PPP
PUBLIC PRIVATE PARTNERSHIP
Handbook

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Disclaimer

This Public Private Partnership (PPP) Handbook has been drafted by the Infrastructure Development Department (IDD), Government of Karnataka (GoK) with the assistance of Infrastructure Development Corporation (Karnataka) Limited (iDeCK) as a guide for the officials of the State Government. The information contained in this Handbook should be used for general guidance, informational, and educational purposes only. While an effort has been made to provide accurate information, IDD makes no warranty or representation of any kind with respect to the information included therein or its completeness or accuracy. IDD is not responsible for any action taken as a result of relying on or in any way using information contained in this Handbook and in no event shall be liable for any damages resulting from reliance on or use of the information stated therein.

Foreword

Sri. Santhosh S Lad
Hon'ble Minister of State for
Infrastructure Development & Information
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Infrastructure has emerged as a key driver for sustaining the robust growth of the economy. India aims to double investments in the infrastructure sector through private investment to a massive US$ 1 trillion during the 12th Plan period, as against US$ 500 billion in current, 11th Plan period. PPPs are increasingly being used by governments and public sector authorities throughout the world as a way of increasing access to infrastructure services for their citizens and economies at a reduced cost.

The past decade has witnessed the implementation of Public Private Partnership (PPP) projects across various sectors. Some have been successful while others have met with some challenges. However, the experiences of undertaking these projects could be useful to learn from as we look towards implementing more projects on a PPP framework.

Karnataka is a frontrunner when it comes to the number of projects that are being implementing on PPP. The Infrastructure Development Department (IDD), Government of Karnataka (GoK) has been playing a significant role in promoting increased private investment in public infrastructure through PPP. As Government officials/ Practitioners who will be directly involved in implementing projects on PPP, it is extremely important that the proper process to be followed in structuring projects that satisfy the twin objectives of addressing people's needs on one hand and making it attractive for the private sector to invest on the other, is well understood. Robust revenue models and appropriate risk sharing mechanisms need to be thought of while structuring projects.

This Public Private Partnership (PPP) Handbook has been drafted by the Infrastructure Development Department, to serve as a ready reference for practitioners and facilitate decision making during various stages of the PPP project lifecycle.

I wish this handbook turns out to be an extremely useful tool for all Government Officials directly or indirectly involved with PPP projects.

Best Wishes,

Sd/-
Santhosh S Lad

Preface

It's a well accepted fact that high-quality infrastructure propels economic growth of a country. Recognizing this fact, the twelfth five year plan projects an investment of about one trillion USD for infrastructure development and about half of this is expected to be achieved through private sector investment. The Infrastructure Development Department (IDD), Government of Karnataka (GoK) has taken several initiatives to encourage private investment in infrastructure through public-private partnerships (PPP). Various legal and policy reforms have been undertaken to promote PPP in the infrastructure sector.

There is a need felt for a single guide that elaborates the approach to be adopted in the design and implementation of PPP projects and assist in upgrading the knowledge and skills of officials in the Government on the various aspects of PPP's. This PPP Handbook for Practitioners seeks to bridge this gap and offers a step-by-step guidance to practitioners as they go about structuring infrastructure projects on a PPP framework. The Guide, however, does not seek to provide definitive answers on detailed aspects given the diversity of situations across the country.

The PPP Handbook for Practitioners is designed to be a ready recokener for reference by the officials in the Government keeping in mind the existing legal and regulatory framework that governs procurement in Karnataka. The Handbook highlights the key features of the PPP framework and PPP project life cycle and sets out a structured approach for better understanding of the concept to improve the overall effectiveness of the development efforts. For ease of reading, the Guide is structured into three chapters, each addressing a specific topic in easy to understand manner.

Abbreviations

ADB	Asian Development Bank
LRTS	Light Rail Transit System
MRTS	Mass Rapid Transit System
OECD	Organization for Economic Co-operation and Development
PMU	Project Management Unit
PPIAF	Public Private Infrastructure Advisory Facility
PRU	Project Review Unit
SHLCC	State High Level Clearance Committee
SLSWA	State Level Single Window Agency
TA	Transaction Advisor
ULB	Urban Local Body
WB	World Bank

Government entity

Administrative departments and the Heads of the Departments, Municipal or Local Bodies, Public Sector Undertakings or any other statutory authority in the state

India Infrastructure Project Development Fund (IIPDF)

A revolving fund with an initial corpus of Rs.100 Crores created by the Ministry of Finance, Government of India for the purpose of meeting the project development costs which may include the expenses incurred in respect of feasibility studies, environment impact studies, financial structuring, legal reviews and development of project documentation, including concession agreement, commercial assessment studies, grading of projects etc.

Private company

means a company in which 51% or more of the subscribed and paid up equity is owned and controlled by a private entity

Project Development Expense

The expenses incurred by the government entity in respect of development of each project

Technical Close

The stage of execution of concession agreement, between the private partner and the government entity or its agencies, subsequent to selection of the private partner through a transparent and competitive bidding process

Transaction Advisors

Consultants hired through a transparent system of procurement by the sponsoring authorities to assist them in designing the project and/or providing technical, financial and legal input for the project design, and providing advice for the management of the process of procuring the private sector partner for the PPP project.

Viability Gap Funding

means a grant, one – time or deferred provided with the objective of making the project commercially viable.

Background

The Twelfth Five Year Plan (2012-2017) emphasises development of infrastructure in the country with a plan size of INR 65 lakh crores. It is envisaged that atleast half of these investments are expected to come from private sector investments. This requires rapid improvements and additions to the capacity of infrastructure in the country and Public Private Partnerships (PPP) have emerged as an alternative to traditional means of project implementation.

The Government of Karnataka (GoK) on its part is committed to infrastructure development and for creating an enabling environment for PPPs in the State. To this extent various legal and policy reforms have been undertaken. A few of the policies/enactments/ bills of GoK in support of infrastructure development include:

- Karnataka Transparency in Public Procurement (KTPP) Act, 1999 & Rules, 2000
- Karnataka Infrastructure Policy, 2007
- Karnataka Infrastructure Development and Regulation Bill (Draft), 2012
- Swiss Challenge Guidelines

Of the above, the KTPP Act, 1999 & Rules, 2000 sets out the process for competitive and transparent procurement of goods and services meant for public delivery. All departments, ULB's and government entities in the State are required to follow the said enactment for procuring goods and services.

Karnataka, in the past has implemented various infrastructure projects on the PPP framework and continues to do so. However, implementation through PPPs has had its set of challenges due to complicated financing structures, delays in land acquisition and long gestation period of infrastructure projects. Therefore, there is a need to adopt a structured approach while conceptualizing, structuring and implementing projects with private sector participation. A streamlined approach would go a long way in addressing some of the challenges and result in successful projects that deliver improved infrastructure services to the public. As a first step in this direction, IDD recognizes that the officials in the Government are required to upgrade their knowledge and skills on the various aspects of PPP's.

Pursuant to this objective, this handbook is drafted as a step by step guide to sensitize practitioners in the Government with regard to the PPP project lifecycle. The handbook is drafted keeping in mind the existing legal and regulatory framework that governs procurement in Karnataka. The objective of this handbook is to serve as a ready reference for practitioners and facilitate decision making during various stages of the PPP project lifecycle. In the Handbook, the entire PPP project lifecycle is briefly explained in an easy-to-understand way and every section has been provided with external website links as additional reading material for the reader.

Chapter 1: Introduction to Public Private Partnerships

The provision of public services and infrastructure has traditionally been the exclusive domain of the government. However, owing to the increasing population, urbanisation and other developmental trends, the Government's ability to adequately address the public needs through traditional means have been severally constrained. This has led Government's to increasingly look at the private sector to supplement public investments and provide public services through Public Private Partnerships.

1.1 Defining Public Private Partnerships

PPPs broadly refers to long term, contractual partnerships between public and private sector agencies, specially targeted towards financing, designing, implementing, and operating infrastructure facilities / services that were traditionally provided by the public sector. In a PPP, each partner, usually through legally binding contract(s), agrees to share risks and responsibilities related to implementation and/or operation and management of a project.

PPPs primarily focus on service delivery with measurable output parameters (the performance of the private sector is monitored against a set of performance indicators) as opposed to the conventional method of EPC (Engineering-Procurement-Construction) contracts which only focus on creation of assets.

The Department of Economic Affairs (DEA), Ministry of Finance (MoF), Government of India (GoI) defines PPP as:

"An arrangement between government or statutory entity or government owned entity on one side and a private sector entity on the other, for the provision of public assets and/or related services for public benefit, through investments being made by and/or management undertaken by the private sector entity for a specified period of time, where there is a substantial risk sharing with the private sector and the private sector receives performance linked payments that conform (or are benchmarked) to specified, pre-determined and measurable performance standards."

Note: *It is critical to understand that PPP is not the privatisation or divestiture of state assets and/or liabilities nor it is the 'commercialisation' of a public function by the creation of a state-owned enterprise.*

Even though the broad concept of PPP does remain the same, other countries define it different to suit the country's local arrangement. The Department of Economic Affairs, Ministry of Finance, Government of India has compiled the definitions of PPP's of other countries in the document - Approach Paper on Defining Public Private Partnerships, Discussion Note,February 2010. The website link is www.pppinindia.com/pdf/ppp_definition_approach_paper.pdf

1.2 Need for PPP

There are usually two fundamental drivers for PPPs. Firstly, PPPs enable the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain facilities and services traditionally procured and delivered by the public sector.

Secondly, a PPP is structured so that the borrowing of finances is incurred by the private sector implementing the project and therefore, from the public sector's perspective, a PPP is an "off-balance sheet" method of financing the delivery of new or refurbished public sector assets.

1.3 PPP Modalities

PPP's may be designed, structured and implemented using a number of different institutional arrangements, depending upon the nature of the project, level of participation required by the private partners and risk allocation strategy required for the project. Based on these factors, the different types of PPP contracts include:

1. **Service & Management contracts**

   Service & Management contracts are the simplest of PPP models and often cover the shortest period. The private partner takes responsibility for managing specified aspects of the service provision. Ownership and investment typically remain with the public sector, although some rehabilitation responsibilities can be transferred to the private partner.

2. **Affermage or lease contracts**

   Affermage or lease contracts are generally public-private sector arrangements under which the private partner is responsible for operating and maintaining the utility but not for financing the investment.

3. Concession Contracts

Concession means a bundle of rights which may be transferred from the government entity to the private partner as part of the PPP arrangement. In a concession contract (brownfield) the public sector grants the private partner the right to manage and operate existing assets and responsibility for making new investment (extensions or rehabilitation). However, the ownership of assets typically remains with the government. The variants under this contract include the following:

a. Build-Operate-Transfer (BOT) contracts and its variants

In this type of arrangement, the private sector is responsible for building, operating and transferring the ownership of the project to the government. BOT contracts involve a great level of private sector participation across a set of different functions, and often cover a longer duration (also known as **"Concession Period").** A number of BOT variants are possible depending on the allocation of roles and risk.

b. Design-Build-Finance-Operate-Transfer (DBFOT)

In this type of arrangement the private sector designs, finances and constructs a new facility and operates the facility for the agreed term. The facility is transferred back to the public sector at the end of the term.

c. Build-Own-Operate (BOO):

In this type of arrangement the private sector finances, builds, owns and operates a facility or service in perpetuity. The public constraints are stated in the Concession Agreement and addressed through ongoing regulatory authority.

d. Build-Own-Operate-Transfer (BOOT):

In this type of arrangement, the private entity finances, designs, builds and operates a facility (may include collection/ charge of user fees) for a specified period, after which the ownership is transferred back to the public sector.

Based on the objectives of the project, required expertise and financial investment from the private sector, the below matrix sets out the PPP option selection:

Table 1: PPP Option Selection Matrix

Options	Objectives		
	Technical expertise	Managing Expertise	Operating Efficiency
Service Contract	Yes	No	No
Management Contract	Yes	Yes	Some
Affermage	Yes	Yes	Some
Concession	Yes	Some	Some

Depending on the PPP option selected, ownership, responsibilities of public / private and duration of PPP would be reflected as below:

Table 2: Distribution of responsibilities in PPP

Options	Asset Ownership	Operation and Maintenance	Capital Investment	Commercial Risk	Duration (years)
Service Contract	Public	Private	Public	Public	1 - 3
Management Contract	Public	Private	Public	Public	3 - 5
Affermage	Public	Private	Public	Shared	8 - 15
Concession	Public	Private	Private	Private	25 - 30

Source: Knowledge Series, Advanced Course, Department of Economic Affairs, Ministry of Finance, Government of India

For more information on the types of PPP's please refer to the PPP in India Toolkit set out in the following link - http://toolkit.pppinindia.com/solid-waste-management/module1-oopmv-tmpmf.php?links=oopmv1b

1.4 Stakeholders in a PPP transaction

PPP's transactions involve a diverse range of stakeholders in the process. In most cases it is witnessed that stakeholders provide valuable input to the design and practicality of a PPP project. Allowing stakeholders to comment on PPP strategies allows for a sense of buy-in and can lead to innovative approaches. An indicative table of the key stakeholders and their roles is set out in the below table:

Stakeholders	Roles & Responsibilities
Government	• Establish and prioritize goals and objectives of PPP and communicate these to the public • Approve recommended PPP option • Provide institutional, regulatory and legal frameworks
Private sector	• Provide feedback on attractiveness of various PPP options • Follow rules and procedures of competitive bidding process • Provide project specific expertise
Transaction Advisors / Technical consultants	• Aid / help in structuring and working out a viable PPP project. • TA's who have experience in developing PPP contracts can help to highlight the best practices to adopt or the pitfalls to avoid when preparing for a PPP deal.
Financial Institutions	• Extend financial support to the private partner in terms of loans
Public	• Communicate ability and willingness to pay for service • Express priorities for quality and level of service • Identify existing strengths and weaknesses in service

On the start of it, the decision to undertake a project on a PPP framework should be considered only when there is a strong support from the concerned stakeholders (which include the civic society at large, users or beneficiaries etc) during development and operations. Naturally, success with PPPs requires a favourable investment climate, fair, clear and transparent competitive procurement processes and a strong regulatory and legal framework. On the other hand, while attracting private sector participation, the project must provide means to attract investments from the private partners. These important conditions should be checked for every project and by doing so it would help to improve the quality and likely success of projects entering the PPP development process.

For more information on the stakeholders in a PPP Process, please refer the sections in the documents specified below:

1. *Section on Stakeholder Consultation in the Public Private Partnership Handbook published by the ADB in September 2008. Website link - http://www.adb.org/documents/public-private-partnership-ppp-handbook and*
2. *Section on Roles of the Public and Private Sectors in PPP Projects in the Public Private Partnership Handbook published by the Ministry of Finance, Singapore in February 2012. Website link - http://app.mof.gov.sg/data/cmsresource/PPP/Public%20Private%20Partnership%20Handbook%20.pdf.*

The successful development and operations of any PPP project relies on many factors such as enabling frameworks and policies, adequate private sector participation, stakeholder buy-in etc. Among these, providing a supporting framework for PPP's is of utmost importance and in India, the Government of India has undertaken several initiatives in this direction. For more information on the PPP supporting environment please refer the content set out in the following website link http://toolkit.pppinindia.com/solid-waste-management/module1-pse.php?links=rfpee1

In its endeavor to promote PPP's, the Department of Economic Affairs, Ministry of Finance, GoI has drafted a comprehensive National PPP Policy, 2011 (Draft) that can be used by the Centre and the State Governments. This Policy sets out the principles governing PPPs, the PPP Process, the enabling frameworks and the institutional & governance mechanism. The National PPP Policy, 2011 (Draft) may be accessed in the following website link - http://www.pppinindia.com/draftpolicy.php

2.1 PPP Ecosystem in Karnataka

The State Government has been actively involved in increasing its role in PPP projects by creating new infrastructure assets as well as in managing existing assets. Further to provide an impetus to the sector, the Government of Karnataka has drafted the Infrastructure Policy in 2007 to encourage government agencies / departments to undertake PPP projects in the State. The main objective of the Policy is to provide a fair and transparent policy framework to help facilitate the process of economic growth and encourage PPPs in upgrading, expanding and developing infrastructure in the State. As per the Karnataka Infrastructure Policy, 2007, the infrastructure sectors and facilities, which would be governed for PPP projects in the State include the following:

Sector	Sub sectors
Agri-infrastructure	• Agriculture and horticulture markets • Floriculture parks and markets • Agro-food processing and allied infrastructure (including common-user cold storage facilities)
Education	Infrastructure and facilities for educational institutions not on a purely commercial basis but which satisfy a public need
Energy	• Power generation, including captive power generation, as per the provisions of the Electricity Act 2003, and co-generation projects, transmission, distribution and power trading services • Oil and Gas (origination, terminals, transmission, and gas works) • Renewable and non-conventional energy sources (Wind, Hydro, Solar, tidal, biomass, and MSW)
Healthcare	Infrastructure and facilities for healthcare not on a purely commercial basis but satisfying public need
Industrial Infrastructure	• Industrial Parks (including Biotechnology, Information Technology parks) • Special Economic/ Free Trade and Export Promotion Zones • Industrial Estates and Industrial Townships
Irrigation	• Canals, dams and weirs
Public Markets	Infrastructure and facilities for public markets not on a purely commercial basis, but which satisfy a public need

Sector	Sub sectors
Tourism	• Amusement , Entertainment,Theme park • Hotels/ Resorts • Convention & Exhibition Centres • Trade fairs • Cultural centres
Transportation & Logistics	• Roads (including bridges, interchanges, and flyovers) • Railway systems • Urban transport systems: MRTS, LRTS, Monorail, High-capacity bus systems • Airports and airstrips • Minor ports and harbours • Inland water transport • Bus/ Truck/ Urban Transport Terminals and associated public facilities such as public amenity centres • Warehousing infrastructure (including container freight stations, container depots, cold storage facilities and tank farms) • Mechanised and Multi-storey Parking facilities
Urban and Municipal" Infrastructure	• Township development • Commercial development with common-user facilities • Water Supply & Sewerage • Desalination • Wastewater recycling and reuse • Underground drainage • Solid waste/ Bio-medical waste/ Hazardous waste: Collection, transportation, treatment and disposal facilities

The Policy may be downloaded from the following website link – www.idd.kar.nic.in/docs/infra_policy.pdf

2.2 Institutional and Regulatory Framework

The Central Government has supported the creation of nodal agencies such as the PPP Cells at the State level. IDD established a PPP cell in the year 2007 which is headed by the Principal Secretary and managed by Director (PPP). ADB has provided technical assistance to the PPP cell.

The functions envisaged of a PPP nodal agency is set out below:

1. Identify, conceptualize and create a shelf of projects and recommend approval of suitable projects for implementation on PPP route.
2. Assist in preparing the pre-feasibility reports through consultants.
3. Appoint / select consultants to develop the projects.
4. Ensure rigorous adherence to managing effective and transparent tendering processes.
5. Create coordinated, efficient, machinery for PPPs whereby viable transactions are tendered to the market and the costs of each transaction are realizing economies of scale.
6. Develop internal evaluation guidelines in consultation with the respective departments to evaluate and assess the projects.
7. Act as the nodal agency for capacity building for PPP, through training and technical assistance, to increase the deal flow of eligible projects.
8. Ensure dissemination to consumers, investors and other government entities on the benefits and procedures for PPP in a given sector.
9. Inspect, visit, review and monitor PPP projects under implementation.
10. Act as a nodal agency to receive proposals in respect of PPP projects and place them before the SLSWA or SHLCC for consideration and approval.

Further, the SLSWA and the SHLCC have been set up for the providing approvals of PPP Projects. The details of the same are set out in the Pre-Procurement activities section.

Chapter 3: PPP project lifecycle

The term project development process includes all the activities undertaken in developing projects on a PPP framework, starting from the project identification stage to the post award governance stage where the project is in the implementation stage. The stages involved in the development of project through PPP framework as set out below, is mostly observed in all projects that are developed.

PPP Project Lifecycle	Key Activities
Project Identification Stage	• Establishment of public need • Needs Analysis • Options Analysis • Pre-feasibility studies
Activities Post Identification	• Constitution of Project Management Unit at the department level • Constitution of Project Review Unit at the Government level • Stakeholder Consultation • Procurement of Transaction Advisors/ Technical Consultants
Project Feasibility Stage	• Technical / Financial / Legal Feasibility Studies • Social / Environment Impact Assessment • Value for Money (VfM) analysis • Economic feasibility and viability • Adherence to the Legal Compliance Framework
Project Structuring Stage	• Risks Analysis • Indicative Contractual Framework • Indicative project costs
Pre-Procurement Acitivities	• Land Acquisition • Shifting of Utilities • Funding Arrangements • Approvals and Clearances from SLSWA/ SHLCC • Inter-departmental coordination
Preparation of bid documents for private partner	• Request for Qualification • Request for Proposal • Project Information Memorandum • Draft Concession Agreement / Project Development and Implementation Agreement (PDIA)
Procurement Process Stage	• Competitive Procurement Strategy • Single Stage and two stage bid process • Selection of Private Partner
Contract Management	• Appointment of monitoring agencies suchas IE , Project Auditor • Contract Management • PPP Audit

Typically, the project development process concludes with the execution of the Concession Agreement between the government entity and the private partner. The actual construction of the project and its operations are referred to as project execution/ implementation. This is when the post award governance issues emerge which have a strong bearing on project structuring. It is useful to keep these issues in mind while finalizing various aspects of the project during the development stage.

3.1 Project Identification

Project Identification is the foremost stage in the PPP project development process and encompasses the following steps:

* Establishment of public need wherein there is a requirement to improve delivery of services by the government entity or add new services.
* Strategic planning – which includes preliminary needs assessment of the infrastructure required, the identification and prioritisation of a set of possible projects to meet these needs.
* Project Pre-Feasibility analysis - to assess specific needs, consider service delivery options, and to test if an identified project is feasible and worth developing further under the PPP framework. Once a potential PPP project has been identified a pre-feasibility analysis would usually be carried out, including further needs assessment and options analysis.

3.2 Activities post identification

The activities post identification includes constituting a PMU at the department level and a PRU at the state level. These units would be help to overseeing and monitoring the overall functioning of the PPP project. In addition to this, in-principle approvals and clearances would need to be obtained for the PPP Project. The other activities during this stage would include stakeholder consultations, procurement of TA's and Technical Consultants.

Procurement of TA's / Technical Consultants

The Planning Commission, Government of India (GoI) has released Model Bidding Documents for the selection of TA's / Technical Consultants to assist the government entity in developing the PPP project and for the selection of a suitable private partner. The government entity would need to due diligence while drafting the terms of reference and scope of work section of the bidding documents. The terms of reference of the consultant would need to clearly set out the roles and responsibilities of the consultant, the type and extent of services and tenure of services. The Model Bidding Documents drafted by GoI for the selection of the following Technical Consultants/ TA's are set out below:

1. Model Request for Proposal (RFP) for Selection of Technical Consultants
2. Model Request for Proposal (RFP) for Selection of Legal Advisors
3. Model Request for Proposal (RFP) for Selection of Transmission Consultants
4. Model Request for Proposal (RFP) for Selection of Financial Consultants

The above bidding documents can be downloaded from the following link - http://www.infrastructure.gov.in/publications.htm

In Karnataka, for the selection of the Technical Consultants / TA and the private partner, the norms and guidelines as set out in the Karnataka Transparency in Public Procurement Act (KTPP), 1999 and Rules, 2000 would need to be adhered to and the same can be downloaded from the website link - http://www.finance.kar.nic.in/trans/tender.htm.

These bidding documents may be used by the concerned government entity undertaking a PPP project. It is to be noted that wherever applicable, the project specific details may be suitably modified and issued to the TA/Technical Consultant.

Further as an enabling provision, GoI has created the empanelment of TA's Transaction Advisers. Similarly, in Karnataka, the concerned government entities may appoint TA's by either seeking a financial bid from the pre-qualified by IDD, GoK and the Department of Economic Affairs or after following the process of evaluation of qualifications and financial bid of the applicants. *A guide for the government entities to use the Panel of Transaction Advisors for PPP projects in Karnataka may be downloaded from the following website link* - http://idd.kar.nic.in/Guidelines_TA.pdf.

3.3 Project Feasibility

The government entity initiating the project may be required to undertake sector specific, technical and financial feasibility studies. Feasibility studies are required to be undertaken by the government entity to determine the best/ optimum mode for implementation of the identified project. Feasibility studies include assessing the technical, financial, and legal aspects of a project. The feasibility studies that need to be carried out include the following:

- Technical feasibility study
- Financial feasibility study
- Value for Money (VfM) analysis
- Legal & Regulatory study

> *For instance, in the case of projects like roads, railways, urban transport systems, bulk water supply systems and water distribution, it will be necessary to study alignment options in addition to the design and engineering options.*

Technical feasibility studies enable the government entity to determine the do-ability of the project from the environment, social, market and technology perspectives. The technical studies throw light on all the approvals and clearances that have to be acquired for project development and implementation. It also lists the utilities/ancillary infrastructure that may be required to be developed and the cost estimates for undertaking the project. Technical feasibility studies are carried out primarily to analyse the possible design/engineering options that could be applied and the different technologies that could be adopted for project development. Usually, a technical feasibility study would also include designs and drawings of the recommended option.

Financial feasibility assessment determines the financial structure/strategy for the project. The financing strategy or structure sets out the envisaged sources of funds the private investor may use to finance capital expenditure. Although financial feasibility assessment is carried out during the feasibility stages of the PPP project development process, it has a lasting impact on other aspects of the project. In this stage a quantitative analysis of the financial feasibility of the project using the most promising PPP modal option or options is carried out. This stage also allows an assessment of likely VGF or other public-sector financial assistance requirements that may be used for funding the project. The financial analysis will use information gained from the demand forecasts, technical feasibility, and cost estimates, and will reflect the PPP mode that has been chosen. This financial analysis is an important part of the "due diligence" that should be carried out on the PPP project.

For instance, the decision on whether the project is to be taken up for development under PPP is objectively determined by a Value for Money (VFM) analysis.

Value for Money (VfM) analysis is an assessment of whether a PPP is likely to offer better value for the public than conventional public procurement. There are several possible approaches to value for money assessment. One option is simply to carry out a qualitative assessment. This includes checking that all the conditions are in place for the PPP to achieve value for money—for example, that the PPP has been structured well, and that competitive bidding is expected. Additionally many PPP projects require quantitative assessment of value for money. This typically involves comparing the chosen PPP option against a "Public Sector Comparator" (PSC)—that is, what the project would look like if delivered through conventional procurement. This comparison can be made in different ways. The most common is to compare the fiscal cost under the two options—comparing the risk-adjusted cost to government of procuring the same project through traditional procurement, to the expected cost to government of the PPP (pre-procurement) or the actual PPP bids (post-procurement). An alternative is to compare the two options on an economic cost-benefit basis.

For more information on VfM analysis, kindly refer the sections specified in the following documents.

1. *PPIAF toolkit for PPP in Roads and Highways has a section on value for money and the PSC, which describes the logic behind value for money analysis, and how the PSC is used. Website link - http://www.ppiaf.org/sites/ppiaf.org/files/documents/toolkits/highwaystoolkit/index.html*

2. *United Kingdom Treasury's manual on assessing value for money encompasses both a quantitative and qualitative approach. The manual sets out detailed questions and checklists for qualitatively evaluating the value for money of a proposed PPP project or program. Website link - http://www.hm-treasury.gov.uk/ppp_vfm_index.htm*
3. *Additionally, the India PPP Toolkit provides a VfM indicator Tool which may be used by the concerned government entity. Website Link - http://toolkit.pppinindia.com/solid-waste-management/module3-intro.php?links=intro1*

Various parameters in project structuring and bidding are influenced by the output of the financial feasibility assessment exercise. The estimated project cost, bid security, performance security, eligibility criteria (which, in turn, depends on the estimated project cost) are also an outcome of this assessment. However, what must always be kept in mind is that the financial feasibility assessment is only a tool that enables the government entity to make reasonable decisions.

Financial assistance for PPP projects

In some PPP projects, they may not be commercially viable for the private partner, In such cases, GoI has notified a scheme for financial support to infrastructure projects that are to be undertaken through PPP. The quantum of financial support i.e., Viability Gap Funding (VGF) to be provided under this scheme shall be in the form of a capital grant at the stage of project construction. The amount of VGF shall be equivalent to the lowest bid for capital subsidy, but subject to a maximum of 20% of the total project cost. In case the concerned government entity proposes to provide any assistance over and above the said VGF, it shall be restricted to a further 20% of the total project cost.

The Guidelines for Appraisal, Approval and Assistance for PPP projects (VGF scheme) is set out in the following link - http://www.infrastructure.gov.in/publications.htm. These guidelines will apply to PPP projects posed by the Central Ministries, State Governments and statutory authorities, as the case may be, which owns the underlying assets and the Proposals to be made under this scheme shall be considered for providing Viability Gap Funding (VGF), one time or deferred, with the objective of making a PPP project commercially viable. A private sector company shall be eligible for VGF only if it is selected on the basis of open competitive bidding and is responsible for financing, construction, maintenance and operation of the project during the concession period.

In Karnataka, the State Government has introduced the Karnataka Viability Gap Funding (KVGF) to extend financial support for PPP projects (as procured under the Infrastructure Policy, 2007) in various infrastructure sectors to make them viable and attractive to the private sector. The KVGF will be implemented by IDD and the amount thereof shall be sanctioned by the SLSWA. The Guidelines for availing assistance for PPP projects (KVGF scheme) is set out in the website link - http://idd.kar.nic.in/docs/KVGF_Guideline.pdf.

The procurement costs of PPPs, and particularly the costs of transaction advisors are significant and often pose a burden on the budget of the concerned government entity. Hence, a revolving fund known as the India Infrastructure Project Development Fund (IIPDF) with an initial corpus of Rs.100 Crores has been created by the Ministry of Finance, Government of India. The IIPDF is a mechanism through which the concerned government entity will be able to cover a portion of the PPP transaction costs, thereby reducing the impact of costs related to procurement. The IIPDF will be available to the concerned government entity for PPP projects for the purpose of meeting the project development costs which may include the expenses incurred in respect of feasibility studies, environment impact studies, financial structuring, legal reviews and development of project documentation, including concession agreement, commercial assessment studies (including traffic studies, demand assessment, capacity to pay assessment), grading of projects etc. required for achieving Technical Close of such projects, on individual or turnkey basis. The Scheme and Guidelines for India Infrastructure Project Development Fund can be accessed in the following link – www.pppinindia.com/pdf/guideline_scheme_IIPDF.pdf

Similarly in Karnataka, for providing financial support for quality project development activities in the state, a fund known as the 'Karnataka Infrastructure Project Development Fund' (KIPDF), has been set up and made operational. The Scheme and Guidelines for assistance under KIPDF may be downloaded from the following website link - http://www.idd.kar.nic.in/docs/KIPDF.pdf.

In order to undertake feasibility studies, the government entity may either undertake the same on its own provided it has the required manpower and expertise. In cases where the government entity does not have the required expertise to carry out the technical and financial feasibility studies, it may choose to engage a Technical Consultant and Transaction Advisor for the same.

3.4 Project Structuring

Effectively, structuring a PPP project means allocating responsibilities, rights, and risks to each party to the PPP contract. This allocation is defined in detail in the PPP contract. The first step is to outline the required outputs from the government entity and the private partner, then draw out the responsibilities and risks borne by each party. Therefore, the first step toward structuring the PPP is often to put together a comprehensive list of all the risks associated with the project. In a PPP project, PPP risks vary depending on the nature of the project and the assets and services involved. Nonetheless, certain risks are common to many types of PPP project. These are usually grouped into risk categories, which are often risks associated with a particular function (such as construction, operations, or financing), or with a particular project phase (such as termination). For more information on the PPP Project risks please refer section 3.3.1 of the Public Private Partnerships Reference Guide Version1.0, published by WB and PPIAF

In the project structuring stage, the project is to be structured so as to finalise the terms and conditions of a formal arrangement to be entered into between the government entity and the private partner. The inputs for structuring a project on PPP are derived from the feasibility studies covering the technical, financial, commercial, legal and institutional aspects of the project.

In order to achieve an efficient project structure, one must first understand the key challenges or issues for PPP structures which include (but not limited to) -the scope of the PPP, the appropriate PPP framework, sources of finance, revenue model, how costs can be recovered, the duration of the PPP project, and the overall operating framework. These inputs for developing a PPP structure emanate from a range of studies, or investigations that a government entity undertakes prior to configuring a structure.

In Karnataka, the Infrastructure Policy, 2007 sets out a few contractual arrangements that maybe considered while undertaking PPP projects in the State.

For existing assets, the contractual/ implementation structures used would include the following:

- Management of the whole or part of the assets by private partners through
  - Operations and Maintenance (O&M) contracts for pre-determined periods
  - Lease of assets
  - Rehabilitate, Operate, Maintain and Transfer (ROMT) contracts
- Sale of whole or part of the assets
- Partial or full divestiture of the Undertaking

For the creation of new assets, depending on the nature of the project, the contractual structures/ agreements (but not limited to) used for new projects would include inter-alia:

- Build & Transfer (BT)
- Build-Lease-Transfer (BLT)
- Build-Transfer-Operate (BTO)
- Build-Operate-Transfer (BOT)
- Build-Own-Operate-Transfer (BOOT)
- Build-Own-Operate (BOO)
- Build-Operate-Share-Transfer (BOST)
- Build-Own-Operate-Share-Transfer (BOOST)
- Build-Own-Lease-Transfer (BOLT)

3.5 Pre Procurement Activities

Pre-procurement activities would include all the activities that are required to be put in place by the government entity prior to commencement of the bid process for procurement of private sector participation for the project. Ideally, these activities would need to be carried out post project structuring wherein it is assumed that the project is configured in reasonable detail and the contours are set for the procurement of a private partner.

An indicative list of these pre-procurement activities includes:

- Land Acquisition, fixing of Right of Way and shifting of utilities - process towards land acquisition, access to right of way, shifting of utilities, etc.
- Administrative approvals – permissions from government, cabinet approvals, etc.
- Funding arrangements – budgetary grant, viability gap funding (VGF), etc.
- Clearances & Permits – from statutory and regulatory authorities
- Inter-departmental coordination

Each of these activities is essential and the sequence in which they are to be carried out may vary based on the project specifics. It is useful to commence these activities concurrently. All the pre-procurement activities must be supported by stakeholder consultations so as to ensure smooth transition of the project from the feasibility and structuring stage to the procurement stage. The concerned government department/agencies proposing the PPP project would be required to facilitate in obtaining the necessary approvals and clearances for the project and the private partner would be responsible for ensuring that these approvals and clearances are obtained as per the prescribed time schedule specified in the Agreement.

In Karnataka, the Infrastructure Development Department (IDD) is the nodal agency for undertaking PPP projects in the State. As specified earlier in section 2.2 the PPP Cell constituted within IDD receives proposals from the concerned government entity with respect to PPP projects. The PPP Cell also helps various state government agencies / departments in different stages of project development cycle.

Further in the state, for the purposes of approval of PPP projects, the State Level Single Window Agency (SLSWA) for PPP has been constituted under the chairmanship of the Chief Secretary, with Additional Chief Secretary and other Principal Secretaries/Secretaries as members to facilitate, coordinate, promote and approve infrastructure projects on PPP basis upto Rs.50.00 crore of investments.

The State High Level Clearance Committee (SHLCC) constituted under the Chairmanship of the Chief Minister will approve PPP projects exceeding Rs.50.00 crore in investments. IDD assists the SLSWA & the SHLCC in evaluating and deciding upon specific proposals. The concerned government entity would, in consultation with the PPP Cell would send the proposals to IDD for approval to the SLSWA and the SHLCC based on the investment.

3.6 Procurement Process

Once the basic pre-requisites to initiate the procurement process have been fulfilled in terms of obtaining in-principle approvals and carrying out the necessary feasibility studies, the next step would be to decide on the procurement process to be adopted. In this stage, it is critical to adopt an open, fair, transparent, competitive approach towards bidding.

The procurement process for selection of a private partner for the project involves preparation of bid documents based on project specifics. This stage is completed with the issue of Letter of Acceptance (LoA) (also known as the Letter of Award (LoA)) to the selected private partner.

Depending upon the requirements, characteristics of the project and the prescribed procurement guidlines, the government entity may opt for either a single-stage or two-stage bid process. In case, a single stage procurement process is proposed for selection of private partner for the project, then the following bidding documents would need to be prepared:

- Notice Inviting Tender (NIT)
- Request for Proposal (RFP)
- Project Information Memorandum (PIM)
- Draft Concession Agreement (DCA)

Single-stage bidding is normally followed for smaller contracts where the purchase of goods or services can be defined with some degree of precision or the works can be executed without involvement of much skill. In the single-stage bidding process, Bidders submit Bids containing both the Technical Proposal and the Financial Proposal.

In larger and complex contracts where the emphasis is on the quality of works, goods or services, both PPP and otherwise, the two-stage bidding process is adopted. In case a two stage procurement process is adopted for selection of a private partner for project development then in addition to those referred above another document called the **'Request for Qualification'** document would need to be prepared.

In the two-stage bidding process, the first phase involves the determination of the technical and financial strength of the applicants with reference to predetermined eligibility criteria (RFQ stage or "Qualification Stage"). In this stage, the Applications submitted in response to the RFQ are evaluated and the Applicants are shortlisted on the basis of their eligibility criteria (technical capacity and financial capacity). Only those applicants (also known as pre-qualified bidders) who meet the criteria specified in the RFQ would be qualified for the second phase of bidding.

The second phase of bidding is referred to as the Request For Proposal (RFP) or the "Bid Stage" which typically involves obtaining financial bids from the pre-qualified bidders of the RFQ phase. On evaluation of the financial bids, the private partner who has quoted the best bid for the project is selected for award of the PPP project. The selected private partner is known as the Concessionaire with whom the Concession Agreement is signed. The Concession Agreement spells the obligations of the government entity, the private partner, dispute resolution mechanisms, termination payment mechanisms etc.

Marketing the PPP

Marketing the PPP helps attract bidders and investors. This is particularly important in the early stage of a PPP project—government entities need to make a positive effort to build bidder interest, to increase competitive pressure. Marketing also helps identify who might be the potential bidders. At a minimum, marketing the PPP requires advertising the launch of the tender process.

Model Bidding Documents for selection of private partner

The Planning Commission, Ministry of Finance, GoI has drafted various Model Bidding Documents for development of projects through PPP framework across sectors. These documents could be used by the concerned agencies/departments on a project-to-project basis, with necessary customizations and the same may be downloaded from the following website link - http://www.infrastructure.gov.in/publications.htm

In Karnataka, all the PPP projects / contracts are required to be awarded on the basis of a fair & transparent process, under the ambit of the KTPP,1999 and Rules, 2000. For the purpose of ensuring effective PPP Projects, the concerned PPP Cells set up in the departments/agencies would be responsible for the co-ordination and would facilitate the identification, development, and implementation of infrastructure projects, including facilitation for obtaining clearances and approvals.

Dispute Resolution

As PPP projects are long-term and complex, contracts tend to create room for differences in interpretation, leading to the rise of disputes. Therefore, 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. Hence, dispute resolution mechanisms need to be spelt out in the Concession Agreement. For more information on dispute resolution mechanism please refer the content provided in the following link- http://toolkit.pppinindia.com/ports/module2-p4-oirtcm-dr.php?links=oirtcm1a

3.7. Contract Management

The success of a project developed through PPP framework is determined when the project is executed and its commercial operations are underway. Post award governance includes all those activities (from the acknowledgement of LoA by the private partner to completion of the Concession Agreement period) that the government entity must carry out to ensure smooth execution of the project.

As the next step, in order to ensure the smooth and scheduled functioning of the project, the government entity concerned may be required to undertake project monitoring & management activities by appointment of an Independent Engineer (IE)). If the department concerned intends to appoint an IE, it may select the suitable entity through a competitive bid process.

For more information on Contract Management, please refer the section on "Managing PPP Contracts" in the World Bank Public Private Partnerships Reference Guide, Version 1.0 made available in the following link - http://www.ppiaf.org/page/knowledge-center/ppp-resources

3.8. Contract Expiry and Asset Handover

The final task in managing a PPP contract is to manage the transition of assets and operations at the end of the concession period. The approach to this transition should be clearly defined in the Concession Agreement. 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. It also involves determining future asset and service requirements; determining future service delivery strategy; reviewing exit provisions; and managing the transfer to the new arrangements. For more information on Contract Management, please refer the following link – http://toolkit.pppinindia.com/highways/module2-p4-intro.php?links=intro1

3.9 Communication in PPP projects

As compared to traditional modes of development of infrastructure, PPP projects represent an elemental shift in the approach to service delivery or the creation of infrastructure. This shift often requires sector reforms and transition to new ways of functioning, requiring a change in the mindsets of all parties involved. Effective management of this change involves interactions, negotiations and resolution of probable conflicts in stakeholder objectives. Thus, an effective communication strategy is integral to successful PPP project development and execution. Thus, it is often witnessed that a clear communication strategy is required for the success of PPP projects. For this purpose, the government entity needs to specify the structure for communication between it and the private partner. Interactions and communications with the government entity, PMU and PRU often enhance the relationship between the government entity and the private partner. For more information & case studies relating to communication in PPP Projects please refer the document set out in the following link - http://www.pppinindia.com/NPBCP_images/PDFs/Case%20studies%20Communication%20Strategy%20for%20PPPs%20(1).pdf.

3.10 PPP Audit

The Concession Agreement will require the concessionaire to prepare its own audited accounts for the project. The Comptroller and Auditor General (CAG), India has published Public Auditing guidelines for PPP projects. These Guidelines have been primarily framed for use by the Indian Audit & Accounts Department and are intended to provide a framework in auditing PPP projects to determine whether Government and other public authorities have got the best possible value for money. The CAG guidelines on PPP Audit can be accessed in the following website link - www.infrastructure.gov.in/pdf/PPP-PROJECT.pdf

3.11 Capacity Building

As PPP's are increasing becoming an important means of public procurement, it is important for the officials of the government to be constantly made aware of the process and the nuances of PPP projects. For this purpose, in Karnataka, IDD and ATI, Mysore conducts timely training programs/seminars / workshops to enhance the knowledge and skill level of the officials.

Useful Links

Administrative Training Institute	www.atimysore.gov.in
GoI Database on PPP's	http://www.pppindiadatabase.com
IDD, GoK Website	www.iddkarnataka.gov.in
India PPP Toolkit	http://toolkit.pppinindia.com/
Ministry of Finance, GoI	http://www.finmin.nic.in/
State Level Infrastructure	http://business.gov.in/infrastructure/state_level.php
PPP Knowledge Series	http://pppinindia.com/reports-policy-documents.php
PPIAF	www.ppiaf.org
Uttarakhand PPP Handbook	http://cell.upppc.org/index.php?option=com_content&task=view&id=32&Itemid=20
World Bank Public Private Partnerships Reference Guide	http://www.ppiaf.org/page/knowledge-center/ppp-resources

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