to legally enable the government to enter into PPP contracts.

2.17 PPPs and Sector Regulation

A “sector regulatory regime” refers to rules and responsibilities, set in laws and regulations, designed to control tariffs and service standards in the sector. Often this includes assigning responsibilities to an independent regulatory agency. Beside governing tariffs and service standards for final consumers, sector regulation may govern the terms on which providers deal with each other, as interconnection regimes do in telecommunications. Regulation may also control entry to the sector through licensing, or govern investment decisions.

An alternative approach to introducing a sector regulatory regime is to define tariffs and service standards directly in a contract with a private provider (usually called “regulation by contract”). When implementing a PPP that involves the private sector providing services to customers in these monopoly sectors, governments need to ensure that the contract, or sector regulatory regime, or both, are effective in protecting customers. Where sector

regulation is already in place-or may be considered-the government also needs to ensure this regulation does not conflict with any PPP contract in the sector. Such conflicts cause confusion, and may lead private firms not to bid because of legal uncertainty.

Doing PPPs without a sector regulatory regime

Many governments implement PPPs without creating an overall sector regulatory regime. A common approach to sector regulation is to address tariff and service standards directly through the contract with a private service provider. In this approach, no special tools or regulatory bodies are required. The contract itself sets out the service standards to be reached.

A concession contract will also sets out what the tariff is, and rules and processes for adjusting the tariff from time to time. In a lease or “affermage” contract, tariff setting powers may be retained by the government, but the payment to the operator-which is also linked to the amount of the service supplied-is set in the contract.

SECTION 3

SELECTING, PLANNING, AND DESIGNING PPP PROJECTS

3.1 The Iterative Process for Developing a PPP

Good PPP projects are projects that are cost-benefit justified, where the PPP provides better value for money than traditional public procurement, and is fiscally responsible.

However, whether a project meets all these criteria cannot be fully assessed until the project is fully designed, and cannot be confirmed until bids are received. However, government does not want to incur the considerable costs of developing a PPP unless it knows the project meets the criteria, but cannot tell if it meets the criteria until the project has been developed.

Successful PPP programs tackle this problem through an iterative approach, of progressively more rigorous screening at successive stages of project development. The idea is that projects must seem likely to be suitable for development as a PPP before any public money is spent on them.

This iterative process for developing a PPP, involves the following steps:

- Project origination and screening-the process starts with project origination, typically following the same or a similar process as for originating public sector investment projects, while screening projects for their potential suitability as PPPs.
- Candidate projects that survive the "screening" are then developed and appraised. Project with established "Business Case", proceed with the PPP transaction.
- Before the PPP transaction can be implemented, the draft PPP contract needs to be prepared-further refining the PPP structure by setting out its details, in appropriate legal language.

- Managing a PPP transaction is a complex process. A well-designed and well-implemented procurement is central to achieving value for money from the PPP. This can include marketing the PPP, checking the qualifications of bidders, inviting and evaluating proposals, interacting with bidders during the process, and identifying and finalizing the contract with the selected bidder. At the end of the transaction, after bids are received and the contract agreed, government will finally know the cost and risks in the PPP project. At this point it may be checked once more to ensure it still meets the PPP criteria
- As an alternative approach to originating and developing PPP project ideas, some governments accept unsolicited proposals for PPP projects from private companies
- Finally, having executed the contract, the PPP enters the final and longest "stage"- managing the contract throughout its lifetime.

3.2 Identifying PPP Project Ideas – Project Origination

Identifying PPP Projects is the output of the project identification stage. Typically, it will involve PPP concept, and an initial assessment (sometimes called a strategic, or outline business case) of the rationale for pursuing the project as a PPP. In many countries this must be formally approved before continuing to develop the PPP further.

Identifying PPP (called project origination) can be done in two ways:

- Public sector planning or diagnostic work on the infrastructure sector and
- Unsolicited proposals from the private sector

PPP origination as part of public sector planning and project selection processes

Many PPP ideas originate as part of the overall public sector planning, policy-setting, and project selection process. The process of originating infrastructure project ideas-and so how PPPs can be integrated into that process-differs between countries. It could include the following:

- Public sector planning process. The starting point for identifying PPPs may be a national, regional, infrastructure, or sector-level planning process.
- Infrastructure gap analysis. Some countries that do not undertake comprehensive planning processes nevertheless develop infrastructure gap analyses, identifying service shortfalls and investment needs in a sector, as a way to identify investment projects.

PPP origination by the private sector through unsolicited proposals

Businesses often see PPP opportunities that government agencies may miss. For this reason, many successful PPP programs provide ways in which

businesses and other non-government entities may originate projects, for consideration by government. At the same time, encouraging business to suggest ideas needs to be balanced by needs for competition and transparency. How this can best be done is addressed through a framework for unsolicited proposals.

3.3 Screening Candidate Projects

The various project ideas may or may not be suitable for development as PPPs. Many governments define criteria for what makes a "good" PPP project. These criteria typically include ensuring the project is technically feasible and economically viable, that it can be delivered as a commercially viable PPP, that the PPP will provide value for money compared to the other options, and that the PPP is fiscally responsible.

Candidate projects can be screened by assessing whether-given the limited information available-the project appears to have a good chance of meeting those criteria and going on to be developed and implemented successfully as PPPs.

Box 3.1 COMMONLY USED PPP POTENTIAL SCREENING FACTORS

Factors commonly considered when deciding whether a project could achieve value for money as a PPP include the following:

Scale of the project-are transaction costs likely to be justified?

Outputs capable of clear specification-is there reason to believe we can write a contract that will hold provider accountable

Opportunities for risk transfer (and other PPP value drivers)-is there good reason to believe that a PPP will provide value for money compared to the alternative of traditional public procurement?

Fiscal implications – are the implication bearable by present and future generations

Market capability and appetite-is there a potentially viable commercial project and a level of market interest in the project? Assessing market appetite may require initial market sounding with potential investors.

Major risks - are there major risks unlikely to be accepted by the private sector and difficult to manage by the public sector?

3.4 Prioritizing PPPs for Further Development

Having identified projects that hold potential as PPPs, practitioners need to prioritize these projects for further development and implementation-bearing in mind that human and financial resources available for project development are likely limited.

Several factors may feed into this prioritization. These can include the following factors:

- Priority in pursuing the government's policy goals
- Project cost
- Project readiness and stage of preparation
- High "implementability"
- investor interest
- fiscal impact
- complexity

3.5 Appraising PPP Projects

Appraising a PPP project means checking it makes sense to develop the project, and to implement it as a PPP. Successful PPP programs establish PPP "appraisal criteria"- these are the criteria used to decide whether or not a project "makes sense". Typical PPP project appraisal criteria are described in the following Box 3.2.

Box 3.2 PPP PROJECT APPRAISAL CRITERIA

In deciding whether to pursue a project as a PPP, governments need to assess whether the PPP is a good use of resources. This typically involves assessing the project and proposed PPP against four key criteria:

Feasibility and economic viability of the project-whether the underlying project makes sense, irrespective of implementation as a PPP or through traditional public sector procurement. First, this means confirming that the project is central to policy priorities and sector and infrastructure plans. It then involves feasibility studies to check the project is possible, and economic appraisal to check the project is cost-benefit justified, and the least-cost approach to delivering the expected benefits.

Commercial viability-whether the project is likely to be able to attract good- quality sponsors and lenders by providing robust and reasonable financial returns. This is subsequently confirmed through the tender process.

Value for money of the PPP-whether developing the project as the proposed PPP can be expected to best achieve value for money, compared to the other options. This can include comparing against the alternative of public procurement (where that would be an option). It can also include comparing against other possible PPP structures, to check that the proposed structure provides the best value (for example that risks have been allocated optimally).

Fiscal responsibility-whether the project's overall revenue requirements are within the capacity of users, the public authority, or both, to pay for the infrastructure service. This involves checking the fiscal cost of the project- both in terms of regular payments, and fiscal risk-and establishing whether this can be accommodated within prudent budget and other fiscal constraints.

Source: PPIAF, World Bank Institute, 2012. Public-Private Partnership Reference Guide version 1.0. 2012

PPP appraisal is typically re-visited at later stages. In particular, the final cost (and so, affordability and value for money) is not known until after procurement is complete, when the government must make the final decision to sign the contract. Many governments require further appraisal and approval at this stage.

3.6 Public Sector Comparator- Comparing Fiscal Cost

The most common quantitative tool for value for money assessment of a PPP project involves comparing the fiscal cost of a PPP delivery options with that of a conventional public delivery option termed "Public Sector Comparator"⁶.

The focus of the Fiscal Cost approach to Value for Money analysis is the construction of a Public Sector comparator (PSC)-the cost to government of implementing the project through traditional public procurement.

The PSC which has its critics (on the ground of shortage of relevant data and methodological issues) can be used at two stages of the procurement process:

Before the bidding process-the PSC can be compared with a "shadow" or "reference" PPP, or "market comparator"-a model of the expected cost of the project under the PPP option. This can help identify whether the PPP can be expected to provide value for money, before deciding to go ahead with detailed preparation and procurement. Before the bidding process, the PSC can also be used to assess commercial viability: This is the emphasis of the United Kingdom's approach

During the bidding process-the PSC can also be compared with actual PPP bids received, to assess whether the bids provide value for money.

3.6.1 Assessing cost of direct fiscal commitments

Direct fiscal commitments may include up-front capital contributions or regular payments by government such as availability payments or shadow tolls. Box 3.3 briefly describes common types of direct fiscal commitments to PPPs.

Box 3.3 DIRECT PAYMENT COMMITMENTS TO PPP PROJECTS

Direct liabilities are payment commitments that are not dependent on the occurrence of an uncertain future event (although there may be some uncertainty regarding the value). Direct liabilities arising from PPP contracts can include:

Upfront "viability gap" payments-an up-front capital subsidy (which may be phased over construction, or against equity investments)

Availability payments-a regular payment or subsidy over the lifetime of the project, usually conditional on the availability of the service or asset at a contractually specified quality. The payment may be adjusted with bonuses or penalties related to performance

Shadow tolls, or output-based payments-a payment or subsidy per unit or user of a service-for example, per kilometre driven on a toll road.

⁶ The Public Sector Comparator (PSC) approach originated from United Kingdom's PFI program in the early 1990s.

3.6.2 Assessing cost of contingent liabilities

Contingent liabilities arise in well-designed PPP project because there are some risks that

government is best placed to bear. Which risks these are should be defined through project structuring.

Box 3.4 **CONTINGENT LIABILITIES UNDER PPP PROJECTS**

Contingent liabilities are payment commitments whose occurrence, timing and magnitude depend on some uncertain future event, outside the control of government. Contingent liabilities under PPP contracts can include:

Guarantees on particular risk variables- an agreement to compensate the private party for loss in revenue should a particular risk variable deviate from a contractually specified level. The associated risk is thereby shared between the government and the private party. For example, this could include guarantees on demand remaining above a specified level; or on exchange rates remaining within a certain range

Compensation clauses- for example, a commitment to compensate the private party for damage or loss due to certain, specified, uninsurable force majeure events

Termination payment commitments- a commitment to pay an agreed amount, should the contract be terminated due to default by the public or private party-the amount may depend on the circumstances of default

Debt guarantees or other credit enhancements- a commitment to repay part or all of the debt used to finance a project. The guarantee could cover a specific risk or event. Guarantees are used to provide more security to a lender that a loan will be repaid.

Source: Deloitte Research: Bridging America's Infrastructure Gap (-2007)

Assessing the cost of contingent liabilities (done through scenario analysis or probability analysis) is more difficult than for direct liabilities, since

the need for, timing, and value of payments are uncertain.

3.7 Structuring PPP Projects: Function, Risk, Payment

From Government's point of view, "Structuring a PPP project" means allocating responsibilities, rights, and risks to each party to the PPP contract. In other words, the three key terms in a PPP structuring or PPP contract structuring are: Function, Risk and Payment.

Risk allocation is defined in detail in the PPP contract. However, it is typically developed iteratively, rather than drafting a detailed contract straight away. The first step is to develop the initial project concept into key commercial terms—that is, an outline of the required outputs, the responsibilities and risks borne by each party, and how the private party will be paid. The key commercial terms are typically detailed enough to enable practitioners to appraise the proposed PPP before committing the resources needed to develop the draft PPP contract in detail.

The starting point for PPP structuring is the project concept; that is, the project's physical outline, the technology it will use, the outputs it will provide, and

the people it will serve. These are often developed before deciding whether to implement the project as a PPP,

Most resources on PPP project structuring focus on identifying and allocating project risks. This makes sense, since appropriate risk allocation is behind many of the PPP Value Drivers. Following this approach, the other elements of the PPP structure—such as the allocation of responsibilities and the payment mechanism—stem from the risk allocation.

3.8 Risk Identification and Management in PPP Projects

PPP projects face a myriad of risks. A variety of tools can be used to manage project risks under a PPP framework. Key PPP infrastructure project risks and risk mitigation tools are identified in the table below. The risk mitigation tools are suggested in the same horizontal line of the identified risk in the second column of the table.

Table 3.1
RISK IDENTIFICATION AND MITIGATION IN PPP INFRASTRUCTURE PROJECTS

Project Preparation Risks	Risk Mitigation Tools
<ul style="list-style-type: none"> • Lack of decisive decision-making authority • Lack of continued Government commitment • Approval (licenses, permits, clearance) delays or failures • Bidding risks • Legal challenges to project award • Legal environment nonconductive to project finance • Interest group pressures (unions, public monopoly, civil society, etc) • Financial closure 	<ul style="list-style-type: none"> • Strong institutional framework • Strong institutional framework • Strong institutional framework • Maximize investor interest • Transparent award process • Legal reforms • Implication of all parties through dialogue & communication • Efficient financial mobilization strategy & plans

Table 3.1**RISK IDENTIFICATION AND MITIGATION IN PPP INFRASTRUCTURE PROJECTS**

<p>Project Construction Risks</p> <ul style="list-style-type: none"> • Late start-up • Cost overruns • Delays arising from force majeure • Damage encountered on site • Bankruptcy of shareholders and contractors • Failure to complete supporting infrastructure • Breach of shareholder undertaking on cost overrun financing • Changes in government regulations regarding customs duties, procurement, construction workforce. Safeguards Fixed Price Contracts with Performance Guarantee for capital cost risk and construction delay risk 	<p>Risk Mitigation Tools</p> <ul style="list-style-type: none"> • Turnkey contract • Turnkey contract • Project agreement • Turnkey project • Shareholder's agreement/step-in rights • Penalty clauses; strong coordination with line ministries • Shareholder's agreement/step-in rights • Government guarantee
<p>Project Operation Risks</p> <ul style="list-style-type: none"> • Demand risk • Supply risk • Payment risk • Change to contract • Sale price below forecast level • Cost escalation/price adjustment mechanism • Change in law • Safety and environmental regulations 	<p>Risk Mitigation Tools</p> <ul style="list-style-type: none"> • Off-take agreement in absence of competitive market • Supply contract in absence of competitive market • Private enforcement capability • Independent regulation; international arbitration • Government guarantee of agreed-upon pricing mechanism • Government guarantee of agreed-upon pricing mechanism • Government guarantee • Government guarantee
<p>Project Lifetime Risks</p> <ul style="list-style-type: none"> • Foreign exchange risk, interest rate, inflation movements • Foreign exchange availability and convertibility • Changes in government regulations • Nationalization, expropriation • General political risk • Breach of contract by Government • Liability risks • Force majeure • Hand over plant in operating conditions at the end of the contract period 	<p>Risk Mitigation Tools</p> <ul style="list-style-type: none"> • User charge indexation; hedging; fixed-rate debt • Government guarantee • Government guarantee • Compensation; multilateral DFI; private/multilateral insurance • Compensation; private/multilateral insurance (i.e. PRI) • Government guarantee; international arbitration • Private insurance • Project agreement • Project agreement

Source: Adapted from UNIDO (1996) and FIAS (2000)

According to World Bank quoting Irwin (Guarantee and PPP), PPP project risk allocation should be based on the following three principles that state that risk should be transferred or allocated to the party:

- best able to control the likelihood of the risk occurring
- best able to control the impact of the risk on project outcomes
- best able to absorb the risk at lowest cost

It is worth noting that perfect risk allocation is hardly achievable as both Government and the private sector will always bear some residual risks that are difficult to identify or anticipate by virtue of: (i) the unexpected nature of many types of risks (geological, natural disaster, etc.); (ii) the limited liability nature of equity holders that bear risks up to the proportion of their share ownership; and/or (iii) the fact that, political risk insurance (PRI) contracts or policies cover only partially the monetary value of the expected loss, say, in a breach of contract.

3.9 Translating Risk Allocation into Contract Structure

From a contract structuring point of view, once a preferred risk allocation has been settled, the next step is allocating responsibility (i.e. “who will do what?”), and “how will the payments flow?”.

Another approach to the contract structuring (Function, Risk, Payment) put forward by number of experts is:

- 1/ Function allocation: to start with identifying the major areas of responsibility, or functions: design and construction of new assets, finance, operations, and maintenance. Consideration of institutional linkages and political constraints will also factor into the decision on which party can perform which function. The basic functional principle of PPP is that, each function assumed by a PPP party comes naturally with the acceptance of the related risks; otherwise, the exception should be captured in the PPP contract.

- 2/ Risk Allocation: for each function, specific responsibilities can then be defined, and risks identified that are associated with each responsibility. This allocation of functions may be based on an analysis of which party is best able to bear the risks naturally associated with each function
- 3/ Payment mechanisms: then after, the close linkage between defining the details of the payment mechanism-e.g. tariff review mechanisms in the case of users’ fee payment - and risk allocation can be addressed. Payment mechanisms may follow from the allocation of functions and risks. For example, if the private party is better able to manage collection risks and demand risks, then the private party will likely be remunerated directly from user charges. However, if the private party is able to manage collection risk but is not asked to take demand risk, then the payment structure may involve the private party collecting user charges and remitting them to the public authority, while the public authority then pays the private party for asset availability, with a bonus for achieving high levels of collections.

Finally, a necessary complement to defining the payment mechanism is defining how performance will be measured, monitored, and enforced. For example, the government’s payment may be conditional on the availability of the asset, with a view to transferring most operating risk to the private sector. This risk transfer can only be achieved in practice if the standards required as part of “available” are clear and practicable.

SECTION 4

CONTRACTUAL DESIGN OF PPP PROJECTS

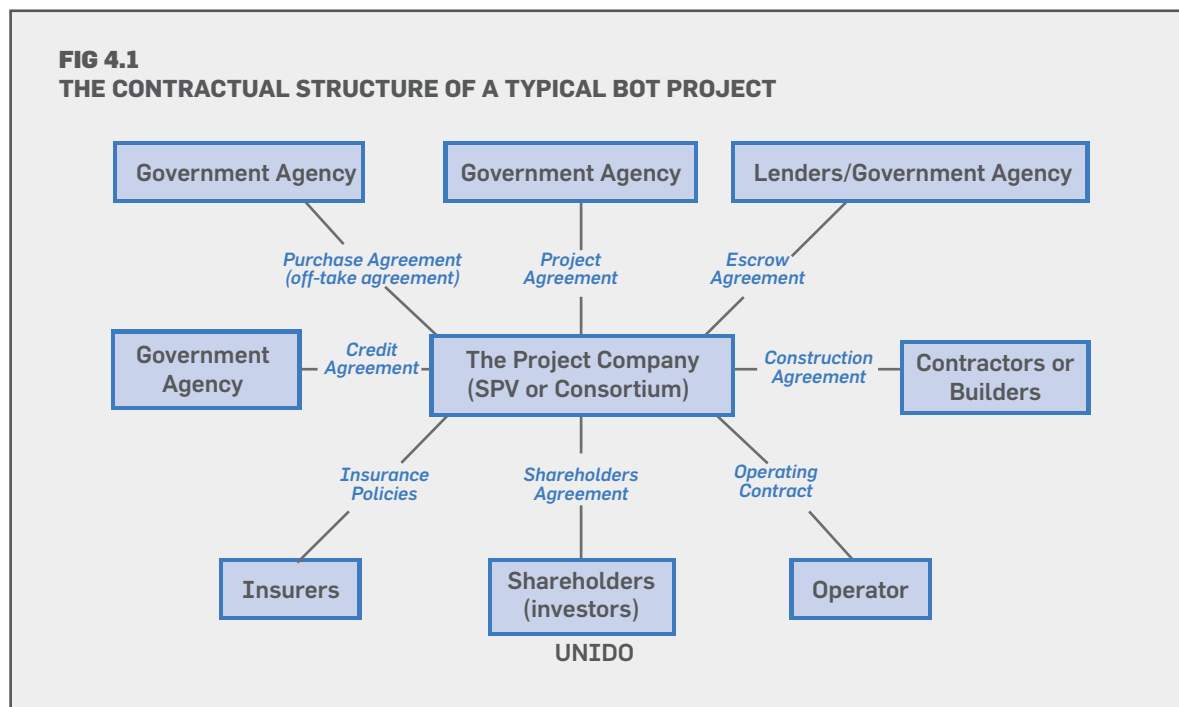
4.1 Definition and Overview on PPP Contract

A PPP contract defines the contractual relationship between the Government and the main private sector partner as well as the specifications of the respective responsibilities of parties, including the risks they are expected to bear, the payment and compensation flows and formulae between parties as well as the rules that govern the execution of the contractual agreements, including the mechanisms for dealing with change.

The main document of a PPP contract is the contract between the Public Sector and the Private Sponsor of the project (Project Agreement) who can be a Special Purpose Vehicle/Company (SPV or SPC) or a

Consortium of companies. However, there will also be numerous contracts between the private parties to the PPP, namely between the SPV and the other stakeholders or service providers. Chief among them would be contracts between the project company and its EPC contractor, financing agreements between the project company and its lenders, and shareholders agreements between equity investors. The PPP contract may not be effective until these other contractual agreements are in place. In fact, the so-called financial close, a milestone in the PPP management process, occurs if and only when all the above contractual arrangements of a PPP project are signed, including, financing-related matters.

In practice, the "PPP Contract" will encompass several documents and agreements, as described in Figure 4.1. below.



² World Bank. II. Africa Infrastructure Country Diagnostic. 2009. Africa's infrastructure : a time for transformation. Africa Development Forum series.

The draft PPP contract is generally needed before a Request for Proposals (RFP) is issued. Detailed contract design takes significant time and resources—including from expert advisors. Approval is often required—based on an initial structure and project appraisal, before embarking on detailed design and investing these resources.

The draft PPP contract is typically included with the Request for Proposals (RFP) sent to prospective bidders. In some countries, the PPP contract issued with the RFP cannot be changed. In others, it may be changed as a result of interaction with bidders during the transaction process.

4.2 Aim of PPP Contract Design

The aim of PPP contract design is therefore to create certainty where possible, and bounded flexibility where needed—thereby retaining clarity and limiting uncertainty for both parties. This is typically done by creating a clear process and boundaries for change. To implement this style of contract in practice requires strong contract management institutions, as described in Section 3.7: Managing PPP Contracts.

PPP contract design is a complex task. Five main areas of PPP contract design are to be considered:

Performance requirements—defining the required quality and quantity of assets and services, along with monitoring and enforcement mechanisms, including penalties

Payment mechanisms—defining how the private party will be paid, through user charges, government payments based on usage or availability, or a combination, and how bonuses and penalties can be built in

Adjustment mechanisms—building in to the contract mechanisms for handling changes, such as extraordinary reviews of tariffs, or changing service requirements

Dispute resolution procedures—defining institutional mechanisms for how contractual disputes will be resolved, such as the role of the regulator and courts, or the use of expert panels or international arbitration

Termination provisions—defining the contract term, handover provisions, and circumstances and implications of early termination.

Together, these sets of provisions define the risk allocation under the contract.

4.3 Standardizing PPP Contract related Knowledge and Processes

Many countries standardize elements of PPP contract design. This helps reduce the cost of developing the contract for each PPP contract while minimizing risk. Some develop model contracts or contract clauses. Others incorporate some elements in overall legislation, to govern all PPP contracts.

4.4 Performance Requirements in a PPP Contract

The contract needs to clearly specify what is expected from the private party, in terms of the quality and quantity of the assets and services to be provided. For example, this could include defining required maintenance standards for a road, or defining the required service quality and connection expansion targets for utility services provided directly to users. Performance indicators and targets are typically specified in an annex to the main PPP agreement.

A key feature of a PPP is that performance is specified in terms of required outputs (such as road surface quality), rather than inputs (such as road surfacing materials and design) wherever possible. This enables the private PPP company to be innovative in responding to requirements. Specifying outputs rather than inputs also helps keep competition as open as possible.

The PPP contract should set-out the following:

Clear performance targets or output

requirements in SMART terms"-that is, Specific, Measurable, Achievable, Realistic, and Timely- and provides an example of SMART targets for a government accommodation PPP

How performance will be monitored-that is, the information that must be gathered, by whom, and reported to whom. This can include roles for the government's contract management team, the private party, external monitors, regulators, and users

The consequences for failure to reach the required performance targets, clearly specified and enforceable. This could include:

- (i) Specifying penalty payments, liquidated damages or performance bonds], describing when and how liquidated damages or performance bonds may be used
 - Specifying payment deductions for poor performance (or bonuses), built into the payment mechanism
 - Following a formal performance warning system, and how persistent unsatisfactory performance can escalate into eventual termination for default
- (ii) Step-in rights for the public party, to take control of the concession (typically temporarily) under certain well-defined circumstances. The intention is typically to enable step-in to deal with problems threatening service provision that the public party may be better able to deal with, such as urgent environmental, health, or safety issues.

4.5 Payment Mechanism

The payment mechanism defines how the private party to the PPP is remunerated. Adjustments to payments to reflect performance or risk factors are also an important means for creating incentive and allocating risk in the PPP contract

The basic elements of PPP payment mechanisms can include:

User charges-that is, payment collected by the private party directly from users of the service

Government payment-that is, payment by the government to the private party for services or assets provided. These payments could be:

- Usage-based-for example, shadow tolls or output-based subsidies
- Based on availability-that is, conditional on the availability of an asset or service to the specified quality
- Upfront subsidies based on achieving certain milestones.

Bonuses and penalties-deductions on payments to the private party, or penalties payable by the private party, due if certain specified outputs or standards are not reached; or conversely, bonus payments due to the private party if specified outputs are reached.

A PPP payment mechanism could include some or all of these elements.

Box 4.1 DEFINING GOVERNMENT PAYMENTS

Key considerations when defining government payments include the following:

- Risk allocation implications of different government payment mechanisms. For example, under a usage-based mechanism, demand risk is shared; whereas an availability payment mechanism means the government bears downside demand risk. Providing an upfront capital subsidy means the private party bears much less risk than if the same subsidy is provided on an availability basis over the contract lifetime.
- Linkage to clear output specifications and performance standards-linking payments to well-specified performance requirements is key, to achieve risk allocation in practice.
- Indexation of payment formulae-as for tariff specification, payments may be fully or partially indexed to certain risk factors, so the government bears or shares the risk.

4.6 Adjustment Mechanisms

PPP projects are long-term, and are often risky and complex. This means PPP contracts are necessarily incomplete—that is, they cannot fully specify all future possibilities. The PPP contract therefore needs to have flexibility built in—to enable changing circumstances to be dealt with as far as possible within the contract, rather than resulting in re-negotiation or termination.⁸⁹

Adjustment mechanisms typically aim to create a clear process and boundaries for change. They can include mechanisms for dealing with the following:

Changes to tariff or payment rules or formulae: Tariffs or payments are often specified by formulae to allow regular adjustments for factors such as inflation. The PPP contract could also build in mechanisms for reviewing these formulae—whether periodic, or one-off changes in extraordinary circumstances

Refinancing: When the PPP is being implemented, changes to the project risk profile or in capital markets may mean the PPP company can replace or renegotiate its original debt on more favorable terms.

Changes to service requirements: It may be difficult for the contracting authority to accurately anticipate service requirements over the duration of the contract. Contracts, typically, adopt built-in approaches for handling changes to service requirements in response to changing circumstances (which could also include changing technology). Four categories of variations can be considered:

- variations with no additional cost;
- small works variations;
- "institutional" variations (changes in service requirements); and
- variations requested by the private party.

4.7 Dispute Resolution Mechanisms

The complexity and long-term nature of PPP contracts creates room for differences in interpretation and disputes. Defining a dispute resolution process helps ensure disputes are resolved quickly and efficiently, without interruption of service—reducing the risk of disruption due to disputes to both the public and private parties. Dispute resolution mechanisms can be built into the PPP contract. Some governments define dispute resolution mechanisms in PPP legislation, to apply to all PPP contracts.

Dispute resolution mechanisms for PPP can include the following:

- **Recourse to a sector regulator, where applicable:** PPPs are often used in sectors that are also subject to a sector regulatory regime, under an independent regulator. In this case, the regulator can be assigned responsibility for resolving certain disputes. This is a relatively simple and so low-cost option, but can be risky for the private party, particularly where there are concerns over regulator independence or capacity.
- **Judicial system**—generally, contractual disputes are subject to jurisdiction of the courts, and the same is typically true of PPP contracts. However, parties to PPPs often consider the court system as inappropriate for solving disputes, since it may be slow, or lack technical expertise—particularly in developing countries. Dispute resolution mechanisms for PPPs often try to avoid resorting to the court system as far as possible.
- **Panel of experts as arbitrators**—the contract or law, could designate a panel of independent experts, to act as arbitrators in case of dispute. Decisions could be defined as non-binding (in which case a further escalation mechanism is required), or binding.
- **International arbitration**—the last resort for many PPPs is international arbitration, which can be under a permanent arbitration institution such as the International Centre for Settlement of Investment Disputes (ICSID), or involve an ad-hoc arrangements such as an international expert panel.

4.8 Termination Provision and Asset Handover

As most PPP have a defined term, the contract typically sets out the contract termination date, as well as arrangements for contract close and asset handover. The PPP contract should also specify circumstances in which the contract may be terminated early, and consequences of termination in each case.

4.8.1 Orderly asset handover at the end of the PPP contract

PPP contracts need to clearly define the approach to transition of assets and operations at the end of the contract. This typically includes defining how quality of the assets will be defined and assessed, whether a payment will be made on asset handover, and how the amount of any payment will be determined.

Orderly handover date corresponds to the time needed (i.e. the length of the concession contract) for the private party to achieve its required return, at reasonable tariffs or payment levels.

PPP contract orderly termination date can be set in three ways:

- 1/ government choice stipulated in the PPP contract,
- 2/ bidder's offer based on the relationship between applied tariff and required return, and
- 3/ inviting bids on the basis of the least present value of revenue (LPVR).

4.8.2 Early termination

Early termination of the PPP contract occurs under four possible circumstances:

Private party default: Failure to complete construction Persistent failure to meet performance standards Insolvency of project company Lenders are typically given "step-in rights" to enable them to remedy problems due to an under-performing contractor- termination only occurs if this is ineffective, or if lenders choose not to do so

Public party default: Public party fails to meet its obligations under the contract.

Termination for public interest: Many PPP or public procurement laws allow the contracting entity to terminate for reasons of public interest.

Prolonged force majeure damage: Prolonged force majeure damage should be carefully defined in the contract and limited to uninsurable, prolonged force majeure events that preclude performance of obligations.

In case of early termination due to the last three circumstances, the government typically makes a payment to the private party, and takes over control of the project assets (which may be re-tendered under a new PPP contract).

SECTION 5

MANAGING THE PPP TRANSACTION - PROCUREMENT, BIDDING AND FINANCIAL CLOSE

5.1 Introduction

In the transaction stage, the government selects the private party that will implement the PPP. This stage follows the structuring, appraisal, and detailed preparation of the PPP and involves:

- Deciding procurement strategy
- Marketing the PPP

- Qualifying bidders
- Managing the bid process
- Reaching financial close

FIG 5.1
PPP TRANSACTION STEPS



The aim of the PPP transaction stage is to select a competent firm or consortium, with a sound technical solution for the proposed project, which offers value for money for the government and users. This generally requires a competitive, efficient, and transparent procurement process.

5.2 Procurement Strategy: Competitive Procurement or Direct Negotiation

Procurement for the services of the private sponsor/firm can be done in two ways: competitively or through direct negotiation.

Competitive selection: A competitive selection process is typically recommended to procure PPP contracts. Key advantages are transparency, and use of competition to choose the best proposal-the

mechanism most likely to result in value for money, and higher level of public acceptance.

Direct negotiation: The alternative to a competitive process is to negotiate directly with a private firm. This is most commonly-but not exclusively-considered in the context of receiving an unsolicited proposal for a PPP project from a private sponsor.

There can be good reasons to negotiate directly, but these are relatively few. These good reasons can include:

- Small projects, where the costs of a competitive process would be prohibitively high given level of expected returns
- Cases where there is good reason to believe there would be no competitive interest-for example, extensions of an asset for which a contract is already in place
- Need for rapid procurement in the case of emergencies and natural disasters, where speed may outweigh value for money considerations

Direct negotiation is also sometimes considered when a private company comes up with a PPP idea (i.e. unsolicited proposal)-although there are ways to introduce competition in this case. Based on these considerations, many countries do not allow non-competitive procurement processes at all.

5.3 The Transaction Stage

The transaction stage typically includes the following five steps, as shown in Figure 5.1 above:

- Deciding on a procurement strategy, including the process and criteria for selecting the PPP contractor. Many governments choose to define some elements of procurement strategy in procurement or PPP-specific law-others may be project-specific
- Marketing the upcoming PPP project, to interest prospective bidders (as well as potential lenders and sub-contractors)
- Identifying qualified bidders through a qualification process. This may be done as a separate step before requesting proposals, or may be part of the bidding process
- Managing the bid process, including preparing

and issuing a Request for Proposal, interacting with bidders as they prepare proposals, and evaluating bids received to select a preferred bidder

- Executing the PPP contract, and ensuring all conditions are met to reach contract effectiveness and financial close. This may require gaining final approval of the contract from government oversight agencies.

The first step in managing a PPP transaction is defining the procurement strategy. This includes defining the following aspects of the procurement process:

- Pre-qualification-whether to use a pre-qualification process to select the firms or consortia that will participate in the bidding process
- Bid process-whether to use a single-stage process to select the preferred bidder, or a multi-stage process, in which proposals and the bidding documents may be reviewed and iterated
- Negotiation with bidders-to what extent discussions with bidders may lead to changes in the initial draft contract: either during the bidding process (with multiple bidders), or after final bids have been submitted
- Basis for award-whether to rank proposals and choose the preferred bidder based on a single financial or value-related criterion (after screening for technical merit), or some weighted evaluation of financial and technical criteria.

5.4 Conclusions and Recommendations to Improve the Regional and National PPP Policy Frameworks

A major difference between procurement approaches in different countries is in the extent to which the government enters into negotiations with bidders.

Competitive negotiation: In a multi-stage bidding process, the government may choose to dialogue or negotiate with multiple bidders in between bidding stages. This can help clarify

aspects of the RFP, draft contract, and bidders' initial proposals, and result in proposals that more closely meet the government's requirements.

Post bid negotiation: Once a preferred bidder has been identified, governments may then enter into further dialogue with that bidder to finalize the PPP contract. If negotiating with a preferred bidder—even if a reserve bidder is maintained as a fall-back option—the implementing agency can no longer rely on competitive tension to ensure value for money.

Approach to bid costs and payment: Preparing a proposal for a PPP project is typically an expensive exercise. Equally, running a high-quality procurement process for a PPP can have high cost to government. Governments have different approaches to dealing with bid costs and commitments.

Many governments require bidders to submit a bid bond, to ensure commitment to the process, and prevent the winning bidder from withdrawing without good cause. Governments have found different ways to deal with bid preparation costs. In some jurisdictions, the government may share bid costs, to encourage more bidders to participate.

5.5 Marketing the PPP

Marketing the PPP helps attract bidders and investors. This is particularly important in the early stage of a PPP program—governments need to make a positive effort to build bidder interest, to increase competitive pressure. Marketing also helps identify who might be the potential bidders. This can feed into designing qualification criteria to avoid a situation where no firms qualify.

At a minimum, marketing the PPP requires advertising the launch of the tender process. Many governments have requirements for how PPP tenders should be advertised.

Some governments take a more proactive approach to marketing, with a view to generating investor interest prior to the official project launch. This could include:

- Conducting investor presentations, meetings, or “road shows” to present the project. The scale and location of meetings can be

tailored to the expected interested investors—for example, whether likely to be local or international

- Releasing information in industry publications, for example, through industry conference or summits.

5.6 Qualifying Bidders

The next step may be to carry out a bidder pre-qualification process, to select the companies and consortia that will be invited to submit proposals. Not all countries select qualified bidders in advance, instead assessing qualifications as part of an open bidding process.

This section describes the pre-qualification process. This process consists of preparing and issuing the Request for Qualifications (RFQ)—along with advertising the launch of the tender process..

Preparing and issuing the Request for Qualifications

For procurements that include a pre-qualification stage, the procurement process is officially launched when the Request for Qualifications (RFQ) is issued.

Evaluating the information received to identify qualified bidders

This evaluation is done on the basis of firm qualification criteria that can be quantitative or qualitative. The criteria typically involve considering the sponsoring firms' financial robustness, previous experience with similar projects, and the experience of key members of the management team. Careful selection of these criteria is important, to avoid excluding firms (for example, smaller firms) that could make good partners; or including firms that prove poorly-qualified. The following provide discussion and examples of firm qualification criteria

5.7 Preparing and Issuing Request for Proposal Documents

The bid process formally begins when the government issues Request for Proposal (RFP) documents to

participating bidders. These documents set out the project structure and requirements, and the details of the bid process. High-quality, detailed, and clear RFP documents are important to ensuring a competitive process and a PPP that achieves value for money. RFP documents typically include the following:

- Information on the PPP project opportunity. This could include:
 - 1/ An Information Memorandum describing the key features of the project and the commercial terms of the PPP
 - 2/ Draft project agreements-that is, the output of the detailed PPP contract design process
 - 3/ Copies of any permits or approvals obtained for the project
 - 4/ A description of the detailed technical information amassed during the project preparation stage that will be provided to bidders in a data room.
- Information on the bid process. This could include:
 - 1/ Detailed bid rules and instructions to bidders, setting out the process and requirements
 - 2/ A timetable, which should build in enough time to allow bidders to prepare quality proposals
 - 3/ Evaluation criteria
 - 4/ Bid bond requirements (if any)

5.7.1 Interacting with bidders during proposal preparation

After the RFP have been issued, bidders will prepare detailed proposals responding to the requirements of the RFP. During this process, the government needs to define how and to what extent it will interact with bidders as they prepare their proposals. Rules on the channels and permissible topics for interaction with bidders are usually set in the RFP-important for transparency.

At a minimum, this interaction typically involves providing information to bidders, and responding to requests for clarification on the RFP. In some cases, the government may consider updating the RFP documents as a result. Typical channels for these types of communication include:

- Data room, which can be a physical or virtual

space, where bidders can find all available information that is relevant to the project

- Question and Answer iterations, where bidders submit questions in writing and the implementing agency responds in writing to all bidders (ensuring that all bidders have access to the same information)
- Bidder's Conferences, where the implementing agency presents the project and respond to questions from bidders.

Some governments impose limits on when clarifications can be sought, to avoid revealing information close to the bid deadline that could benefit some bidders over others.

5.7.2 Receiving and evaluating bids to select the preferred bidder

Receiving bids: A reliable and credible system to ensure bids are handled confidentially is important, to prevent any opportunity for bid-tampering, and to protect commercially sensitive information in bids. Often bids are delivered in hard copy in sealed envelopes. Typically financial and technical bids are delivered in separate envelopes-financial bids are only opened for bidders that pass the technical assessment, and are often opened publicly to avoid any possibility of bid tampering.

Evaluating bids: the evaluation process involves:

- Assessing bid completeness, and compliance with minimum requirements of bid process
- Assessing conformity with requirements of the project brief. Conforming bids are evaluated before non-conforming bids-however, non-conforming bids may also be considered, particularly if no conforming bids are attractive.
- Bid clarification, which can involve a bidder presentation and a Q&A session. This should not include any opportunity to change bids
- Detailed review by evaluation teams, following the pre-defined evaluation criteria
- Preparation of evaluation reports, detailing the process followed and the analysis of the evaluation teams. Comprehensive reporting is important to the transparency of the process. In some cases, bidders may be invited to formally comment on a draft report, with the evaluation team required to address comments in the final version.

Box 5.1

BID EVALUATION CRITERIA

The selection of evaluation criteria is key to ensuring the PPP provides value for money. Evaluation criteria should be decided in advance, and set out in the RFP documentation. Evaluation criteria typically incorporate technical and financial elements. These may be evaluated separately-typically with a pass/fail technical evaluation, followed by ranking on financial criteria) or combined and weighted to rank bids.

The options for specific criteria depend on the nature of the project, for example, whether existing assets are involved, and whether the project will be user-pays or government-pays.

Many PPPs are ranked on the basis of a financial criterion, subject to passing other technical and financial requirements. The most common option for a financial evaluation criterion is the remuneration of the private

sector. This could be the lowest tariff to users, or lowest cost to government (whether as a government-pays PPP, or subsidy in addition to user charges). The Least Present Value of Revenue (LPVR) criterion, is another alternative. Related criteria can include length of concession, or amount of investment.

Where technical requirements have been clearly set out in the proposal, technical evaluation requires checking compliance with those requirements. In some processes, bidders are asked to submit project design, business, or investment plans, which are evaluated based on multiple criteria. However this approach comes with drawbacks-including the possible subjectivity of assessing plans, and the likelihood of plans changing substantially over the lifetime of the concession.

Source: Adapted from PPIAF, World Bank Institute, 2012. Public-Private Partnership Reference Guide version 1.0. 2012.

Issue 1: single bidder

If only one bid is received, this can raise concerns about whether that bid will provide value for money. There are two broad options in this case, depending on the reason for only receiving one bid:

- Re-package and re-tender-this may be the best approach if the low turnout seems to be because of deficiency in the tender.
- Conduct thorough due diligence and select the sole bidder-may be a better option if it appears that the bidder believed the process would be competitive, and is in full compliance with the requirements.

Issue 2: no clear preferred bidder or no conforming bids

In some cases, despite multiple bids being received, there may not be a clear preferred bidder. For example, this could be because no bids conform to requirements; or because a non-conforming bid appears to present a better value-for-money option than conforming bids.

One common cause of this problem is poor clarity or quality of the RFP document. The multi-stage and competitive dialogue procedures help avoid this issue, by enabling changes to the RFP during the bid process that help ensure final bids are all comparable and compliant.

One option if no bids conform, and none appear to be of high quality, is simply to re-package and re-tender the project. The alternative is to extend the procurement process, to identify a preferred bidder: typically through discussions with the higher-ranked bidders on the points where the bids do not conform, often followed by asking for a revised bid.

5.8 Finalizing the PPP Contract with the Preferred Bidder

Once the preferred bidder has been selected, governments often enter into further discussion, to finalize the PPP contract. Extensive negotiation at this stage can undermine the competitive tender process. Many governments define and limit the extent of negotiations possible at this stage.

5.9 Achieving Financial Close

Financial close in a PPP transaction corresponds to the stage where all contractual agreements among the different contracting parties are agreed-upon and signed.

Once the government and the preferred bidder have signed the PPP contract, they are contractually committed to implementing the PPP. However, there are typically several additional steps before project implementation can begin. The preferred bidder usually needs to finalize the financing agreements for the PPP, and sign contracts with other parties in the PPP structure—for example, sub-contractors and insurers. The implementing agency typically also has tasks to fulfill, such as finalizing permits. Detailed contract management protocols and manuals are often also developed during this period.

The PPP contract typically includes completion of (some of) these elements as Conditions Precedent, which must be met for the contract to become effective. PPP contracts often specify a final date by which the contract terminates, and/or a bid bond is forfeited, if the Conditions Precedent are not met.

5.10 Finalizing Financing Agreements

In most cases, interested lenders are identified at the proposal stage. However, before those lenders will commit to provide finance, they often carry out detailed due diligence on the project and PPP agreements. There are risks associated with this process—lenders may require changes in the PPP agreements before agreeing to finance the project, or financing terms may change from what was

assumed in the proposal. One way to mitigate these risks can be to ask for “firm” financing commitments at the proposal stage—but this can be difficult and expensive to procure, and risk reducing competition.

5.11 Meeting Conditions for Contract Effectiveness and Financial Close

Financial close occurs when all project and financing agreements have been signed, all conditions on those agreements have been met, and the private party to the PPP can start drawing down the financing to start work on the project. The financial close conditions are often circular—the PPP contract does not become effective until funding is available for drawing (that is, funding availability is a Condition Precedent for contract effectiveness), and vice versa.

Checklists for governments on finalizing the PPP contract and reaching financial close are suggested. Typical requirements include:

- Finalizing all project agreements and contracts
- Securing final approval from relevant government entities - for example, review and approval of the procurement process and final contract
- Securing permits and planning approvals
- Commencing or completing project land acquisition.

5.12 Dealing with Unsolicited Proposals

An “unsolicited proposal” is a proposal made by a private party to undertake a PPP project, submitted at the initiative of the private firm, rather than in response to a request from the government. Accepting—and encouraging—unsolicited proposals allows governments to benefit from the knowledge and ideas of the private sector. However, unsolicited proposals also create challenges that mean they risk providing poor value for money, particularly if the government chooses to negotiate a PPP directly with the project proponent.

5.12.1 Benefits and Limits of Unsolicited Proposals

Benefits of unsolicited proposals: Accepting unsolicited proposals allows governments to benefit from the knowledge and ideas of the private sector. This can be a significant advantage where limited government capacity means the private sector is better able to identify infrastructure bottle-necks and innovative solutions. It also provides government with information about where commercial opportunities and market interest lie.

Pitfalls of unsolicited proposals: However, unsolicited proposals also create substantial challenges. First, most PPPs require government fiscal support: the government typically accepts risks, and the associated contingent liabilities, even if direct subsidies are not needed. Secondly, unsolicited proposals have not been originated as part of a government planning process, and, in some cases by definition, are not part of sector plans. Thirdly, negotiating with a project proponent on the basis of an unsolicited proposal-in the absence of a transparent or competitive procurement process-can create problems. It could result in poor value for money from the PPP project, given a lack of competitive tension. It could also provide opportunities for corruption.

Dealing with Intellectual Property Issues in an Unsolicited Proposal

Private investors may be reluctant to submit unsolicited proposals if the proposal will be subject to competition, and if it is not clear how any intellectual property or commercially-sensitive information will be protected during the bidding process.

There are different approaches to dealing with intellectual property in an unsolicited proposal, which may depend on the nature of the proposal. UNCITRAL Legislative Guide for Privately-Financed Infrastructure Projects suggests two options:

- Where possible, the government can competitively tender the project, by specifying required outputs, and not the required technology to deliver those outputs. This approach is consistent with good practice in defining output-based performance requirements for PPPs.
- In cases where intellectual property is crucial to the project, such that it could not be implemented otherwise, the UNCITRAL guidance suggests direct negotiation may be warranted, along with procedures to benchmark project costs.

5.12.2 Creating Competitive Tension

Many private companies submit unsolicited proposals with a view to directly negotiating a contract for the proposed project. While unsolicited proposals are viewed by some to distort competition, there are some circumstances in which entering into direct negotiations may make sense.

The way to deter the controversy is to subject unsolicited proposals to some kind of competitive process. Some countries (e.g. the Netherlands) accept proposals, and simply follow the normal competitive procurement process. However, this is relatively unlikely to generate proposals, since the proponent receives no return on its investment in the project idea. Other countries adapt the competitive tender process, to provide some advantage or compensation to the project proponent for developing a project, while retaining competitive tension and ensuring transparency.

SECTION 6

CONSTRUCTION, ASSET OPERATION AND MONITORING OF PPP CONTRACT AND PERFORMANCE

This phase of the PPP management process starts after the technical close and financial close of the project are reached and the Concession Agreement signed. When the contract is signed, the Public Sector Sponsor goes from preparing the PPP to managing its implementation and on-going operation according to the terms set out in the Concession Agreement. The Public Sector Sponsor remains engaged with the PPP in this new role until the end of the contract's life. From the Public Sector Sponsor's point of view, this phase involves the following steps and activities:

- effects of multiple contracts at the enterprise level are overlooked; and
- 5/ failure to articulate a risk management system;
- 6/ failure to put in place comprehensive dispute resolution mechanisms

The benefit of defining this supervision, monitoring, performance management and dispute resolution systems is to be able to identify potential issues early in the process and address them before they get out of hand.

6.1 Planning – The Importance of Proper Planning

Poor original planning and performance management of processes, resources, and cost is one of the key drivers of problems and ultimately failure during the construction and the facility or asset operation phases.

In other words, this is can be due to or compounded, in many cases, by three factors:

- 1/ poor selection process of the EPC contractor;
- 2/ failure to define clearly the performance level and its KPs;
- 3/ failure to put in place a comprehensive supervision and performance monitoring and measurement system;
- 4/ focus on the management of individual contracts, which means that the portfolio

6.2 Monitoring Construction

The key performance objective for all parties to the construction phase of a PPP project is on-time, on-budget, and on-quality delivery and financing.

Many construction project sponsors believe that once they have entered into turnkey contracts with concessionaires, their responsibility for construction monitoring and oversight has been transferred. This attitude fails to consider that the general public will continue to hold the public sector accountable for the successful delivery of the project; which suggests that it is critical to establish sound monitoring programs throughout the construction phase.

Asset owners (i.e. the public sector Sponsor) and financiers are the stakeholders in the construction delivery phase insofar as this relates to engineering, procurement and construction (EPC) contractor

monitoring. EPC contractors are responsible for on-time, on-budget, and on-quality delivery and financing.

Problems often arise because

- (i) EPC contractors either fail to meet their contractual obligations, resulting in cost overruns, delays, and defects, or
- (ii) are only able to perform their contractual obligations at the cost of significantly reduced profitability of their business. Poor original planning and performance management of resources and cost is one of the key drivers of this failure, and this is compounded in many cases by a failure to identify potential issues early in the process. Moreover, there is often a focus on the management of individual contracts, which means that the portfolio effects of multiple contracts at the enterprise level are overlooked.

Further, there is often a disconnection between contractual obligations and transparency about a contractor's ability to deliver. Management of the relationships between clients, suppliers, and subcontractors can be haphazard, and often this comes back to poor contractor selection and management in the early phases.

A consequence can be cost and budget overruns, and these can have a significant impact on a broader economy. Delays to the opening of Hong Kong airport, for example, resulted in a loss of more than \$600 million to the economy (Mc Kinsey, 2013).

A life-cycle approach (i.e. an end-to-end approach to PPP project planning and delivery) can alleviate many of these issues.

- 1/ Owners need to design appropriate metrics and processes to measure contractor performance.
- 2/ This should be translated into a proper documentation and log system for tracking progress that allows the owner to get the information they need to manage the contractor effectively. This could include a detailed monthly schedule, with measureable key performance indicators (KPIs) linked to the contract.
- 3/ Financial risk should be managed and an incentive system established through

milestone payments and daily contractor-compliance monitoring required and expected between owner and supplier. Any slippage from contractual obligations can be planned for within an overall portfolio of obligations and contracts. Often it is helpful to designate a dedicated project risk manager and team with overarching risk responsibility. For each package or area of a project, clear risk owners need to be identified, and daily site meetings should be held to assess progress against targets, slippage, and potential problems.

In summary, during project execution, the key risks for the sponsor or developer are related to contractual defaults, claims, keeping public political stakeholders aligned, and monitoring for any mismanagement by the contractor. The interface with the contractor is therefore the critical element. However, this phase is all about mitigating risks, and the ability to influence the magnitude of these risks is smaller than during planning.

6.3 Facility Operation and Maintenance

Finally, operation is supposed to be the least complicated phase because you have a steady-state system where good operational practices can address many of the issues. In this phase of a project, asset owners and financiers are the stakeholders insofar as this relates to operation and maintenance (O&M) contractor monitoring, while O&M contractors are responsible for ensuring on-time, on-budget, and on-quality service delivery and financing.

In reality, the above two parties often fail to meet contractually agreed-upon KPIs for service quality or availability, resulting in delays and increased costs. This can be because incorrect design specifications do not meet contractors' requirements or because of poor forecasting around service load, maintenance cycles, or operating expenses. An inability to adjust to a changed commercial environment through changes in contract terms can also be a factor. Number of steps can be taken to minimize these challenges:

- 1/ As a first step, project owners can reduce and better manage these risks by outsourcing O&M monitoring to avoid in-house restructuring

and to allow for the replacement of poorly performing contractors.

- 2/ A design or construction interface with the O&M contractor should be planned and managed early on and the long-term implications of today's design choices evaluated.
- 3/ State-of-the-art forecasting techniques should be applied and KPIs planned under adverse scenarios, including stress testing.
- 4/ On-going monitoring and reporting should be established, and
- 5/ The project should allow for operational flexibility by focusing on KPIs rather than operational structure.

6.4 Managing PPP Contracts

A significant and often, in the past, neglected stage of a PPP arrangement is the contract management phase. It is an essential, although time-consuming and potentially costly element, of any successful PPP.

Experience acknowledges that while significant consideration is given to the tender, procurement, evaluation and contract negotiation areas of PPPs, rather less attention is paid to contract management. At the same time, contract management skills have tended not to be widespread in the public sector.

While performance can be driven through appropriately structured performance incentives or disincentives, sound contract management arrangements are required to ensure performance standards meet – and preferably exceed – expectations throughout the contract life. Without such arrangements in place, what may have been a beneficial project for a government could quickly become an even more costly exercise than if traditional procurement methods had been adopted in the first place.

Effective contract management will, in most circumstances, secure the interests of the public sector and the community by the development of sound working relationships with the service provider. This will allow services to be tailored

continually to the current needs of the users in ways that are mutually beneficial to both parties

Importance of PPP contract management and prerequisites for success

Under traditional procurement approaches, monitoring substantially ends at the completion of construction. In the case of a PPP procurement, the contract monitoring needs to be far more sophisticated because it is required to address a wide range of issues relating to finance, operations and maintenance over an extended period of time.

Contract management and monitoring is an especially important part of a PPP. The effective and efficient implementation of the PPP requires a significant level of proactive management with clear terms between the public sector Sponsor and the private operator (the concessionaire). The deliverables expected from the PPP are largely dependent on the smooth and trouble-free relationship between the Sponsor and the concessionaire.

As with the other Phases of the PPP Process, preparation is important and good preparation will help achieve efficient contract management and a good outcome from the PPP.

There are two important parts to contract management preparation:

- Ensuring that the Concession Agreement covers all performance-related issues, and specifies responsibilities and obligations.
- Ensuring the Sponsor has an adequate institutional set-up in place so that it can manage the contract.

Actual PPP contract management activities

Managing a PPP contract involves monitoring and managing PPP delivery and risk to make sure that it delivers the promised value for money. In specific terms, it involves monitoring and enforcing the PPP contract requirements, and managing the relationship between the public and private partners. The contract management stage spans the lifetime of the PPP agreement, from the date of contract effectiveness to the end of the contract period.

Managing PPP contracts differs from managing traditional government contracts. PPPs are long-term and complex, and contracts are necessarily

incomplete—that is, the requirements and rules in all scenarios cannot be specified in the contract. The aims of contract management for PPPs are to ensure:

- Services are delivered continuously and to a high standard, in accordance with the contract, and payments or penalties are made accordingly.
- Contractual responsibilities and risk allocations are maintained in practice, and the government's responsibilities and risks managed efficiently
- Changes in the external environment—both risks and opportunities—are spotted and acted on effectively.

The three main aspects of putting contract management into practice for PPP projects are:

Establishing contract management institutions

- defining and establishing the responsibilities and communication mechanisms that will enable an effective relationship between the public and private partners to the contract

Monitoring PPP delivery and risk—monitoring and enforcing contract compliance and service performance by the private party, ensuring the government delivers on its responsibilities under the contract efficiently, and monitoring and mitigating risk

Dealing with change—putting into practice the mechanisms to deal with contract adjustments, dispute resolution, and contract termination, as well as deciding whether, when and how to re-negotiate contract expiry and asset handover—managing the transition of assets and operations at the end of the contract term.

Governance system and management unit

Establish the Concession Governance Model: It's important that effective project governance models are established and that skilled individuals are in place during both the construction and concession phase.

Designating a PPP contract manager, defining management roles, and preparing staff: The implementing agency typically has primary responsibility for contract management. This responsibility is often centred on a designated “PPP contract manager”—the main point of contact within government for all matters relating to the PPP.

Most jurisdictions are used to undertaking these projects on their own. While PPPs may reduce the need for additional staff to do in-house design and engineering work, current staff are required to provide project management and long-term oversight. As such, the public Sponsor of the project should make sure that the unit in charge of the above supervision, monitoring and interface and relationship management tasks is adequately staffed in quantity and quality.

The PPP contract manager—or management team—needs: sufficient resources, adequate skills and appropriate seniority. Several other entities within government can also have roles to play in managing a PPP contract, typically working with the contracting authority. These can include:

Sector regulators, which often have responsibility for monitoring service standards and managing changes in tariffs for PPP companies providing services directly to the public

The Finance Ministry is often involved, particularly where any possible changes to the contract could have a fiscal implication.

Central PPP units or other specialized support units may have a role in supporting the contracting authority's contract management team

Communication and contract management protocols

As well as establishing institutions, the government needs to specify the structure for communication between the public implementing agency and the private party. This often requires relationships at different levels of both organizations—from the more senior levels (if dealing with emerging problems with the contract), through those primarily responsible for contract management, to the operational staff.

6.5 Monitoring and Evaluation of PPP Contracts

Performance monitoring allows the public sector sponsor to ensure that the services being provided are consistent with the contract.

Armed with measures of performance, public sector sponsors are in a position to formulate policy and implement plans that are relevant to any problems they come across and, conversely, that avoid unnecessary action.

Performance monitoring needs to take place against a number of clearly defined indicators; performance targets can be developed for a particular period and for the local context, which enables managers to identify areas for improvement.

The operators of the service should be required to: publish key performance indicators regularly; provide convenient consumer inquiry and complaint mechanisms; and consult consumers regarding major new investments through surveys and public forums. In addition, the public sector sponsors could establish its own mechanisms, such as a formal consumer committees and surveys, for assessing public opinion about services.

6.6 Termination and Asset Handover

As indicated in the section on "PPP Contract", PPP contracts have specific provisions for orderly asset handover at the end of the contractual term of the contract⁸.

PPP contracts clearly define the approach to transition of assets and operations at the end of the contract.

Typically, orderly asset handover at the end of the PPP contract is effected based on the following assessments and their contractual implications, including in terms of compensation and/or bonus/penalty payments from the public Sponsor to the Concession company and vice versa:

- Assessment of the quality/conditions of the assets and comparison with the features described by the contract.
- Based on the above assessment, deciding whether a payment will be made on the asset handover, and from which party to the other.
- Determining the amount of the payment to be effected if any.

⁸ The PPP contract should also specify circumstances in which the contract may be terminated early, and consequences of termination in each case.

SECTION 7

FINANCING SOURCES, SOLUTIONS AND INSTRUMENTS FOR PPPs IN INFRASTRUCTURE

7.1 Challenges of PPP and Infrastructure Finance in East Africa and Africa

With an ever increasing number of priorities competing for public funds, governments are increasingly forced to make use of private-sector participation in the development, financing and operation of infrastructure projects. Furthermore, many infrastructure services previously viewed as government responsibilities are nowadays envisaged as commercial economic activities that must be undertaken with efficient and enhanced level of customer service.

Hence, considering the persistent investment gap in their infrastructure sector, many governments, including those in East Africa and Africa, see the private sector players as additional sources of finance for their infrastructure sector. However, the size, duration, risk profile and contractual complexity of most PPP-based infrastructure projects make mobilizing private financial resources particularly challenging in industrial, emerging and poor developing countries alike.

From an infrastructure finance point of view, one has to differentiate two issues that are sources of confusion for non-experts: financing and funding. Financing refers to the ability to raise debt, equity and other forms of capital. Funding is the ability

of nations to pay. Most emerging and developing countries, including Northern Corridor and African countries, face both financing and funding challenges except the few countries that enjoy massive export earnings. However, the majority of industrial economies face, to varying degrees, only funding problem in relation to infrastructure development – not financing.

7.2 Source of Demand for PPP and Infrastructure Finance

Demand for East Africa and Africa infrastructure finance stems from:

- (i) growth-induced demand in basic and social infrastructures (water, sanitation, roads, health infrastructures, education and training infrastructures, social housing) and economic infrastructures (energy, telecommunications, roads, industrial zones and business parks, ports, airports, etc.);
- (ii) unmet demand in modern economic infrastructure imposed by globalization and international competition and standards, and
- (iii) maintenance and upgrading requirements of existing infrastructures.

The Programme for Infrastructure Development in Africa (PIDA) projected that the average economic growth rate for African countries will be 6 per

cent per year for the next 30 years. This continuing growth will increase the already high demand for infrastructure. For example, power demand will increase from 590 terawatt hours to 3100 terawatt hours; transport volumes will increase 6-8 times and even up to 14 times for some landlocked countries; and port throughput will rise from 265 million tons to more than 2 billion tons.

7.3 Quantitative and Qualitative Assessment of Demand for Finance in PPP/Infrastructure of Africa and East Africa's

Demand for PPP-specific infrastructure finance is beyond the scope of this reference and guidelines book. However, estimations of African infrastructure finance needs have been attempted by AfDB, UN-ECA, World Bank and AICD.

From an East African and Northern Corridor perspective, only programming-based estimates of infrastructure finance needs have been completed by regional bodies such as the EAC, NCTTCA and the CCTTCA, but no comprehensive estimates of the infrastructure finance of the region from an EAC-zone or NCTTCA influence zone has been completed beyond the programming work under the relevant Infrastructure Master Plan (e.g. EAC Infrastructure Master Plan and NCTTCA Infrastructure Master Plan).

Hence, from a quantitative point of view, what follows will be largely based on the ground-breaking work of Africa Infrastructure Country Diagnostic (AICD).

Quantitative assessment of Africa and East Africa's financing needs

The lack of financial resources is a major constraint to the development of infrastructures across Africa, including in East Africa. To build the infrastructure it needs to support growth and meet stated development goals, Africa will have to spend about US \$93 billion a year for the next several years (AICD, 2009). According to AICD, a third of this amount will be allocated to maintenance and two-thirds to investments in new infrastructure, to refurbish dilapidated assets, and to operate and maintain all existing and new installations. This investment level that represents about 10-15% of SSA GDP should be maintained at least for the next decade.

However, the report suggests that SSA is already spending US \$45 billion a year to address its infrastructure needs-about half of the amount needed to achieve its goals and to catch up with other developing regions. Seventy (70) per cent of infrastructure investment in the 2000-05 period originated from governments and state-owned enterprises, 22 per cent from the private sector, and 8 per cent from ODA.

These US \$45 billion of investment result approximately in a financing need of around US \$40 billion per year to meet SSA's infrastructure needs.

However, of these US \$40 billion, approximately US \$18 billion could be saved through better planning, budget execution and O&M activities as illustrated below:

Financing gaps:	40 billion (US \$)
Reallocate spending across categories:	-8
Raise capital budget execution:	-3
Reduce operating inefficiencies:	-3
Improve cost recovery:	-4

Remaining gaps:	22 billion (US \$)

Against this background, gaps in the financing of Africa's infrastructure are estimated to be in the range of US \$20 billion to 40 billion per year based on estimates from the World Bank, the Economic Commission for Africa and the ground breaking study from AICD (AICD, 2009).

From the above, one can note that maintaining present levels of expenditure on infrastructure and eliminating operational inefficiencies will not be enough to provide all of the funding needed to meet Africa's infrastructure needs. A substantial infrastructure funding gap would remain even if all inefficiencies were eliminated. Furthermore, all major sources of additional finance for African infrastructure have occasionally been affected by financial crises/constraints in major investors and lenders' countries. This may affect the availability of finance for infrastructure projects.

The AICD report suggests that, by extending the time horizon to between 13 and 30 years, most SSA countries could meet current infrastructure targets within their present budget envelope-but only if efficiency were improved. However, beyond the quantitative needs, African countries experience significant infrastructure project finance-related advisory service gaps.

Qualitative assessment of Africa and East Africa's PPP/infrastructure financing needs:

Four categories of financial resources required by the African private and public sector in the area of

Infrastructure Finance can be identified. These are listed below:

Project Development:

- Early stage risk capital
- Project co-ordination: Conception to operations
- Engineering and technical advisory services

Financial Advisory:

- Project structuring/planning
- Consulting/policy advisory
- Corporate finance
- Syndications (debt & equity)

Principal Investing:

- Co-investment with sponsors, private equity
- Project finance: debt, equity, mezzanine
- Structured products, trade and equipment finance

Viability Gap Funding:

- Large-scale infrastructure projects
- Small-scale infrastructure projects

Advisory & Technical Assistance:

- Policy, legal, regulatory and institutional reforms towards an attractive PPP regime
- Industry-specific technical expertise development on PPPs
- Capacity building in "Infrastructure PPP Finance" and management
- Capacity building in regional PPP/ infrastructure project management
- Knowledge resources generation and sharing in PPP projects

TABLE 7.1 INFRASTRUCTURE FINANCE IN EAST AFRICA & AFRICA – NATURE OF DEMAND FOR INFRASTRUCTURE/PPP FINANCE	
QUANTITATIVE GAP ASSESSMENT	QUALITATIVE FINANCING GAP ASSESSMENT, ADDITIONAL DEMAND, INNOVATION
Demand: US\$ 93.4 billion/year (for 10 years) Supply: US\$ 45 billion/year Financing gaps (rounded): 40 billion (US \$) Reallocate spending across categories: -8 Raise capital budget execution: -3 Reduce operating inefficiencies: -3 Improve cost recovery: -4 ----- ----- Remaining gaps: 22 billion (US \$) per year for next 10 years	1/ Enhanced PPP-based Funding Mobilization Project Development: Early stage risk capital Project co-ordination: Conception to operations Engineering and technical advisory services Assessment of Financial Implications of Project/Transaction Structure Choice of the optimal PPP modes Risk identification and allocation Allocation of functions and responsibilities Design of optimal payment mechanisms Alignment of incentive system to the required performance level/standard Assessment of VGF needs and related access criteria Financial Structuring/Engineering and Financial Advisory Financial structuring/engineering of PPP projects Project finance and corporate finance Structured products, trade & equipment finance, construction finance Syndications (Debt/Equity) PPP risk and financial risk management Principal Investing: Co-investment with sponsors Private equity Layered finance: debt, mezzanine and equity Viability Gap Funding: Large-scale infrastructure project Small-scale infrastructure projects Advisory & Technical Assistance: Legal and regulatory reform for PPP in infrastructure Industry-specific technical expertise development Capacity building in "Infrastructure PPP Finance" and management Knowledge resources sharing in PPP projects (financing opportunities, partnership opportunities, technical expertise, expert database) 2/ Promotion of investment in green technology and energy-efficient solutions 3/ Promotion of integrated regional projects to lower unit costs and pool scarce resources in some of the poorest developing regions 4/ Promotion of smaller, more modular technologies to decrease the capital cost of power plants and the time needed to plan and build them. 5/ Attracting IPP (Independent Power Producers)

Need 1: quantitative and qualitative financing gaps

The table above suggests that the quantitative financing needs in East Africa and Africa's infrastructure/PPP finance go hand-in-hand with the qualitative ones that evolve around: 1/ the type of capital and typology of financial services needed by private sector sponsors and the public sector. Overall, capital and financial service needs for East Africa and Africa infrastructure finance involve:

- Foreign direct investment (FDI)
- Liquidity solutions for local/foreign sponsors, contractors, operators and O&M operators: debt, equity and mezzanine, including as both early stage and principal investing
- Government-initiated project development funds including early stage capital
- Government initiated viability gap funds
- Government-initiated capitalization funds in support of local sponsors and local participation in PPPs
- Technical assistance funds
- Financial engineering/structuring and advisory services for both the public sector and the investor/private sector
- Political risk insurance, insurance and reinsurance and contract bonds services
- Risk management services
- Special facilities (including research financing, project development support, viability gap funding and investment support) in support of innovation and the promotion of alternative infrastructure solutions for the under-served and/or under-privileged communities.

Project Development: improving infrastructure project “bankability” and “investment readiness”

Infrastructure projects typically involve important sums of money in addition to being relatively risky due to their long tenor and their complex structure. These challenges translate into private investors and other commercial financiers not willing get involved into PPP projects unless a robust business case is established through comprehensive project development works. More worryingly, in the context of East Africa and Africa in general where the availability of technical and financial expertise for such projects are not common, the majority of large projects fail to reach a financial close and get off the

ground due to their inadequate structuring or simply the lack of proper project development capability.

Project development funds also enable the development of a strong pipeline of PPP projects which is a precondition for attracting foreign PPP players that, very often, take a long-term view and a portfolio approach to their operations in environments such as East Africa and Africa.

Viability Gap funding

Many PPP projects in East Africa and Africa in general display attractive socio-economic rate of returns. However, because these projects have long gestation periods and, in most cases, are not financially viable on their own there is a dis-incentive to private participation in their implementation. In order to remove this shortcoming and to bring in private sector resources and techno-managerial efficiencies, East Africa and African countries should consider ‘viability gap funding’ or VGF as part their PPP development agenda. Primarily, VGF is meant to reduce capital cost of the projects through credit enhancement, and to make them viable and attractive for private investments through supplementary grant funding which would generally be ex-post on a performance basis or an availability basis.

However, VGF presents certain limits as articulated in the Box below. Hence, capital subsidy, in the form of traditional VGF, has been abandoned in most parts of Europe; and countries like Germany, Spain, UK, Italy etc. now rely largely on generation-based incentives (refer to Box 7.1).

Box 7.1**VIABILITY GAP FUNDING (VGF)**

Rationale for VGF: There are many projects with high economic returns, but with financial returns that may not be adequate for a profit-seeking investor. For instance, a rural road connecting several villages to the nearby town would yield huge economic benefits by integrating these villages with the market economy, but because of low incomes it may not be possible to charge an adequate level of user fee. In such a situation, the project is unlikely to get private investment. In such cases, the government can pitch in and meet a portion of the cost, making the project viable. This method is known as viability gap funding. Besides, Infrastructure projects typically requires high upfront capital, has long gestation period and offer fixed returns. Thus to make it attractive for the private sector, government introduces viability gap funding (VGF) by subsidizing the capital cost through public-private partnership (PPP) framework

Definition: The Viability Gap Funding scheme provides financial support in the form of grants, one time or deferred, or other incentives to infrastructure projects undertaken through public private partnerships with a view to make them commercially viable. In India, a country that uses this scheme extensively, government introduced viability gap funding in 2004 by subsidizing the capital cost through public-private partnership framework. Hence, Viability Gap Funding is a capital subsidy granted to a sponsor of a PPP/infrastructure project with the view to making the specific infrastructure project more attractive to private investors and/or commercial lenders; thereby, incentivizing private investments into the project.

VGF is commonly used in the Renewable Energy (RE) sector but also in other segments of the infrastructure/PPP sector.

Limits and Critics of VGF: However, in some instances it has been observed that VGF does not incentivize project developers to build and operate most efficient power plants. Under the VGF mechanism, a large part of the funding is done upfront at the beginning of the project. In addition, accelerated depreciation can also be made use of. Under the mechanism, a developer may bid aggressively to win the projects and after availing himself of the incentives, may try

and sell the project to another investor. However, to tackle this problem, public authorities may propose a phased disbursement of subsidies over a period of a year. But for plants with an operational life of about 25 years, this would do little to maximize the operational efficiency throughout the life span of projects. Developers would be happily deploying the sub-standard equipment resulting in reduced plant life.

Alternatives to VGF: Generation-based incentives (GBI) which incentivize construction of efficient plants are increasingly being used as alternatives to the traditional VGF. Generation-based incentives (GBI) in the energy sector are of two types:

- Feed-in tariff
- off-take agreement that guarantees payment security

A feed-in tariff (FIT), standard offer contract advanced renewable tariff or renewable energy payment is a policy mechanism designed to accelerate investment in renewable energy technologies. It achieves this by offering long-term contracts to renewable energy producers, typically based on the cost of generation of each technology. Rather than pay an equal amount for energy, however generated, technologies such as wind power, for instance, are awarded a lower per-kWh price, while technologies such as solar PV and tidal power are offered a higher price, reflecting costs that are higher at the moment. Hence, the goal of FIT is to offer cost-based compensation to renewable energy producers, providing price certainty and long-term contracts that help finance renewable energy investments. In addition, FIT often includes "tariff depression", a mechanism according to which the price (or tariff) ratchets down over time. This is done in order to track and encourage technological cost reductions.

Payment security through off-take agreements enable the government through its utility companies to buy the electricity generated at a pre-determined tariff, say over 25 years, thus instilling a level of confidence in the financing community to fund these projects.

Source: Author

Capitalization fund for local sponsors and strategic investment in PPP projects and funds

As stated earlier, most African investors (institutional, corporate or individual) do not have the financial capacity to participate in large-scale PPP deals due to their relatively modest financial capacity. This results in limited financial value capture (through dividends and/or interest revenues) and in opportunity loss for local content maximization in many highly profitable PPP projects.

Northern Corridor and African governments should therefore consider the structuring of a capitalization fund to enhance the capital base of local sponsors but also, to invest in highly attractive PPP opportunities and PPP funds where it is relevant.

Financial structuring of PPP projects

In addition to the financial service needs, the table also suggests there is demand for enhanced framework conditions (policy, legal, regulatory, institutional, capacity) and programme frameworks for private sponsors/investors and the public sector of East Africa and Africa to meet the local and regional PPP financing needs.

Need 2: Enhanced sector governance and strong policy, regulatory, legal and institutional framework

It is worth noting that private financing, while offering additional resources, does not change the fundamentals of infrastructure provision if the sector governance issues around contracting and concession decisions and their foundational support are not well addressed. In other words, transparent, efficient and competitive PPP and infrastructure sector governance framework or PPP regime is a precondition to attracting meaningful private financial resources to Northern Corridor and African PPP sector. These framework conditions for attracting private financial resources must be captured in a comprehensive PPP policy framework.

The central element of all sustainable infrastructure provision, public or private is that customers or taxpayers (domestic or foreign) must ultimately pay for the investments; cost-covering tariffs should be applied (and well-targeted subsidies). Indeed,

it is important that below-cost price structures that make revenue streams insufficient to support even the operation and maintenance of existing assets be addressed in a transparent way. Secondly, weak governance and regulatory frameworks that lead to misuse of resources should also be avoided. Lastly, inadequate sector policies and planning and implementation capacities that slow investment programs should be enhanced towards more transparency and improved efficiency. Both financial and nonfinancial factors must be part of an integrated strategy for PPP/infrastructure finance and development.

Need 3: Demand for regional collaboration

Demand for regional collaboration is an attractive answer to lowering unit costs and pooling scarce financial resources in some of the poorest developing regions and smaller countries. Regional projects have emerged in a wide variety of infrastructure sectors, spanning regional power markets such as the Eastern Africa Power Pool and West African Power Pool; regional gas distribution infrastructure such as the West Africa Gas Pipeline; Regional Transport Corridors in East, West, Central and Southern Africa (such as the Northern Corridor); and regional telecom agreements (mobile phone systems in Africa). Regional infrastructure initiatives allow countries to pool their limited resources and achieve economies of scale in PPP/infrastructure markets. However, the political dimension of regional projects and the challenge posed by aligning national objectives and policies and harmonizing regulations is not to be underestimated.

It is encouraging to note that the COMESA-EAC-SADC tripartite Free Trade Area members identified three priority areas for the development of regional infrastructure programmes. The three identified sectors include energy, information and communications, and transport. The motivation for regional infrastructure development is to increase interconnectivity, economies of scale and competitiveness. It will also facilitate intra-African trade which is, at 10-12 per cent, very low in comparison with other regions of the world. For example, intra-regional trade for Europe is almost 70 per cent, 52 per cent for Asian countries and 26 per cent for South American countries.

Need 4: Demand for Innovation-based Solutions

AICD identified the countries and sectors that are likely to face the highest deficits. For countries where the funding gap appears insurmountable, low-cost technologies offer alternative ways of meeting infrastructure targets. By adopting lower-cost technologies that allowed more people to be served more quickly, savings of about 30 per cent could be achieved for some types of infrastructure such as renewable energy infrastructures. Number of Northern Corridor countries, provinces and communities are among those that can benefit from low-cost technologies in the provision of infrastructure services, namely, in the form of small PPP solutions.

Capacity and challenges of potential African/ Northern Corridor PPP project sponsors

Northern Corridor and African sponsors face a number of challenges when it comes to participation in local and regional PPP projects, namely large-scale ones. These include:

- 1/ their limited financial capacity that prevents them from taking part to large-scale projects as equity investors;
- 2/ their limited level of PPP-related financial literacy/sophistication; and
- 3/ their limited access to the international capital market due to their limited access to project development/structuring advisory services and the perceived high country risk factors – political, regulatory and sometimes corruption and/or lack of transparency.

These challenges are compounded by the under-developed nature of the local financial market in most African countries which manifests into:

- 1/ limited availability of term finance and risk transformation opportunities in financial markets, leaving, for instance, the expanding pool of African pension funds and foreign reserves outside opportunities offered by the infrastructure sector's investment market;
- 2/ weak investment banking and project finance capacity;

- 3/ weak local capacity in PPP transaction structuring and related financial advisory/structuring; and above all,
- 4/ a weak local PPP environment/regime (non-conducive legal and regulatory framework - limited predictability, limited transparency, high regulatory risk) and an overall inadequate PPP framework conditions.

Concerns of foreign investors in African/ Northern Corridor PPP projects

The concerns of international investors and lenders' include: i- high perceived country, political and regulatory risk; ii- commercial risk concerns as a result of unexpected change in recipient countries' economic fortune and iii- inappropriate PPP institutional framework and unclear PPP project approval framework.

The concerns of industrial investors also include the extent to which the economic determinants of FDI (skilled labour, enabling infrastructures, market size, etc.) are met in the recipient country.

Synthetic matrix of East Africa Potential and actual sources of Finance and African PPP

The following matrix provides a synthetic view of potential financing sources, supply gap areas as well as the major challenges and constraints faced by players of East Africa and Africa PPP market players.

TABLE 7.2
SOURCES OF FINANCE AND ACCESS TO FINANCE CHALLENGES IN AFRICAN PPP MARKET

KEY PROVIDERS OF FINANCE FOR PPP/INFRASTRUCTURE IN AFRICA	LOCAL SPONSORS AND FOREIGN INVESTORS' CHALLENGES AND CONSTRAINTS IN AFRICA'S PPP MARKETS	FUNDING AND ADVISORY SERVICES NEEDS IN EAST AFRICA'S & AFRICA'S PPP MARKET
<p>Cluster 1: Government budget State-owned companies Users' fees</p> <p>Cluster 2: AfDB Group Regional African DFIs Other regional/private FIs (e.g. DBSA, IDC, AFC) NEPAD-IPPF</p> <p>Cluster 3: World Bank Group EIB Group (e.g. ITF + PFG) Bilateral Cooperation/ODA ECA of G8 countries</p> <p>Cluster 4: China, China policy banks, CADF BRICS members (non-China) Other emerging economies (e.g. Turkey, Malaysia) IsDB, Arab countries and related cooperation funds</p> <p>Cluster 4: Contractor investors Operator investors Specialized infra. funds Private equity fund Sovereign wealth funds</p> <p>Cluster 5: Political risk insurance (PRI) agencies (e.g. MIGA, ATI, Private, ECA) Credit guarantee funds Infrastructure finance guarantee funds (incl. bond guarantee) International project insurance agencies</p> <p>Cluster 6: International and domestic financial leasing</p>	<p>Local Sponsor Level : Limited financial capacity to participate in PPPs as equity investor Limited capacity to raise debt finance and limited access to international financial market Low level of financial sophistication Weak project development capacity Limited supply of financial advisory/ structuring services for PPPs</p> <p>Local Market Level Limited availability of term finance and risk transformation opportunities in financial markets Limited investment banking and project finance expertise Absence of financial risk management solutions Limited availability project development funding Limited availability of viability gap funding projects Limited cross-border capability</p> <p>International Investors and Lenders' Concerns: High perceived country, political and regulatory risk Commercial risk concerns Inappropriate PPP institutional framework and unclear PPP project approval framework</p> <p>Business Environment Level: First generation policy and institutional framework yet to reach first stage of PPP maturity model Non conducive legal and regulatory framework (i.e. limited predictability, limited transparency, high regulatory risk) Weak legal system (incl. enforcement power, speed of legal processes and dispute resolution mechanisms) Absence of PPP-related skills and expertise: policy, legal/regulatory; transaction structuring; financial structuring; project development; project marketing; etc.</p>	<p>Project Development: Early stage risk capital Project co-ordination: Conception to operations PPP structuring (risk allocation, allocation of functions, payment, contract, legal) Engineering and technical advisory services</p> <p>Financial Advisory: Project structuring/planning Consulting/policy advisory Project/corporate finance Syndications (Debt/Equity)</p> <p>Principal Investing: Co-investment with sponsors, private equity Project finance: debt, equity, mezzanine Structured products, trade & equipment finance, construction finance</p> <p>Viability Gap Funding Large-scale PPP projects Small-scale PPP projects</p> <p>Advisory & Technical Assistance: Policy, legal and regulatory reform for PPP in infrastructure Industry-specific technical expertise development Capacity building in "Infrastructure PPP Finance" Knowledge resources sharing in PPP projects</p> <p>Knowledge resources sharing in PPP projects Financing opportunities Partnership opportunities Technical expertise / expert database</p>

Source: Authors' compilation

7.4 Sources of Finance for PPP and Infrastructure in Africa and East Africa

Key providers of finance for PPP in the infrastructure sector of East Africa and Africa can be clustered in different groups that include the following:

Cluster 1 African government budget, state-owned companies and users' fees.

The AICD report indicated that from 2000 to 2005, African governments and state-owned utilities' companies provided 70% of the investments into the continent's infrastructure. However, as already indicated, Government and SOEs' investment can be made more efficient (resulting in close to US \$18 billion per year of saving that could be redirected to other priority infrastructure investments) through better planning and budget execution and more O&M activities.

Government can play significant role in the financing of PPPs. Governments can also finance PPP projects, either in whole or in part. However, the public authority should be aware that reducing the amount of capital investment needed from the private party reduces the extent of risk transfer-weakening private sector incentives to create value for money, and making it easier for the private party to walk away if things go wrong. As a general rule, the public sector should always ensure that the private sector or sponsor has always enough equity investment at stake to incentivize him to plan and manage the infrastructure asset and service adequately.

Nonetheless, there are several reasons why governments may choose to provide finance for PPP projects. These include:

- **Avoiding excessive risk premiums**-the government may consider the risk premium charged by the private sector for the project to be excessive, in relation to the actual project risks.
- **Mitigating government risk**-where project revenues depend on regular payments from government, this creates a risk for the private party, which will be reflected in the project cost. Where reliability of government payments may be in doubt, this means that providing subsidies or payments upfront in the form of loan or grant finance, rather than on-going payments, could improve the bankability and lower the cost of the project
- **Improving availability or reducing cost of finance**-particularly when capital markets are under-developed, or disrupted, the availability of long-term finance may be limited, governments may choose to provide finance at terms that would otherwise be unavailable. Governments often have access to finance on concessional terms, which they may pass on to lower the cost of infrastructure projects.

Governments can also contribute to the financing structure of a PPP in different other ways: provide loan or grant finance directly to the project company, or provide a government guarantee on a commercial loan. Government-owned development banks or other finance institutions can also be involved-either providing finance to PPPs as part of a broader portfolio, or established specifically to support the PPP program. Finally, governments may simply not transfer the financing function to the PPP project to the private sector, instead retaining on-going responsibility for capital expenditures.

**Box 7.2:
GOVERNMENT OF INDIA FINANCING
MECHANISMS FOR PPP**

The Government of India has a progressive financial support system for PPP projects. Government has put in place a number of schemes, to support PPPs either for project development or for gap financing capital and life cycle investments. A few key initiatives include the India **Infrastructure Project Development Fund (IIPDF), Viability Gap Funding (VGF), resources for annuities / availability based payments, long tenor lending, re-financing facility, infrastructure debt funds**, etc. The Government will explore and provide more interventions to facilitate more PPP projects as relevant from time to time. The Government of India recognizes that in new sectors seeking PPPs, such as in health and education sectors, annuity based PPPs can make a significant impact.

Government would continue to provide, **legislative and policy support for developing equity, debt, hybrid structures** and appropriate credit enhancement structures targeted towards various domestic and international financial investors such as equity providers, debt and capital markets, insurance sector etc.

The implementing agencies would encourage **leveraging monies available from schemes** such as JNNURM, Bharat Nirman etc., and **alternate sources of finance like Municipal Bonds, Pooled Finance Structures, Pension Funds**, etc. for PPP.

The Government, where necessary and appropriate, would consider **levy of user fees to generate financial resources for rehabilitation or redevelopment or construction or replacement of project** assets and their ongoing operations and maintenance in order to provide good quality public assets and/or related services. The determination of such user charges, where there is no regulator, would be based on the principles including, but not limited to, **partial or full recovery of the costs, savings to users, efficiency gains, willingness to pay, need for explicit subsidies**, and affordability.

In order to facilitate quick mobilization of financial resources and to develop new innovative financial instruments for the PPP projects, the Government will have a **regular interface with banks, financial institutions and the private sector**.

Source: India Draft National PPP Policy (2011)

**Cluster 2
AfDB Group, regional African DFIs,
other regional/private financial
institutions (e.g. DBSA, IDC, AFC)
and special facilities (e.g. NEPAD-
IPPF):**

This group of financing partners provide some level of investment into the Northern Corridor and African PPP sector in the form of ODA and participation in number of national and regional infrastructure funds. However, their contributions remain relatively small in relation to the needs of the EAC and the African continent in general.

Scaling-up of the AfDB capacity in PPP interventions through enhanced operational capacity and financial capital is a requirement if the continental DFI is to contribute in a significant way to bridging the funding gap in Africa and East Africa's infrastructure sector. In that respect, the proposed Africa Infrastructure Finance Facility (AIFF) by the African Development Bank anchored on the reserves of African Central Banks as well as pension, insurance and sovereign wealth funds provides an exciting opportunity to scale-up infrastructure financing for Africa.

Likewise, the financial and technical capacity of all regional DFIs should be further enhanced to enable them play a meaningful part in the financing of PPPs in their respective regions.

**Cluster 3
World Bank Group, EIB Group (e.g.
ITF + PFG), bilateral cooperation/
ODA, export credit agencies (ECA) of
G8 countries:**

The World Bank group, the EIB Group, the European Commission, the G8 countries and their respective development finance companies and ECA¹⁰ provide some level of financing in favour of East Africa and Africa's PPP and infrastructure sector. However, not only are their respective procedures cumbersome, but the rate of disbursement of earmarked fund for infrastructure finance and private sector development remains very low in general. This is particularly true for the EIB which manages on behalf of the ACP-EU, under the Cotonou Agreement, a fairly significant amount of money earmarked for infrastructure finance.

Operational procedures outreach and disbursement of availed or earmarked funds should be improved for the EIB in particular and the World Bank/IFC which scale of investment still remains far below the needs of the Continent and the East Africa region.

Nevertheless the efforts of the World Bank Group (along with other development partners) in terms of active participation in initiatives in the areas of PPP knowledge, guideline, reference materials and best practice sharing are to be recognized:

- PPIAF: a facility which provides PPP policy advisory services globally
- WSP, WBI and World Bank handbook on PPPs

Likewise the European Commission and the EIB active support to the following two initiatives should be recognized:

- Blending instruments that leverage technical assistance or grant funding to mobilize private finance in infrastructure
- European PPP Expertise Centre (EPEC) that promotes research, best practice sharing, and guidelines and handbook on PPPs.
- UN-initiated sustainable energy for all (SE4ALL) initiative that promotes wider access to Infrastructure services for underserved communities through innovation in renewable Energy solutions.

Along the same lines, two other multi-donor initiatives must be acclaimed for their positive contribution to advancing Africa and East Africa's PPP agenda:

- Infrastructure Consortium for Africa (ICA)
- Africa Infrastructure Country Diagnostic (AICD)

¹⁰ Bilateral institutions of G8 countries include: USA DFI cluster (USAID, MCC, OPIC, EXIM bank); Japan DFI cluster (JETRO, JBIC, JICA); France DFI cluster (AFD, PROPARCO, etc.) and similar institutions other G8 countries.

**Box 7.3:
BLENDING FACILITIES AND PPPS/
INFRASTRUCTURE FINANCE**

Blending is the term used to describe the leveraging of grant funding to attract private capital in infrastructure project and/or other private sector development activities (e.g. attracting equity investor in an SME investment project).

One of the first examples of blending in the context of the ACP-EU cooperation is the EU-Africa Trust Fund for Infrastructure (ITF). This is a mechanism wherein the European Union cooperates with the European Investment Bank, development banks of EU and ACP Member States and the African Development Bank. The grant element in the Fund for Infrastructure is used to make loans cheaper.

“Blending” facilities can include one or more elements of a range of instruments, including: technical assistance, feasibility studies, investment co-financing; equity participation and other risk-capital, interest rate subsidies, on-lending; guarantees and insurance subsidies and/or incentive payments. Most of the existing blending facilities have thus far focused on medium to large-scale infrastructure projects as well as investments in the productive sector, including (risk) capital for SMEs. Most projects implemented are with the public sector, but partners in beneficiary countries can also be in the private sector, or be public-private partnerships.

At study commissioned by the UK Department for International Development (DFID) “EU Blending Facilities: Implications for Future Governance Options, January 2011 suggests that the existing EU blending operations have allowed :

- The making of transfers to heavily indebted countries without exacerbating debt overhang problems;
- Addressing positive externalities to bring the financial rate of return closer

to the economic rate of return for projects with a high socio-economic and/or positive environmental impact

- The improvement of the quality of funded projects (in practice the grant component allowed projects to be funded which otherwise recipients would have been unable to finance, in addition to improving the quality of projects compared to a no grant situation)
- The strengthening ownership by funding measures which build on recipient countries' policies; and to which the partner provides their own resources

However, the same study, reviewing the operation of ongoing EU blending mechanisms also recommended that it is important:

- To reduce the complexity of existing blending mechanisms as much as possible
- To carefully assess the impact that mixing a loan element with a grant element could have on a recipient country in order to avoid crowding-out other potential sources of funding
- To cautiously define the percentage of the grant element in order to deter recipient countries from borrowing beyond prudent levels
- To ensure development policy objectives and principles drive the allocation of public funds, not the availability of credit

From its inception in 2007 to December 2013, the ITF has initiated 92 grant operations that amounted in total to Euros 492 million and resulted in the support to 69 infrastructure projects in Africa. Of these, 55 projects that received a total grant amount of Euros 405, 7 million have secured commercial funding for a total of Euros 5.7 billion, of which Euros 2.9 billion from the private finance group (PFG). Hence, the gross leverage ratio of the ITF is 14 and the net leverage ratio 7,2 for every 1 Euro of grant money.

Source: Adapted from Annual Report, EU-Africa Infrastructure Trust Fund (EC/EIB, 2013)

**Cluster 4
China, BRICS members countries
and other emerging economies (e.g.
Turkey, Malaysia) and IsDB, Arab
countries and related cooperation
funds:**

A cluster of emerging development partners are getting increasingly involved in East Africa and Africa's infrastructure sector.

In particular, China mainly; but also Brazil, India and other Arab countries institutions (DFI and sovereign wealth funds) have recently provided significant sources of infrastructure finance in Africa.

These emerging partners are increasingly involved in the infrastructure sector of Africa through six financial solution packages or mechanisms: (i) open tender for housing, airports and oil pipelines projects; (ii) aid in the social infrastructure sector; (iii) FDI in the oil sector and in railways; (iv) direct trade finance initiatives involving their import/export banks; and (v) commodity export-linked infrastructure finance initiatives.

**Cluster 5
Infrastructure sector private
investor groups:**

This group of investors which core business is infrastructure investment include: contractor investors, operator investors, specialized infrastructure funds, private equity funds and sovereign wealth funds. They co-invest often with the project companies or SPV, mostly in the form of equity; but also in the form of debt and convertible debt.

**Cluster 6
Guarantee, insurance/reinsurance
and performance bond service
provider:**

This group of risk enhancement, risk mitigation, insurance and project bond service providers include:

- (i) Political risk insurance (PRI) agencies such as MIGA, ATI, export credit agencies (ECA) of industrial countries,
- (ii) credit guarantee funds,
- (iii) Infrastructure finance guarantee funds (including bond guarantee),

- (iv) performance bond issuance institutions and
- (v) international private project insurance/reinsurance companies such as Lloyds of London, Swiss Re, Munich Re and the like.

These institutions are critical players in the risk management process of large PPP or infrastructure projects. The large capital and triple A credit rating expected from such players make African's participation to this sector extremely difficult. ATI is the only African PRI player with a limited capital base that limit its ability to underwrite risk in African infrastructure project. From that perspective the expected merger of ATI and the planned ECOWAS PRI agency is welcomed by the African private sector.

**Cluster 7
International and local leasing:**

International leasing and domestic leasing, which is not yet developed in Africa and East Africa, is yet to play a meaningful role in the regional PPP market.

**Cluster 8
International capital market:**

The international capital market offers a number of financing opportunities for African and Northern Corridor infrastructure projects through a number of instruments and solutions:

- (i) liquidity products (long and medium-term loans; international bonds;
- (ii) private equity, venture capital and listed equity);
- (iii) credit and political risk insurance products;
- (iv) derivatives/risk management products (Foreign exchange- Spot, Forward, Swaps, Futures; interest rate - FRAs, Futures, Swaps; Equity-Options, Futures) and
- (v) International leasing

7.5 Financing Products and Financial Engineering Solutions in PPP Finance

7.5.1 Financial Products Used in PPP Projects

A PPP project will involve financing from various sources, in some combination of equity and debt and mezzanine finance.

Equity contributions: Equity contributions are funds invested in the project company which comprise its share capital and other shareholder funds. Equity holds the lowest priority of the contributions, e.g. debt contributors will have the right to project assets and revenues before the equity contributors can obtain any return; or, on termination or insolvency, any repayment, and equity shareholders cannot normally receive distributions unless the company is in profit. Equity contributions bear the highest risk and therefore potentially receive the highest returns.

Debt contributions: Debt can be obtained from many sources, including commercial lenders, export credit agencies, bilateral or multilateral organisations, bondholders (such as institutional investors) and sometimes the host country government. The source of debt will have an important influence on the nature of the debt provided. Unlike equity contributions, debt contributions have the highest priority amongst the invested funds (e.g. senior debt must be serviced before any other payments are made). PPP generally involves the construction of high value, long life assets with stable revenues, and therefore seeks long-term, fixed interest debt.

Mezzanine/subordinated contributions: Located somewhere between equity and debt, mezzanine contributions are accorded lower priority than senior debt but higher priority than equity. Examples of mezzanine contributions are subordinated loans and preference shares. Subordinated loans involve a lender agreeing not to be paid until more “senior” lenders to the same borrower have been paid, whether in relation to specific project revenues or in the

event of insolvency. Preference shares are equity shares, but with priority over other “common” shares when it comes to distributions. Mezzanine contributors will be compensated for the added risk they take either by receiving higher interest rates on loans than the senior debt contributors and/or by participating in the project profits or the capital gains achieved by project equity.

Infrastructure bonds: Infrastructure bonds are used by many countries today. Through them, South Africa finances toll roads, municipal infrastructure and other public utilities and provides infrastructure in the transport, water and energy sector; while Kenya has raised nearly US\$1 billion over the last four years to fund road, energy, water and irrigation projects. In an environment of developing countries, bonds should be insured/guaranteed by a monoline insurance company (called a “wrapped bond”).

A wrapped security is insured or guaranteed by a third party. A third party or, in some cases, the parent company of the ABS issuer may provide a promise to reimburse the trust for losses up to a specified amount. Deals can also include agreements to advance principal and interest or to buy back any defaulted loans. The third-party guarantees are typically provided by AAA-rated financial guarantors or monoline insurance companies

The SADC-COMESA-EAC tripartite arrangement is considering issuing regional infrastructure bonds.

Project finance: One of the most common, and often most efficient, financing arrangements for PPP projects is “project financing”, also known as “limited recourse” or “non-recourse” financing. Project financing normally takes the form of limited recourse lending to a specially created project vehicle which has the right to carry out the construction and operation of the project. Limited recourse means that the lenders look only to the assets and revenues of the project for repayment of debt and interest; and not to the shareholders. One of the primary advantages of project financing is that it can provide off-balance sheet financing, which will not affect the credit of the shareholders or the grantor, and shifts some of the project risk to the lenders in exchange for

which the lenders obtain a higher margin than for normal corporate lending. This motivates the lenders to require a detailed assessment of risk management and allocation before financing is committed to the project. Thus major project challenges are identified and addressed early in the project. Normal public procurement does not achieve this, leaving risks to be discovered later, often when it is too late, or far more costly to address.

However, one should be mindful of the fact that, while helpful for raising finance for large, highly leveraged investments, project finance comes at a cost. Interest rates for project-finance debt are more expensive than government borrowing, and often more expensive than borrowing by established companies. The transaction cost-setting up the contractual structure, and carrying out adequate due diligence-can make it unattractive for smaller deals. For this reason, many PPPs adapt the non-recourse project finance structure, to achieve greater contractual flexibility, or lower the financing cost.

Financial Leasing: As a source of asset finance, leasing and international leasing, which are not yet developed in East Africa and Africa, can contribute significantly to the development of the infrastructure finance and PPP market in the region.

Indeed, different categories of assets can be leased. These include:

- (i) machinery and other industrial equipment,
- (ii) computer and other business related equipment,
- (iii) cars,
- (iv) road transport vehicles,
- (v) ships, aircrafts and railways,
- (vi) others. Real estate leasing that includes assets such as industrial buildings, office buildings and retail outlets are also a significant part of the leasing market.

In the context of PPPs in infrastructure development, the type of leasing used is financial lease which involves a longer tenor (up to the life of the asset) whereas a traditional "Hire Purchase" has a tenor of around 2 years.

Risk/credit enhancement, risk mitigation: risk/credit enhancement, risk mitigation, insurance and project bond services are also closely associated with PPP and infrastructure finance. The feasibility and willingness to finance PPP deals of many financial services providers depend on the availability of a risk/credit enhancement and risk management solutions in the form of hedging, guarantee/collateral, insurance and project bonds.

Table 7.3
**TOOLS FOR CREDIT ENHANCEMENT, RISK MITIGATION, AND GUARANTEE FOR PPP/
INFRASTRUCTURE PROJECTS**

TOOLS	BRIEF DESCRIPTION AND SCOPE
Political Risk Insurance (PRI)	PRI provides coverage against risks with respect to expropriation, political violence, and currency transfer and convertibility.
Partial Credit Guarantees (PCG)	PCGs are guarantees that represent a promise of full and timely debt service payment up to a predetermined amount (usually not the full value of the debt). Useful to address macroeconomic risks or lack of an appropriate fiscal space.
Partial Risk Guarantees (PRG)	PRGs are guarantees to mitigate risks associated with specific government counterparty uncertainties. They are issued by the multilateral development banks, which are counter-guaranteed by a host-country government.
Subsidies through VGF or Blending facilities	A transfer from a government or development community to a provider or consumer to assist a sector such as the water sector in providing a public need. Subsidies vary greatly in application. Four main categories include: international grants or output-based aid (OBA), special purpose funds, government subsidies and cross-subsidies. Subsidies help to mitigate lack of affordability or willingness to pay risks. In the context of PPP/ infrastructure projects, subsidies can be provided via a VGF and/ or a Blending Facility.
Credit Enhancement	The strengthening of a borrower's balance sheet through insurance, guaranties, collateral and other means to facilitate financing/funding. Credit enhancement facilitates the ability of a provider to raise debt finance (reducing risks associated with the fiscal space) or raise other funds. Can also be used to increase credit capacity and improve borrowing conditions such as longer maturities that cover the life of a capital asset.
Local Currency Financing	The use of local currency to finance projects. Used to minimize the effects of currency devaluation on project sustainability by matching the borrowing currency with the revenue currency, and thus allowing for a more stable source of finance for projects that often have only local currency revenues (macroeconomic factors).
Arbitration Rules	The contract should contain various provisions for arbitration in the event of disputes between the provider and either the regulator or the corresponding government. Those rules could include the creation of an expert panel to analyze any disputes that may arise.
Off-take contracts	Contract between the provider and the government whereby the government guarantees a minimum purchase level. The agreement is a commitment to take or pay for a specific amount of output, in this case water, at a specified tariff. This type of agreement is commonly used in the construction of water treatment plants. It can be used to increase tariff sustainability by giving a minimum amount of revenue to the providers.

Source: Antonio Vives, Juan Benavides and Angela M. Paris (2006)

7.5.2 Financial engineering in PPP transactions

The objectives of financial engineering in a PPP project can be multi-fold and include:

- (i) diversifying and maximising funding opportunities;
- (ii) minimizing average cost of funds;
- (iii) hedging risk, reducing risk, insuring/covering risk and/or enhancing credit/risk;
- (iv) enhancing yield and shareholders' value;
- (v) increasing the flexibility of the financing package;
- (vi) optimizing sponsors' commitment system, optimizing sponsors' balance sheet and maximize his credit rating.

In most deals or business/investment transactions, financial engineering entails two dimensions: deal or transaction structuring and pure financial structuring.

In the context of a PPP, all or part of the above objectives can be achieved in two ways:

- (i) pure financial structuring;
- (ii) PPP transaction or PPP mode structuring¹¹;

Pure financial structuring - Pure financial structuring involves:

- 1/ the structuring of the terms (tenor, interest rate, repayment schedule, drawdown schedule, etc.) of the credit facilities to achieve the desired objectives;
- 2/ the combination of the relevant sources and/or types of capital to achieve the desired objectives;
- 3/ the use of credit enhancement tools to access financing and/or lower risk premium;
- 4/ the use of financial derivatives to manage/hedge risk;
- 5/ the use of financial derivatives (e.g. swaps) to source cheaper funding;
- 6/ using local currency bonds and/or synthetic bonds (e.g. dual currency, inflation-indexed) to match asset and liability;
- 7/ use of structured investment products to lure specific class of investors and bring cost of finance down and/or
- 8/ the leveraging of financial engineering processes (i.e. pricing arbitrage, replication of synthetic instruments, securitization of assets and hedging)¹² to achieve the desired objectives.

¹¹ Major PPP modes have embedded financial engineering solutions that can be enhanced through further structuring of the financial instruments used.

¹² The use of financial derivatives and the leveraging of financial engineering processes are beyond the scope of this study.

Box 7.4

EU FINANCIAL ENGINEERING INSTRUMENTS FOR PPP

The main reason for the Commission to offer financial engineering instruments for PPP projects is to support the provision of important infrastructure and the need to bridge certain market gaps, which are not yet addressed by other parties. The funds for financial engineering are targeted at the private sector and are of potential interest to public sector authorities involved in the procurement of PPPs. They apply where a PPP project encounters difficulties in establishing an acceptable financing scheme. In this case, certain clearly-defined project risks associated with PPP projects are assumed by EU Funds from different EU programs.

Loan Guarantee for TEN- T projects

(LGTT): The Loan Guarantee for TEN-T projects (LGTT), is a loan guarantee product specifically designed and administered by the EIB for TEN-Ts. The Commission and the EIB jointly fund it. It mitigates the traffic risk in the early stage of a transportation project when user-generated revenues experience significant fluctuations that can hamper access to competitively-priced private funding. By removing one of the major obstacles to the financing of such project, the EU Funds help to bridge a financing gap and thus facilitate the execution of a project. Project examples include the A5 motorway in Germany, the C25 in Spain and the EP4 in Portugal.

The Catalyst Fund “Marguerite”: The EU has identified the lack of sufficient equity for large infrastructure projects as another bottleneck for the realization of PPPs. This is why the Marguerite Fund has received the

active support of the Commission, who has also contributed to the Fund’s seed capital, as part of the European Economic Recovery Plan. The Marguerite Fund is a pan-European equity fund which aims to act as a catalyst for infrastructure investments implementing key EU policies in the areas of climate change, energy security, and trans-European networks. Marguerite is also the first joint initiative of Europe’s leading public financial institutions, including the EIB.

The Risk-reducing Fund “JESSICA”:

Furthermore, through the support offered by the Structural Funds programmes, JESSICA, another joint venture between the EIB and the Commission, can provide financing in the form of loans, equity and guarantees, which can include offering mezzanine financing to municipal PPPs in order to reduce the credit risk for senior lenders. In an environment where relatively small projects attract small private sector companies, which are strong on experience but short on equity, JESSICA funds can provide an (additional) layer of subordinated funding ranking between equity and bank debt and thus increase the attractiveness of the senior debt to banks.

NB: EU-funded financial engineering instruments are mostly revolving facilities, i.e. they do not reach the final beneficiaries as grants, but have to be reimbursed so that they can afterwards be reemployed by the public authorities.

Source: Using EU Funds in PPPs (EPEC, 2011)

**Example of “pure” financial structuring/
engineering solutions in a PPP transaction:**

Blended tenors: introduction of split tenor structure, shorter tenor tranche, amortising (bank funded) plus long tenor tranche (institution funded); the result of which is to lower overall cost of funding.

Construction phase finance: bank funded during construction with refinancing to institutional investor/ bond finance post construction; the result being to lower overall cost of funding but, single A credit rating required (Solvency II directive).

Mezzanine tranche and layered finance: introduction of mezzanine (first loss) tranche, provided by infrastructure fund/ specialist investor, alongside senior tranche. Senior tranche obtains single A credit rating, attracts a bond financing; the result being to lower overall cost of funding.

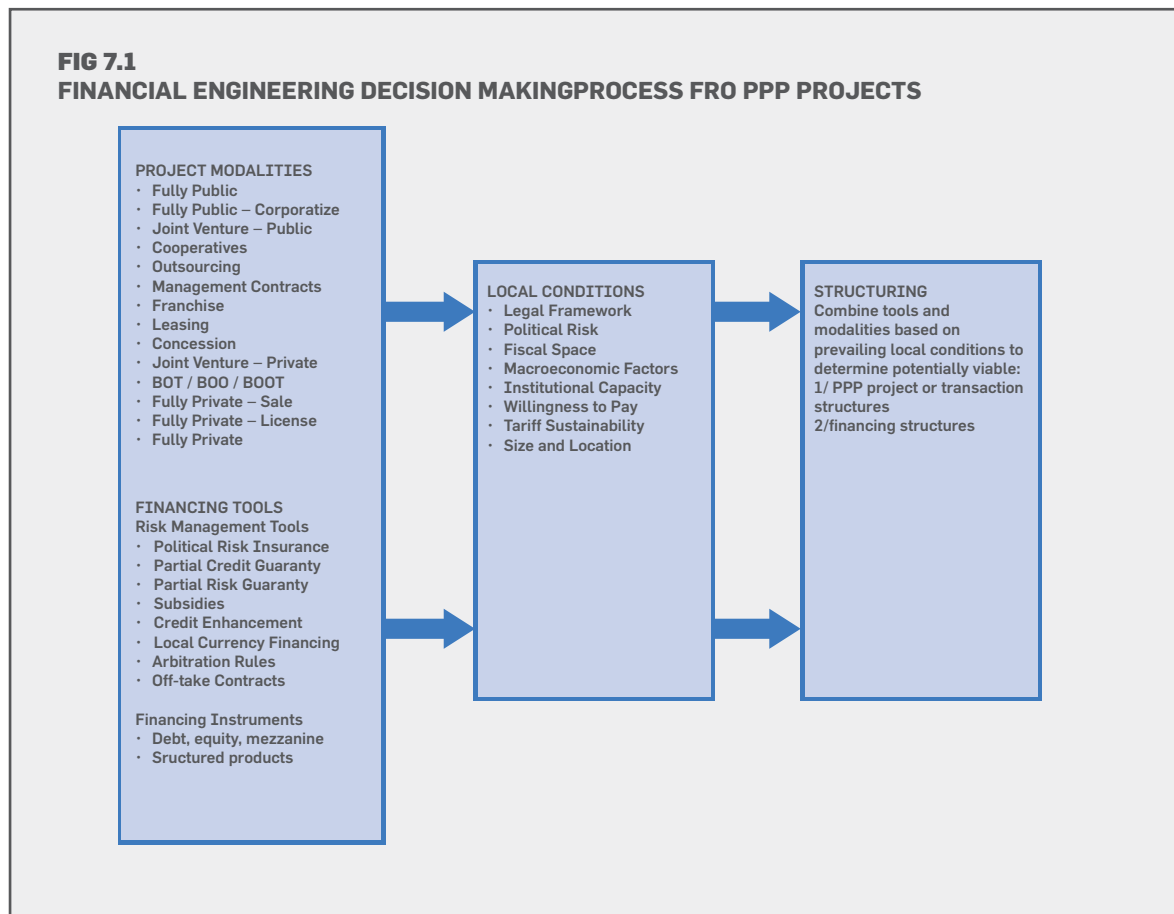
PPP mode structuring: PPP mode structuring involves selecting the most appropriate PPP modes, based on context and opportunities, to achieve the desired financial outcomes (access to finance and/or reducing cost of finance) without compromising the anticipated infrastructure service level. While traditional PPP modes (leasing, concession and BOT) all have, to varying degrees, embedded financial engineering solutions as they enable the sourcing of finance for infrastructure development that might otherwise not be available; In recent years, the UK market, the most advanced PPP market, has experienced innovative PPP mode structuring that involve a great deal of financial engineering. Two such PPP modes involve the **Regulated Asset-Based (RAB) funding model and the Local Asset-Backed Vehicle (LABV)** that use/unlock respectively future tax gains and latent value in land and real estate assets to finance infrastructure projects. Section 1 –paragraph 1.9.4. (Alternative PPP Financing Models to PFI) deals with RAB PPP and LBV PPP and more PP transaction-related financial engineering solutions.

7.6 Financial Engineering Decision Making Process for PPP Projects

Infrastructure project financing options and solutions, under a PPP framework, are governed by the interactions of three factors:

- 1/ local conditions,
- 2/ project modalities,

- 3/ risk enhancement and financing solutions available. Figure 7.1 below illustrates the financial engineering decision-making process for a PPP project.



ANNEX 7.1

NOTES ON DEBT AND EQUITY FINANCING OF PPP PROJECTS

NOTES ON LENDING IN PPP PROJECTS

The profile of a lender group can range from project to project, and may include a combination of private sector commercial lenders together with export credit agencies, and bilateral and multilateral finance organizations. These international, often political, entities are frequently involved in PPP projects and can have an important impact on the risk allocation and financing used in a project. When involved in such projects, these agencies will place strict requirements on the project structure and lending arrangements, in particular in relation to environmental and social safeguards). Lenders anxious to benefit from such involvement (and the potential mitigation of political risk) will make it a priority to ensure that these requirements are satisfied.

Funding is sometimes provided by project bonds, sold on the capital markets, or by sovereign wealth funds and other financial intermediaries. As a general premise, the lenders will only want to take those risks which are measurable and measured. The lenders will not be in the operation, construction or insurance business and therefore will not want to bear risks with which they are unfamiliar and which are more appropriately borne by other parties. Nevertheless, the lenders will be involved in most of the important phases of the works, including the financial structuring, the drafting of the project documents and certification of completion. They will generally maintain their review powers over the project with the assistance of an independent engineer (a specialist technical adviser who monitors construction and approves completion of milestones, amongst other things). The lenders may require that direct agreements be entered into between themselves and each of the project participants.

The terms and conditions that lenders will be willing to give for a specific project will depend primarily

on the nature of the borrower, in particular the borrowers' credit position and the nature of any other security, credit enhancement or support the project may have. However, the nature of the lender will have a lot to do with the terms and conditions offered. For example:

- The conditionalities applied to any loan will depend very much on the goals of the lender. Commercial lenders will apply conditionality focused on improving revenues, managing costs and protecting the lender's cushion. Lenders whose focus is national interests, for example encouraging exports such as export credit agencies, will focus more on the nationality of contractors and suppliers and their interests. Finally, lenders whose reason for being is tied to development will be concerned more with sector reform, economic growth and poverty reduction.
- Bankability requirements and lender appetite will depend on the nature of the lender, their existing loan portfolio, their strategy for portfolio development and their desire to enter into new markets. Lenders will react to political risk in different ways, those familiar with the country or a region may approach the risk in a less risk-averse manner than others. Lenders with a bilateral or multilateral origin may have better relationships with the relevant government, and will therefore view political risk in a different way.
- Price and fees will clearly vary based on market practice and on the nature of the lender in question. Similarly, some lenders will be more efficient than others, and therefore the cost to the borrower of managing lender involvement and due diligence can differ significantly. For example, some lenders will accept common lender technical and legal advisors, while others will insist on having their own lawyers and technical team.
- The flexibility exhibited by different lenders can vary, for example the ability of the

borrower to renegotiate or reschedule debts terms and conditions. To this extent, banks are usually more flexible than bondholders.

- The complexity, sophistication of the type of debt available to borrowers will depend on the nature of the lender, their experience in such products and the depth of financial market in which the lender operates.

Lenders will often not act alone, and the grouping of lenders, the relative weight of each lender's involvement and the role such lenders play will have a significant influence on the nature of the debt available. For example, some lenders act as arrangers, providing the service to the borrower of interfacing with different lenders and helping to coordinate access to debt. This may involve underwriting, according to which the lender promises to provide access to all of the debt needed. Lenders may choose to club together, whereby they will agree amongst a small group of lenders to each take a certain proportion of the project requirements. Once a lender has agreed to provide debt, it may choose to syndicate some or all of its position, by selling its debt onto the financial market to other lenders. Where multiple lenders are involved in a project, they will agree together on a common lender position on certain issues, for example management of security rights, which is usually formalized in an inter-creditor agreement

NOTES ON EQUITY INVESTORS IN PPP/INFRASTRUCTURE PROJECTS

The sponsors will identify a project and put together a bid in an effort to be awarded the project. This typically means the private sector investors will create a new company (the "project company") – usually a limited liability special purpose vehicle (SPV) - which will contract with the grantor to design, construct, operate, maintain and transfer the project. The use of an SPV is likely to enable the sponsors to finance the project on a limited recourse basis. The grantor may require that the project company includes local investors in order to improve transfer of technology, and provide jobs and training to local personnel. Most shareholders will want to be able to divest their shareholding as early as possible, in particular commercial/construction companies

that are not accustomed to long-term shareholding. The grantor, on the other hand, will want the shareholders tied to the fortunes of the project company as long as possible, to align their interests more with those of the grantor (a financially viable project over the long term). Shareholders of the project company will often be both shareholder in the SPV and a contractor to the SPV. This conflict of interest will need to be managed amongst the shareholders, the grantor and the lenders, for example the conflicted shareholder should not be in a position to negotiate or influence the negotiation of their contract or set prices.

The nature of equity investors (public or private) in the project company will have specific relevance to the decision making within the project company, for example through the allocation of shareholder voting rights, right to elect board members, minority shareholder rights, different classes of shares, control through subcontracts and outsourcing. Rights, shares may be controlled through trusts or other vehicles to provide lenders with additional security. The shareholding arrangements are often complex, including the use of multiple subsidiaries, cross-shareholding, etc. These structures are often developed to improve accounting/tax efficiency.

The project company may also be subject to public control, for example through a joint stock company. This approach, while not common globally, is found in many developing countries. Key challenges associated with government shareholding in the project company include conflicts of interest between the government as shareholder and the government as grantor, for example difficulties for the government as shareholder to agree for the project company to sue the government as grantor.

ANNEX 7.2

SELECTED FUNDS, FACILITIES AND NETWORKS IN SUPPORT OF PPP AND INFRASTRUCTURE FINANCE IN AFRICA

1. MULTI-DONOR OR GLOBAL INITIATIVE

- PPIAF – Public-Private Infrastructure Advisory Facility
- AICD - Africa Infrastructure Country Diagnostic

PPIAF – Public-Private Infrastructure Advisory Facility (PPIAF) is a multi-donor trust fund that provides technical assistance to governments in developing countries in support of the enabling environment conducive to private investment, including the necessary policies, laws, regulations, institutions, and government capacity. It also supports governments to develop specific infrastructure projects with private participation. Types of technical assistance provided by PPIAF:

- 1/ **Enabling environment reform** to facilitate private investment in infrastructure.
- 2/ **Project cycle-related assistance** to assist developing countries to develop and transact projects that are "bankable" and capable of attracting private sector participation.
- 3/ to assist developing countries by sharing knowledge of key issues related to private infrastructure development.
- 4/ to help sub-national entities improve their creditworthiness to help them access market-based financing without sovereign guarantees. PPIAF is managed by the World Bank.

The Africa Infrastructure Country Diagnostic (AICD): The AICD is an unprecedented knowledge program on Africa's infrastructure that grew out of the pledge by the G8 Summit of 2005 at Gleneagles to substantially increase ODA assistance to Africa, particularly to the infrastructure sector, and the subsequent formation of the Infrastructure Consortium for Africa (ICA). The AICD made several Africa-wide and regional studies on the infrastructure sector in Africa. Study was founded

on the recognition that sub-Saharan Africa (SSA) suffers from a very weak infrastructural base, and that this is a key factor in the SSA region failing to realize its full potential for economic growth, international trade, and poverty reduction. AICD is managed by the AfDB.

2. WORLD BANK GROUP

- IDA
- IFC
- MIGA

International Development Agency (IDA): Official development finance inst. of the WBG.

International Finance Corporation (IFC): Private financing arm of the WBG

Multi-lateral Investment Guarantee Agency (MIGA): Political Risk Insurance (PRI) agency of for FDI .

International Finance Corporation – Selected Facilities

IFC Asset Management Company (AMC): As of June 30, 2011, \$4.1 billion worth of assets under management. The fund co-invests in infrastructure and other project globally. AMC has set up various vehicles that invest in ACP & other regions: IFC Capitalization Fund (\$3 billion fund) with \$960 million of investment; IFC African, Latin American, and Caribbean Fund (\$1 billion fund) with 172 million of investment; The African Capitalization Fund established in FY11 the fund invests in systemically important commercial banking institutions in northern and Sub-Saharan Africa.

IFC Infra-ventures: Early stage equity investments to fund project development of infrastructure projects in less-developed countries.

IFC Global Infrastructure Fund (GIF): IFC has established in March 2011 the IFC Global Infrastructure Fund (the "GIF"), a \$1 billion private equity fund with the view to mobilizing private sector/institutional funding to co-invest in IFC funded projects

IFC PPP Advisory Services: IFC provides advice on designing and implementing public-private partnership (PPP) transactions to national and municipal governments to improve infrastructure and access to basic services such as water, power, health and education. Areas of support include: Public-Private Partnerships (e.g. concessions, BOO, BOT); management and lease contracts; and restructuring and privatization of state-owned enterprises.

3. EUROPEAN UNION

- ITF
- EIB
- Europe-Based DFIs

EU-AFRICA INFRASTRUCTURE TRUST FUND (ITF)

The EU-Africa Infrastructure Trust Fund (ITF) is an instrument of the wider EU-Africa Infrastructure Partnership. The Trust Fund aims to increase investment in regional infrastructure in Africa by blending long- term loan financing with grant resources from the European Commission and EU Member States.

The **sectors covered** by the Trust Fund are energy, water, transport and communications/telecoms. And the **types of projects include:** Road corridor & transport facilitation project, Container terminal, Hydropower and transmission line, Water & sanitation facilities, Bridges

Financial support: the fund can provide support in four different forms: 1/ interest rate subsidies (IRS), 2/ technical assistance (TA), 3/ direct grants (DG) for the financing of environmental or social components of a project and 4/ insurance premiums (IP) as a risk mitigation mechanism.

Commercial finance are provided by a separate group of commercial financier through the Project Finance

Group (PFG) in the form of:

- (i) Project finance – non recourse debt,
- (ii) Traditional debt finance and
- (iii) Equity investment.

ITF leverage

At the end of 2012, 25 projects supported by 40 grants (totalling EUR 293.5 million) were in progress:

Estimated Total Project Cost > EUR 3.8 billion of which to be financed by the PFG > EUR 2.1 billion

Leverage effect = 12.8

PFG leverage = 7.2

The above calculated multiplier effect only involves grant operations supporting projects in their investment phase. As at the end of 2012, each euro from the donors is expected to generate EUR 7.2 in financing from PFG financiers, for a total of about EUR 12.8 invested per euro granted.

As at June 2013 ITF fund close to Euros 400 million have been disbursed to support infrastructure investment above Euros 3 billions

4. AFRICAN DEVELOPMENT BANK GROUP

- Core Financing Window of the AfDB
- ADF & Fragile States Facility
- Nigeria Special fund
- "Africa 50 Fund"

AFRICA50 INFRASTRUCTURE

'Africa50Fund' is an initiative by AfDB to facilitate large-scale mobilization of resources and to unlock international private financing with a view to addressing Africa's infrastructure gap. The fund is being established in response to the request by African Heads of State to the AfDB to develop innovative financing solutions to address Africa's infrastructure deficit.

The fund will be innovative in its design and structure, leveraging infrastructure financing resources from sources as diverse as African central bank reserves, African pension funds, African sovereign wealth funds, the African Diaspora, and high net worth individuals on the continent, according to the statement from the AfDB. In relation to that fund, it

was announced that the AfDB plans \$22 billion bond issue to develop Africa's infrastructure.

5. USA DEVELOPMENT FINANCE CLUSTER

- USAID
- Millennium Challenge Corporation
- US-Africa Infrastructure Fund (\$7 Billion)
- OPIC

6. PRIVATE INFRASTRUCTURE DEVELOPMENT GROUP ("PIDG")

THE PRIVATE INFRASTRUCTURE DEVELOPMENT GROUP ("PIDG") which is a multi-donor, member-managed organisation. Current PIDG members include: the UK Department for International Development ("**DFID**"), the Swiss State Secretariat for Economic Affairs ("**SECO**"), the Netherlands Ministry of Foreign Affairs ("**DGIS**"), the Swedish International Development Cooperation Agency ("**SIDA**"), the World Bank, Irish Aid and the Austrian Development Agency ("**ADA**").

PIDG inspired the creation of: EAIIF, GuarantCo, InfraCo Africa, Technical Assistance Facility, DevCo, ICF-Debt Pool.

EAIIF- THE EMERGING AFRICA INFRASTRUCTURE FUND ("EAIIF") was established in January 2002 and is currently a US\$753.2 million debt fund, which aims to address the lack of available long-term foreign currency debt finance for infrastructure projects in sub-Saharan Africa.

EAIIF offers USD and EUR lending to private companies (or soon to be privatised companies) for greenfield projects or for refurbishment, upgrade or expansion of existing facilities

Investments with a tenor of up to 15 years can range from a minimum of US\$10 million (or equivalent) to a maximum of US\$30.0 million (or equivalent) for any one investment. Loans are provided without the need for political risk cover

GUARANTCO: GuarantCo was conceived to help address and overcome existing constraints in the supply of local currency debt financing to infrastructure projects and to help match the demand for local medium and long-term funding.

The objective is to help projects in poorer countries avoid reliance on hard currency financing by building capacity in their domestic markets to deliver viable and sustainable infrastructure financing solutions and assist with the alleviation of poverty.

GuarantCo's vision is to become a centre of excellence for local currency guarantees in low income countries. In order to meet this vision, GuarantCo provides:

- Partial Credit Guarantees
- Partial Risk Guarantees
- Political Risk Guarantees
- Tenor Extension Guarantees
- On-Demand Guarantees

INFRACO AFRICA: An infrastructure development facility which has been designed to assume the risk and cost of early-stage project development in the lower income countries of Africa.

InfraCo aims to stimulate greater private investment in African and Asian infrastructure development by acting as a principal project developer. They are able to take the earliest and highest risks in the development of infrastructure transactions, with the aim of selling them to investors once a full development process has been completed. Their involvement is designed to catalyze new investment in water, power, transport and other related sectors.

TECHNICAL ASSISTANCE FACILITY: A pool of funding within the PIDG trust to assist PIDG facilities and affiliated programmes to support capacity building and to help scope out investment opportunities in the infrastructure sector.

DEVCO: DevCo is managed by the International Finance Corporation of the World Bank Group which advises poor developing countries on maximizing the benefits of private sector participation in infrastructure.

ICF-DP (Infrastructure Crisis Facility – Debt Pool): Provides direct bridge financing to infrastructure

www.frontiermarketsfm.com

Frontier Markets Fund Managers ("FMFM") (formerly known as Emerging Africa Advisers), are the principal advisers to GuarantCo. Any queries relating to the GuarantCo should be addressed to them in the first instance.

Manager of GuarantCo:

7. BRIC COUNTRIES - CHINA

- China Development Bank
- China Eximbank
- China-Africa Development Fund

CHINA EXIMBANK

The largest development bank (total assets in excess of USD 1 Trillion) in the world and one of China's key policy banks along with China Development Bank. Very active in development lending, namely, in relation to large industrial and infrastructure projects.

CHINA DEVELOPMENT BANK

CDB is a financial institution in the People's Republic of China under the direct jurisdiction of the State Council. It offers development banking, investment banking and commercial banking services to Chinese and foreign firms at commercial terms. CDB is China's biggest lender in investment and financing activities offshore. The bank's three primary business operations -infrastructure financing, grassroots financing and international transaction financing. Total assets: US\$ 995 billion (as of December 31, 2011).

Africa is a priority region of CDB in CDB's international expansion drive. CDB administers the CADF (\$5 billion China Africa Development Fund)

CHINA AFRICA DEVELOPMENT FUND (CADFUND OR CADF – US\$ 5 BILLION)

CADFund is the first fund in China focusing on investment in Africa and also to encourage and support further Chinese Enterprises to invest in Africa to promote the development of Sino-African commercial ties. CADFund operates independently, assumes sole responsibility for its profits and losses, and takes on risks by itself according to market principles

CADFund invests in projects in the following basic modes:

- 1/ CADFund invest in Chinese enterprise and/or African enterprise that establish together a joint venture for investment in Africa project. Registration place of the company can be in Africa or beyond Africa.
- 2/ CADFund directly invests in Chinese-funded enterprises or Chinese-participating enterprises registered in Africa which invest in projects in Africa.
- 3/ CADFund directly invests in Chinese enterprises registered in China, which invest in Africa.
- 4/ CADFund invests in joint stock with projects and enterprises with major assets in Africa but registration places in areas outside Africa.
- 5/ CADFund directly invests in African projects involving international financial institutions.
- 6/ CADFund establishes funds to invest in African projects involving domestic and foreign institutions.

Targeted sectors for investment (up to not more 10 years typically, with IPO or trade sale exit mechanisms) include: Agriculture, Manufacturing, Infrastructure, Natural Resources, Industrial Parks

8. BRIC COUNTRIES - BRAZIL

- Development Bank of Brazil - BNDES
- BTG Pactual Fund - BTG

DEVELOPMENT BANK OF BRAZIL – BNDES (TOTAL ASSETS 2011: US\$ 334.7 BILLION)

The Brazilian Development Bank (Banco Nacional de Desenvolvimento Econômico e Social, abbreviated: BNDES) is a federal public company associated with the Ministry of Development, Industry and Foreign Trade. Its goal is to provide long-term financing for endeavors that contribute to the country's development. BNDES is the second largest development bank in the world after China's CDB. BNDES various infrastructure/PPP departments and project structuring units are known for their expertise in infrastructure project development. This can be an area of technical cooperation with the African financial institutions involved in infrastructure finance.

BTG PACTUAL ENERGY & INFRASTRUCTURE FUND FOR AFRICA (US\$ 1 BILLION)

Brazil's BTG Pactual Bank, the leading Brazil Investment Bank, is planning to raise a USD1bn private equity fund (launched in May 2012) chiefly from Brazilian investors to invest in Sub Saharan Africa. According to BTG's chief executive Andre Esteves, the fund will capitalise on the opportunities provided by the continent's increasing urbanisation and industrialisation, and will target areas such as energy and infrastructure.

The Fund is a dedicated one for Sub-Saharan Africa. The Fund also expects to leverage the support of BNDES/Government for Brazilian firms that intend to internationalize.

9. BRIC COUNTRIES - INDIA

- Hinduja Group of Companies – (Total Capitalization 2011: US\$ 35 billion)
- Hinduja Bank Ltd (Switzerland)
- India EXIMBANK

HINDUJA GROUP

The Hinduja Group is an Indian conglomerate present in sectors such as: Mining (iron ore, coal), Oil & Gas (Gulf Oil International), Automotive and related services (BRT, bus & trucks, military vehicles), Health Care, IT, Infrastructure/Construction/EPC and Real Estate.

Hinduja Bank Ltd is the Private Banking and Merchant Banking arm of the group that is based in Geneva-Switzerland.

The group and its financial arm are increasingly building their African industrial and financial portfolio with presence in many sectors and countries through both equity stake and industrial ventures across the African Continent.

EXIMBANK OF INDIA

Eximbank of India, like its Chinese counterpart, is also proactively marketing its financing and risk cover solution towards the African market, namely where Indian investment or procurement from India is involved.

10. GCC COUNTRIES

- ABU DHABI INVESTMENT AUTHORITY
- QATAR INVESTMENT AUTHORITY - QIA
- KUWAIT - KUWAIT FUND
- ISLAMIC DEVELOPMENT BANK GROUP

ABU DHABI INVESTMENT AUTHORITY – ADIA (SOVEREIGN FUND: US\$ 650 – 875 BILLION)

ADIA is the sovereign fund of the Emirate of Abu Dhabi in the UAE. The size of the fund portfolio is between \$650 billion to \$875 billion, making ADIA the world's largest sovereign wealth fund and the world's second biggest institutional investor behind the Bank of Japan.

QATAR INVESTMENT AUTHORITY – QIA (SOVEREIGN WEALTH FUND: US\$ 115 BILLION)

The Qatar Investment Authority (QIA) is Qatar's sovereign wealth fund, specializing in domestic and foreign investment. It was founded in 2005 to manage the oil and natural gas surpluses by the Government of Qatar. The QIA attempts to strengthen the country's economy by diversifying into new asset classes.

ISLAMIC DEVELOPMENT BANK GROUP

The Islamic Development Bank offers a variety of infrastructure financing solutions and is expanding its investment and financing portfolio across the African country, namely, through its new private sector arm "IDC – Islamic Development Corporation". Beyond its traditional solutions, the IDB Group can also a platform for leveraging the Islamic Finance market which offers new asset class and financing solutions to the African infrastructure market.

11. SELECTED AFRICA-ORIENTED PRIVATE EQUITY FUNDS & ASSOCIATIONS

A number of institutions (associations and private equity/venture capital funds) have an African agenda, including investment in the African infrastructure sector.

ASSOCIATIONS

- EMPEA – Emerging Markets Private Equity Association
- AVCA – Africa Venture Capital Association
- SAVCA – South Africa Venture Capital Association

FUNDS (TARGET MARKETS & FUND SIZE)

Most of these funds invest selectively in very high-potential infrastructure projects, namely in the ICT, energy and oil/gas operations and pipeline sectors.

ETHOS – AFRICA:

ACTIS -

CDC

ECP Private Equity

ABBRAAJ CAPITAL (AUREOS)

CITADEL CAPITAL

CORDIANT

HARITH – AFRICA: +625 MILLION USD

AFRICAN INFRASTRUCTURE INVESTMENT

MANAGERS, LTD – SOUTH AFRICA: +

PAMODZI INVESTMENT - SOUTH AFRICA

AFRICAN CAPITAL ALLIANCE – SOUTH AFRICA,

NIGERIA

SECTION 8

FEASIBILITY OF SMALL-SCALE PPPS IN EAST AFRICA AND AFRICA'S INFRASTRUCTURE SECTOR

Central governments, municipalities and local authorities, and line ministries in East Africa, Africa and other developing countries face the challenge of meeting infrastructure service delivery obligations to their municipalities, to remote rural, peri-urban, small town communities and/or their sector investment needs. Furthermore, the administrative decentralization and devolution movement in the delivery of number of government functions has enhanced this trend. As it is being increasingly recognized that private sector contractors and operators of infrastructure projects are, in principle, better placed to provide design/engineering, procurement, construction, finance and O&M services than the public sector, there has been a trend, in the last few years, for local communities to enter into arrangements with private operators for the provision of these services for small-scale infrastructure projects (namely in the water supply sector).

However, small PPP projects while potentially attractive present some challenges in a context like East Africa and Africa in general:

- 1/ Small PPP projects may appear to present greater challenges than their traditional counterparts to both the public sponsor and the private partners as their economics (procurement costs, revenue generation capacity, etc.) and risk profile (project-specific, sponsor risk, regulatory/legal risk, etc.) can be quite challenging.
- 2/ While traditionally, foreign infrastructure investors, contractors and operators present potentially significant financing and technical capacity, private local contractors/operators,

in many developing countries, may face difficulties in the process of mobilizing/raising both tax revenue and commercial finance in their local market.

8.1 Definition

The definition of what constitutes a small PPP project will differ from country to country, depending on the overall size of the country, its population and its national GDP; the sector involved (water, energy, social infrastructure, etc.), as well as the already adopted minimum PPP project size under the main national PPP framework.

Small scale PPP schemes or small PPPs in the infrastructure sector are typically associated with: 1/ the servicing of settlements with small population density in relation to the national average; 2/ infrastructure programs that cannot be integrated to the national grid/network due to their remote location; 3/ a target market which does not generate enough scale for integration in a centralized network management; 4/ local government, counties, provincial or municipal infrastructures and infrastructure services.

The WSP (2014) defines small PPP in the water sector as PPP-based water supply project serving a settlement with a population from 1,000 to 10,000-with sufficient density to warrant a network solution, but which do not generate enough scale for integration in a centralized network management.

Small-scale PPPs are also characterized by contract tenors that can range from 3 to 7 years (for affermage, management contract, O&M contracts and delegated contracts similar to affermage or lease) to 7 to 20 years for DBO/DBL and delegated contracts similar to BOT.

Overall, the definition of small PPP for East Africa and Africa will be country-specific and will be largely different from one country to the other

8.2 Types of small-scale PPP projects

Typology of small-scale PPP projects in the infrastructure sector can be, but not exclusively, related to: scalable small renewable energy projects or rural electrification projects, small water supply system and/or sanitation system in rural and peri-urban areas, hospitals and health service delivery, school and education service delivery, local government and municipal infrastructures such as physical market facilities, warehouses and silos, commercial centers, prisons, sport facilities, etc.

8.3 Constraints and Challenges Associated with Small-scale PPP Projects

Public Sponsor's specific risk

In the case of East Africa and Africa in general, the challenges associated with PPPs are compounded by the fact that most potential public sponsors of PPP projects (municipalities, counties and other local governments, etc.) present a political, management and governance risk profile that is quite high for the typical private sector sponsor, especially foreign ones.

Diseconomies of scale in relation to procurement and foreign investment

Small PPP projects may appear to present greater challenges than their traditional counterparts to both the public sponsor and the private partners as their economics (procurement costs, revenue

generation capacity, etc.) and risk profile (project-specific, sponsor risk, regulatory/legal risk, etc.) can be quite challenging.

Risk and cost of complex regulation

One of the biggest challenges facing local governments and municipalities is the legacy of complex and overlapping legislation that often involves inherent confusion and duplication between central and local regulations. Many local governments or municipalities are faced with the challenge of having to satisfy the requirements of both central and local regulations, which is often perceived to be a difficult task.

Simplified policy, regulatory and legal frameworks built around alignment to the existing central government framework should therefore be one of the aims and objectives in the articulation of small-scale PPP programs.

Public perception

In many infrastructure sectors, the option of considering a PPP is seen as an indictment on the local government's own ability or capacity to provide the basic services required by the community they are meant to be serving. This is the case in the situation where the contractor is a foreign one in an apparently profitable sector and more so when there is deficiency in the specific infrastructure sector. In either case, this can also indicate a lack of appreciation of the benefits of risk transfer and value for money creation that is inherent in the provision of a public service through a PPP.

Furthermore, there is also a considerable amount of political mistrust of PPPs amongst some sectors of the municipal community, which perceive PPPs as a form of privatization of state-owned assets. Labor unions have a fundamental ideological opposition to PPPs, viewing them as a threat to job creation, which remains one of the biggest challenges of most African and Northern Corridor countries.

Labor concerns are often specifically addressed in a PPP during the procurement by making specific proposal evaluation points available for skills transfer and job creation. It is vital that municipal PPPs also introduce such a scoring system in order to allay such fears. Negative public perception can also be addressed through proper engagement with and participation of the public in the planning,

procurement process and actual management of the PPP program.

Capacity gap

The management and regulation of many small-scale PPP schemes are typically left to less well-resourced local actors and institutions, requiring more explicit and simplified guidance which most developing countries cannot yet guarantee.

Hence, technical support from the central PPP unit in terms of access to the national pool of PPP experts, best practices in PPP project management, project development fund resources to facilitate the contracting of expert, as well as other Help Desk services should be envisaged as part of the overall small-scale PPP program.

PPP and local government fund raising capacity

In addition to central government's allocations (conditional shares or equitable shares), municipalities and local governments typically rely on local tax revenues or fees collected directly from users of basic services e.g. water and electricity to secure fund raising against their debtor books. Where these resources are contractually tied-up in a PPP, municipalities and local governments can be sometimes perceived to be a credit risk when they approach financial institutions for funding on a PPP. Furthermore, the relatively weak management capacity of most municipalities in Africa and East Africa coupled with their perceived high governance risk make them not usually apt at securing external support from credit guarantees or other credit enhancing facilities from development banks.

8.4 Approach to Planning and Managing Small-scale PPPs in the Infrastructure Sector of Northern Corridor and African Countries

8.4.1. Considering alternatives and meeting the pre-requisites

The risk associated with PPPs and the costs associated with developing PPP projects demand that, before embarking on a small-scale PPP project, government and the relevant contracting authorities examine the different options for proceeding with the project, including traditional public service options, and look at the enabling environment for the project and the political economy of introducing the private sector into the specific infrastructure sector. Before a decision is made the capacity and appetite of the private sector to be involved in the project, the maturity of the market for PSP, the capacity of the local financial market and the financial viability and value for money of the project should be properly factored-in. It will also be important to engage with stakeholders including the public to ensure that the objectives of the project are well understood and to nurture social acceptance of the project. If these issues are not taken seriously and managed then a project may fail before it is launched.

8.4.2 Policy, strategy and processes for the development and management of small-scale PPP projects

Small-scale PPP projects in East Africa and Africa in general are and will be implemented in a context of market failures (access to specialized financial and technical resources), higher country risk and project-specific risks, limited ability to pay fully for the services at market price, and sometimes diseconomies of scale. As such, their actual management should be built around a framework that seeks to achieve the risk transfer, value for money and innovation expected from the private sector while helping address the above elements of market failure.

It is suggested to systematically address the following components of such framework by building on the existing PPP framework:

- Small PPP policy and strategy framework
- Legislative, legal, regulatory and institutional framework
- Address market failures issues (i.e. VGF, PDF; access to technical resources; PPP transaction support)
- Customized and simplified small PPP project screening, planning and management.

8.4.3 Small PPP policy and strategy framework

Elements of a policy and strategy framework for small-scale PPP projects in East Africa and Africa could include the following:

- Definition of target sectors and related PPP objectives
- Sector PPP delivery strategy (i.e. desired PPP modes per sector, minimum and maximum project size, clustering/bundling of projects to address economy of scale issues, lowering procurement cost, introducing flexibility)
- Simplified legislative, legal, regulatory and institutional framework (alignment to existing framework)
- Procurement process and discipline
- Institutionalized and standardization processes to manage stakeholders
- Use of standardized and simplified tools and templates
- Contract management process and discipline
- O&M supervision and discipline
- Capacity building of stakeholders
- Facilitation of access to specialized financial and technical resources
- Special provisions and clauses for foreign partners
- Special provisions and clauses for local investors and contractors.

8.4.4 Legislative, legal, regulatory and institutional framework

Two elements worth considering from a legal framework include

- Simplified and standardized contractual framework
- Dispute resolution mechanisms

- Institutionalized support system for small-scale PPPs

8.4.5 Addressing Market Failures and Access to specialized resources

- Technical support from central PPP unit (help desk, best practices, pool of experts)
- Project development fund

8.4.6 Small-scale PPP project cycle management

Number of experts have challenged whether it is appropriate for a municipality to have to comply with all the management steps in all PPPs, irrespective of the size or complexity of the project undertaken. Indeed, cumbersome project management processes can add to the cost of small-scale PPP projects while stretching the capacity of the already limited national/local resources. However, this should not imply substandard procurement process, poor appraisal, inadequate PPP contract structuring, poor risk assessment and management, and negligent supervision and monitoring of PPP projects. Hence, the challenge for central government, municipalities and other local government becomes how to articulate streamlined PPP management processes and produce standardized tools that minimize project management costs while optimizing risk management and VfM per specific sector and size of projects.

The process and related key steps for project screening and selection, PPP structuring, project appraisal and procurement should be the same for small-scale PPP project as regular PPP projects with the following adjustments:

PPP structuring:

- Risk and responsibility allocation matrix per sector and type of PPP modes based on the relatively weak financial and technical capacity and high risk profile of most local governments in east Africa and Africa
- Further alignment of incentives, responsibilities and performance requirements
- Consider clustering of selected projects to make them attractive to major players

Project appraisal:

- Consider value gap finance
- Value for money
- Affordability and fiscal responsibility

Procurement:

- Decide on procurement strategy that minimizes cost. In particular, use similar bidding documents and the same bidding procedure
- Consider the implementation of a number of schemes under one contract
- Market PPP to attract bidders
- Qualify bidders through robust due diligence (technical, financial and legal) discipline and checklist
- Use standardized operational procedures
- Use standardized/simplified templates for EOI, RFP, Appraisal

For certain types of project, it is advised to consider users' associations, co-operatives, and local private operators that are better placed to provide services to rural, peri-urban, and small communities than the government. These local organizations are located closer and are potentially more accountable to users. Local operators may also be able to attract finance from commercial banks, as well as support from donor organizations.

Drafting of PPP contract:

- Define performance requirements, comprehensive SLA and related KPI
- Establish dispute resolution mechanisms
- Simplified and standardized contract documents
- Clarity of contractual provisions and implied terms

Construction:

- Establish project management mechanism

O&M management

- Implement a comprehensive contract management discipline
- Enforce comprehensive O&M management system (checklist)

8.4.7 Clustering of projects

A challenge facing smaller scale PPP projects is to achieve economies of scale to attract experienced infrastructure contractors, operators and investors particularly in more remote areas, for a stand-alone project. Standalone projects may not always be affordable and may not be attractive to investors.

Hence, where possible, PPP projects could consider clustering (aggregation) in order to attract more experienced operators and achieve economies of scale (both in respect of capital investment and operating costs) as well as creating a larger asset base for which to attract commercial financing. Clustering (aggregation) can be used as a mechanism to bid out a number of separate schemes using similar bidding documents and the same bidding procedure and/or through implementing a number of schemes under one contract. Clustering needs to be optimal (meaning not so big or dispersed as to make the project unmanageable).

Key considerations for the origination and development of small PPP projects include the following:

Rationale, business case and value for money

Is the rationale for undertaking the small infrastructure project as a PPP strong enough?

Is the business case strong?

Will there be value for money for the public sector?
How?

Interested investors

Are there potentially interested foreign investors?

What will be their requirements?

Are there potentially interested local investors?

What will be their requirements?

Feasibility of clustering

- Are there a number of potential schemes located in the same geographic area?
- Is there a commercial logic to clustering the implementation of these projects (i.e., economies of scale and efficiencies in operations to be achieved)?
- Who is the authority (is there one or more than one body responsible for service delivery)? Is the legal basis on which it is contracting well understood?

- Will clustering just be for the purpose of bidding schemes out or to implement several schemes under one contract?
- Will the clustering be just clustering in name, and each of the communities a party to the contract and a counterpart for the operator to work with? Or will they all be parties but nominate one party to be the day to day counterpart and entity to which the operator reports? Will the communities form a unit which in turn contracts with the operator, so that the operator has one body with whom it is contracting?

Relationship between different PPP schemes from a revenue pooling and pricing stand point

- Can the operator pool revenues from users or does it need to keep them separate?
- Can revenues from a different scheme support another scheme in the cluster?
- How will investments be prioritized between schemes?
- Can assets of different schemes and communities be pooled? If so, are there limitations on this? Is there already a functioning scheme for one community that could serve others?
- How will tariffs be set in respect of the clustered schemes (especially if there are a number of authorities involved)?

Legal concerns

- Are there legal restrictions on the form of contract/rights and risks that can be transferred to the private sector?

Bidders' profile and incentives system

- What technical and financial capacity will be required from bidders for multiple schemes? Will they need to show more expertise and financial capacity than for single schemes? Will bidders be permitted to bid for more than one package? If so, will there be discounting if awarded more than one package?

and African countries. Furthermore, small PPP cannot be considered for jurisdictions where public governance issues prevail. However, there might be opportunities for small PPPs if the concerned jurisdiction has seriously embraced the PPP model with strong political commitment grounded on an increasingly robust PPP agenda that include: 1/ an enabling environment, 2/ focus on strong evaluation of the value for money objectives, and 3/ strong governance framework for PPPs.

Overall, measures and actions to improve the environment for small-scale PPPs in East Africa and Africa include the following:

- Establish first the enabling environment in terms of political support, policy/legal framework, capacity and viability gap and project development support.
- Consider clustering and bundling of small PPP projects by sector and/or geographic areas where possible to improve economy of scale.
- Utilize a more streamlined process in small-scale PPP procurement to lower associated costs
- Utilize forms and models of simplified agreements and clarify contractual provisions and implied terms.
- More efficient utilization of the resources provided by Government to source the skills required if they are lacking within the municipality or local authorities as well as build PPP capacity within the municipality.
- Put forward real political championship of small-scale PPPs,
- Consider a well-run VGF and consider credit enhancement of small-scale PPPs to ensure bankability of projects by providing Government guarantees or seeking international credit guarantees for projects that are not otherwise bankable.
- Put in place specialized teams to work with contracting authorities to drive PPPs to financial closure.
- Work with industry associations and develop the capacity of potential local contractors
- Consider the causes of failure in PPPs.

8.5 Conclusion

Widespread utilization of small PPP projects should be considered with care for jurisdictions that are very far below the 1st stage of the PPP maturity model as it is the case for most Northern Corridor

Box 8.1
TOOLKIT FOR STRUCTURING
PRIVATE SECTOR PARTICIPATION
(PSP) CONTRACTS FOR SMALL
SCALE WATER PROJECTS

The Water and Sanitation Program (WSP) has produced a toolkit for small water supply PPP schemes by building on a review of PSP contracts developed in over 14 developing countries.

What is the Toolkit?

Developed by the Water and Sanitation Project (WSP), the Toolkit is a resource designed to assist practitioners working on the next generation of private-sector participation (PSP) contracts for smaller water projects. Building on a review of PSP contracts developed in over 14 countries - as well as recent survey data - the Toolkit provides actionable guidance on how best to structure contract and bidding documents.

Why use the Toolkit?

Water user associations, co-operatives, and local private operators may be better placed to provide services to rural, peri-urban, and small communities than the government. These

local organizations are located closer and are potentially more accountable to users. Local operators may also be able to attract finance from commercial banks, as well as support from donor organizations.

What's in the Toolkit?

General issues - project designers should consider before drafting a contract.

Key contractual provisions - Of a PSP contract and examples of language drawn from real contracts

Annexes, including a comparison of key provisions in the contracts reviewed by WSP, as well as a sample Build-Own-Transfer/Concession agreement for constructing and operating a small scale scheme and sample term sheets for Design, Build and Operate (DBO) and Operation and Maintenance Contracts

Source: Water & Sanitation Program Toolkit (2014)

Box 8.2
THE MULTILATERAL INVESTMENT FUND (MIF) OF THE INTER-AMERICAN DEVELOPMENT BANK

A Support Program for Small-scale PPPs in the Infrastructure Sector

Governments, constrained by limited fiscal resources, have used public-private partnerships (PPPs) as mechanisms for developing infrastructure and enhancing access to basic services. However, in Latin America and the Caribbean, use of PPPs varies widely, with concentration in mature markets and at the national level. A lack of knowledge and awareness of the benefits of implementing PPPs, as well as difficulties in bringing PPP projects to market, hamper PPP implementation. These challenges are especially pronounced at the sub-national level.

Objective:

The MIF aims to expand and embed the PPP concept in Latin America and the Caribbean at both the national and sub-national levels to help countries bring PPP projects to market with greater transparency and effectiveness.

MIF Solutions:

- Creating Infrascop – the first region-wide index to evaluate the environment for PPP investment which is now being replicated by the Asian Development Bank.

- Organizing the annual conference of PPP practitioners – PPPAmericas - with platforms for collaboration between public and private sector partners.
- Designing a new technical assistance facility to provide support for bringing PPP projects to market.
- Piloting PPP projects at the sub-national level that focus on serving micro, small and medium enterprises (MSMEs) and low-income populations.
- Results and Impact:
 - A greater number of governments in the Latin American and Caribbean region have enhanced their abilities and capacity to launch PPP projects in their countries.
 - An increased number of low-income communities in Latin America and the Caribbean have access to new and improved infrastructure and services through PPP projects at the national and sub-national levels.

www.iadb.org/projectDocument.cfm?id=35810172

SECTION 9

STRATEGIES FOR LOCAL PRIVATE SECTOR PARTICIPATION IN NORTHERN CORRIDOR'S PPP SECTOR

9.1 Introduction

The Africa Infrastructure Country Diagnostic (AICD) study revealed that Africa needs massive investment in the order of USD 20 billion to USD 40 billion per year over a 10 year period to bring its infrastructure stock up to par with world levels, depending on successes in introducing efficiency in areas such as on O&M, planning system and budget execution. The Program for Infrastructure Development in Africa (PIDA), the Infrastructure Master Plan (IMP) of the various RECs and regional bodies such as TTCANC along with national infrastructure development plan of the various African countries have also confirmed the massive investment needs of the Continent and its respective countries.

With the learning curve on PPP and the investment climate for long-term projects improving in Africa, an increasing pipeline of African PPP projects have been developed with a fairly considerable number of PPP projects already implemented in the large majority of countries. However, evidence suggests that while PPPs have attracted quite significant level of investment, local private sector participation and local content development have been marginal in the projects undertaken and perspective for more participation of the local private sector for the projects to come are not encouraging if a number of measures are not taken care of.

9.2 Challenges of Private Sector Participation in National and Regional PPP Projects

Table 9.1 below shows the different levels of constraints faced by the local private sector in participating in PPP projects. These involve:

- (i) financial capacity, technical capacity and size constraints and challenges that prevent them from bidding for and winning large PPP projects
- (ii) limited access to financial advisory services, engineering /technical consulting services; as well as
- (iii) a policy, legal and institutional framework that is not yet conducive to local private sector participation in large-scale PPP projects.

TABLE 9.1
LOCAL PRIVATE SECTOR CHALLENGES IN RELATION TO PARTICIPATION IN NATIONAL/ REGIONAL PPP PROJECTS

LOCAL SPONSORS AND FOREIGN INVESTORS' CHALLENGES IN EAST AFRICA AND AFRICA'S PPP MARKET	FUNDING AND ADVISORY SERVICES GAPS IN EAST AFRICA'S & AFRICA'S PPP MARKET
<p>Local Sponsor Level :</p> <ul style="list-style-type: none"> • Limited financial capacity to participate in PPPs as equity investor • Limited asset base, size and technical capacity to participate in large PPP projects • Limited capacity to raise debt finance and limited access to international financial market • Low level of financial sophistication • Limited experience in the O&M of number of infrastructure services • Low level of readiness to bid for long-term PPP projects • Limited access to financial advisory/structuring services for PPPs <p>Local Market Level:</p> <ul style="list-style-type: none"> • Limited availability of term finance and risk transformation opportunities in financial markets • Limited investment banking and project finance expertise • Absence of financial risk management solutions • Limited availability project development funding • Limited availability of viability gap funding projects • Limited cross-border capability <p>International Investors and Lenders' Concerns:</p> <ul style="list-style-type: none"> • High perceived country, political and regulatory risk • Commercial risk concerns • Inappropriate PPP institutional framework and unclear PPP project approval framework <p>Business Environment Level:</p> <ul style="list-style-type: none"> • First generation policy and institutional frameworks yet to reach first stage of PPP maturity model • Non conducive legal and regulatory framework (i.e. limited predictability, limited transparency, high regulatory risk) • Weak legal system (incl. enforcement power, speed of legal processes and dispute resolution mechanisms) • Absence of PPP-related skills and expertise in: policy, legal/regulatory; transaction structuring; financial structuring; project development; project marketing; etc 	<p>Project Development:</p> <ul style="list-style-type: none"> • Early stage risk capital • Project co-ordination: Conception to operations • PPP structuring (risk allocation, allocation of functions, payment, contract, legal) • Engineering and technical advisory services <p>Financial Advisory:</p> <ul style="list-style-type: none"> • Project structuring/planning • Consulting/policy advisory • Project/corporate finance • Syndications (Debt/Equity) <p>Principal Investing:</p> <ul style="list-style-type: none"> • Co-investment with sponsors, private equity • Project finance: debt, equity, mezzanine • Structured products, trade & equipment finance, construction finance <p>Viability Gap Funding</p> <ul style="list-style-type: none"> • Large-scale PPP projects • Small-scale PPP projects <p>Advisory & Technical Assistance:</p> <ul style="list-style-type: none"> • Policy, legal and regulatory reform for PPP in infrastructure • Industry-specific technical expertise development • Capacity building in "Infrastructure PPP Finance" • Knowledge resources sharing in PPP projects <p>Knowledge resources sharing in PPP projects:</p> <ul style="list-style-type: none"> • Financing opportunities • Partnership opportunities • Technical expertise / expert database

Source: Auteur

As a consequence, despite the recent surge in PPP/infrastructure investments in East Africa and Africa, local content and local value addition remain particularly limited across the entire value chain of the infrastructure projects involved: engineering, procurement, construction and financing. For instance, it is reported that only very few firms in markets such as South Africa, Egypt and the like will be in a position to take advantage of the massive infrastructure investments being considered for implementation in the framework of PIDA and/or regional IMP. The reasons for this low level of local private sector participation are attributed to financial and technical capacity constraints; but also, to a lack of policy, strategy and program framework in favor of such participation.

9.3 Why is Local Private Sector Participation in PPP Projects Important?

Local private sector participation in regional and national PPP projects is particularly important for number of reasons, including:

- Local value addition and local content development in large investment projects;
- Jobs creation for the regional/national economies
- Technology, skills and knowledge transfer that would increase the region capacity to implement future projects at lower costs
- Significant local private sector participation will result in reducing the significant foreign exchange outflows involve in these projects.

Hence, the limited participation of the local private sector to the large PPP projects translates into a significant cost to the regional and national economies of East Africa and Africa. This trend needs to be reversed through a comprehensive local private sector participation policy, strategy and program framework.

9.4 Strategies for local private sector participations in East Africa's PPP sector

The promotion of local private sector participation in PPP projects should start with a strong statement at Head of State/Government level as a signal and declaration of intent towards all stakeholders. This will/can then inform the following detailed implementation framework of the statement.

- 1/ **Evaluation of PPP opportunities** as well as local private sector participate opportunities across the PPP/infrastructure development value chain:
 - Engineering and design
 - Procurement of building materials and other inputs
 - Construction
 - Financing, insurance, guarantees and related financial advisory
 - Other services
- 2/ **Awareness and sensitization program** on PPPs towards the local private sector and public sector
- 3/ **Inventory of potential local private sector PPP services providers** in the respective countries and jurisdictions
- 4/ Evaluation of **capacity building/training/awareness development needs** of both the private sector, the public sector and PPP professionals on PPP project management, namely, in technical, financial, knowledge sharing, JV, consortia formation and networking related matters.
- 5/ Articulation of a comprehensive **policy, strategy, regulatory framework** private sector participation, involving the private sector, including financial support, technical support and institutional support programs.
- 6/ Articulation of a comprehensive **local content policy and program** for the infrastructure/PPP sector.
- 7/ Promotion of **business linkage program** to be systematically implemented for all PPP projects.
- 8/ Promotion of **small PPPs** involving local/regional private sector.
- 9/ Facilitation of **consortia and/or JV** of local firms to participate in local/regional PPP projects.

For the sake of efficiency and purposeful actions, points 4 through 9 above will command the articulation of a blue print approach to their implementation by regional/national institutions such as EAC, EACCIA, TTCANC and other regional bodies/organs as deemed necessary. In that respect, the training curricular already articulated by EACCIA, under a previous ACP-EU BizClim support, as well as content developed by institutions such as PPIAF, UNDP's PPPUE as well as other small PPP-related training content should be leveraged.

9.5 Training Needs and Opportunities

Training needs among private sector operators

One of the findings of BizClim/EACCIA 2012 regional Study "Reinforcing the Capacities of East Africa to Identify, Develop and Promote PPPs for Infrastructure: Regional Study Report" presents as follows:

There has been some support and capacity building provided to governments by international bodies such as the World Bank and various aid organizations. This capacity building has, however, been delivered to a relatively narrow group of officials. Outside this group, knowledge of PPPs remains sketchy.

There are two main identified groups of public sector officials for whom a program of training is required. These groups are:

- Officials in central government line ministries such as industry, transport, etc.
- Local government officials

Although the expertise of governments' PPP Units will be available to support line ministries, this will not be sufficient by itself if these ministries are to prepare the initial project pipelines for potential PPP infrastructure projects. Knowledge of PPP project design, structuring and implementation/monitoring will be required within the ministries themselves.

Similarly, small-scale and micro-PPPs will be the domain of local government bodies, the majority of which have little or no experience of PPPs at all. Indeed, some local government officials may be hostile to the very idea of PPPs and may need

education and training to buy into the concept of the private provision of public services. Financial management is often weak at local government level, too, so training will be required in order to ensure that all aspects of local PPP projects are transparent.

Training needs among private sector operators

The training needs of the private sector are similar to those of the public sector, but viewed from the perspective of the bidder/operator rather than the tenderer. Thus such aspects as responding to government tenders, the preparation of PPP project proposals, and the financial management of PPP projects, and the operation and maintenance of PPP assets/facilities need to be addressed.

Groups to be considered for training will include the following:

- Private sector organizations
- Private sector firms

9.6 India's National PPP Capacity Building Programme

The National PPP Capacity Building Programme was launched by the Union Finance Minister (FM) at the India PPP Conclave held in and December 2010. Especially noteworthy is the fact that the programme found special mention in the FM's Budget speech in February 2011. The programme was expected to train almost 10,000 senior and middle-level government officials over the next 3 years. This is expected to result in improved capacities among government officials in preparing and managing PPP projects across various infrastructure sectors in these States.

This training material has been organized into five distinct course offerings. Also, it is structured in an easy-to-use modular format, with extensive guidance along with explanatory notes and tips, cross-referencing and additional reading material. Accordingly, besides serving its primary purpose as a pedagogical tool for trainers in a class room context, the material can also be used by the trainees for subsequent revisions and reference.

STRATEGIES FOR LOCAL PRIVATE SECTOR PARTICIPATION IN NORTHERN CORRIDOR'S PPP SECTOR

These courses, as explained below, are aimed at five different categories of audience distinguished in terms of their role in a PPP context as well as their specific need/purpose in a PPP context, i.e., increasing awareness, obtaining better understanding and acquiring proficiency in application of PPP skills.

Curriculum

Basic Course: A 3-4 day programme aimed at officials with no prior PPP experience but can spare the requisite time to get not only a better understanding of the PPP concepts but also the key elements and value drivers in structuring a basic level PPP transaction. Apart from the broad overview of concepts and trends, the course includes four core modules covering four distinct phases of PPP project lifecycle, viz., Identification & Organizing for PPPs, Analyse & Structure PPPs, Tendering & Contracting and Implementation & Monitoring. The course pedagogy relies on a relatively greater degree of class participation through combination of exercises and group discussions based on selected case studies and examples.

Module I:	Introducing PPPs
Module II:	Identification and Organization
Module III:	Analysis and Structure
Module IV:	Tendering and Contracting
Module V:	Implementation and Monitoring

Advanced Course: An 6-9 day programme aimed at officials having prior experience of working on PPP projects and, preferably, completed the basic course. Schematically, following the pattern of basic course, this course is organized around four core modules covering four distinct phases but distinguishes itself by dwelling into a deeper level of detail in addressing key issues and concepts. Also, it includes more complex exercises, case studies and dedicated sessions for role plays and experience sharing, so as to make the training more intensive and give broader scope to participants to internalize the learning by doing.

Module I:	Identification and Organization
Module II:	Analysis and Structure
Module III:	Tendering and Contracting
Module IV:	Implementation and Monitoring

Awareness Course: A 1-day programme aimed at elected representatives, civil society and media, with focus on providing an overview and broad

exposure to key PPP concepts. Structured in four sessions, the course is expected to particularly highlight (a) the relevance of PPPs in terms of their merits and characteristics; (b) issues related to bidding and contracting such as, for example, issues of transparency, optimal allocation of risks and safeguarding public interests; (c) experience with PPPs covering both successes and failures; and (d) role of civil society and local political leadership in critical areas such as willingness-to-pay and monitoring.

Sensitization Course: A 2-day programme aimed at officials with no prior PPP experience and limited time to spare, focusing on providing a quick overview of PPP concepts and trends from a practitioner's perspective. In this, through eight sessions, the participants will be introduced to all major issues and steps involved in PPP projects, beginning from the conceptualization and development phase to financial structuring & risk analysis, bidding process and contract management. The course pedagogy includes limited class room exercises and group discussion.

Policy Course or Course for Senior Policy Makers: A 2-day programme aimed at senior level government officials who are more likely to be called in to address broader policy and programme level issues and thereby create an enabling environment and institutional architecture for facilitating and catalyzing PPPs at a sector or cross-sectoral level. Here, the emphasis is on providing exposure to challenges and issues in scaling up PPPs through sector and cross-sectoral level interventions covering regulatory, financing and capacity building aspects.

9.7. Potential Roles of EACCIA, TTCANC, EAC, EADB and other Regional Bodies

KEY PPP DEVELOPMENT ACTIVITIES									
	PPP POLICY FRAMEWORK DEFINITION	CAPACITY BUILDING / TRAINING	INVESTMENT PROMOTION	LOCAL GOVERNMENT MOBILIZATION	PRIVATE SECTOR MOBILIZATION	SUPPORT FROM PPP UNIT	VGf, PDF, GUARANTEE, CF	REGIONAL PPP PROJECTS	
EAC Role	✓	✓	✓				✓	✓	
EACCIA Role	✓	✓	✓		✓			✓	
NCTTCA Role	✓	✓	✓	✓				✓	
EADB	✓	✓	✓				✓	✓	
Member St. Role	✓	✓	✓	✓	✓	✓	✓	✓	

VGf: viability gap fund

PDF: project development fund

CF: capitalization fund

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Annex 1: SELECTED REFERENCE DOCUMENTS ON PPP

PPP Handbook and Toolkits

- 1/ EPEC – European PPP Expertise Centre - The Guide to Guidance: How to prepare, procure and deliver PPP projects. 2008. Provide a comprehensive list of bibliographical references for the key PPP issues www.eib.org/epec/resources/guide-to-guidance-in-ten-transport.pdf
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Northern Corridor Transit and Transport Coordination Authority
House 1196, Links Road, Nyali.



P. O. Box 34068 - 80118
Mombasa, Kenya



Email:
tca@ttcanc.org



Telefax:
+254 41 4470735



Phone
+254 41 4470734
+254 20 2000881



Web
www.ttcanc.org

**For Investment Opportunities Contact
the respective Northern Corridor Member States**

(Kenya, Uganda, Rwanda, Burundi, South Sudan, DR Congo)
