



Government of India
Ministry of Finance
Department of Economic Affairs

PPP Guide for Practitioners



April 2016

**DEPARTMENT OF ECONOMIC AFFAIRS
MINISTRY OF FINANCE
GOVERNMENT OF INDIA**

The PPP Guide for Practitioners has been prepared by the PPP Cell, Department of Economic Affairs, Ministry of Finance, Government of India with assistance from the Consortium led by Infrastructure Development Corporation (Karnataka) Limited (iDeCK) with the support of many individuals and organizations. Experts from the Government and the private sector participated enthusiastically in review and consultation exercises. Some of them made a more direct contribution while several others helped in enriching the content through participating in various discussions, reviews and consultation workshops.

The PPP Guide for Practitioners has been commissioned by the PPP Cell, Department of Economic Affairs (DEA), Government of India, under the technical assistance programme of the Asian Development Bank (ADB) viz. Mainstreaming PPPs in India. No part of this document may be replicated, quoted or printed without written confirmation from DEA and Government of India.

©Department of Economic Affairs

All rights reserved

The data, information and opinions expressed in this document are those of the authors, participants and consultants, and do not necessarily reflect the views and policies of the Government of India (GoI) and the Asian Development Bank (ADB). GoI and ADB do not guarantee the accuracy of data included in this publication and accept no responsibility for any consequence of their use.

Table of Contents

List of Acronyms	ix
Module 1: Overview	1
Module 2: Understanding PPPs	5
1. Introduction	6
2. Definition of a PPP	6
3. Essential Conditions of PPPs	7
4. Key Stakeholders	9
5. Advantages of PPPs	10
6. Limitations of PPPs	11
6. PPP Models	12
7. Traditional Procurement Model vs. Procurement Model in PPPs	16
8. Interests of the Public Entity and the Private Partner	17
9. Myths and Realities about PPPs	18
10. Conclusion	19
11. Bibliography	19
12. For Further Reading	19
Module 3: Project Identification	21
1. Introduction	22
2. Expression of Project Need	23
3. Need Analysis	24
4. Options Analysis	25
5. Activities Post Project Identification	27
6. Conclusion	29
7. Bibliography	29
8. For Further Reading	29
Module 4: PPP Project Process Development	31
1. Introduction	32
2. Project Identification Stage	34
3. Activities Post Project Identification	34
4. Project Feasibility Stage	34
5. Project Structuring Stage	36
6. Pre-procurement Activities	36
7. Bid Documentation Stage	37
8. Procurement Process Stage	37

9. Post Award Contract Management Stage	37
10. Role of Communication	38
11. Capacity Building Requirements	38
12. Indicative Timelines for Project Development	38
13. Conclusion	39
14. Bibliography	39
15. For Further Reading	40
Module 5: Technical Feasibility	41
1. Introduction	42
2. Outcome & Implications of Technical Feasibility Studies	43
3. Types of Technical Studies	51
4. Market Study	53
5. Environment Impact and Social Impact Assessment	56
6. Conclusion	57
7. Bibliography	57
8. For Further Reading	58
Module 6: Financial Feasibility	59
1. Background	60
2. Concept of Project Finance	61
3. Steps involved in Financial Feasibility	62
4. Formulation of Reasonable and Realistic Assumptions	63
5. Life Cycle Cost Analysis	65
6. Sources of Finance	66
7. Revenue Estimations	72
8. Financial Feasibility Assessment	74
9. Optimise Financial Viability	76
10. Lenders' Concerns on PPP Funding	77
11. Conclusion	78
12. Bibliography	79
13. For Further Reading	79
Module 7: Value Proposition of Projects	81
1. Introduction	82
2. When to assess Value Proposition?	83
3. How to Assess Value Proposition?	84
4. Public Sector Comparator	87
5. Key Issues	92
6. Conclusion	92

7. Bibliography	93
8. For Further Reading	93
Module 8: Economic Analysis	95
1. Introduction	96
2. Process for undertaking Economic Analysis	97
3. Economic Costs and Benefits	99
4. Economic Performance Indicators	101
5. Conclusion	102
6. Bibliography	103
7. For Further Reading	103
Module 9: Legal Compliance Framework	105
1. Introduction	106
2. Legal Compliance Framework	106
3. Who is a Competent Authority to Procure Private Participation?	112
4. When the Law on the Subject is Silent/Unclear?	114
5. Conclusion	115
6. Bibliography	116
Module 10: Risk Analysis	117
1. Introduction	118
2. What is a Risk?	118
3. When is Risk Analysis Undertaken?	118
4. Management of Risks	119
5. Key Project Risks and Mitigation Measures	120
6. Conclusion	127
7. Bibliography	127
8. For Further Reading	127
Module 11: Project Structuring	129
1. Introduction	130
2. Inputs to Project Structuring	131
3. Elements of a PPP Structure	132
4. How to Derive the Optimum Project Structure?	141
5. Conclusion	143
6. Bibliography	143
7. For Further Reading	144
Module 12: Pre-procurement Activities	145
1. Introduction	146
2. Land Acquisition, Right of Way and Shifting of Utilities	147

3. Administrative Approvals	152
4. Government Schemes	155
5. Approvals and Clearances	156
6. Inter-Departmental Coordination	157
7. Conclusion	158
8. Bibliography	158
Module 13: Procurement Process	159
1. Introduction	160
2. Types of Procurement	162
3. Expression of Interest	163
4. Request for Qualification	164
5. Request for Proposal	166
6. Technical Proposal Stage	169
7. Procuring Consultants in PPP Projects	169
8. Conclusion	169
9. Bibliography	170
10. For Further Reading	170
Module 14: Bid Documents and Other Project Documents	171
1. Introduction	172
2. Significance of Bid Documents	173
3. Notice Inviting Tender	174
4. Expression of Interest	174
5. Request for Qualification	175
6. Request for Proposal	179
7. Draft Project Agreement	184
8. Significance of Other Project Documents	187
9. Conclusion	190
10. Bibliography	191
11. For Further Reading	191
Module 15: Post Award Contract Management	193
1. Introduction	194
2. Key Stages of Post Award Period	194
3. Contract Management Framework	197
4. Contract Management Team	199
5. Contract Management Plan	200
6. Conclusion	210
7. Bibliography	210

8. For Further Reading	210
Module 15A: Financial Closure	213
1. Introduction	214
2. What is Financial Close?	214
3. Process of Financial Close	216
4. Financing Agreements	217
5. When is Financial Close achieved?	218
6. Review of Contents of Final Letter from Lenders	219
7. Conclusion	220
8. Bibliography	220
9. For Further Reading	220
Module 16: Communication Strategy	223
1. Introduction	224
2. Key Objectives of an Effective Communication Strategy	224
3. Communication Strategy – Project level	225
4. Communication Channels	235
5. Communication Strategy – Policy Level	238
6. Conclusion	242
7. Bibliography	242
Module 17: Capacity Building	243
1. Introduction	244
2. Objectives & Principles	244
3. Target Audience	245
4. Approach to Capacity Building- Building blocks	247
5. Government Initiatives in Capacity Building	249
6. Conclusion	249
7. For Further Reading	249
Annexures	251
Annexure 2 – Other Definitions of PPP	252
Annexure 2A - PPP Modal Families and Main Variants	253
Annexure 5 – Indicative Checklist for a Technical Feasibility Study	257
Annexure 5A - Sample ToR for Selection of Consultant for Feasibility Study in Roads Sector	258
Annexure 6 – Description of Financial Terminologies	260
Annexure 6A - Indicative Structure of Financial Feasibility Report	261
Annexure 8 – Indicative Structure of Economic Analysis Report	262
Annexure 9 – Union List, State List and the Concurrent List	263
Annexure 9A – Updated Harmonised Master List of Infrastructure Sectors	265

Annexure 9B –Roles & Responsibilities of Project Officer and Public Entity	267
Annexure 10 - Indicative Project Risks & Mitigation Measures	268
Annexure 12– Committed & Contingent Liabilities	269
Annexure 12A – VGF Scheme for PPP in Infrastructure	276
Annexure 12B- Approvals & Clearances	280
Annexure 14 – Disclosures	283
Annexure 15 – Procedure for Termination	289
Annexure 15A –Conditions Precedent	293
Annexure 17 – Course Outline of Training of Trainer Curriculum	295
Annexure 17A - Checklist for Capacity Building Programme	297

List of Acronyms

ACCRONYM	EXPANSION
ADB	Asian Development Bank
BBO	Buy-Build-Operate
BLT	Build-Lease-Transfer
BOLT	Build-Operate-Lease-Transfer
BOO	Build-Own-Operate
BOOT	Build-Own-Operate-Transfer
BOT	Build-Operate-Transfer
BTL	Build-Transfer-lease
CA	Competent Authority
CAA	Cost of the Annuity Approach
CADS	Cash Available for Debt Service
CCA	Cost of the Conventional Approach
CCEA	Cabinet Committee on Economic Affairs
CDP	City Development Plan
CIL	Coal India Limited
CNA	Communication Needs Assessment
COD	Commercial Operations Date
CP	Conditions Precedent
CRP	Concept Review Paper
CRR	Conventional Approach
DB	Design-Build
DBFO	Design-Build-Finance-Operate
DBFOOT	Design-Build-Finance-Own-Operate-Transfer
DBFOT	Design-Build-Finance-Operate-Transfer
DBFOT	Design-Build-Finance-Operate-Transfer
DBO	Design, Build, Operate
DBOOT	Design-Build-Own-Operate-Transfer
DCA	Draft Concession Agreement
DEA	Department of Economic Affairs
DFC	Dedicated Freight Corridor
DFCCIL	Dedicated Freight Corridor Corporation of India Limited
DMRC	Delhi Metro Rail Corporation

DPR	Detailed Project Report
DSCR	Debt-Service Coverage Ratio
DSRA	Debt Service Reserve Account
EA	Equivalent Annuity
EIA	Environment Impact Assessment
EIRR	Equity Internal Rate of Return
EMD	Earnest Money Deposit
ENPV	Economic Net Present Value
Eoi	Expression of Interest
ERR	Economic Rate of Return
FCI	Food Corporation of India
GoAP	Government of Andhra Pradesh
GoI	Government of India
HUDCO	Housing and Urban Development Corporation
IDC	Interest During Construction
IEC	Information, Education and Communication
IIPDF	India Infrastructure Project Development Fund
IRR	Internal Rate of Return
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JVC	Joint Venture Company
KUIDFC	Karnataka Urban Infrastructure Development Finance Corporation
KUWASIP	Karnataka Urban Water Sector Improvement Project
LLCR	Loan Life Cover Ratio
LoA	Letter of Award
MAT	Minimum Alternate Tax
MCA	Model Concession Agreement
MCC	Mysore City Corporation
MoEF	Ministry of Environment and Forests
MoU	Memorandum of Understanding
MSW	Municipal Solid Waste
mtpa	Million Tonnes Per Annum
NCRPB	National Capital Region Planning Board
NDMC	New Delhi Municipal Corporation
NDPL	North Delhi Power Limited
NGO	Non-Government Organisation
NHAI	National Highways Authority of India
NIT	Notice Inviting Tender

NPV	Net Present Value
O&M	Operations and Maintenance
O&M	Operation and Maintenance
PAP	Project Affected Party
PBC	Partnerships British Columbia
PCU	Passenger Car Unit
PED	Price Elasticity of Demand
PFDF	Pooled Finance Development Fund
PIM	Project Information Memorandum
PIRR	Project Internal Rate of Return
PLCR	Project Life Cover Ratio
PNPV	Project Net Present Value
PO	Project Officer
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public Private Partnership
PPPAC	Public Private Partnership Approval Committee
PR	Public Relations
PSC	Public Sector Comparator
PSU	Public Sector Unit
PWD	Public Works Department
QCBS	Quality Cost-based Selection
RDPR	Department of Rural Development and Panchayati Raj
RFP	Request for Proposal
RFQ	Request for Qualification
ROMT	Refurbish-Operate-Maintain and Transfer
SDR	Social Discount Rate
SIA	Social Impact Assessment
SICS	Social Intermediation and Communication Strategy
SPV	Special Purpose Vehicle
TDR	Transfer of Development Rights
ToT	Training of Trainers
TPC	Total Project Cost
UFW	Unaccounted for Water
UK	United Kingdom
ULB	Urban Local Body
UMC	Ulhasnagar Municipal Corporation
VAT	Value Added Tax

VDIS	Voluntary Disclosure of Income-Tax Scheme
VfM	Value for Money
VGf	Viability Gap Funding
VNTR	Value of Non-Quantified Transferred Risks
VQTR	Value of Quantified Transferred Risks
WACC	Weighted Average Cost of Capital
WPI	Wholesale Price Index
WTP	Willingness to Pay

PPP Guide for Practitioners



Module 1: Overview

Overview

India has over two decades of experience in Public Private Partnerships (PPP), with PPPs being tried, tested and implemented across various sectors such as urban, transport, social, industrial and so on. Projects being developed through PPPs in sectors like roads and ports have been taken up through programmatic approach and the Government is looking forward to upscale urban and social sectors through programmatic approach. Developing projects through PPPs requires multi-disciplinary experience (in the field of law, finance, commerce, market research, technology, designing, etc.) among the public entities. Practitioners of PPPs within the Government at its different tiers across the country usually lack the competence and skill set to conceptualise, structure and implement projects. This PPP Guide for Practitioners would serve as a manual for practitioners to develop projects through appropriate PPP frameworks.

The PPP Guide is divided into 17 modules for ease of reference and better readability. Each module discusses a certain stage or concept in the PPP project development process. The Guide is interspersed with the following, with an intention to make the reading more interactive and experiential:

- Points to remember/ Take away – in the form of pointers
- Illustrations/ Best practices/ General practices/ excerpts from other documents – in boxes
- Case Studies – in the form of plain boxes titled 'Project'
- Flow charts/ diagrams for better understanding of concepts
- Web links to certain case studies/ reports to refer

A sample presentation of the key points to remember/ takeaways is given below:



Find in these pointers for “Points to Remember’ or ‘Key take away’

A sample presentation of illustrations/ Best practices/ General practices/ excerpts from other documents is given below.

Illustrations/ Best & General Practices/ Excerpts

Look out for illustrations/ best practices/ excerpts from other documents in similar boxes in modules

A sample presentation of a case study is given below:

P R O J E C T	Look out for case studies here!!! XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
--	--

In addition, there are Annexures to most of the modules that set out certain related and/or key features pertaining to the concepts discussed in the modules. The Bibliography to every module sets out the list of references made while drafting the specific modules. The section on 'For Further Reading' would provide the practitioners with a list of other documents and research materials which could be useful in their understanding of concepts.

PPP Guide for Practitioners



Module 2: Understanding PPPs

1. Introduction

PPPs are used to deliver public services in many countries including the United Kingdom, South Africa, Australia, France, Canada, the United States of America, South Korea, Ireland, Portugal, etc. With Governments across the world inclined towards development through the PPP framework, it is useful to understand PPPs

India's economy is steadily growing following steps toward economic liberalisation made in 1991. The Twelfth Five Year Plan (2012-2017) proposes to have a major thrust on infrastructure development in the country, with a planned expenditure of \$1 trillion on infrastructure in this period.

This level of growth requires rapid improvements and additions to the capacity of economic infrastructure. However, the ability of infrastructure to keep up with the economy's fast expansion has been constrained by the availability of investment. As a means to overcome this challenge, the Government of India initiated a strategy for encouraging private investment in the development of public services, especially in the infrastructure sector, through Public Private Partnerships (PPP).

PPP is a contractual arrangement between a Government or statutory entity on the one side and a private sector company on the other side, for delivering an infrastructure service.

Understanding Public Private Partnerships includes:

- Definition of PPPs
- Essential conditions – What is a PPP and what is not?
- Merits and demerits
- PPP Models
- Interest of public entity and private partner in PPPs
- Myths and Facts about PPP

2. Definition of a PPP

PPPs are an arrangement between the public entity and the private partner for development of infrastructure or delivery of services. Under conventional construction contracts, the private sector bears only the design and construction risk whereas under PPPs, they are likely to bear other risks pertaining to financing, demand, and operations, depending upon the risk sharing mechanism between the public entity and the private partner.

The Department of Economic Affairs, Ministry of Finance, Government of India, has not limited the definition of PPPs to only infrastructure/ provision of related services, making it more exhaustive in scope and application to sectors. It defines PPPs as follows:

“A PPP means 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.”

Annexure 2 of this PPP Guide for Practitioners lists out definition of PPPs as defined by State Governments and other Countries.

Description of PPPs

In PPPs, the private partner assumes the hitherto traditional role of the public entity - of delivering services to the general public - under conditions that are monitored, independently or by a Government agency, regulated or left to the market, depending on the nature of the services/assets. It is important to note, though, that the ultimate accountability to users for provision of these services continues to remain with the public entity, even if the delivery is by the private partner.

For example, the National Highways Authority of India (NHAI) may contract out the responsibility for construction and maintenance of a road to a private party under a Build- Operate and Transfer (BOT) concession. However, the ultimate responsibility to users for providing good quality road services continues to remain with NHAI which needs to ensure that appropriate quality/service standards are maintained.

The different stages in PPP project development lifecycle are set out in the schematic diagram given below.



The foremost stage in the PPP lifecycle is the project preparation stage which involves identifying the project need. It is followed by the development stage comprising activities such as project feasibility, project structuring, bid documentation and process management. The development stage concludes with identifying a private partner. The private partner is then responsible for the construction, operations and maintenance (O&M) of the project during the construction and O&M period. The last stage is the handover stage which involves handing over of the project facilities from the private partner to the public entity upon expiry of the agreement period.

3. Essential Conditions of PPPs

PPPs can be of different types, for example, an investment based PPP, or one where only private partner's efficiency is utilised or one which has mere private partner's involvement in a specified task. The first example would be of a BOT framework (discussed later in this module) where the public entity transfers the right to design, finance, construct, operate and maintain an asset to the private partner while retaining the asset ownership with it. The diagram above describes the modality of a BOT framework. The other type of PPP arrangement which involves utilisation of private sector efficiency is the management contract (discussed later in the module) where only the O&M risk is transferred to the private partner by the public entity. The public entity banks on the operational efficiencies of the private partner. Both the above referred cases satisfy all the essential elements of PPP where an outsourcing contract for only services would not satisfy all the essentials of a PPP.

Based on the definition of PPPs by the Department of Economic Affairs, Government of India; the essential conditions that define PPPs are as follows:

3.1. Arrangement with private sector entity

The asset and/or service under the contractual arrangement will be provided by the private partner to the users. The arrangement enables the private sector to provide a public asset and deliver the service and sets out the mechanism for sharing of risks and rewards. An entity that has a majority Non-Governmental ownership, i.e., 51 percent or more, is construed as a private sector entity.

3.2. Provision of public asset or service for public benefit

In PPPs, only those facilities/services are transferred to the private partner which generally are hitherto provided by the Government as a sovereign function, to the people. For better understanding:

'Public Services' are those services that the State is obligated to provide to its citizens or where the State has traditionally provided the services to its citizens.

'Public Asset' is that asset the use of which is inextricably linked to the delivery of a Public Service, or, those assets that utilize or integrate sovereign assets to deliver Public Services."

3.3. Investments being made by and/or management undertaken by the private partner

Financial investments by the private partner may not be a necessary condition for PPPs. An arrangement where only private sector efficiencies are being harnessed for better delivery of services without any investments by the private partner can also be classified as a PPP.

3.4. Time Period

The arrangement will need to be for specified time period. There can be no PPP arrangements that go on for perpetuity. The arrangement between the parties (the expires at the end of such a specified time period, unless it is extended mutually as per pre-specified contractual conditions.

3.5. Risks Sharing

Sharing of risks is the prime feature of PPP arrangements. PPPs are frameworks where the risks are allocated to either the private partner or the public entity, whichever is best suited to manage and mitigate it. Every PPP arrangement will need to set out the allocation of risks between parties (the parties refer to the public entity and the private partner that enter into a PPP arrangement) for the specified time period.

Clearly specified output parameters for a project (rather than input specifications) encourages private sector innovation and efficient service delivery.

3.6. Performance linked payments

PPP arrangements feature payments that are made from one party to another as consideration for the arrangement. The quantum of these payments primarily depends on the quality of service delivery and performance and not merely on provision of an asset/facility.

3.7. Conformance to performance standards

A strong focus is on service delivery by the private partner and compliance to pre-determined as well as measurable standards that are specified by the public entity.

It is to be remembered, that only those arrangements between public entity and private partner which satisfy all the above essential conditions are termed as PPPs. It is not necessary that the private partner be engaged for delivering the complete end-to-end chain of activities in a sovereign function, but could be limited to select components.

Performance Linked Payments in Management of Municipal Solid Waste

For instance, in a municipal solid waste management project where the private partner is engaged only to collect and dump the waste, the onus of maintaining a clean city is not transferred to the private partner. The public entity bears the majority risk pertaining to performance, payments to the private partner are linked to the number of trips conducted and the amount of waste dumped but may not be linked to cleanliness of the city. But when a project involves integrated management of municipal solid waste, there is substantial risk sharing between the public and the private partner. The private partner is made responsible for a clean city as well as for effective and efficient management of municipal solid waste. The payments made to the private partner are also linked to performance.

4. Key Stakeholders

The key parties to a PPP arrangement are the public entity (Government) and the private partner. In addition to the public entity and the private partner, there are several other stakeholders who are associated with PPP projects, a few of which are described below.

1. Public entity – means all Governments Departments & Directorates, Government sponsored boards, societies, Municipal or Local Bodies, Panchayats, Government sponsored education, research and knowledge management institutions, Public Sector Undertakings, Government owned companies, statutory authority and other entities, which are under the administrative control of the State Government.
2. Private partner – includes any entity other than the Public entity.
3. Concessionaire – refers to the private partner awarded the tender for the implementation of the PPP project.
4. Special Purpose Vehicle (SPV) - is simply an entity created to act as the legal manifestation of a project consortium, with no historical financial or operating record which Government can assess. An SPV is a legal entity with no activity other than those connected with its borrowing. Typically, a private partner forms a special company called a "Special Purpose Vehicle" (SPV) which contracts with Government. The SPV to develop, build, maintain and operate the asset for the contracted period. In cases where the Government has invested in the project, it is typically (but not always) allotted an equity share in the SPV. The consortium is usually made up of a Developer, Operator and bank lender(s). It is the SPV that signs the contract with the Government and with subcontractors to build the facility and then maintain it.
5. Transaction Advisors – are 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
6. Lead Bank/ Lender – is the financial institution (FI) that is funding the infrastructure project by providing debt to an extent not less than 25 percent (twenty five percent) of the total project debt and designated as such by an inter-institutional group or consortium of financial institution.
7. Lead Financial Institution - means the FI that is funding the PPP project, and in case there is a consortium of FIs, the FI designated as such by the consortium.

8. Independent Engineer – is a consultant appointed for supervision and monitoring quality of the project (different from TA). Usually, Independent Consultant is appointed after the project has been awarded and the Concession Agreement has been signed. The Independent Consultant ensures that the project work goes as per schedule and as per the quality criteria specified in the agreement.
9. Users – End users of the infrastructure created or in other terms project beneficiaries.

Each stakeholder plays a significant role in the success of a PPP project during the PPP project lifecycle. It is necessary to consider the interests of all stakeholders while structuring any project for development under PPP framework.

5. Advantages of PPPs

PPP arrangements result in many advantages to the public entity. The advantages of PPPs to the public entity are as follows:

5.1. Higher Efficiency in the Private Sector

The private sector is exposed to competitive pressures that are difficult to replicate for public agencies. This provides a private partner an edge in efficiency in carrying out the capital (design, construction) and operating phases of the project. For infrequent or new projects, the private sector can also have more recent experience and leading technical skills. The private sector is also well placed to access quality and skilled manpower and technology and hold its employees, suppliers and vendors more accountable to performance; whereas for a public entity it is difficult to perform in a similar manner. A well designed and managed PPP should take advantage of the potential for efficiency gains from using the private sector. The reason for increased efficiency is: the allocation of risk and the associated performance rewards and penalties. It creates incentives in the PPP contract that encourage the private partner to achieve efficiency at each stage of the project and to introduce efficiency improvements where possible.

5.2. PPPs Focus on Life Cycle Costs of Projects

PPPs focus on life cycle costs of the project in which the private partner designs the project to take account of the link between construction and operation so that the cost will be minimised over the project's lifetime. A private partner, in addition to designing and building the project, will also provide the ongoing operations and maintenance management and so has an incentive to ensure that the design and construction facilitate efficient O&M. By contrast, if one set of contractors is employed for design and construction and other unrelated contractors for O&M, they will each take a narrow perspective, considering only the point efficiencies in their component and not taking account of the interactions between the two.

5.3. Increased Transparency & Accountability

In PPPs there is a clear allocation of risks and responsibilities wherein the role of the public entity is to monitor service provision and the private partner is responsible for actual delivery of services. This increases the scope for accountability of the private partner, as opposed to the conventional procurement where the public entity is both the monitoring agency as well as the service provider and therefore may be reluctant to question itself. Furthermore, completion of construction is a contractual end in conventional projects whereas in PPPs, there is generally no exit after construction (for a specified period of time) and therefore the private partner is bound to ensure service delivery in a transparent manner. Thus, PPPs lead

to increased transparency and accountability in both utilization of funds as well quality of service delivery.

5.4. Access to Private Sector Finance

PPPs allow the public entity to leverage private finances in development of public infrastructure projects. In doing so, the public entity would be able to focus more on social and other sectors which require more funding and support in comparison with the core infrastructure projects. Development of projects under PPP framework also frees the public entity from the need to meet financing requirements from its own revenues (taxes) or through borrowing.

6. Limitations of PPPs

Despite the benefits associated with development of projects under PPP framework, there are certain limitations to PPP arrangements which are discussed herein below. Most of the limitations can be minimised under certain circumstances and through careful management of the PPP design by the public entity that is sponsoring the project. This requires the public entity to have the capacity (experience and expertise) to manage the PPP process.

6.1. Complex Procurement Process with Associated High Transaction Costs

The PPP project must be clearly specified, including the allocation of risk and a clear statement of the service output requirements. The long-term nature of PPP contracts requires greater consideration and specification of contingencies in advance. Transaction advisors and other consultants would need to be appointed to assist the public entity to handle the challenges involved in project structuring and procurement process. On the other hand, the public entity finds it less complex to carry out conventional procurement because it is accustomed to this arrangement where a well-established procedure has been in place for a long time.

6.2. Enforcement and Monitoring

Once it enters the construction and operation phases, the success of the PPP from the public perspective will depend on the ability of the public entity to monitor performance of the private partner against standards and to enforce the terms of the contract. When a PPP project performs below its expectations, it is often due to the lack of capabilities in the public entities to carry out enforcement and monitoring activities, partly because it has inadequate established procedures for this task.

Module 14 of the PPP Guide to Practitioners discusses the post award contract management issues that emerge in PPP arrangements.

In addition to these limitations, there are other factors that deter the development of projects through a PPP framework. For instance, most of the legislation and rules were formulated at a time when PPPs were not yet conceptualised. The law is, consequently, usually silent on the possibility of PPPs in the sector. Furthermore, Government budgeting systems are usually not aligned with the needs of PPP financing and support as they do not make any provisions for committed and/or contingent liabilities arising out of PPP arrangements. Also, the lead time for structuring and procurement for PPPs is long, which impacts the ability to see through a PPP without leadership changes. This challenges the commitment of the public entity towards project development activities.

7. PPP Models

PPP arrangements are characterised by the identification of risks and their allocation among the parties to the arrangement. On the basis of the risk allocation, the various PPP models are designed. Many variants of PPP models are implemented across different projects essentially differentiated on the basis of the risk allocation framework employed within these projects. Given below are the basic PPP models that are prevalent in project development.

1. Management Contract
2. Lease Contract
3. Build-Operate-Transfer

7.1. Management Contracts

The key feature of management contracts is that the public entity engages a private partner to manage a range of activities for a relatively short duration (3 – 5 years). Management contracts are task specific and tend to focus on inputs rather than outputs. In such contracts, the ownership of assets and investment typically remain with the public entity, although some rehabilitation responsibilities can be transferred to the private partner. Variants include:

1. Basic management-for-fee contract. In this format, all volume and future value risk is retained by the public entity. For instance, the Karnataka Urban Water Supply Improvement Project discussed below is a classic case of a basic management-for-fee contract.
2. Management contract with performance incentives related to cost and quality. Some risk, such as volume risk, is retained by the contractor.
3. Management and finance contract with some rehabilitation and expansion. The contractor takes the financial and management risks for a volume incentive.

Karnataka Urban Water Supply Improvement Project, India	
P R O J E C T	Public Entity: Urban Local Bodies (ULB) of Belgaum, Gulbarga and Hubli - Dharwad, Karnataka Urban Infrastructure Development Finance Company (KUIDFC)
	Private Partner: Veolia Water, France; Objective: To improve the distribution and to augment the bulk water supply
	Key Features and Benefits
	Project Structure: The private partner was entrusted to undertake rehabilitation/construction of the distribution network across the zones of the three cities. The funding was through a World Bank grant. The financing risk which included all project related costs was borne by the public entity whereas the management risk which included the operation of the infrastructure created was transferred to the private partner. In this case, the private partner was given a free hand to deploy its staff in management of infrastructure as it was difficult to expect the same level of technical expertise and efficiencies in service delivery from the staff of the public entity.
	Ownership of Assets: Ownership of the existing and rehabilitated assets including pipelines, valves etc., remains with ULBs
	O&M Responsibility: Private operator responsible for: 100% individual house service connections; supply treated water; ensure reduction in distribution losses; and generate and

distribute bills.

Commercial Agreement: Private operator received a fee including a 60 per cent fixed component and a 40 per cent variable component based on achieving performance targets. In addition, further incentives were provided for achievement of targets beyond a set level.

Source: <http://toolkit.pppinindia.com/ports/module3-rocs-kuwsip1.php?links=kuwsip1>

7.2. Lease Contracts

In a lease contract, the asset is leased, by the public entity to the private partner. Lease contracts are usually of medium term length, and may involve capital investment by the private partner. Such arrangements are usually observed in water supply contracts where the collection risk is transferred to the private partner. Usually, the private partner in such cases would require an assurance in terms of tariff levels, increases over term of lease and compensation and review mechanism in case the tariff levels do not meet the estimates. Variants include BLT, BOLT, and BTL.

Lease and affermage arrangements have a subtle difference. In both lease and affermage arrangements, the private partner do not receive a fixed fee for his services from the public entity but charges a user fee to consumers. In case of a lease, a portion of the receipts goes to the public entity as the owner of the assets as a lease fee and the remainder is retained by the private partner. In the case of an affermage, the private partner retains the user fee out of the receipts and pays an additional surcharge (also referred to as the affermage fee) that is charged to customers to the public entity to go towards capital investments that the public entity makes/ has made in the infrastructure.

7.3. Build-Operate-Transfer

BOT typically relates to greenfield asset developments where the risk allocation to the private sector may be significant, including volume risk, finance risk, and potentially price risk.

A number of BOT variants are possible depending on the allocation of roles and risk. These include DBO, DBFOT, BOOT, DBOOT, BOO, etc.

A concession means a bundle of rights which may be transferred from the public entity to the private partner as part of the PPP arrangement.

Note: The distinction between a BOT-type arrangement and a concession, as the term is used here, is that a concession generally involves extensions to and operation of existing systems, whereas a BOT generally involves large “greenfield” investments requiring substantial outside finance, for both equity and debt.

However, in practice there is some overlap, as a concession contract may include the development of major new components as well as extensions to existing systems, and BOTs sometimes involve the expansion of existing facilities.

Internationally, there is a distinction between area concessions and BOT. Area concessions are typically “Greenfield” projects while “brownfield” projects are normally BOTs. In India, area concessions are called BOT concessions. For instance, all roads that are being developed under a BOT framework are brownfield projects.

Source: Knowledge Series, Training of Trainers, PPP, Module 1

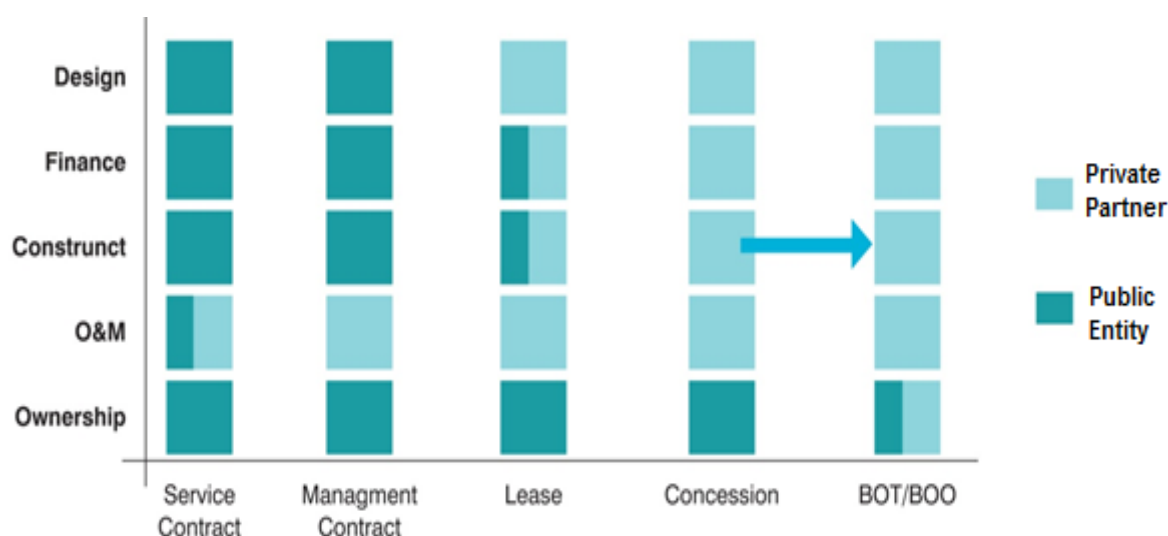
Prevalent PPP Models

- **User-Fee Based BOT models:** Medium to large scale PPPs have been awarded mainly in the energy and transport sub-sectors (roads, ports and airports). Although there are variations in approaches, over the years the PPP model has been veering towards competitively bid concessions where costs are recovered mainly through user charges (in some cases partly through Viability Gap Funding from the Government).
- **Annuity Based BOT models:** These models are seen in sectors/projects not amenable to sizeable cost recovery through user charges, owing to socio-political-affordability considerations. Typically, rural, urban, health and education sectors are the ones where these factors are an issue. In this model, the Government harnesses private sector efficiencies through contracts based on availability/performance payments. Implementing the Annuity Based BOT model will require the necessary framework conditions, such as a payment guarantee mechanism made available through multi-year budgetary support, a dedicated fund, or a letter of credit etc. The Government may consider setting up a separate window of assistance for encouraging annuity-based PPP projects. A variant of this approach could be for the Government to make a larger upfront payment (say 40 per cent of the project cost) during the construction period.
- **Performance Based Management/Maintenance contracts:** In an environment of constrained economic resources, PPPs that improve efficiency or involve performance based management or maintenance contracts of existing assets are very relevant. Sectors amenable to such models include water supply, sanitation, solid waste management, road maintenance etc.
- **Modified Design-Build (Turnkey) Contracts:** In traditional Design-Build (DB) contracts, the private contractor is engaged for a fixed-fee payment on completion. The primary benefits of DB contracts include time and cost savings, efficient risk-sharing and improved quality. The Government may consider a turnkey DB approach with the payments linked to the achievement of tangible intermediate construction milestones (instead of a lump-sum payment on completion) and short period maintenance/repair responsibilities. Penalties/incentives for delays/early completion and performance guarantees (warranty) from the private partner may also be incorporated. Subsequently, as market sentiment turns around, these projects could be offered to the private sector through operation-maintenance-tolling concessions.

Tuni Anakapalli Road Project	
P R O J E C T	Public Entity: National Highways Authority of India
	Private Partner: Special Purpose Vehicle GMTAEPL
	Objective: To improve design, construct, operate and maintain the National Highway road stretch from Tuni to Anakapalli
	Contract: BOT annuity contract for 15 years granted to private partner
	Ownership of Assets: No transfer of ownership
	O&M Responsibility: Transferred to private partner
	Construction/Finance: Works by private partner-private player invested in development of the road stretch and later operated and maintained it.
Commercial arrangement: Source of income for the private partner is the annuity payable to the private partner by NHAI.	
<i>Source: http://toolkit.pppinindia.com/ports/module3-rocs-taarp1.php?links=taarp1</i>	

It is to be noted that the level of project related risk which is transferred from the public entity to the private partner increases from a service contract to a BOT contract. For instance, in the service contract which is more akin to outsourcing, only a portion of the O&M risk is transferred to the private partner whereas in a management contract, the entire O&M risk including revenue risk is transferred to the private partner. In both cases, the design, finance and construction risk along with the ownership of assets remains with the public entity. In a lease, the public entity transfers the design and O&M risk along with a portion of the financing and construction risk to the private partner. In such an arrangement, the private partner is expected to share a portion of the user fee collected from the consumers/ users as lease fee to the public entity. In both area concessions and BOT, almost every project related risk is transferred to the private partner; the ownership of assets at all times lies with the public entity. It is only in a BOO framework that the ownership of assets gets transferred to the private partner and in a BOOT framework the ownership of assets gets transferred to the private partner for a certain time period.

The transfer of risk from the public entity to the private partner in various PPP models is set out in the diagram below:



Variants in PPP Models

- Operation & Maintenance (also called Service Provision) (e.g., Specific customer services) contract is a format where the private operator, under contract, operates a publicly-owned asset for a specified term. Ownership remains with the public entity.
- Lease, Develop, Operate contract is where the private operator contracts to lease, manage and operate a Government-owned facility and associated services. The partner may invest further in developing the service and provide the service for a fixed term.
- Design-Build-Finance-Operate-Transfer (DBFOT) contract is where the private sector designs, finances and constructs a new facility under a long-term lease, and operates the facility during the term of the lease. The facility is transferred back to the public entity at the end of the lease term.
- Buy-Build-Operate (BBO) involves the transfer of a public asset to a private or quasi-public entity usually under contract that the assets are to be upgraded and operated for a specified period of time. Public control is exercised through the contract at the time of transfer.
- Build-Own-Operate (BOO) is when the private sector finances, builds, owns and operates a facility or service in perpetuity. The public constraints are stated in the original agreement and through on-going regulatory obligations.

Annexure 2A of this Module sets out a table with PPP modal families and main variants.

8. Traditional Procurement Model vs. Procurement Model in PPPs

Governments have always procured assets and services from the private sector, even in the traditional systems of procurement through BOQ contracts, EPC contracts etc. PPPs are nothing but an alternative method of procurement, which involve substantial risk sharing with the private partner. The key differences between traditional methods of public procurement and PPPs are set out below.

PPPs are promising but their success depends upon the merit of all the activities that are carried out that culminate in the award of a project to a private partner for development.

8.1. Risks

In PPP, there is an allocation of risks between the public entity and the private partner. PPPs involve the allocation of the risk to the party who is best suited to handle or mitigate the risks. But in traditional public procurement methods, the public entity bears almost all the risks associated with the project.

8.2. Project Management

In traditional practice, the public entity is solely responsible for complete project management whereas in PPP, responsibility for operations and management of the project is primarily with the private partner.

8.3. Focus

The focus in a traditional form of public procurement is on building assets. In PPPs, the focus is on buying of services or output service delivery. The output specifications are clearly set out in the bid documents which the private sector is expected to accomplish as a result of the project.

8.4. Financing

Traditional public procurement is financed by the public entity through its budgetary resources. However, in the PPP form of procurement, the private sector may bring in finances in the form of debt or equity to develop the project.

8.5. Payments

Traditionally, the public entity will need to make frequent and short term payments to the contractors who are selected. In the PPP form of procurement, the association between the public entity and the private partner is long term and the payments tend to be made on the basis of the outputs. Also, in traditional procurement, payments may be linked to construction milestones and/or testing milestones whereas in PPPs they tend to be linked to service delivery.

9. Interests of the Public Entity and the Private Partner

PPP arrangements are considered successful when they result in a win-win situation for both the public entity and the private partner. The interests of the public entity in a PPP arrangement are as follows:

1. PPP arrangements are a means to harness private sector efficiencies such as on-time and on-budget delivery and access to the latest technology
2. PPPs also augment public resources
3. They ensure value for the project
4. There is continuity in service delivery, which benefits the community
5. All laws and regulations are complied with, such as environmental protection and fair tariff setting

The interests of the public entity and the private sector in a PPP are different. The public entity looks for a better economic rate of return (benefits to society) and value proposition whereas the private sector looks for financial viability and a financial internal rate of return for the project.

Likewise, the interests of the private partner from a PPP arrangement are as follows:

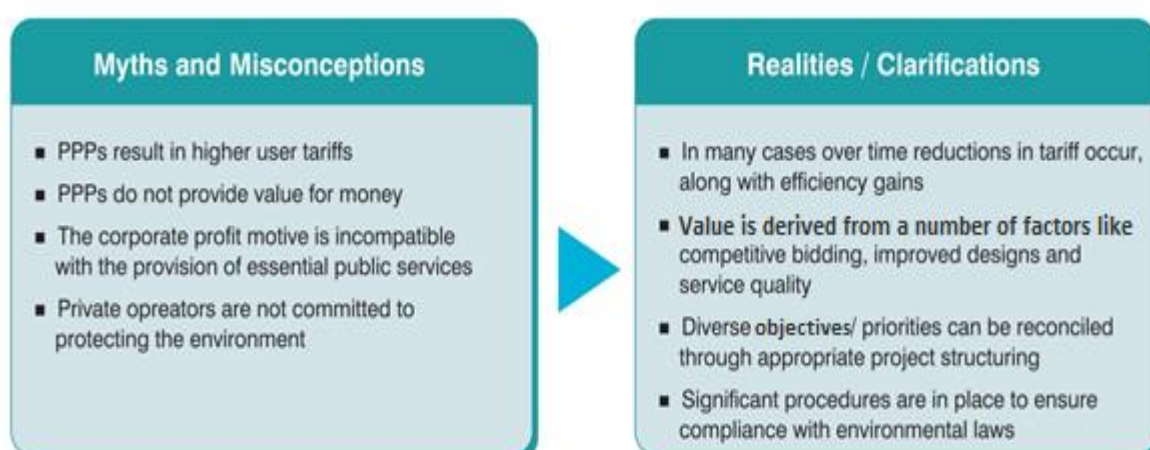
1. PPP arrangements are usually viable ventures that create long term business opportunities and ensure reasonable profits
2. Fair allocation of risks between the public entity and the private partner
3. Presence of transparent laws/regulations
4. Stability in the political and economic environment

Although, the interests and expectations of the public entity and the private partner from a PPP arrangement are different, a well-structured PPP arrangement can align the interests of both parties and lead to effective service/ project delivery.

10. Myths and Realities about PPPs

There are several myths and misconceptions regarding PPP projects. Listed below are a few of the major myths regarding PPP arrangements along with facts that help clarify such misconceptions.

Myths and Misconceptions	Realities / Clarifications
Profit motive of private sector is incompatible with the service motive of public entity	No. The key is to harness the private sector's profit motive by incentivising them to provide better quality service and earn a reasonable return.
PPPs increase user tariffs	Not Necessarily. When appropriate safeguards such as effective regulation and/or adequate competition are in place prices do not increase arbitrarily. However in sectors where existing tariffs are inadequate to cover the costs of a specified level of service, tariffs may initially require some upward adjustment. Over time, efficiency gains are expected to rationalize tariffs.
Money for PPPs comes from private "pockets"	Initially, Yes. But the private sector will make those investments provided they can recover them either from users or the Government with a reasonable return.
Once a private partner is brought in, there is little or no role for the public entity	No. The public entity's role changes from direct involvement in construction and service provision to ensuring that the PPP delivers value for the project (also referred to as Value Proposition of Projects) as far as the Government is concerned, and better services for users.



11. Conclusion

PPP are arrangements between the public and private sector, aimed at project development or delivery of services that are traditionally provided by the public sector. PPPs bring the best of the private partner and the public entity into any project, as it involves optimum allocation of project risks and responsibilities among parties that are best placed to manage them. In a well-structured PPP, each party is able to perform its task more efficiently than its counterpart; creating a win-win situation to both the public entity and the private partner.

12. Bibliography

1. Module 1: PPP Background, India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
2. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
3. PPP Advanced Course, Module I - Identification and Organisation, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
4. Public-Private Partnerships Reference Guide Version 1.0, World Bank Institute, The World Bank, Washington DC, PPIAF, 2012

13. For Further Reading

1. Improving Health and Education Service Delivery in India through Public-Private Partnerships, Department of Economic Affairs, Ministry of Finance, Government of India and Asian Development Bank, 2010.
2. Improving Health and Education Service Delivery in India through Public-Private Partnerships, Department of Economic Affairs, Ministry of Finance, Government of India and Asian Development Bank, September 2008.
3. India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
4. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
5. Knowledge Series, Creating an Enabling Environment for State Projects, Department of Economic Affairs, Ministry of Finance, Government of India, 2008
6. Knowledge Series, A compendium of guidelines for Central Sector PPPs, Department of Economic Affairs, Ministry of Finance, Government of India, 2013
7. Knowledge Series, Scheme and Guidelines for Financial Support to Public Private Partnerships in Infrastructure, Department of Economic Affairs, Ministry of Finance, Government of India, 2013.
8. Knowledge Series, Promoting Infrastructure Development Through PPPs : A Compendium of State Initiatives, Department of Economic Affairs, Ministry of Finance, Government of India.

9. Knowledge Series, Scheme and Guidelines for India Infrastructure Fund, Department of Economic Affairs, Ministry of Finance, Government of India.
10. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
11. PPP Library, Public-Private Partnership in Infrastructure Resource Center for Contracts, Laws and Regulations, The World Bank
12. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
13. Private Participation in Infrastructure in Developing Countries – Trends, Impacts, Policy and Lessons, Clive Harris, World Bank Working Paper, 2003
14. Privatisation and Public Private Partnerships, E S Savas, 2000, Chatham House
15. Public Private Partnership Manual, National Treasury PPP Unit, South Africa, 2004
16. Public-Private Partnerships Reference Guide Version 1.0, World Bank Institute, The World Bank, Washington DC, PPIAF, 2012
17. Toolkit for Public Private Partnership in Urban Transport (Bus Transport) for State of Maharashtra Volume-1, Department of Economic Affairs, Ministry of Finance, Government of India and Asian Development Bank, November 2009
18. Toolkit for Public Private Partnership in Urban Water Supply for Maharashtra (A CRISIL assisted Rapid Assessment Study), Department of Economic Affairs, Ministry of Finance, Government of India and Asian Development Bank, November 2009
19. Facilitating Public–Private Partnership for Accelerated Infrastructure Development in India, Department of Economic Affairs, Ministry of Finance, Government of India, 2006.
20. International Conference on Meeting India’s Infrastructure Needs with Public Private Partnerships: The International Experience and Perspective, Department of Economic Affairs, Ministry of Finance, Government of India, February 2007.
21. India: Building Capacities for Public Private Partnerships, The World Bank, June 2006.
22. Formulation, Appraisal and Approval of Public Private Partnership Projects, The Secretariat for the Committee on Infrastructure, Government of India.

PPP Guide for Practitioners



Module 3: Project Identification

1. Introduction

Project identification is the first stage of a project life cycle and precedes project preparation and procurement stages. It is a crucial stage in which the public entity seeks to identify the needs of the community for provision of public services along with its quantum, duration and the best procurement approach to fulfilling those needs.

The process of project identification typically has two parts: one is the conceptualisation of the project along with clarity about what social need it will meet and another is the formation of the team that will manage it.

Assessing the real need and benefits of a project and how to best meet this need is an important preliminary step. Justified and rational project need is a significant factor in successful project execution.

Project Identification Stage addresses:

- Whether there exists a pressing need for the project?
- Whether all possible service delivery options have been considered for the project?
- What are the benefits of constituting a cell within the department for the project?
- What goes into the pre-feasibility study?
- Why is it advisable to hire advisors and how are they hired?

The various activities that form part of project identification (expression of need, need analysis and options analysis) and the activities that happen after this identification (stakeholder consultation, hiring of advisors and constitution of project management cell) are set out in the diagram below.

Project identification starts with identification of the need for the project and the options which can address the need. During this process economic analysis of each of the options is undertaken to determine whether or not the project is beneficial to society.

Much of what is discussed in this module is relevant to all projects, immaterial of whether they are proposed for development under a PPP or a traditional procurement framework. This is especially true for the section on need analysis. It is only in the 'options analysis' stage that PPP options are considered. In other words, public entities should not disregard this section for non-PPP projects.

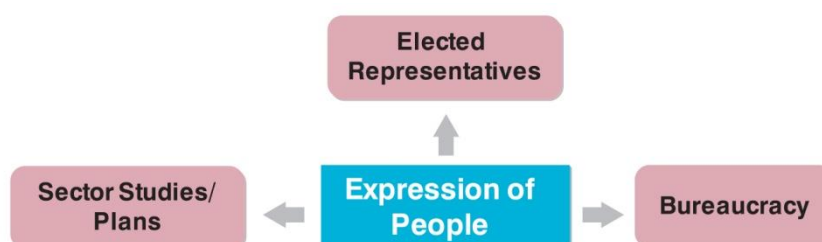


2. Expression of Project Need

Normally, projects are conceived on the basis of existing or future need among a cross section of society. Sometimes, projects are an outcome of political commitments. Sometimes, they are conceived as a part of the Centre Sponsored or State Sponsored Schemes or Master Plans for Cities / City Development Plans / City Traffic and Transportation Plans. In all these cases, the common factor is the interest of the people and their need for the project.

Ideally, projects are finalised only after an elaborate sector analysis, assessment of demand and supply for the service delivery option, identification of gaps in service delivery, and a review of local community issues that might emerge from stakeholder consultations. A misconceived project tends to fail because there was never any real demand for the service or asset in the first place.

Many projects have failed simply because the users never wanted the service or facility in the first place.



Road Concession Program in Mexico

Between 1987 and 1995, 52 projects (25 competitively tendered) was awarded, which was the largest PPP toll road program. By the end of 1995, 34 projects had reached financial close with a committed private investment for US\$ 9.9 billion. The bid parameter was the “shortest concession period” a maximum of 15 years. This led to very high tolls. Moreover the concessioned roads were obligated to have a parallel toll free road. The construction cost overruns averaged 25% and average actual revenues were about 30% below forecasts. Only 5 projects met or exceeded targets.

The average toll road fee increased from USD 0.02/km to USD 0.17/km after concessioning. The Government took over 23 projects and paid outstanding debt to Mexican Banks (about USD 5 billion) and construction companies (about USD 2.6 billion).

2.1. Types of Need

Projects emerge from a need to fulfil public service or economic development requirements of the general public or a specific community. Sometimes the need is obvious such as when basic housing, health, water services, etc. are lacking or inadequate. At other times need could be latent and based on future demand brought about by changes in aspirations or economic and social circumstances. For instance, the development of a bridge across a river where people initially commuted by way of ferry is an outcome of the expressed need of the people. But the development of an integrated township is an outcome of a latent need among people to organise their livelihoods and function in a non-congested and well planned city.

Need, as discussed in this module, could be for a service/ asset/ combination of both/ reform in policies/ regulation.

Examples of two kinds of needs:

- A need which is an improvement on the existing facility, such as greater capacity, newer technology or integration of the existing facility with another service/project. Road widening and increasing the capacity at airports or ports are two examples.
- A new need for a service or facility which was never there before. New townships and industrial clusters are two examples.

Project needs can be similarly categorised as either a need for development in an area with no basic infrastructure in place at all or the need for development in an area which has some basic infrastructure.

In certain cases, the public entity proposes the creation of completely new infrastructure in a place where even a basic water or power supply or connectivity is barely available. A classic example is satellite townships such as Noida, Navi Mumbai and Naya Raipur that have arisen around growing cities.

Other projects are conceived to improve services in places where infrastructure already exists; these could be a sewerage network in a metro or the construction of a new international convention centre in the heart of a city.

3. Need Analysis

Need analysis is about the proper identification of the outputs and objective of the project which is critical to achieving the desired public service outcome. The need for a new service can stem from a number of reasons, viz. new Government policies, regulatory compliance, increased demand for services, replenishing of asset capacity, increasing or providing an alternative range of services, business improvements and efficiencies, sustaining service delivery, or enhancing service capacity.

An overall need assessment should be carried out, taking into account the types of services users will need, total user demand for those services, and all sources of existing and planned delivery of services.

The existing infrastructure should be assessed for its ability to deliver the currently needed services and the service requirement expected for the future. An assessment should be made of:

- The service capacity of existing assets.
- The service standard provided by existing assets. Service standards are typically measured by performance indicators relevant to the sector.

The condition of existing assets, including how well maintained they are, their age and likely longevity.

The public entity would need to question itself on whether there is a need for the proposed development, whether the capacity of existing assets is adequate to provide the quality service delivery to people, what is the life of the existing asset and whether it is time to replace it or augment capacity, etc. It is only after sufficient scrutiny of the existing assets that it will be possible to establish the need for any project/ service delivery.

For example, service needs such as safe drinking water, sewage disposal, and provision of subways can originate from any of the above-mentioned reasons and thus can be identified as a service delivery need.

Example of a Service Delivery Need – Constraints and Outcome

Where there is a 'service need' to improve the service delivery of electricity in a city, the possible constraints may be:

- low capital budgets with the Government
- urgency with which the solution is required to reap results
- making it affordable for users

The outcomes would broadly be:

- increasing the hours of power supply
- maintaining minimum voltage to a service level

P R O J E C T

Vadodara-Halol Toll Road

The project involved the four-laning of an existing 32 km two-lane State highway between Vadodara city and Halol town in Gujarat. Although the project was completed ahead of schedule and with savings on the estimated cost, the projected traffic did not materialize resulting in insufficient revenue realization.

The experience from this project demonstrates the importance of robust due diligence prior to project procurement. The viability of the project was significantly affected when the volume of traffic, due to the withdrawal of incentives for the setting up of industries in Halol town, declined, resulting in a 50 per cent reduction in traffic projections.

The lapse with respect to understanding the legal environment in which the project had to operate and the resultant policy risk put undue pressure on the viability of the project operations.

Source: <http://toolkit.pppinindia.com/highways/module3-rocs-vhtr1.php?links=vhtr1>

4. Options Analysis

Options analysis would include listing out all the available options to address the need, evaluation of the merits and demerits of each option and selecting the optimum option which best suits/addresses the need. It is at this stage, the public entity looks into the pros and cons of several options by which the current need could be addressed.

Each option will have a distinct cost and benefit (social, economic and financial) associated with it which makes it desirable to the public entity and the private partner.

4.1. Choosing the Best Option

The first step in options analysis is to consider all available solutions for addressing the service need. The options should include identifying all potential methods that will meet the need, including non-asset solutions, using or adapting existing resources, and demand management strategies.

The options that are commonly adopted for analysis may include the following:

1. Existing asset based option
2. Non-asset based option
3. New asset based option

All of these help to deliver the required service/projects and may use existing assets, create new assets, or may require no new creation of assets.

Three Main Options Available

1. **Existing asset based option:** The public entity needs to consider whether the existing assets held by the Government can be used to deliver the solution. This may involve the renewal, enhancement, replacement, adaptation, or reconfiguration of existing assets. Common examples are the development of properties under the Refurbish-Operate-Maintain and Transfer (ROMT) framework and the capacity augmentation of airports/ports, etc.
2. **Non-asset based option:** This involves delivering the necessary service without creating any additional assets but by reconfiguring the means of service delivery, developing initiatives to manage demand more effectively, or better using existing assets. Normally this solution requires improving the management of existing assets. One example of a non-asset based solution is a regulatory or policy change that allows for one way roads or no entry areas to better manage city traffic. This is more akin to introducing better management techniques to do away with the hurdles in traffic.
3. **New asset based option:** In this option, new investment in assets may be envisaged based on the need to update an outdated technology or when new technology is needed. Examples for new asset based options are the greenfield airports in Bangalore and Hyderabad and satellite townships around large growing cities such as the development of Naya Raipur to decongest Raipur.

Example of a solution using all three options in managing city traffic

Reducing traffic congestion in a city may require all three options to tackle the problem effectively:

- **Existing Asset Solution:** Widening of roads, enhancement in design, etc.
- **Non-Asset Solution:** Traffic Police managing the traffic during peak hours, making the road one way and using any other link road to divert the traffic during peak hours
- **New Asset-Based Solution:** A flyover or alternative/ bypass roads etc.

The existing asset based option will result in the development of a brownfield project because it effectively improves an existing asset. Examples include developing the international airport at Chennai; augmenting the capacities of a water supply system network; or re-furbishing a tourism property.

The new asset option results in a greenfield project which has none of the constraints of a brownfield project. Examples are the development of a new international airport at Devanahalli, Bangalore and a new international airport at Hyderabad; the construction of a bulk water supply system in Naya Raipur; and the construction of a road stretch along a new alignment.

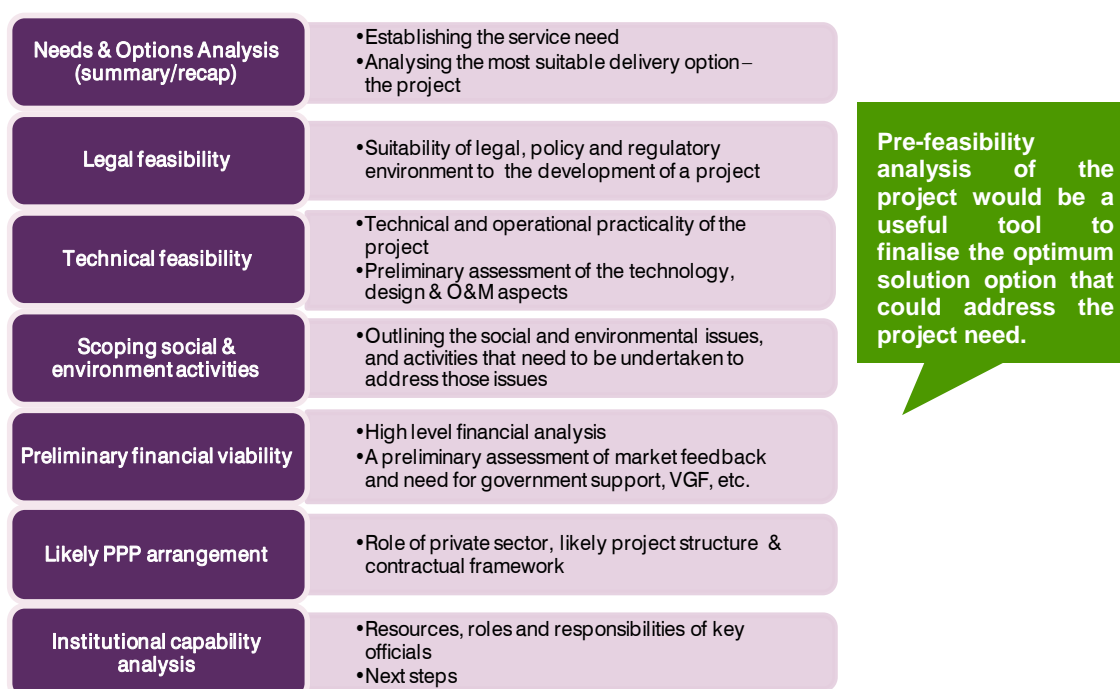
4.2. Options Analysis

The next step is to evaluate the most viable option after identifying and examining the advantages and disadvantages of each option and the risks and benefits to the Government from each option. The data typically used in options analysis include:

1. Demand and cost projections

2. Estimation of Life Cycle Costs (concept, development concept or preliminary design estimates)
3. Service delivery models and performance requirements
4. Technical information, for example, locality plans, topographical and geological data
5. Permits/consents/approvals
6. Site characteristics and constraints
7. Any revenue expectations
8. Suitability, performance/condition of any relevant existing infrastructure

A pre-feasibility analysis of the project can be used as a tool for evaluating the options and deciding which one is best. The objective of a pre-feasibility study is to provide first-hand information on the feasibility, at first sight, of a project and the optimal manner of implementing it. The indicative content of a pre-feasibility study report is set out in the diagram below:



When the best option has been identified, it must be supported by data and arguments. At this stage, whether the project can be developed through a PPP framework cannot be assessed; this can only be determined later when the financial feasibility analysis and Value for Proposition analysis for the project have been carried out.

5. Activities Post Project Identification

It is useful to carry out certain activities in the period between identifying the project and conducting feasibility studies. These activities include the hiring of consultants for helping the public entity to carry out the feasibility studies/project structuring/, stakeholder consultations and the creation of a project management team and monitoring cell within the office of the public entity.

In lieu of setting up a project management cell, the public entity can at least set aside a couple of its officers to steer the project development activities.

In addition, the public entity may also conduct a workshop or a roundtable discussion to create awareness among its staff about the new project. The views that

emerge from within the organisation may help to fine-tune the conception and improve the execution. Moreover, special programmes to build the specific skills that will be needed from the employees might also benefit project execution. More on capacity building is discussed in Module 17 of the PPP Guide for Practitioners.

5.1. Stakeholder Consultation

Communication in projects is critical to their successful implementation. Consultations also clarify the project need and help choose the correct option owing to stakeholder feedback.

It may be a good idea for the public entity to create awareness among all the stakeholders about the new project.

The main objective of stakeholder consultations should be to:

1. Ensure an inclusive approach to development through adequate information dissemination to
 - a. Users (direct and indirect)
 - b. Existing employees
 - c. Trade Unions
 - d. Other stakeholders
2. Increase transparency and trust among stakeholders in project development activities
 - a. Bid process in terms of selection of successful bidder
 - b. Project execution in operational matters

P R O J E C T

Alandur Sewerage Project

The project was designed to serve a population of about 165,000 in the Alandur municipality in Chennai, Tamil Nadu. Garnering public support and convincing the community to pay connection fees and charges for collection of sewer were the key challenges faced. The fact that 29 per cent of the capital cost was financed through public contribution is the outstanding aspect of this project.

To gain acceptance and build consensus among the public, a vigorous public outreach/participation campaign to explain the project benefits, costs and tariff systems was carried out. Further, a citizens' committee was formed which met frequently to review the status of the project and monitor the contractor's performance. It also provided a forum to express concerns.

Involvement of stakeholders at key decision-making stages throughout the project implementation period ensured timely completion and redressal of issues.

Source: <http://toolkit.pppinindia.com/highways/module3-rocs-asp1.php?links=asp1>

5.2. Hiring of Consultants

The public entity might find it useful to hire consultants to help with selecting the private partner for the project, carrying out the feasibility studies, project structuring, bid documentation, bid process management, and post award contract management. An indicative list of consultants to be engaged would include market study consultant(s), technical consultant(s) for carrying out technical feasibility studies, finance experts for undertaking financial feasibility studies, procurement experts for bid process management, legal experts for drafting and vetting of contractual documents, among others.

These consultants – one individual or several - can advise the public entity at every stage of the project development process.

A single consultant who provides help from start to finish is known as a 'transaction advisor'. Whenever a consultant is appointed, the procedure will have to be consistent with the rules on transparency in the procurement of services.

Sometimes, the public entities look at hiring Transaction Advisors (TA) on a success-fee basis. In such cases it forces the TA to 'force-fit' a PPP onto a project just so that they can be paid their success fee. It is useful to select TA based on their past experience. In cases where a success fee is used as means for selection of TA, the public entity would need to ensure the certainty with which a PPP can be awarded before deciding the mode by which they would engage with a TA.

Ministry of Finance, Department of Expenditure has issued model RFP for Selection of Financial Consultants and Transaction Advisers vide Office Memorandum No. 24(32)/PF-II/2009 dated March 2010. This could be used by all administrative Ministries and other public entities intending to procure the services of financial consultants and transaction advisors.

5.3. Setting up a Project Management Cell

The setting up of a project management cell within the public entity will help to streamline all project related activities from project identification onwards. The mandate of the cell will be to execute project development on its own or with the help of consultants. An officer may be appointed as the person in charge of the cell or the Project Manager who would be the one point contact for the Government and other stakeholders for all information about the project.

6. Conclusion

In any society, the need for any infrastructure project/ service delivery emerges gradually with increased economic development and urbanisation. It is the look out of the public entity to ensure that the need for any infrastructure project/ service delivery has been suitably addressed from time to time so as to ensure quality of life in the society. The options analysis comprises the most primitive stage of project development wherein the several means/options of addressing an infrastructure project/ service delivery need are analysed ultimately choosing one option. The pre-feasibility analysis is carried out for the chosen option to determine its prima facie do-ability which is followed on by carrying out feasibility studies and project structuring exercises. At this stage, only the necessity for development of a project/ service is determined; whether or not it ought to be developed/ provided for under PPP framework is determined at a much later stage in project development.

7. Bibliography

1. Module I - Identification and Organisation, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
2. Module I - Identification and Organisation, PPP Basic Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010

8. For Further Reading

1. Effective Communication in PPP projects, Department of Economic Affairs, Ministry of Finance, Government of India
2. Financing Infrastructure Projects through the India Infrastructure Finance Company, Government of India.

3. Guidelines for Financial Support to Public Private Partnerships in Infrastructure, Government of India.
4. Knowledge Series, Scheme and Guidelines for India Infrastructure Fund, Department of Economic Affairs, Ministry of Finance, Government of India.
5. Module 1, Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
6. Module 2: PPP Process Guide, Phase 3: PPP procurement, India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
7. Module 3: PPP Inception, Public Private Partnership Manual, National Treasury PPP Unit, South Africa, 2004
8. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008 – Volume 1
9. Office Memoranda No. 24 (32) /PF-II/2009, dated 29.03.2010, Model RFP for Selection of Financial consultant and Transaction Adviser.
10. Scheme and Guidelines for India Infrastructure Project Development Fund, Department of Economic Affairs, Ministry of Finance, Government of India.

PPP Guide for Practitioners



Module 4: PPP Project Process Development

1. Introduction

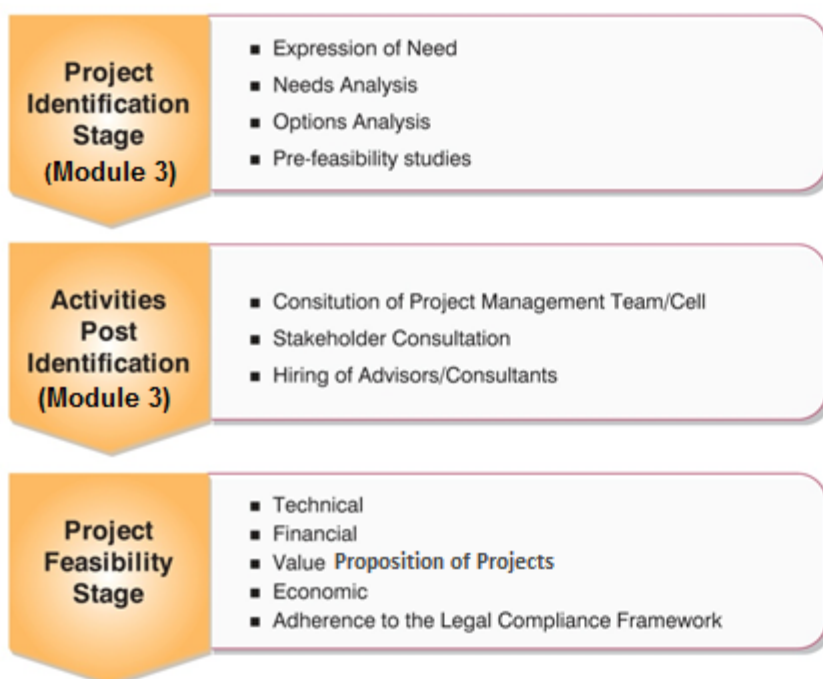
Among the various modes of implementation, PPPs are gaining traction, albeit with a need to comprehensively address the concerns of all the stakeholders involved. Based on the experiences of developing projects under the PPP framework, experts in the field have distilled the process that need to be adopted in identifying, structuring, selecting the private partner and the activities post-selection of the private partner to ensure successful project implementation.

PPP Project Development Process enables:

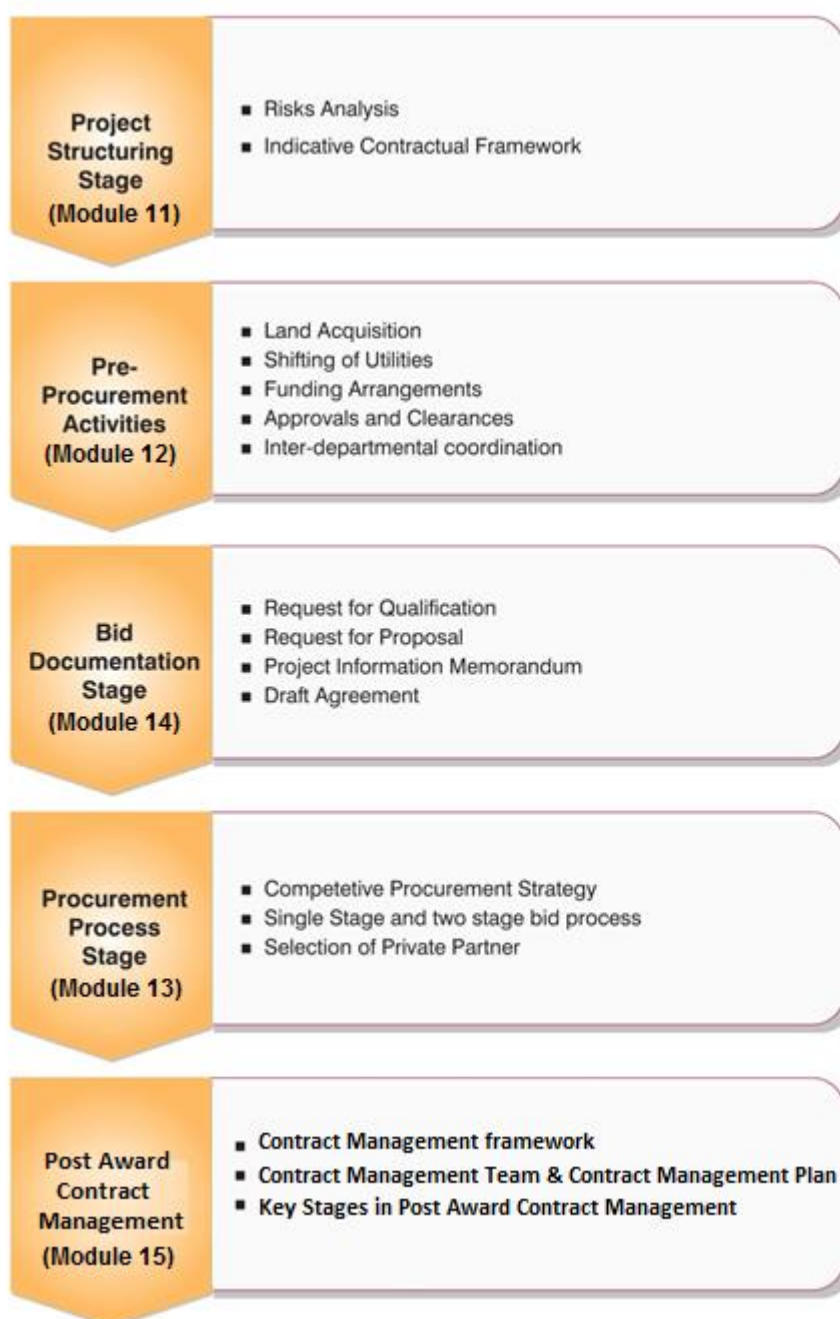
- Appreciation of the process involved in project development
- Understanding the sequence of activities in project development
- Understanding the roles and responsibilities of both the public entity and the private partner during the project development process
- Familiarisation with the key issues and concerns that arise in the project development process

The term project development process includes all the activities that come under the PPP framework, starting from the project identification stage to the post award contract management stage where the project is being developed and/or operated by the private partner over the agreement period.

The various stages in the PPP project development life cycle/ process are set out in the diagram below:



The configuration of the project and the activities mentioned are not strictly linear but are iterative in nature and may need to be undertaken concurrently.



Also refer the User Guide on ppptoolkit on pppinindia website for PPP process map:

http://toolkit.pppinindia.com/pdf/ppp_toolkit_user_guide.pdf

The project development process steps mentioned above can be witnessed in all projects as they have evolved from repeated experiences. Compliance with all the above mentioned steps of project development process would aid in effective project development and implementation. Sometimes depending on the prevailing circumstances/ context and/ or past experience of the public entity in developing similar projects; a few of the above mentioned steps in project development are relaxed or omitted. However, such omission is not advisable keeping in view the interest of the project.

Typically, project development concludes with the execution of the agreement between the public entity and the private partner. The actual construction of the project and its operations are referred to as project execution or the implementation stage. During the implementation stage, several issues pertaining to construction, operation and management of the project could arise. To address such issues, it is advisable to set in place an effective post award contract management framework.

The Department of Economic Affairs, Government of India, has documented several case studies on projects developed under a PPP framework that discuss the entire project development process adopted for respective projects. Case studies are available in the weblink: http://toolkit.pppinindia.com/pdf/case_studies.pdf

2. Project Identification Stage

In the project identification stage, the need for the project is identified, available options to address the need are analysed and pre-feasibility studies are carried out to finalise the best option to address the need and check the prima facie feasibility of the project.

The project Identification stage answers the following questions:

1. Whether there is a pressing need for the project?
2. Whether all possible service delivery options have been considered for the project?
3. What goes into a pre-feasibility study?

3. Activities Post Project Identification

There are certain activities that need to be carried out post identification of the project to ensure smooth development at a later stage. These activities include the following:

1. Constitution of a Project Management Cell/ Unit/Team
2. Stakeholder consultation
3. Hiring of Transaction Advisors/ Consultants/ Experts, etc.
4. Obtaining preliminary approvals

It is at this stage that the public entity may explore the availability of funds/ schemes that facilitate the carrying out of certain activities such as the preparation of concept plans, feasibility studies, detailed project reports (DPR), etc.

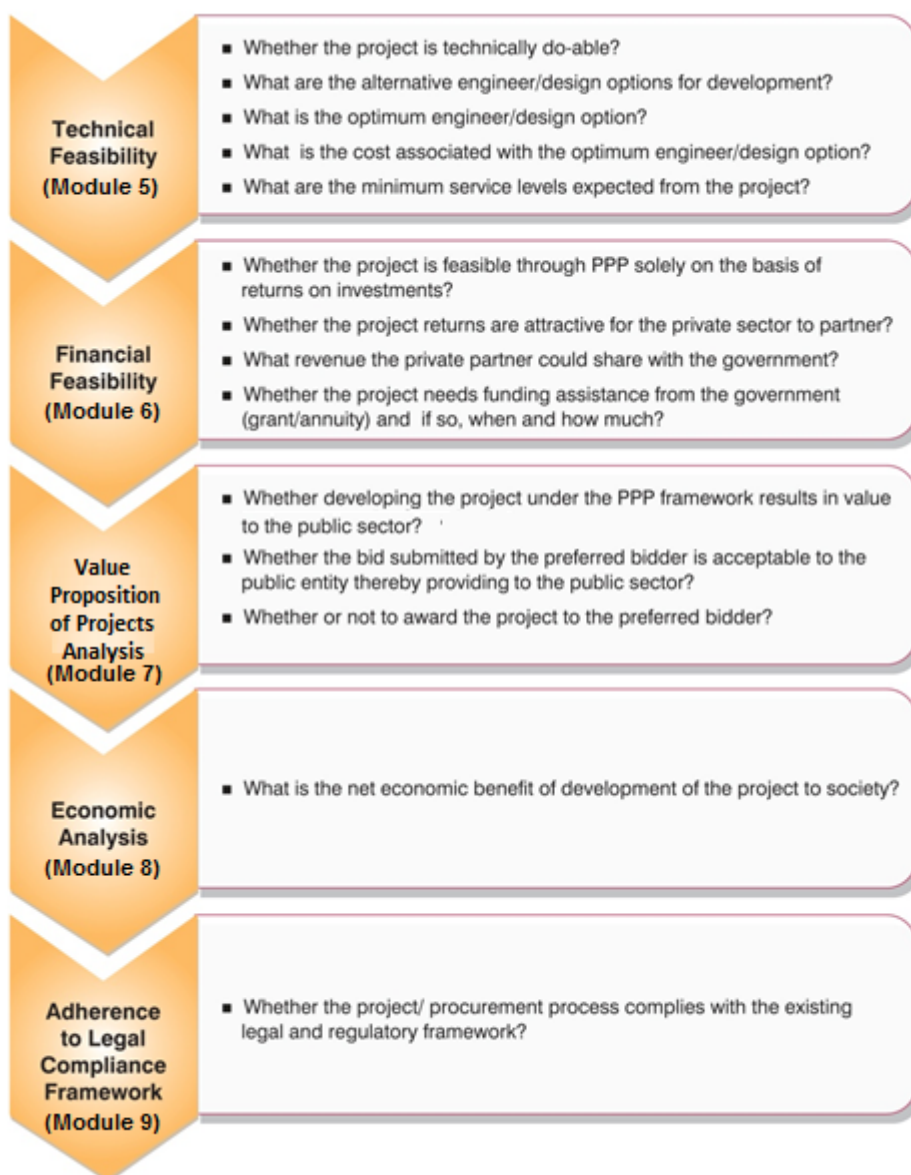
A few such Government of India schemes are indicated below:

- India Infrastructure Project Development Fund (IIPDF) which funds feasibility studies and transaction related services (only if the project is proposed for development through a PPP framework).
- Scheme for the development of mega destination development/circuit development/rural tourism under the Ministry of Tourism which funds the preparation of DPR/ feasibility reports, etc.

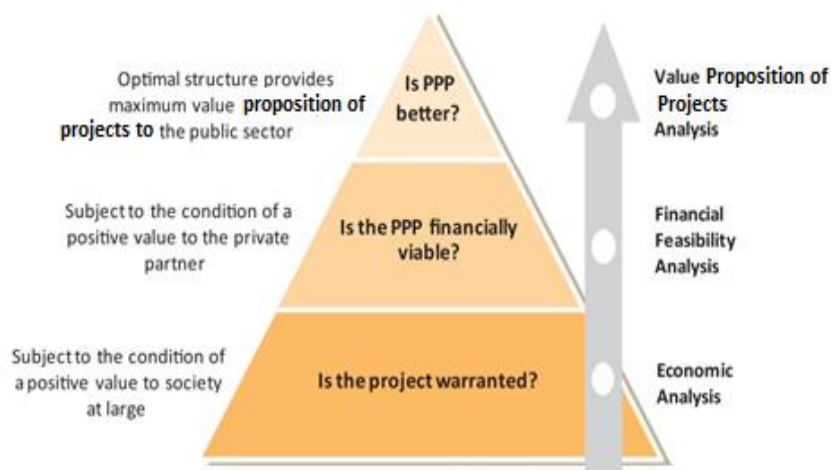
4. Project Feasibility Stage

The project feasibility stage confirms the practicability of a project in terms of technical, financial, legal and economic aspects, whether or not a project is envisaged for development through the PPP route. It is also at this stage that various project structure options for development of the project emerge and the merits for development of the project through an appropriate PPP framework is examined (Value Proposition of projects analysis). It is usually the technical feasibility study which is carried out first, followed by the financial feasibility, the value for proposition analysis and the economic analysis of the project. The adherence of the project outline with the existing legal and regulatory compliance framework may be carried out concurrently with the other feasibility studies.

The purpose of carrying out these activities is set out in the diagram given below:



The diagram given below indicates the decisions that emerge from various feasibility studies:



5. Project Structuring Stage

When the decision to implement the project through a PPP is finalized, the project has to be structured to finalise the terms and conditions of a formal arrangement to be entered into between the public entity and the private partner. The project structuring stage in the development process should answer the following questions:

1. What are all the risks associated with the project?
2. How can the risks be best mitigated?
3. Which of the parties can best manage handle the risk and at what cost?
4. How best can the risks be allocated among the parties?
5. What should be the contractual framework for implementation of the project?
6. What are the indicative roles and responsibilities of the parties to the PPP arrangement?
7. What are the key issues and concerns for project implementation?

Project structuring is the most important of all stages of the project development process through PPP framework because it is at this stage that the contours of the project, roles, and responsibilities of the parties, consideration, project scope, functions, payment terms, other conditions, etc. are finalized.

6. Pre-procurement Activities

It is advisable for the public entity to start certain activities soon after the structure for the project is finalized and prior to the start of the procurement process. These activities include the following:

1. Land acquisition and starting to move utilities. These activities should be planned at this stage. The public entity needs to decide on the timing, implementation agency and costs for these on a case-to-case basis.
2. Funding arrangements
3. Approvals and clearances
4. Administrative approvals
5. Inter-departmental coordination

There is no particular prescribed sequence for these activities but it is useful to carry them out concurrently. In reality, a few of these activities would continue to take place even when the private partner is implementing the project.

7. Bid Documentation Stage

Bid documentation includes the preparation of the bidding documents for the selection of the private partner for the project. The type and number of bidding documents to be prepared will depend upon the nature of the project and also the type of procurement process that is envisaged.

If a single stage procurement process is proposed for selecting the private partner, the following bidding documents need to be prepared:

1. Notice Inviting Tenders
2. Request for Proposal
3. Project Information Memorandum Docket
4. Draft Agreement

Likewise, if a two stage procurement process is adopted, then, in addition to the ones referred to above, another document called the 'Request for Qualification (RFQ)' document needs to be prepared.

Ministry of Finance, Government of India has issued model RFQ & RFP so as to standardize the process of procurement and reduce the effort involved in the documentation of bidding documents.

8. Procurement Process Stage

A procurement process which ensures transparency and fairness in the selection process is the best type of procurement. Usually, a competitive and transparent procurement process will need to be adopted for the selection of the private partner for the project development. The procurement process can either be a single stage process or a two stage process.

A single stage process involves the issue of only RFP to the bidders who will make their submissions in response to it, whereas a two stage procurement process includes the issue of RFQ to all the interested parties in the beginning. The applications submitted in response to the RFQ are evaluated and the applicants are shortlisted on the basis of their eligibility (technical and financial capacity). RFP are issued to the shortlisted applicants who are required to submit their bids in response to the RFP. On evaluation of the bids, the private partner for the project is selected.

Various State Governments have well laid out procedures in terms of statutes, rules and guidelines to be followed with regard to the procurement of goods, services, consultants, works, etc. The procurement process usually culminates in a Letter of Acceptance (LoA) being issued to the bidder submitting the best bid (preferred bidder).

9. Post Award Contract Management Stage

PPPs, while bringing in private capital and experience, also involve the transfer of valuable public assets as well as foregoing future revenues in the form of concessions. To ensure that such arrangements always enjoy high credibility in the public mind, due diligence, transparency, objectivity and probity in the entire decision making process are all paramount if these arrangements are to succeed and continue for future projects. Given this fact, the post award contract management activities gain significance.

The post award contract management activities are spread throughout the project implementation period starting with the issue of letter of award to the successful bidder and culminate with the handover of the project assets to the public entity by the private partner. Unless a strong post award contract management setup for projects exists, it is difficult to manage the issues and concerns that arise during project execution.

10. Role of Communication

Communication among the various stakeholders plays a significant role in the smooth development of projects from the identification stage to the post award contract management stage. Communication is necessary at the policy level and also at the project level. Unless all the stakeholders in a project are brought within the confidence of the public entity, implementation can be difficult. Therefore, holding continuous and sincere interactions with all the stakeholders is in the interests of the project.

11. Capacity Building Requirements

Building capacities among the officials of the public entity and the private partner helps to make project development, a relatively easier and smoother experience. It is useful for all the stakeholders associated with project development to be aware and familiar with the concepts and practices of PPPs. The Government of India, through the Department of Economic Affairs, has been actively involved in issuing guidance materials on several concepts and practices pertaining to PPP. Of its many initiatives, one is the national level capacity building programme on PPPs to build the capabilities of central and State level officers for executing PPPs. The large scale nation-wide capacity building programme was successfully completed in March 2014.

12. Indicative Timelines for Project Development

Developing a PPP project can be categorized into two stages.

- **Stage one** is from project identification until the selection of a private partner. This stage deals largely with all the transactions that are key to the selection of a private partner.
- **Stage two** is the actual project implementation by the private partner which involves construction, operation and maintenance of the project assets to deliver the required services as set out in the contract.

Given below is an indicative time schedule for PPP projects. The table below has been prepared on the basis of previous PPP experience.

Key Stages\Years	Year 1	Year 2	Year 3	Year 4	Year 5
Identification, Feasibility & Structuring					
Tendering & Contracting					
Financial Closure					

Key Stages\Years	Year 1	Year 2	Year 3	Year 4	Year 5
Construction & Commissioning					

The timelines shown in the table above are only indicative in nature. The timelines would vary significantly depending upon sector and the project details.

Project identification, feasibility studies, and structuring of the project, which are pre-tendering activities that are key to the preparation of bid documents, will require atleast a year to complete. This also depends on the project definition itself. Completion of certain feasibility studies such as the Environment Impact Assessment (EIA), the Social Impact Assessment (SIA), market studies, geo-technical studies, topographical studies, traffic studies, etc. will require close to a year. It is therefore useful to carry out these studies simultaneously.

Project structuring will involve multiple stakeholder consultations, identification of risks and their allocation among parties, and an indicative contractual framework for project execution. This will take about a couple of months.

Bid documentation includes multiple consultations with the stakeholders involved in the project prior to its finalization. The procedure adopted for the bid process is largely standardized to limit the time needed for the bidders to make their submissions. The entire bid process, if it is for a two stage process, requires atleast another one year to get completed. Usually, the time provided to achieve financial closure in the project is 180 days as per the MCA for development of National Highways under PPP framework.

Actual implementation (construction) of the project requires a reasonable amount of time, taking into account the land acquisition issues, approvals and clearances to be obtained and the scale of development which is envisaged. Usually, significant delays are observed during the construction and commissioning stages of the project which also contribute to an escalation in the project costs.

13. Conclusion

The project development process discussed in this module has been compiled on the basis of past experience of projects being developed under PPP framework. Every project proposed for development under PPP framework would in an ideal scenario follow the project development process steps mentioned in the module. Each of the project development steps takes the practitioner one step closer to effective development and implementation of projects.

14. Bibliography

1. Module I: PPP Background, India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
2. Module I: South African Regulations for PPPs, Public Private Partnership Manual, National Treasury PPP Unit, South Africa, 2004
3. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
4. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008

5. National Public Private Partnership Policy, Draft for Consultation, Department of Economic Affairs Ministry of Finance, Government of India, 2011
6. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011

15. For Further Reading

1. Financing Infrastructure Projects through the India Infrastructure Finance Company, Government of India.
2. Guidelines for Financial Support to Public Private Partnerships in Infrastructure, Government of India.
3. Knowledge Series, Scheme and Guidelines for India Infrastructure Fund, Department of Economic Affairs, Ministry of Finance, Government of India.
4. Office Memoranda No.24 (23) /PF-II/2008, dated 21.05.2009, Model RFP for Selection of Technical Consultants.
5. Office Memoranda No.24 (23) /PF-II/2008, dated 09.07.2009, Model RFP for Selection of Legal Adviser
6. Office Memoranda No.24 (32) /PF-II/2009, dated 29.03.2010, Model RFP for Selection of Financial consultant and Transaction Adviser.
7. Scheme and Guidelines for India Infrastructure Project Development Fund, Department of Economic Affairs, Ministry of Finance, Government of India.
8. The Strategic Management of Large Engineering Projects' by Miller and Lessard, MIT

PPP Guide for Practitioners



Module 5: Technical Feasibility

1. Introduction

Given the massive investments in infrastructure proposed by the Government and the thrust on PPP projects, it is crucial for the Government to justify every project in technical, financial, economic, social and environmental aspects. Infrastructure projects involve long gestation periods; once developed, the projects have a lasting impact on the lives of people. Therefore, conducting feasibility studies for a project is a necessary step in the project development process. Feasibility studies include assessing the technical, financial, and legal suitability of a project.

The do-ability of a project must be determined at the early stages of the project and technical feasibility studies enable the Government to justify the do-ability of the project from technology, environment, social and market perspectives. Technical feasibility studies are generally undertaken by the public entity once a project is identified and prior to project structuring stage. It is to be remembered that at this point, the public entity need not make a decision on the mode of implementation of the project. However, the studies need to be undertaken keeping in mind the possibility of implementation under a PPP framework.

The technical feasibility study has a long lasting effect on the project – in project structuring, bid documentation and implementation.

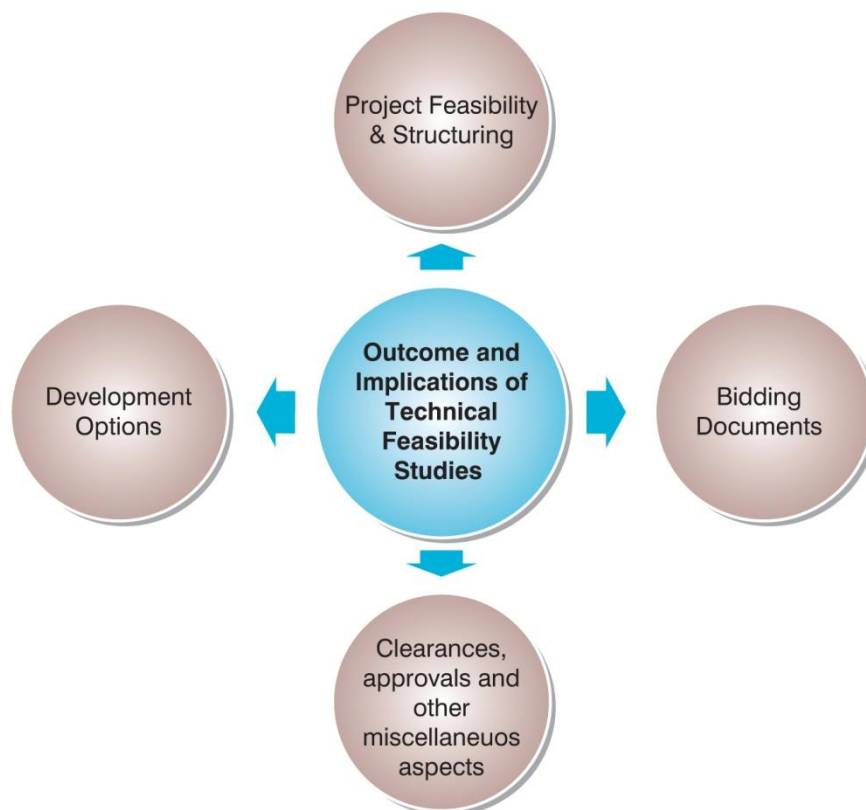
Technical Feasibility Studies answer:

- What are the various engineering/design options and the optimum option?
- What is the cost associated with and service levels expected of the various engineering/design options?
- Which of the engineering/ design options would be amenable for implementation by the private sector?
- How does each of the options affect environment and the society?
- What could be the public entity's extent of involvement in land acquisition and associated infrastructure creation, such as connectivity, water supply, power, etc.

Usually, technical feasibility studies are carried out to review the possible engineering/design options for the project and involve an assessment of the option that is most sustainable and practical. It forms the basis on which, the public entity promoting the project makes a “go/no-go” decision to implement the project.

The public entity may either carry out the study on its own or hire a technical consultant to do so. Sometimes, the scope of work of the transaction advisor hired for the project would also include carrying out technical studies for the project. Annexure 5 of this module sets out an indicative checklist of steps/ activities that ideally form part of any Technical Feasibility Study.

2. Outcome & Implications of Technical Feasibility Studies



2.1. Development Options

Technical feasibility studies are carried out primarily to analyse the possible design and engineering options that could be applied and the different technologies that could be adopted for project implementation. The various development options generated from the technical feasibility study rest on the premise of delivering quality service that is cost-effective, energy efficient, environment friendly, commercially and economically viable and beneficial to society. At the same time, the development options must be flexible enough to allow for technology improvements that may be required from time to time.

While suggesting design and engineering options as part of the technical feasibility study, the life of the project and risk of obsolescence of the design/technology proposed must be considered. The risk of obsolescence is greater in technology intensive projects.

The coverage of a technical feasibility study would vary across sectors and would depend on the scope of the project. For instance, in roads, railways, urban transport systems, bulk water supply systems and water distribution projects, it will be necessary to study network alignment options in addition to the design and engineering options. Similarly, in projects to develop industrial infrastructure such as logistic parks, special economic zones, or the development of transport projects like airports, ports, transport terminals, or the development of landfill facilities, it will be necessary to analyse various site suitability options.

Illustrative Example

Example 1: Road project from point A to B

1. **Design/Engineering options:**
 - Bituminous
 - Concrete
 - Polythene and bituminous based content
2. **Alignment Options:**
 - Alignment on the basis of the shortest route between A and B
 - Alignment connecting other important towns between A and B
 - Alignment connecting most of the important towns between A and B, minimising rehabilitation and resettlement requirements/land acquisition/disruption to environment

Example 2: SWM processing facility

1. **Technology Options:**
 - Waste to Energy
 - Waste to Bio-fuel
 - Bio-methanisation
 - Pyrolysis
 - Refuse derived fuel
 - Composting
2. **Project Site Options:**
 - Based on the location and accessibility of the site
 - Based on the current usage of the site
 - Based on the surrounding environment of the site

A technical feasibility study should ideally conclude with a recommendation regarding the best option for the project, along with designs and drawings for this option.

2.2. Inputs to Project Feasibility and Structuring

The key inputs from the technical feasibility study are the cost estimates (capital and O&M costs) and revenue estimates which determine the financial and economic viability of the project. The inputs have a significant impact on the implementation structure decided for the project. It is therefore important that the costs and revenues are estimated accurately, to the extent possible.

MCA for development of National Highways recommend that the indicative project cost includes the construction cost as well as financing costs, physical and price contingencies, etc. These are typically 25 per cent of the base construction cost.

2.3. Estimated Project Cost / Total Project Cost

The costs incurred to build/ renovate/ rehabilitate an asset or provide a service is referred to as the capital cost of the project (also termed as project cost) while recurrent costs during operation and maintenance of the same is termed as the operation and maintenance (O&M) cost.

The project cost is estimated primarily from the base construction cost (sum of costs associated with the construction of all project facilities) for a selected development option, derived from the technical feasibility study. Other costs such as escalation in prices, contingencies, pre-operative costs, financing costs and interest costs during construction (IDC) are added to the base construction cost to arrive at the estimated project cost.

Estimated Project Cost

The components of the Estimated Project Cost typically include:

Base Construction Cost

+ Financing cost

+ Preliminary and pre-operations cost

+ Interest during construction and financing costs

+ Escalation

+ Contingency

Correct calculation of the “Total Project Cost” or “TPC” is important in any project proposed for development under PPP framework as TPC has a bearing on certain commercial terms of the PPP arrangements. For instance, as per the MCA for development of National Highways, in the event of a default resulting in termination, the payments to be made by the public entity to the private entity is indirectly linked to TPC. Furthermore the performance security to be furnished by the private entity is also linked to TPC. The TPC defined in the MCA for development of National Highways under PPP framework is explained below:

Meaning of Total Project Cost (TPC) as per MCA

MCA for development of National Highways defines Total Project Cost (TPC) as means the lowest of:

- the capital cost of the project, (less equity support) as set forth in the financial package;
- the actual capital cost of the project upon completion of the project (less equity support); and
- a sum of Rs. ***** crore (Rupees ***** crore), (as mentioned in the Feasibility Report/ DPR) less Equity Support.

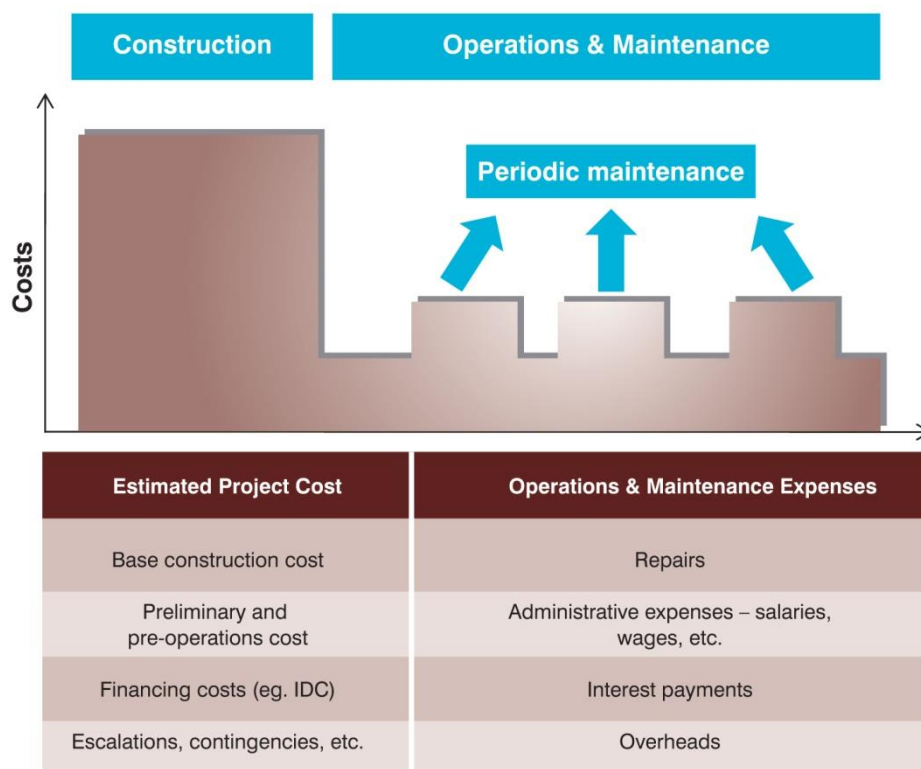
2.4. O&M Costs

The other component of cost is the O&M cost. This normally includes direct costs and overheads. Overheads reflect the expenditure for administration, management, risks and profits. Direct cost is the cost of inputs such as labour or material, which is determined by the cost of construction and the economic and market conditions.

The estimated cost is crucial as eligibility criteria, including the threshold technical capacity and financial capacity, bid security, performance security, termination payments, types of approvals, etc. are dependent on it.

Each design/engineering option set out in the technical feasibility study would have an O&M cost associated with it. O&M costs would be the recurring expenses that are to be incurred during the project period/concession period.

The figure below indicates the capital and O&M expenses for a typical road project.



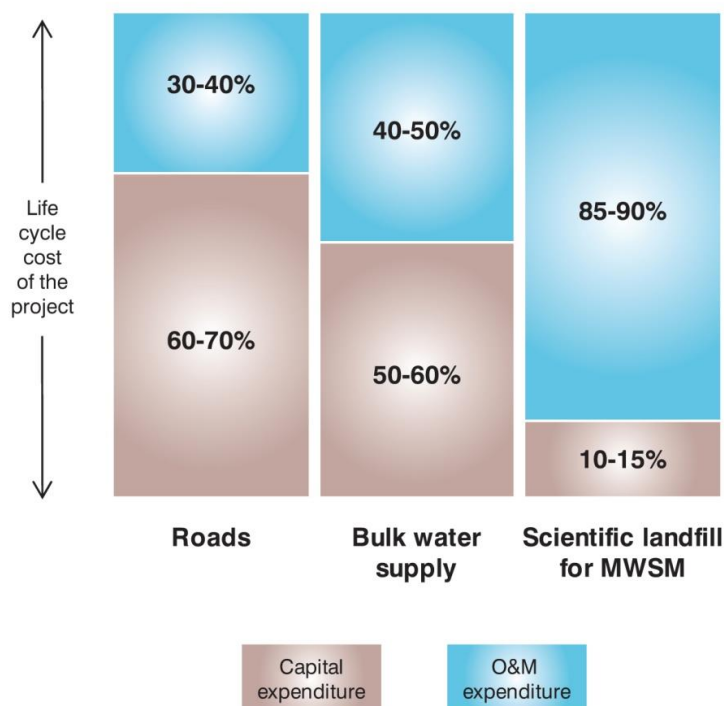
Indicative O&M costs in a bulk water supply system project

- Establishment charges
- Administrative charges
- Power cost
- Chemicals and consumables
- Repairs and replacements

It may also be necessary to disburse the capital cost of a project in phases whereas O&M costs would usually exhibit a linear or block increase. In the case of a water supply project, the population increase in the region exhibits a linear growth whereas the capacity augmentation is required in phases (for example, in a block of ten/fifteen years depending on the project period, size and scale of infrastructure).

In the case of a metro project, rolling stock is added at specific time intervals, leading to block increase in both capital and O&M expenditure.

The figure below sets out an indicative share of the capital and O&M expenditure during the project life cycle period, for development of roads, bulk water supply systems and the development of scientific landfill projects.



Reliable cost estimates pertaining to construction, operation and maintenance and the project details, which are set out in the feasibility studies provide a key input to finalizing the bidding documents for the project and enable private entities in submitting realistic bids.

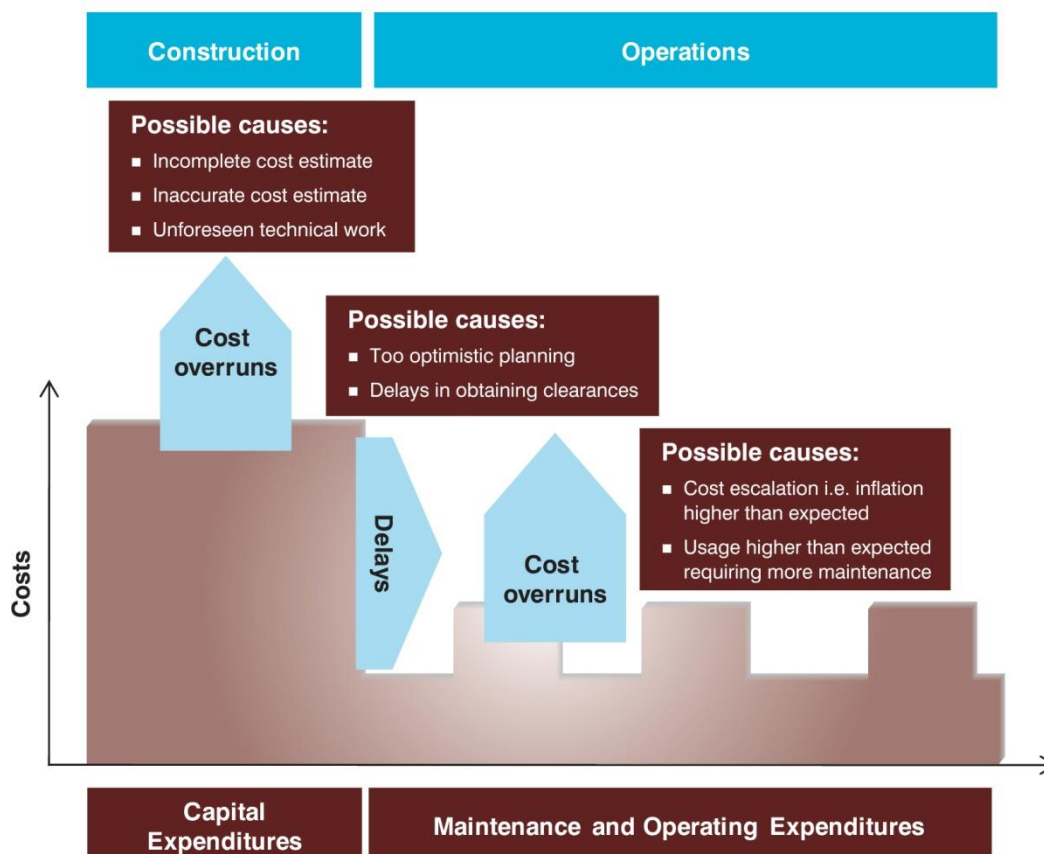
2.5. Contingencies

One of the key challenges that infrastructure projects face is time and cost overruns. The table below gives an indication of the time and cost overruns in various infrastructure projects in India.

Sector	Number of Projects	% of Projects with Positive Cost Overrun	% of Projects with Positive Time Overrun
Road, Transport and Highways	157	54.14%	85.35%
Railways	122	82.79%	98.36%
Shipping and Ports	61	31.15%	95.08%
Urban Development	24	41.67%	100.00%
Civil Aviation	47	42.55%	91.49%
Health and Family Welfare	2	100.00%	100.00%

Source: Adapted from an article in *Economic & Political Weekly*, May 22, 2010. (*Delays and Cost Overruns in Infrastructure Projects: Extent, Causes and Remedies*, by Ram Singh, DSE)

The possible causes for cost overruns are outlined in the diagram below:



It may be difficult to make very accurate estimations on the costs (capital and O&M) and revenues at the time of technical studies. It is thus prudent to provide margins for cost overruns and other contingencies. The quantum of such margins may be determined on the basis of past experience in developing similar type of projects.

2.6. Inputs to Bidding Documents

The outputs of the technical feasibility study serve as an important input to finalize the bidding documents. Bidding documents typically consist of the Request for Qualification (RFQ), Request for Proposal (RFP), Draft Concession Agreement (DCA) and Project Information Memorandum (PIM). There are a few other variants of bidding documents which are used on the basis of project need. (Please refer to the Module no. 14 on Bid Documents and Other Project Documents for details.)

The information required in each of the bidding documents that emerge from the technical feasibility studies are explained in the diagram below.

INPUTS TO BIDDING DOCUMENTS		
RFQ/ RFP	Maintenance and Operating Expenditures	Project Information Memorandum
<ul style="list-style-type: none"> ■ Bid Security ■ Eligibility Criteria ■ Qualification Criteria ■ Performance Security 	<ul style="list-style-type: none"> ■ Estimated Project Cost ■ Performance Indicators ■ Technical Schedules 	<ul style="list-style-type: none"> ■ Project Description ■ Designs/Drawings ■ Land use plans ■ Mandatory & Additional facilities

1. **Request for Qualification and Request for Proposal:** The value of the bid security and performance security are derived as percentage of the estimated project cost. Estimated project cost also serves as one of the factors in determining other conditions of the bidding document such as eligibility criteria and qualification criteria pertaining to the technical capacity and financial capacity of a bidder.
2. **Project Information Memorandum (PIM):** PIM provides information about the project and is part of a bidding document. Model RFQ & Model RFP issued by the Ministry of Finance, Government of India (GoI) provides for the public entity to insert either an information memorandum or a project report/feasibility report as part of the documents for bidders' information. The contents of the PIM are generated from the technical feasibility study report.

Indicative Components of PIM

What generally goes into a PIM?

- General description of the project and project site
- Key issues and concerns in the project
- Brief market assessment study

What does not generally feature in a PIM?

- Financial viability analysis of the project
- Economic viability analysis of the project

Note: Contents of PIM could vary with the sector and the project.

3. **Draft Concession Agreement and Schedules:** In addition to information provided in the PIM, the technical feasibility study also provides details regarding the project site, development and construction requirements, etc. which is included in the agreement to be executed with the selected bidder.

Schedules in the DCA of an urban rail system would include the following heads:

- Site of the project
- Development of the Rail System
- Project Facilities
- Specification and standards
- Applicable Permits
- Performance Security
- Project Completion Schedule
- Drawings
- Tests
- Completion Certificate
- Maintenance Requirements
- Safety Requirements
- Monthly Fare Statement
- Passenger Charter
- Traffic sampling
- Selection of Independent Engineer
- Terms of Reference of Independent Engineer
- Fare Notification
- Escrow Agreement
- Panel of Chartered Accountants

- Vesting Certificate
- Substitution Agreement
- Shareholders' Agreement

It may be observed that most of these schedules are derived from the technical feasibility studies.

- 4. Key Performance Indicators:** The clauses on minimum service levels or key performance indicators that feature in the agreement are largely determined from the technical studies. For example, the design capacity of the road in a road project and the service level benchmarks pertaining to reduction in non-revenue water, continuous water supply, etc. in a water supply project are derived from the technical studies.

Typical Performance Indicators

1. In power projects:

- Generation – Plant Load Factor, normative availability for generating station – 85%
- Transmission – Transmission losses
- Distribution - Aggregate technical and commercial losses

2. In bulk water supply projects:

- Permissible losses in storage of water – 1.5%
- Permissible losses in transmission of raw water from abstraction area to water treatment facility – 2%
- Permissible losses during the treatment of raw water at the water treatment facility – 2%
- Permissible losses during transmission of treated water from water treatment facility to the water storage reservoir – 3%
- Supply of treated water not as per prescribed quality – penalty
- Delay in recording meter readings and entry in computerised billing system - penalty
- Sale of treated water without due authorisation of the public entity - penalty
- Failure to deposit consumer payments in the designated bank(s) within the stipulated period of time from the payment due date - penalty

2.7. Approvals and Clearances

Project development requires availability of certain core/trunk infrastructure in place, at least up to the battery limits of the project site. Land is the foremost requirement for any project. The project site and acquisition of land that is free of encumbrances is the responsibility of the Government. The technical studies list out all the approvals and clearances that have to be obtained for implementation of the project. It also lists the utilities/ancillary infrastructure that may be required for the project.

Approvals for a landfill project to be taken up as a PPP through state level committee or a single window agency is an administrative approval whereas approval from the State Pollution Control Board is a regulatory approval.

The Module 12 on Pre-procurement Activities sets out the list of approvals that have to be obtained for the development of projects under the PPP framework.

The types of approvals largely fall under the following heads:

1. **Administrative approvals:** Administrative approvals for a project are the prerogative of the public entity.
2. **Regulatory Approvals from Boards/Agencies/Authorities:** Either the public entity or the private partner can obtain the regulatory approvals, depending upon the stage in the project development process, entity best suited for obtaining the approvals and the statutory requirements of the approvals/ clearances.

The list of utilities (such as power, roads, right of way, drainage, water supply, etc.), the quantum of such utilities, the cost of providing them, and how far they need to be moved for the sake of project development are all outcomes of the technical studies.

2.8. Utilities/Ancillary Infrastructure

In projects such as the development of roads, bulk water supply and urban rail development, the alignment options outlined in the technical feasibility study could entail shifting of utilities from the project sites. These are listed in the technical feasibility study report. It is in the interest of the project that the costs incurred on land acquisition and utility shifting from the project site are borne by the public entity.

Timarpur-Okhla Integrated Municipal Solid Waste Management Project

P
R
O
J
E
C
T

To reduce the dependence on landfill sites and utilise waste for productive purposes, the project was conceptualised to handle and process a significant amount of the municipal waste generated in Delhi. The planned facilities included 1,950 tonnes per day capacity plants for converting MSW to Refuse Derived Fuel, 100 tonnes per day capacity bio-methanation plant, 16 MW power plant, 6 million litres per day water recovery and recycling plant, and transportation facilities for waste and processed material.

There was considerable preparation prior to the launch of the bid process which entailed detailed technical studies and reviews, financial evaluation, contractual clarity, risk evaluation and obtaining regulatory as well as statutory approvals. In fact the SPV to implement the project was also incorporated prior to the launch of the bid.

Significant project development activities ensured that all clearances were in place before implementation, ensuring that the actual project development phase encountered few hurdles.

Source: <http://toolkit.pppindia.com/highways/module3-rocstoimswmp1.php?links=toimswmp1>

3. Types of Technical Studies

Technical feasibility studies include carrying out several activities to determine the technical viability of the project. A project being developed in a particular region will have a set of technical studies that are specific to it. It is critical to carry out such studies to ensure that when the project is bid for, bidders will have all the details needed for informed decision-making.

An indicative list of the kind of technical studies that need to be conducted for different types of projects is given below.

If an SWM processing technology is successful in one region, it may not be successful in another region because the composition of the waste may be different.

Indicative Technical Investigation Studies

1. Roads

- Alignment studies
- Topographic studies
- Traffic study including origin-destination surveys, willingness to pay survey, willingness to shift survey, junction traffic assessment etc. The traffic study would generally be carried out for a 7-day period to screen out outlying conditions
- Infrastructure requirement based on the alignment, topography and traffic studies is determined

Annexure 5A of this Module sets out a sample Terms of References (ToR) for selection of consultant for preparation of feasibility report for development of roads.

2. SWM

- Quantum of waste generation
- Source wise waste generation
- Waste characterisation
- Assessment of calorific value
- Mapping of waste management system
- Landfill site assessment

3. Water Supply

- Base network map, setting out the assets (bulk and distribution) and their respective locations, location of any other utility lines
- Quality checks of the water samples
- Soil characteristics
- Hydraulic testing
- UFW assessment
- Inventory and status of assets (sub and super-surface) including source details, length of transmission and distribution networks, type of material, year of construction and installation as applicable, reservoirs and overhead tanks, pumping machinery, bore wells, water treatment plants (capacity, type and current status)

4. Ports

- Equipment Requirement Assessment
- Traffic studies
- Bathymetric & Seismic studies
- Sub-surface investigation surveys
- Geo-technical surveys
- Topographic surveys
- Wave analysis
- Navigational channel, turning circle survey, navigation requirement surveys

In addition to the above, It may also be necessary to undertake an Environment Impact Assessment (EIA) and Social Impact Assessment (SIA) as part of technical investigation studies. The findings of the technical investigation studies would be useful for preparing designs and drawings of the chosen technology/engineering option for the project.

Technical feasibility studies are independently carried out by the various stakeholders such as the public entity, bidders, private partner as well as lenders at different times during the project development process so as to assess their expectations from the project.

What are pre-feasibility studies, feasibility studies, detailed project reports & master plans?

1. **Pre-feasibility Study** refers to the preliminary assessment of project viability that usually takes place in the identification stage of the project cycle. Pre-feasibility studies generally cover the same subjects as feasibility studies, but in much less detail. The module on Project Identification and Organisation details the contents of a pre-feasibility study.
2. **Feasibility Study** is the investigation that tries to establish clearly whether a project is do-able and will achieve its expected results. Such a study usually evaluates in detail a project's technical design, its costs and benefits, social and environmental aspects, institutional issues, financial aspects, market assessment, etc. Feasibility studies usually are carried out in the development stage of the project cycle. The feasibility study would include technical feasibility (discussed in this module), legal and financial feasibility (these are discussed in separate modules).
3. **Detailed Project Report (DPR)** is the base document for decision-making, approval, planning and implementing a project. The DPR contains, in addition to the contents in the feasibility report, project description, planning and implementation of the project, specification, layouts and flow diagrams. In some cases, project authorities may specify exactly how the DPR is to be prepared, as for instance, in the case of the erstwhile Jawaharlal Nehru National Urban Renewal Mission.
4. **Master Plan** is a blueprint for the future. It is a comprehensive document with a long-term perspective that is intended to guide development in a particular area. Master plans are usually carried out for area development or sector studies by development authorities/urban local bodies. It comprises vision and mission statements, objectives and key focus areas, land use plans, concept plans, investment estimates and long-term, mid-term and short-term action plans for implementation.

It is useful to present the findings of the technical feasibility report to a committee of experts and/or other stakeholders. Comments / inputs from the committee/ stakeholders could be suitably addressed in the study.

4. Market Study

Market study is conducted at different points in time during the project feasibility study stage (which includes technical feasibility, financial feasibility, value proposition of project and economic analysis) of project development process. It involves assessment of suitability of technology options,

It is observed in many instances, that the actual demand for the project facilities varies from estimates drawn up during the market study. This impacts the cash flows and return expectations of the private sector and consequently payments to the lenders are affected.

assessment of demand, user preferences in terms of tariffs, likely usage of project facilities, willingness to pay etc. The market study estimates the likely revenues that will accrue to the project over the project period. This is an important input for the economic and financial viability analysis and is critical when assessing the bankability and affordability of a project.

Gangavaram Port

**P
R
O
J
E
C
T**

The port has been developed as an all-weather, multipurpose, deep-water port with a depth of up to 21 metres, capable of handling Super Cape size vessels of up to 200,000 DWT.

The first round of bidding for this project was called for in 1996, under which two pre-qualified consortia submitted their bids. This round of bidding was cancelled for many reasons including non-preparation of a comprehensive feasibility study with realistic traffic projections.

The contracting bidders had no reliable demand forecast on which to base their financial analysis of the project and submit a bid. This resulted in considerable loss of time and money to the Government.

The shortcomings of the first round were corrected by the Government during the second round of bidding. An independent consultant was appointed to prepare a comprehensive feasibility study and manage the tender process. The case is a good example of the importance of carrying out thorough demand analysis for a PPP project to be successful.

Source: <http://toolkit.pppinindia.com/highways/module3-rocs-gp1.php?links=gp1>

Demand estimation is crucial in estimating the financial feasibility of the project and it ultimately has a bearing on the structure of the project. Inaccurate demand forecasts have the following implications:

1. If actual demand is more than the estimate

- The private partner might earn more revenues than expected, leading to higher equity returns;
- Infrastructure capacity might be insufficient to absorb higher demand implying that the project sizing may need to be reviewed.

2. If actual demand is less than the estimate

- The private partner might earn less revenues than expected, which could impact service delivery;
- Tariffs might have to be increased to offset lower demand, which, in turn, would increase the burden on the consumer;
- If tariff increases do not lead to a financially sustainable situation or if tariff increases are unacceptable, the Government may have to step in and provide support or take over the project.

Article 29 of the MCA for development of National Highways, on the 'effects of variation in traffic growth' in roads and railways, addresses situations where there is substantial variation in the actual traffic as against the estimates. This variation has serious repercussions on the length of the concession period of the project.

What can go wrong in demand analysis?

- In the Delhi-Gurgaon Expressway project, the bid process was carried out on the basis of an out dated traffic study. Thus, the actual traffic volume grossly exceeded the projections from the very beginning of operations.
- In the Vadodara-Halol Toll Road project, the traffic estimates were based on the assumption that the industrial incentives for the project area would continue. However, the incentives were withdrawn and traffic was almost 50% lower than projected.

Source: <http://toolkit.pppinindia.com/ports/module3-rocs-intro.php?links=rocs1>

The market study also analyses the price elasticity of demand, which captures the user preferences for a project facility at different price points.

Elasticity of Demand

- Price elasticity of demand (PED) is an elasticity used to show the responsiveness of the quantity demanded of a good or service to a change in its price. More precisely, it gives the percentage change in demand one might expect from a one per cent change in price.
- Price elasticity is almost always negative, although analysts tend to ignore the sign even though this can lead to ambiguity. Goods with a small PED (less than one) are said to be inelastic: changes in price do not significantly affect demand as, for instance, in the case of drinking water. Goods with large PEDs (greater than one) are said to be elastic: a slight change in price may cause a dramatic change in demand.
- Revenue is maximised when price is set so as to create a PED of exactly one. PEDs can also be used to predict the incidence of tax. Various research methods are used to calculate price elasticity including test markets, analysis of historical sales data and conjoint analysis.
- Quality is also an important element in the elasticity assessment – for example, the issue of interconnectivity in case of urban transport projects. No interconnectivity implies low quality, which implies low demand.

5. Environment Impact and Social Impact Assessment

Along with the technical feasibility study, the legislative and regulatory framework of a project may require the public entity/private partner to undertake Environment Impact Assessment (EIA) and Social Impact Assessment studies prior to according approvals. Approvals may pertain to project development/approvals for sanction of funds. For instance, multi-lateral agencies that lend to infrastructure projects usually review the impact of the project on the environment and society. Hence, it may be required to conduct Environment Impact Assessment (EIA) & Social Impact Assessment (SIA) studies simultaneously with or immediately after the technical feasibility study in accordance with the prevailing statutes.

Impact Assessments

- **Environment Impact Assessment (EIA):** EIA studies are primarily based on the procedures stipulated by Ministry of Environment and Forests, Government of India (as per the EIA Notification No. S.O.1533 dated September 14, 2006). It involves screening of projects, scoping of environmental impact assessment, environmental clearance, and environmental monitoring and compliance during the construction and operation phases of the project. At the same time, EIA should be consistent with the environmental safeguard policies of funding agencies such as the World Bank and the Asian Development Bank (if lending from these agencies is envisaged). For instance, the screening criteria for infrastructure projects defined by GoI do not entail environmental clearance for water supply and sanitation projects. Such projects, therefore, do not require preparation of environmental impact assessment. However, the environmental safeguard procedures of funding agencies like the World Bank require 'Environmental Due Diligence' or 'Environmental Assessment/Analysis' based on the nature, magnitude and significance of the project's environmental impact. Stakeholder consultations and review of legislations pertaining to environmental safeguards should be carried out as part of an EIA study.
- **Social Impact Assessment:** SIA includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programmes, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment' - International Principles for Social Impact Assessment

Technical Feasibility Report – Bidders' & Lenders' Perspective

- **Lenders' Perspective:** The validation of the technical feasibility report is critical to assessing the commercial viability of a project, for a lender. The costs and revenue estimates provided in the technical feasibility report serve as inputs to carry out the financial feasibility analysis. When a project is awarded to any bidder, lenders are not interested merely in scrutinising the future cash flows of the project, but also the findings of the technical feasibility study, which details the cost/revenue streams and many other underlying assumptions in the financial model.
- **Bidders' Perspective:** The validation of the technical feasibility report is also critical to assessing the returns that a bidder can expect from the project. Despite the availability of a technical feasibility report prepared by the public entity, bidders usually carry out their own technical feasibility for the project to assess the correctness of project costs, assumptions made, technology options recommended, designs prescribed and the projections/estimates arrived at with respect to the project.

Sometimes, the public entity may not have the required expertise on its own, to carry out the technical studies which are required for project development. In such cases, it may be useful to select an expert consultant/advisor to carry them out. The public entity needs to exercise due diligence while drafting the Terms of Reference (TOR) and scope of work section of the bidding documents. The TOR of the consultant need to clearly set out the roles and responsibilities, the type, extent and tenure of services required to be performed.

6. Conclusion

Technical feasibility study would provide the technical description of a project. The type of technical investigation studies and the time taken to complete such activities differ on the basis of the sector and project specifics. The outcome of technical feasibility study is used as an input in other studies such as the financial feasibility, economic analysis and value proposition of projects analysis. Inputs from technical feasibility studies also see a mention in the bid documents that are used in the selection of private partner for development of project under PPP framework. The technical feasibility study has a long bearing on effective development of project.

7. Bibliography

1. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
2. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
3. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011

8. For Further Reading

1. Chapter 3-Quantitative Demand Analysis, Michael R. Baye, Managerial Economics and Business Strategy, Copyright © 2010 by the McGraw-Hill Companies, Inc, 2010
2. Forecasting the demand for privatized transport: what economic regulators should know and why, Policy Research Working Paper 2446, Lourdes Trujillo, Emile Quinet, Antonio Estache, The World Bank, World Bank Institute. Governance, Regulation, and Finance Division, September 2000
3. How (In)accurate Are Demand Forecasts in Public Works Projects?, The Case of Transportation, Bent Flyvbjerg, Mette K. Skamris Holm, and Søren L. Buhl, Journal of the American Planning Association, Vol. 71, No. 2, Spring 2005. © American Planning Association, Chicago, IL, 2005
4. Inaccuracy Traffic Estimation Empirical Analysis, Robert Bain, 2009
5. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
6. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
7. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
8. S&P Traffic Report, 2002
9. Section 6: Demand Analysis Water, Water System Master Plan, City of Newport, Lincoln County, Oregon, November 2008The Challenge of Demand Assessment in Pro-Poor Infrastructure Projects, Dale Whittington, Departments of Environmental Sciences & Engineering, City & Regional Planning, and Public Policy, University of North Carolina, November 2002
10. Why Traffic Forecasts in PPP Contracts are often Overestimated?, Research Paper, EIB University Research Sponsorship Programme, Final Draft, December 3, 2007

PPP Guide for Practitioners



Module 6: Financial Feasibility

1. Background

The financial feasibility assessment is a critical part in the project preparation stage. It provides information about the costs, expenses and sources of revenues, and gives an indication whether the project is self-sustaining or requires additional financial support in the form of grant to make it viable. In other words, financial feasibility helps determine whether the project will make sufficient revenues to offset all the costs incurred as well as allow for a reasonable return on investment for the private partner. Financial feasibility forms the basis for determining an appropriate project structure and eventually informs the preparation of bidding documents.

The public entity's priority could be quality service delivery to its citizens but the private partner's is to provide value to shareholders through an increase in turnover, revenues, profit, etc.

The financial feasibility assessment however, is an iterative process which is done during different stages in the project – during risk analysis, determining value for proposition, assessing whether or not to proceed with a PPP structure, etc.

Financial Feasibility Assessment answers:

- Solely on the basis of returns on investments, is the project possible through a PPP framework?
- Are financial returns from the project more than the investment cost?
- Are the project returns attractive for the private partner to participate?
- What revenue the private partner could share with the Government in case the project is attractive for private partnership?
- Does the project need funding assistance from the Government (grant/annuity) –if so, when and how much?
- Is the project feasible irrespective of the implementation option?
- What are the financial risks and their impact on the choice of PPP model?
- Is the project amenable to debt financing?

Financial feasibility assessment forms an input for dialogue with potential lenders and sector experts. It helps establish the financial sustainability of the project within the constraints of the sector in which it will operate. Further, it allows the public entity to make an informed decision about the most suitable procurement strategy for the project to meet the public services needs as well as protect stakeholder interests.

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. The sources of funds may be debt, equity or Government support.

2. Concept of Project Finance

One of the key objectives of PPP is to attract private sector funding into the project. In corporate financing, lenders in most cases take assets on the borrower's balance sheet as security for their loans. However, in the case of PPP projects, funding is through project finance arrangements, under which lenders generally rely either exclusively or mainly on the cash flow expected to be generated by the project to recover loans and earn a return on their investments. The arrangement is also popularly known as non-recourse or limited recourse financing.

2.1. Key Differences between Project Finance and Corporate Finance

Project Finance	Corporate Finance
No or limited recourse to sponsor's assets	Recourse to the private partner's or its parent company's assets
Bankability based on debt service capacity of the project	Bankability based on debt service capacity and collateral value
Debt service capacity based on future cash flows of a single activity	Debt service capacity based on future cash flows, taking into account prior performance of all the sponsor's activities

What is non-recourse Lending?

Under non-recourse project finance, lenders are paid only from the project's revenues without recourse to the assets of equity investors. That is, the project company's obligations are ring-fenced from those of the equity investors, and debt is secured on the future cash flows of the project. In non-recourse project finance, lenders need to undertake rigorous due diligence of project cash flows and the contractual structure. Generally, PPP projects are highly leveraged, with debt-equity ratios usually ranging from 70:30 to 60:40.

Some of the key advantages and disadvantages of non-recourse project finance are provided below.

Advantages of non-recourse finance:

1. It can improve the capacity to raise large amounts of long-term equity and debt finance.
2. Project sponsor balance sheets are shielded from risk. Investor capacity to borrow and take more projects increases as they can hold the debt "off-balance sheet".
3. Irrespective of project risks, the liability of the private partner is capped to its equity exposure. This may not be the case when the promoter guarantees for completion of construction etc. Owing to relatively lower risks, the private partner would be more willing to undertake projects under such an arrangement. This would mean greater competition for PPP projects.
4. Financing arrangements can be tailored to suit the specific project.
5. High leverage can make it easier to achieve the required equity rates of return.
6. Provides the advantage of relative ease of raising debt compared to equity.
7. There is better due diligence as the investor and lenders are expected to scrutinise cash-

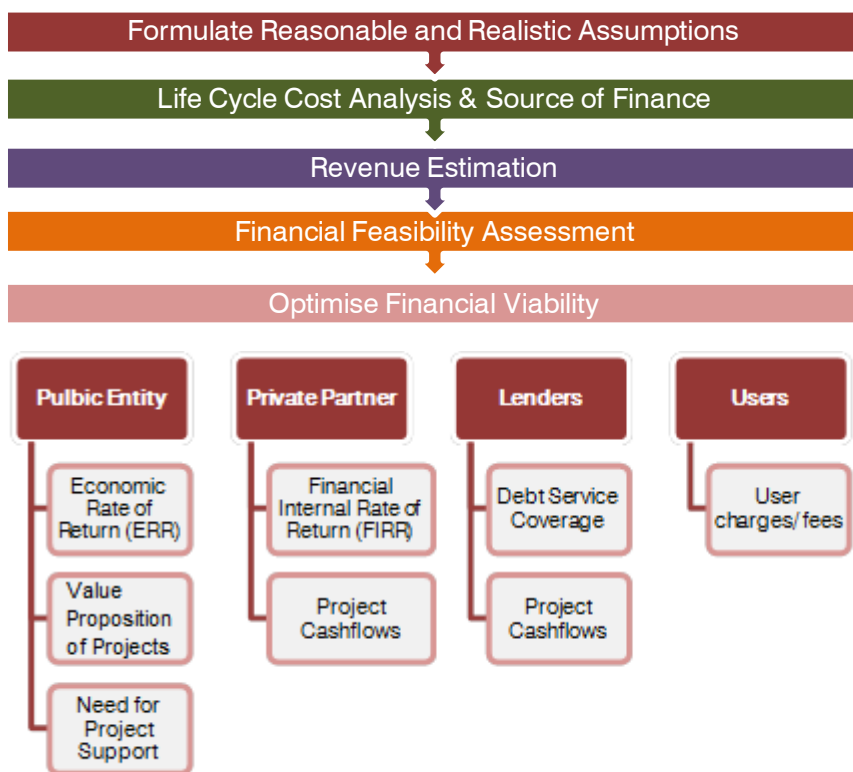
flows in detail.

Disadvantages of non-recourse finance:

1. Project finance transaction is complex and has a higher lead time as compared to corporate finance.
2. Non-recourse debt is typically more expensive than corporate finance.

3. Steps involved in Financial Feasibility

Indicative steps involved in assessing the financial feasibility of a project are set out in the diagram below.



The financial feasibility study usually factors in and makes assumptions of various financial risks that may crop up in any project. It also takes into account their impact on the PPP mode and has a significant impact on the risk sharing clauses that appear in the contracts. As the expectations from the project differ, different stakeholders would be interested in different aspects and outcomes of the financial feasibility assessment for any project.

A public entity is keener on the economic benefits accruing from a project and value for proposition in developing a project under the PPP framework whereas a private partner is concerned only with the project cash flows and the financial returns expected from it.

Public Entity checks for:

- Is the project financially viable on a standalone basis?
- In case the project is financially viable on a standalone basis, whether development through a PPP framework would minimize user fee charged to users?
- How much of revenue which is collected/ made by the private partner could be shared with the public entity?
- Is there a need to provide project support?
- How much support needs to be extended?

4. Formulation of Reasonable and Realistic Assumptions

Assumptions are baseline data that apply throughout and are often the drivers in a business or financial model. It is always useful to organise the assumptions into logical groups. Indicative categories of assumptions are general assumptions, financing assumptions, tax assumptions, cost and revenue assumptions and market-related assumptions.

Formulating Reasonable Assumptions – Key to Financial Feasibility

In corporate finance, the financial health/performance of a company is determined by its balance sheet, cash flow statements and the profit and loss accounts, all of which are prepared based on its past performance.

In a PPP project, project finance is determined based on the project company's cash flow statements, balance sheet as well as profit and loss accounts, all of which are prepared on the basis of expected future performance for each year of the PPP arrangement.

Other studies such as technical feasibility study, market assessment study, willingness to pay study, etc. carried out for the project, provide the basis for the assumptions made to assess the project's financial feasibility. For instance, a market study for the project provides the demand estimation. The technical feasibility study provides the cost related assumptions such as base construction cost estimates; O&M cost estimates, etc.

Types of Assumptions – Indicative List

1. General Assumptions – output of project structuring activities/prevaling regulation/policy/practices/regulation/technical studies
 - Type of PPP arrangement
 - Operating framework - key obligations of parties
 - Duration of the proposed PPP arrangement
 - Escalation
 - Contingency
 - Technology option
 - Alignment option
 - Project life
2. Financing Assumptions – based on prevailing regulations/practices/legislation
 - Cost of equity
 - Cost of debt
 - Duration of debt
 - Repayment schedule
 - Moratorium period
3. Tax Assumptions – based on prevailing regulations/practices/legislation
 - MAT
 - Corporation tax
 - Tax exemption tenure
4. Cost Assumptions – based on technical studies
 - Base Construction Cost
 - Phasing of costs
 - O&M Costs
5. Revenue Assumptions – based on technical studies
 - Demand for the product/service to be delivered by the proposed project
6. Market related assumptions - outcome of market studies
 - Product mix for development
 - Land use for development

Making justified and reasonable assumptions is the key to arriving at a credible financial feasibility assessment for the project. There may be certain assumptions that are mandated by the existing regulatory and legislative framework for the project such as the prevailing corporate tax rate, escalation rate (based on WPI index in the past ten years), etc.

Sometimes, the public entity seeking the preparation of feasibility studies prescribes the use of certain assumptions. In such cases, the assumptions need to be used with an element of caution. For instance, in case of development of roads under PPP framework; to be eligible for Financial Support to PPPs in Infrastructure (under the VGF Scheme); the growth rate in traffic year on year is to be assumed at 5 per cent; which may not

The assumptions need to be realistic and based on prevailing market conditions. A few of the key parameters for which suitable values need to be assumed are expected inflation over the project duration, tax rate, tax exemption period, cost of capital, rate of tariff increase, depreciation schedule, physical & technological life of assets, etc.

be the actual case. Also, in development of ports, the Tariff Authority for Major Ports (TAMP) allows only up to 16 per cent return on capital investment to the private partner which makes other assumptions in the development of port to be determined by reverse calculation.

Key Assumptions in Financial Feasibility - Development of Roads under DBFOT basis

In a typical road project to be developed on a DBFOT basis, indicative assumptions that are required to undertake the financial feasibility assessment are given below.

- **General Assumptions** – number of toll plazas, number of lanes, operating framework – whether annuity/toll, scope of services to be delivered by the developer, etc.
- **Tax Assumptions** – Corporate tax, Minimum Alternative Tax
- **Cost Assumptions** – base construction cost, annual maintenance per km, periodic maintenance per km, operations cost (manpower, medical aid, etc.), cost of maintenance of toll plazas, etc.
- **Revenue Assumptions** – toll notification
- **Demand Assumptions** – number of PCU counts
- **Financing Assumptions** – Source of finance, cost of debt, cost of equity, debt to equity ratio, etc.

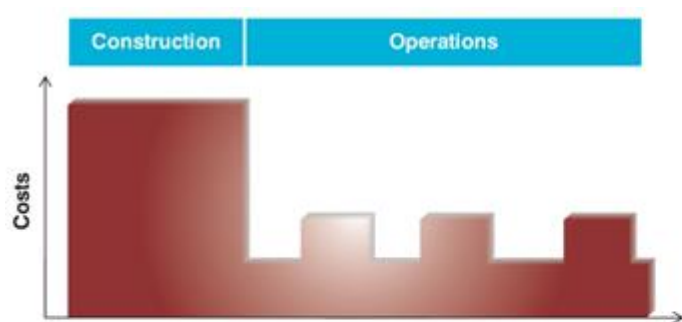
5. Life Cycle Cost Analysis

Life cycle costs are measured in terms of capital expenditure and operating expenditure (O&M costs). Capital expenditure usually is calculated as the sum of the base construction cost, preliminary & pre-operative expenses, and the financing costs. Each of such component are set out below:

Life cycle costs need to be assessed in order to gauge the funding requirements and to determine whether future economic benefits or future revenues are more than costs.

1. **Base Construction costs:** These are basic direct costs of the project
2. **Pre-operative expenses:** These include accounting/ management fees, legal fees, labor burden, expenses on rent, repairs, telephone bills, travel expenditures, utilities, etc. They reflect expenditure on administration, management, risks and profits.
3. **Preliminary expenses:** These are costs towards carrying out engineering studies such as land surveys, concept layouts, designing, drawing and preliminary studies.
4. **Financing Costs:** These are costs towards financing charges collected by lenders, interest during construction (IDC) etc.

While estimating capital expenditure, factors like the construction period, phasing of costs over the period, effective life of the asset etc., need to be considered.



The cost inputs for financial analysis are derived from the technical feasibility study conducted for the project.

Capital Expenditures	Maintenance and Operating Expenditures
Direct costs	Fixed costs
Pre-operative Expenses	Variable costs per unit of capacity
Preliminary Expenses	Variable costs per user
Financing costs (eg. IDC)	Overhead

Operating expenditures are measured in terms of the fixed costs for regular operation and maintenance activities, e.g., administrative costs, the variable costs that depend on the use of the respective facility and periodic costs that are major maintenance costs to be incurred once at specified time intervals.

6. Sources of Finance

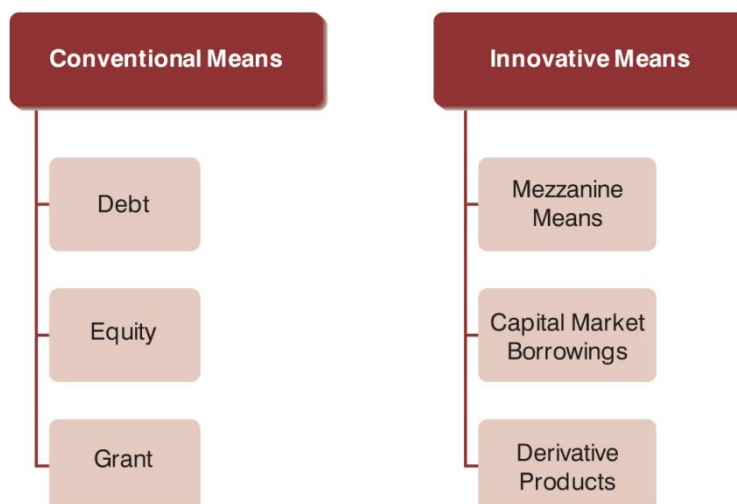
Since infrastructure projects are highly capital intensive, the private partner clearly lists out the financing risks associated with them before making an investment decision. If the project is a greenfield investment, there would be no cash flow during the construction period. Therefore, the private sector is unlikely to fund the total capital expenditure through equity participation.

Why leverage?

The project sponsor and its advisors typically seek to minimise the cost of finance for the project. Because equity is regarded as more expensive than debt, project sponsors often try to use a high proportion of debt to finance the project. Typically, leverage (the proportion of debt in the total financing package) is high for infrastructure projects. Debt providers have less risk than equity providers. Return on equity is based on dividends and capital gain. Equity providers receive dividends only after operating expenditures, debt service and taxes are paid. This is uncertain and equity providers will price this risk accordingly. Interest costs are tax deductible and hence bring down the cost of capital for the project.

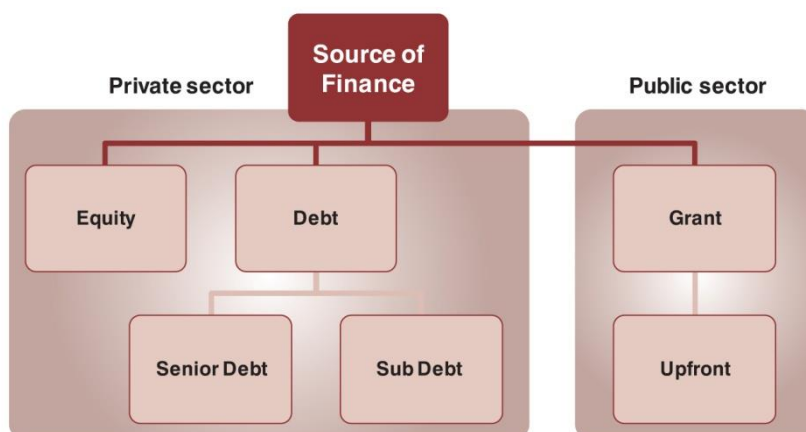
A project may use either conventional or innovative means to finance a PPP project. The kinds of financing that are considered conventional and innovative are shown in the figure below.

6.1. Sources of Finance



6.2. Conventional Means of finance

Conventional means of finance primarily include equity or debt (borrowings). In addition to the two, the Government can also contribute towards project development in the form of grant support.



While arrangements for equity and debt support are taken care of by the private partner, the grant support is generally provided by the public sector.

The flow of finances into project development follows a certain sequence. It is only after the infusion of substantial equity capital by the private partner that the sanctioned debt for the project is released. Further, Government support, extended in the form of grant, follows the achievement of pre-determined milestones as set out in the terms and conditions of the agreement signed among the Concessionaire, GOI and the Lender.

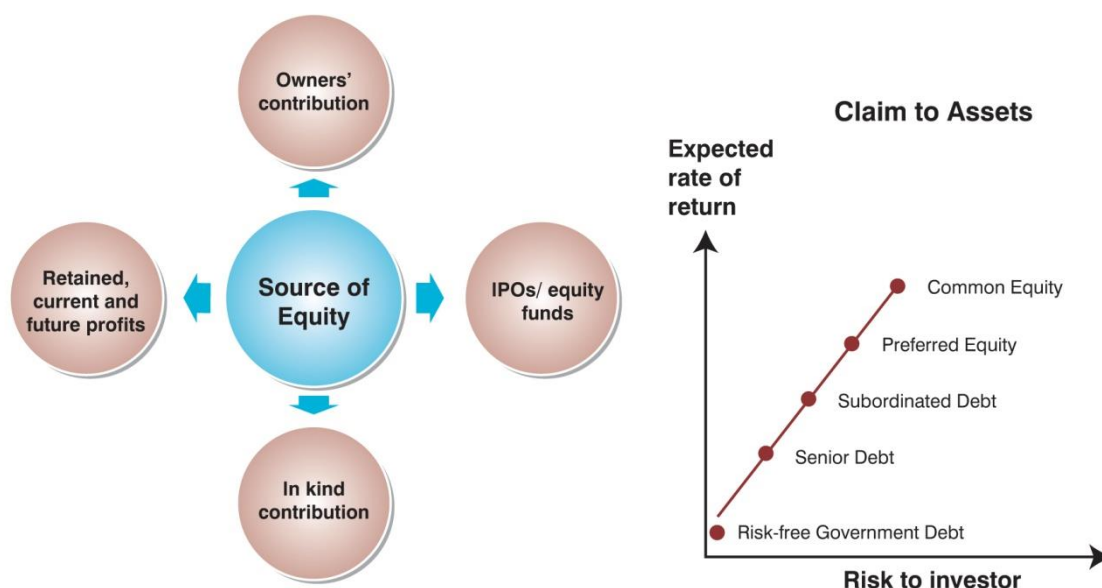
Equity

Equity is generally provided by the consortium members of the project partner for the PPP project. Other stakeholders like contractors, development partners or the public entity could also provide equity. Any project losses are borne first by the equity investors, and lenders suffer only if the equity investment is lost. This means equity investors accept a higher risk

What does an equity investor look for in the financial feasibility assessment?

- Equity IRR
- Project period

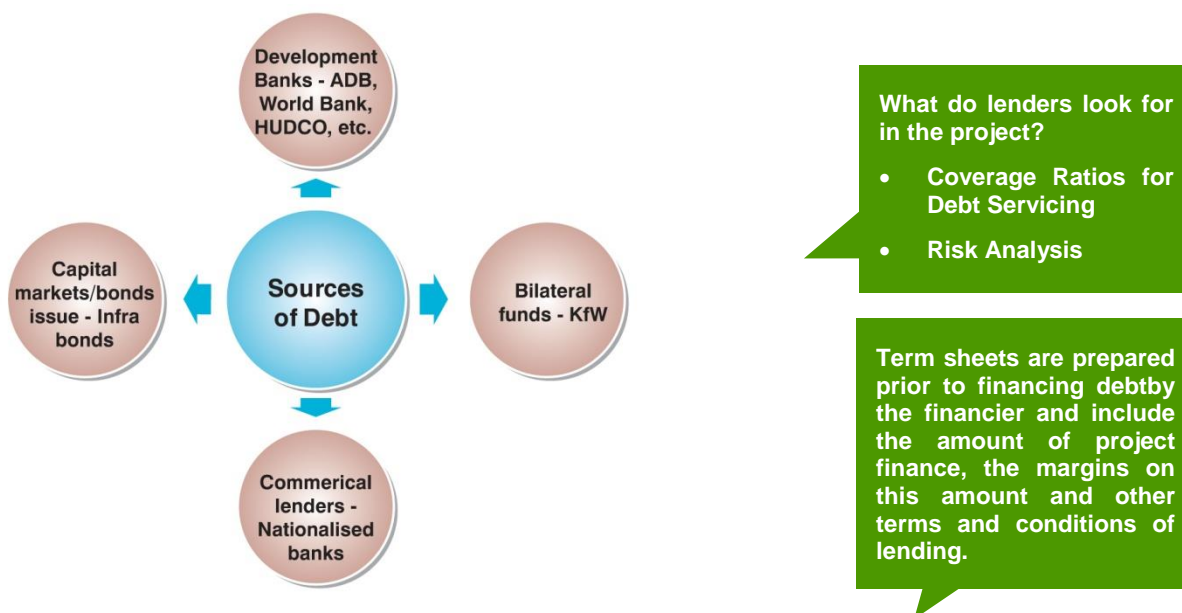
than debt providers and hence, require a higher return on their investment. A diagram showing the claim of different sources of funds on the project assets is provided below.



Source: PPP- A Financier’s Perspective by Transport Policy and Tourism Division, UN ESCAP

Debt

Debt is raised from banks, development partners and Government Agencies or the issue of bonds. Apart from these, subordinate debt and grants may also be sources of finance.



Lenders provide most of the debt as “senior debt”. Since senior lenders do not have access to the sponsors’ balance sheets in project financed transactions, they need to ensure that the project produces sufficient cash flow to service the debt. They also need to be given priority over the assets of the project before other creditors. Senior lenders may also seek additional credit support from the shareholders or the Government Agency. The riskier the project, the more the credit enhancements expected by the senior lenders. This is necessary to ensure that the debt can be repaid even in a conservative cash flow scenario.

Senior debt enjoys priority in terms of repayment overall other forms of financing. Mezzanine debt is subordinated to senior debt in terms of repayment but ranks above equity both for distributions of free cash in the so-called “cash waterfall” (i.e. priority of each cash inflow and outflow in a project) and on liquidation of the project special purpose vehicle.

Debt to a PPP project is priced normally on the basis of the underlying cost of funds to the lender plus a fixed component (or “margin”) expressed as a number of basis points to cover default risk and lender’s other costs.

Debt to Equity Ratio

Debt to equity ratio is the ratio between the quantum of debt to quantum of equity that is proposed to finance a project.

Typically, a debt to equity ratio of 70/30 is assumed for projects. However, depending upon the risks involved in the project, the ratio may vary.

Indicative debt to equity ratios that are assumed in projects are:

- Hotels & Commercial Property: 50/50
- Industrial Project: 70/30
- Infrastructure and Power: 80/20

Grant

Based on financial feasibility of the project, the Government may provide support in the form of an upfront grant towards capital expenditure to improve its viability.

The Government of India provides capital grants as Financial Support (Viability Gap Funding Scheme) to PPP in Infrastructure across sectors; the same is more fully described in Module 12 sets out Pre-procurement Activities.

Governments provide upfront grants to improve financial viability of a socially or economically desirable project that would otherwise not be financially sustainable.

Refer Government of India, Ministry of Finance, Department of Economic Affairs website for the VGF guidelines. Link: http://finmin.nic.in/the_ministry/dept_eco_affairs/ppp/Guidelines_VGF.asp

Tuni-Anakapalli Annuity Road Project

The road expansion project was one of the several annuity projects under the Golden Quadrilateral programme, but stands out due to the innovative structure used for raising additional debt.

Developed on a BOT-annuity model, the initial estimated project cost was Rs 315 crore which was funded with a debt-equity ratio of 3:1. The loan component had an average spread of 12-12.75 per cent with tenure of 13.5 years. The construction of the project commenced in May 2002 and was completed in December 2004.

During the operational phase, the project company, GMR Tuni-Anakapalli Expressways Private Limited raised additional debt of Rs 372 crores from a consortium of lenders through securitisation of future annuity payments which were to be received over a period of 15 years.

Securitisation of future receivables allowed the private partner to raise these funds at a lower interest rate of about 3 per cent. These low-cost funds were used for prepayment of earlier project debt thus helping to save on outflows from revenue.

Source: <http://toolkit.pppinindia.com/ports/module3-rocs-taarp1.php?links=taarp1>

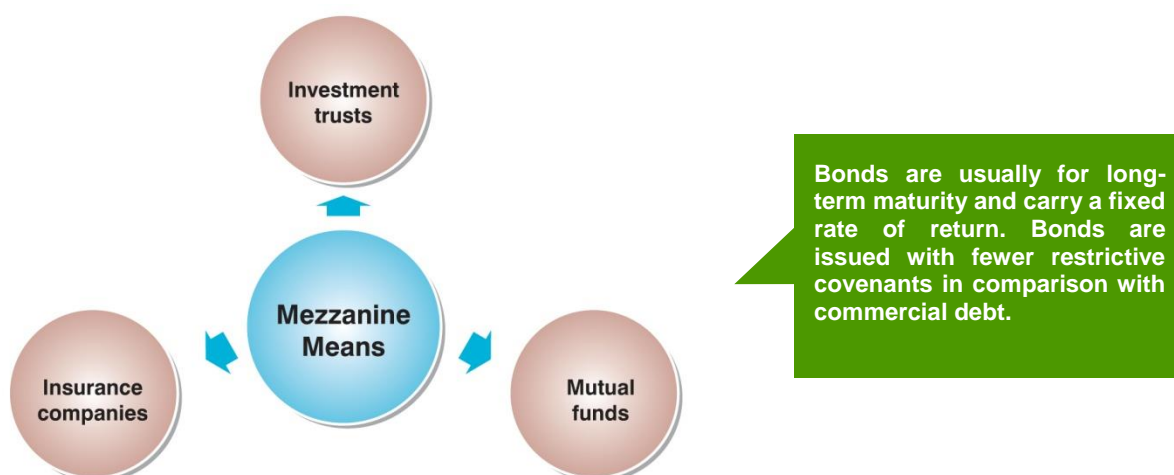
6.3. Innovative Means of finance

In addition to conventional means of financing a project, innovative means of project finance have emerged over the years to develop projects through the PPP framework. These means involve other stakeholders such as capital markets, development banks, municipalities, etc. Given below are a few of the innovative means of finances:

1. Mezzanine means
2. Capital Markets– Bond Financing

Mezzanine Means

These include subordinate debt and preference shares that fall in between senior debt and equity. Payment is made to these investors only after senior debt is serviced and upon complying with certain conditions such as adherence to coverage ratios and investment requisites related to project performance. The risks taken by mezzanine providers are lower than those of traditional equity investors. Since the use of mezzanine means of finance reduces the amount of equity required for the project, it works to the advantage of the project company.



Capital Markets – Bond Financing

Bonds are common means of financing in corporate finance whereas the same as a means of financing in project financing is not very common. The commercial debt financing in project finance are offered under a floating rate with a medium-term maturity whereas, bond financing offer long-term maturity by institutional investors thus making it a better option of debt financing.

Bond financing has certain potential disadvantages. For instance, it involves a single, up-front subscription and hence limits the ability to draw down funds as and when required. This also leads to increased capitalised interest charges. Unlike commercial lenders, bond investors lack sector knowledge and have no active involvement in project development. The traditional bond structure does not allow investors to react to changes in project development/operation. In developed economies, this disadvantage has been moderated by the entry of insurance companies, who offer a financial guarantee to investors. In such cases, the bondholder’s exposure is transferred primarily to the balance sheet of the insurer.



An example of bonds issued for project financing are those issued by Local Governments to fund projects in urban areas for better service delivery to their citizens.

These are project-specific bonds. A few of the successful urban sector projects that have been financed through municipal bonds are the Ahmedabad Water Supply and Sewerage programme by the Ahmedabad Municipal Corporation and the Greater Bangalore water supply project by Karnataka Urban Water Sector Improvement Project (KUWASIP).

In January 1998, the Ahmedabad Municipal Corporation issued municipal bonds for Rs.1000 million. The issue was designed to finance partially a Rs.4890 million water supply and sewerage programme. This was a remarkable achievement as it was ***the first municipal bond issue in India without a State Government guarantee*** and it represented the first step towards a fully market-based system of local finance. The 75 per cent private and 25 per cent public issue, rated AA(SO) by Credit Rating Information Services of India Ltd. (CRISIL), (indicating a high degree of certainty about timely repayment) promoted a growing national consensus on municipal bonds being a promising alternative to fund urban infrastructure projects.

What can we learn?

- The municipal bond mechanism to raise finances for infrastructure projects can work in India.
- Municipal corporations should get their bond issues rated by credit rating agencies to project the financial soundness of the bond issue to investors to mop up resources successfully through this route.
- The local body must have detailed project proposals ready for implementation to ensure quick utilisation of funds.
- All urban local bodies with a sound financial position, credibility and a sound track record, can go for municipal bonds to raise money for infrastructure development.

The Government of India has set up a Pooled Finance Development Fund (PFDF) to provide credit enhancement to ULBs to access market borrowings based on their credit worthiness through a State-level pooled finance mechanism. This scheme improves the access of urban local bodies to capital markets for borrowings. The scheme is meant to provide credit enhancement grants to access market borrowings through Pooled Financing Bonds on behalf of identified ULBs for investment in urban infrastructure projects.

6.4. Role of the Public Sector in Project Finance

The Government's support to the private partner, in a PPP project, aimed at enabling the partner to arrange finance, works to a project's advantage. Internationally, there are certain instruments that allow public participation in project finance and these instruments range from revenue enhancements to equity guarantees. However, these instruments need to be used with an element of caution.

- a. Equity guarantees are a mechanism under which the public entity provides the concessionaire with an option to be bought out at a price that guarantees a minimum return on equity.
- b. Under debt guarantees, the public entity pays for any shortfall related to principal and interest repayments by the private partner. The Government could also guarantee re-financing of the project.

6.5. Cost of Capital

Depending on the means used to finance a project, costs will differ since the cost of raising debt and equity are different. The effective cost of capital (or cost of raising funds) for a

project is measured in terms of the Weighted Average Cost of Capital (WACC). WACC takes into consideration the amount and cost of debt and equity raised for the project.

The formula for WACC is

$$WACC = \frac{E}{E+D} \times Re + \frac{D}{E+D} \times Rd \times (1-T)$$

Here,

E = Market value of the company's equity

D = Market value of the company's debt

Re = Cost of Equity

Rd = Cost of Debt or interest rate at which debt is raised

T= Tax Rate applicable for the project

The cost of debt depends on the risk free rate and spread. The cost of equity indicates the minimum rate of return a company must offer shareholders as compensation for waiting for returns and for bearing risk. It reflects the shareholders' opportunity cost of investment. The value of the cost of equity can be estimated based on the capital asset pricing model, in which the risk free rate and equity risk premium are estimated.

Example

For a project, funds are raised through debt and equity in the ratio 70:30. The interest rate on the debt is 12 per cent. The equity return expectation in the sector is estimated at 18 per cent. The present corporate tax rate is assumed to be 33 per cent. The WACC is then calculated as below.

$$WACC = 30\% \times 18\% + 70\% \times 12\% \times (1-33\%) = 11.028\%$$

The effective cost of raising funds for the project thus works out to 11.028 per cent.

7. Revenue Estimations

The revenues are based on the demand for the asset/service and the corresponding tariff rate. Estimation of revenues would be a fall out of the technical studies such as market study, traffic study, etc. that are carried out for the project.

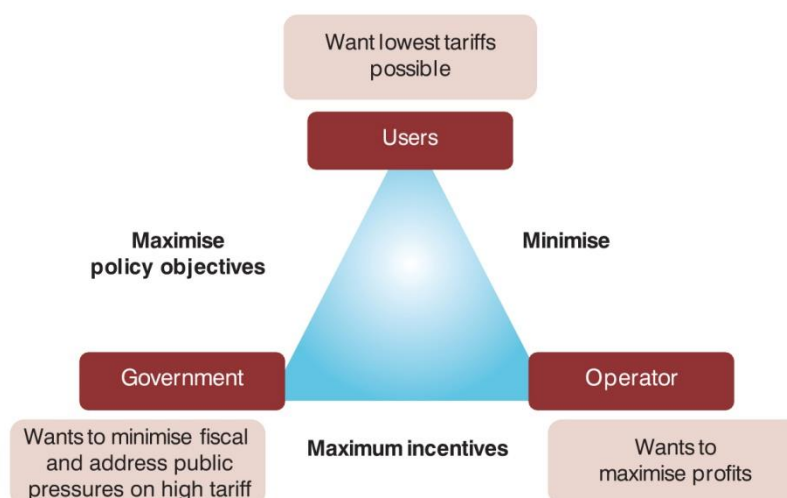
7.1. Tariff Framework

One of the key challenges in a PPP project is to define the most appropriate tariff. Tariffs for services must ideally cover the full cost of service provision, including capital cost, operations and maintenance expense, and the cost of negative environmental and social externalities.

It is useful to take a conservative position while estimating the revenues for any project so that the assessment is robust enough to stand even in the worst case scenario that may arise.

The level and structure of tariffs must ideally offer incentives to service providers to minimise costs, and to customers to consume services efficiently. When tariffs are inadequate, the financial feasibility assessment needs to identify a plan to improve cost recovery, and identify

sources of financing the full cost of service provision. Different stakeholders have different expectations from the tariff. A framework explaining the expectations of three key stakeholders is provided below.



Source: Course Material, National PPP Capacity Building Programme

The following key options could be used, based on their merits, when defining a tariff rate setting strategy:

1. Sector specific uniform tariff setting (e.g. highways)
2. Project specific tariff setting (e.g. port projects)
3. Upfront or as bidding parameter (e.g. some of the power sector projects)

The pros and cons of each of these options should be assessed by experts taking the interests of all the stakeholders into consideration while the financial model should help assess their impact, taking into account the assumed price elasticity.

When private partners do not have the Authority to set tariffs for the projects, it increases the uncertainty of the revenue stream. A well-established tariff setting framework helps mitigate some of the risks

A few of the strategies used in tariff setting are determining one set of user charge per target group, setting of discount/ price differentiation within the defined target group and determining price escalation over the years.

Based on demand and tariff, revenues for the project are extrapolated over the years. Revenues are calculated from all the major sources. In the case of certain projects, revenues generated from support or related activities may be higher than revenues from primary activities.

For insights into tariff setting, refer the Asian Development Bank's study at the following link on tariff setting framework;

<http://www.adb.org/sites/default/files/pub/2008/tn-24-utility-tariff-setting.pdf>

8. Financial Feasibility Assessment

Financial analysis usually is conducted using a cash flow model. The model projecting cash flows may be simple or very complex depending on the type and size of the project and the variables involved. Capital expenditure, revenues, expenses, terminal cash flow (if any), discount rate and general assumptions are used to calculate cash flow projections, which is the key element in financial analysis.

Since the financial feasibility of a project is assessed on the basis of proposed investments in, and projected cash flows from, the project, it is only prudent to assess the present value of future investments and cash flows to understand the net financial costs and benefits to stakeholders. Annexure 6A of this module sets out an indicative structure of the Financial Feasibility report.

What is the Time Value of Money?

Concept of Future Value

- INR 100 is worth INR 100 today
- What would it be worth a year from today
- It would depend on how much it earns
- If it earns 10 per cent per annum – it would be worth INR 110 i.e. $100 \times (1+10\%)$ a year from now
- INR 110 is a future value (next year) of INR 100
- Two years from now this value would be $100 \times (1.1) \times (1.1) = \text{INR } 121$
- 10 per cent is the compounding rate
- 1.1 is the compound factor in year 1, 1.21 the compound factor in year 2

Concept of Present Value

- INR 100 is worth INR 100 today
- What would INR 100 received a year from now be worth today?
- If the same rate of return is assumed
- It would be $\text{INR } 100/(1.1) = \text{INR } 90.91$ today
- INR 90.91 is the present value on INR 100 to be received a year from now
- If INR 100 were to be received two years from now, its present value would be $100/[(1.1) \times (1.1)] = \text{INR } 82.64$
- 10 per cent is called the discount rate
- 0.9090 ($1/1.1$) is the discount factor for year 1
- 0.8264 ($1/1.21$) is the discount factor for year 2

8.1. Key Financial Viability Indicators and Interpretation

The key financial viability indicators that are most commonly used are Project Net Present Value (PNPV), Equity Net Present Value (ENPV), Project Internal Rate of Return (PIRR) and Equity Internal Rate of Return (EIRR). A positive NPV for a project when discounted at

weighted average cost of capital (WACC) would mean that project returns are higher than WACC.

The equation for calculation of project NPV is provided below.

$$\text{Project NPV} = -C_0 + \sum_{i=1}^T C_i / (1+r)^i$$

C_0 = Initial Investment for the Project

C = Project Cash Flow in a particular year

i = Time in years

r = Discount Rate

A financially viable project should meet all debt service requirements. PIRR is the value of the discount rate (r) in the above formulae at which the PNPV is zero. Similarly, if the project investments and project cash flows are replaced by equity investments and equity cash flows, the equation would give ENPV and EIRR.

For any project, if:

NPV > 0: It implies that the project is financially feasible and that it would provide positive value to the respective capital provider.

NPV < 0: It implies that the project is financially not attractive for capital providers.

EIRR > cost of equity: It implies that the project is attractive for equity investors and it is expected to generate sufficient returns for equity investors.

The financial analysis is represented in terms of the cash flow statement, profit and loss statement and balance sheet.

A project could be termed financially viable (or bankable) if

1. It meets debt service obligations
2. The Project NPV and Equity NPV are positive
3. The estimated Equity IRR is more than the cost of equity

If the project is not viable on a standalone basis, the estimated support required from the Government needs to be assessed. If the support is within the acceptable range of existing Government support such as the Viability Gap Funding or other budgetary support, the project could be taken up with Government support.

Annexure 6 to this module describes the frequently used financial terminologies in project finance

8.2. Sensitivity and Scenario Analysis

The financial feasibility assessment for a project depends upon uncertain factors and assumptions that are an outcome of other technical studies. Therefore, it is always useful to conduct sensitivity and scenario analysis of the assessment to understand the correlation of each variable with the project's financial performance.

Although sensitivity and scenario analysis are undertaken based on assumptions, they indicate to the public and the private parties the different possible outcomes in the course of project development. Sometimes, the outcomes of these analyses also influence the structure of the project.

Sensitivity analysis determines the correlation between an input in a financial model to its resultant output. For instance, it checks the variation in the resultant PIRR for a corresponding variation in the project cost, provided all other inputs in the financial model remain unchanged. Scenario analysis involves projecting alternative future outcomes for the same project and their effect on the financial performance of the project. It includes working out a base case, a best case, which is the most optimistic one, and a worst case, which is the most pessimistic one, for the project.

9. Optimise Financial Viability

The financial viability of a project could be optimised by analysing various options such as change of scope, type of PPP structure adopted, duration of the PPP arrangement, increased tariff, provision of Government support in terms of Viability Gap Funding or other grants, unbundling a project, Government guarantees for transferred risk, risk transfer to the Government, Government inputs in operations at subsidised rates etc.

More on optimising financial viability through funding arrangements is discussed in the Module 12 on pre-procurement activities.

Financial outcome indicators in each of the identified cases need to be calculated and compared. Value Proposition of Projects under each of the identified options may be calculated. The option that provides the highest value proposition and best financial outcomes may be the optimal structure for the project.

A few innovative options that may be considered to optimise the financial viability of the project are:

1. Monetising land
2. Transfer of development rights
3. Development of non-project specific infrastructure to support the main project like tourism, commercial development, etc.

9.1. Monetising Land

In cases where development of the core project by itself is not financial feasible for the private partner, land parcels adjacent to the project, which promise better value in future, could be bid out for development or could be packaged along with the core project for development. Monetising the value of land has been explored in urban rail and bus transport projects where revenues from station operations subsidise the cost incurred in the operations of the core project.

9.2. Transfer of Development Rights (TDR)

Issuing TDR is another means to improve the financial viability of the projects. TDR refers to making available a certain amount of additional built up area in lieu of the area relinquished or surrendered by the owner of the land, so that he can either use the extra built up area himself or transfer it to another in need of the extra built up area for an agreed sum of money. However, only urban/local Authorities should issue TDRs to land owners in lieu of cash consideration for acquisition of land. Haphazard transfers of TDRs would have an adverse impact on land use and real estate prices.

9.3. Development of Non-Core Infrastructure

It has been observed that projects pertaining to commercial development, tourism properties, wayside amenities, hotels, etc. result in better revenues to the private sector. In projects that

are highly capital intensive like an urban rail project or airport development project, where it seems unlikely that revenues from only operations would offset costs, it is useful to consider the development of stand-alone, financially feasible projects like commercial complexes, shopping malls, hotels, etc. The objective is to offset or minimise the impact of negative cash flows from the operations of the core project with revenue inflows from the operations of a non-core viable alternative.

However, a decision on whether the development of a non-core viable project is packaged with the core project and awarded to a single private partner or the non-core viable project is to be developed as a separate project and the revenues generated from it used to fund the core project, has to be taken by the public entity. The decision must be backed by sound reasoning and implemented with caution.

10. Lenders' Concerns on PPP Funding

Banks play a crucial role in PPP arrangements. In a PPP, the private partner is highly incentivised to deliver the project on time and within the budget. In case the private partner fails to complete the project on time, it will need to request the banks to allow delayed repayment of debt, as revenues would be delayed. In case of cost overruns, the private partner would need to ask the bank to increase the loan. In such cases, the banks may impose penalties on these companies leading to a lower return on investment for the shareholder.

The amount of debt which could be raised by a project company is primarily determined by its ability to service its debt services from future cash flows with reasonable comfort. The lenders generally estimate this ability based on a set of ratios that are calculated on a periodic basis over the life of a project.

Interpreting Debt Service Coverage Ratio

Debt service refers to the principal and interest payments on all debt. The debt-service coverage ratio (DSCR) is the ratio of free cash flow to debt service. It indicates the capability of the project company (SPV/ private partner) to service debt through the margins in cash flow.

$$\text{DSCR} = \text{Net Operating Income} / \text{Total Debt Service}$$

DSCR must ideally be more than 1

DSCR > 1 means, the project is generating enough income to pay its debt obligations

DSCR < 1 means that the project company has negative cash flows

DSCR = 0.95 means there is only enough net operating income to cover 95 per cent of the annual debt payments

In certain cases where DSCR is less than 1 for any year, the lenders ask the project company to maintain a Debt Service Reserve Account (DSRA) year on year to safeguard its debt service obligations. A financial model is not sustainable if the DSCR in any year of operations is less than 1.

Key Ratios that interest Lenders

1. Average Debt-Service Coverage Ratio

- The ratio is defined as:
- $\text{Average Cash Available for Debt Service (CADS) / Average Debt Service}$
- This estimates the average cash available over the agreement period of the project against the average debt service requirement over the period.

2. Annual Debt Service Coverage ratio (ADSCR)

- The ratio is defined as:
- $\text{Cash Available for Debt Service (CADS) in a year / Debt Service in that year}$
- This ratio is calculated for each year. This ratio is the primary determinant of the maximum loan that can be raised against the project.

3. Loan Life Cover Ratio (LLCR)

- The ratio is defined as:
- $\text{NPV of } \square \text{ CADS for loan period / Debt outstanding at calculation date, calculated with discount rate as interest rate}$
- The ratio is a useful measure for the initial assessment of the project company's ability to service its debt over the whole term. This ratio may not be useful if significant cash flow fluctuations are expected from year to year.

4. Project Life Cover Ratio (PLCR)

- The ratio is defined as:
- $\text{NPV of } \square \text{ CADS for project period / Debt outstanding at calculation date, calculated with discount rate as interest rate}$
- The ratio is used to assess the capacity of the project company to make repayments with the tail period of the PPP contract after the original maturity date of the debt. This ratio would be a useful in cases where difficulties are expected in repaying all of the debt in time.

11. Conclusion

Financial feasibility analysis although is carried out during the feasibility stages of the PPP project development process, it has a lasting impact on other aspects of the project. For instance, the decision on whether the project is to be taken up for development under PPP is objectively determined by a Value Proposition of Projects analysis. The shadow bid for the value proposition of projects analysis is an outcome of the financial feasibility analysis.

Similarly, 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. Financial feasibility assessment also influences answers to certain questions such as the following.

- Is it necessary to provide project support in terms of grants?

- What could be the tenure of the project?
- What must be the mode and interval of payments to be made between the parties?
- Is the financial proposal of the preferred bidder justified, prior to award of the project?
- Is the project financially sound to lend to, and if so, to what extent and on what terms?

It is important always to keep in mind that the financial feasibility assessment is only a tool that enables the public entity to make reasonable decisions; the quality of its output depends upon the quality of inputs that are used in the assessment.

12. Bibliography

1. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
2. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
3. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011

13. For Further Reading

1. An Introduction to Project Finance in Emerging Markets, Henrique Ghersi, Department of Finance, Instituto Superior de Estudios de Administración (IESA), Caracas, Venezuela and Jaime Sabal, Department of Financial Management and Control, ESADE. Universitat Ramon Llull, March, 2006
2. Commercial Policy Framework: Guidelines for Financial Appraisal, New South Wales Treasury, Office of Financial Management, 2007, July 2007
3. Equity Risk Premium in India, Working Paper (12434), NBER Working Paper Series, National Bureau of Economic Research, ©Rajnish Mehra, August 2006
4. Financing and Cost Recovery in the Water Sector, Thematic Overview Paper 7, Rachel Cardone (ERM) and Catarina Fonseca (IRC), IRC International Water and Sanitation Centre, December 2003
5. Global Infrastructure & Project Finance: Rating Criteria for Availability Based Infrastructure Projects, Global Toll Road rating Guidelines, Fitch Ratings, 2012
6. Guidelines for Successful PPP, European Commission-Directorate-General Regional Policy, March 2003
7. Guidelines to Financial Support to PPP, PPP Cell, Department of Economic Affairs, Ministry of Finance, Government of India, 2008
8. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
9. OECD Principles for Private Sector Participation in Infrastructure, © OECD 2007

10. Public Private Partnerships, A Financier's Perspective, Economic and Social Commission for Asia and the Pacific, Transport Policy and Tourism Section, Transport and Tourism Division, UNESCAP
11. Risk, Return and Cash Flow Characteristics of Infrastructure Fund Investments, Florian Bitsch, Axel Buchner, Christoph Kaserer, November 17, 2010

PPP Guide for Practitioners



Module 7: Value Proposition of Projects

1. Introduction

Value proposition of project assessment plays a central role in decisions on investment prioritization, selection, and presentation of the choice of procurement approach. It is conducted in order to ascertain whether the project being developed through a PPP framework offers good value to the public entity and ultimately to the general public. The concept of value proposition of projects is similar to the Value for Money (VfM) assessment undertaken for projects as proposed in United Kingdom's, the HM Treasury Guide for VfM assessment.

What does Value for Projects Analysis Answer?

- Whether developing the project under a PPP framework results in any value to the public sector?
- Whether the bid submitted by the preferred bidder is acceptable to the public entity thereby providing value to the public sector?
- Whether or not to award the project to the preferred bidder?

The analysis is undertaken to support key decisions and should be conducted even if no fiscal support is required – for example, if the costs may be recovered through user charges - as there is an obligation to ensure that the charges users pay are fair and reasonable. This is particularly relevant to annuity based payment schemes where a framework is needed to assess whether the right procurement route is being used given the alternative of more traditional procurement approaches.

Usually, Value Proposition of Projects analysis is carried out twice during the project development process:

- Prior to deciding whether to develop the project through a PPP framework
- Before awarding the project to the preferred bidder

The analysis is useful to decide whether to pursue the project under a PPP framework. On receipt of bids from the private partners, the results of value proposition analysis are useful for examining whether the winning bid delivers value to the public entity.

A robust analysis can also be helpful in:

1. Optimizing the PPP structure and the underlying risk sharing arrangement – the analysis will help structure the PPP in terms of designing a risk allocation that is bankable, affordable, and provides value to the public entity.
2. Assessing the impact of changes in the risk sharing arrangement; and
3. Establishing an acceptability threshold for bids.

Value Proposition analysis/ assessment in sectors like roads and ports that are being developed through a programmatic approach, where every project is developed under a standard well established structure like BOT or OMT, The analysis need not be repeatedly carried out for every project that is developed. It could be carried out judiciously. For instance, NHAI while undertaking the programme of road development through annuity might not carry out value proposition of projects analysis for every road

However, there are various practical difficulties in ensuring the robustness of a value proposition of projects assessment, primarily relating to the calculation of realistic public sector comparator.

2. When to assess Value Proposition?

Assessment of value proposition of projects assessment could be carried out at two different points in time, once at the time of the feasibility assessment and again at the time of bid evaluation.

2.1. Initial Assessment

An initial assessment is carried out as part of the project feasibility study, prior to in principle approval, to help the public entity determine the appropriate procurement strategy for the project before soliciting proposals from the private sector.

The objective of this initial assessment is to provide an indication as to whether a PPP project is likely to provide value as compared with a project which is developed by way of traditional public procurement.

Some of the key objectives of this assessment are to:

1. Demonstrate that the initial decision to develop the project through a PPP is based on a need and option analysis and is valid for the particular project;
2. Verify whether appropriate risk transfer arrangements are achievable;
3. Direct the public entity early on, where project specific issues emerge indicating that a PPP is no longer likely to offer value, towards the possibility of using other procurement routes including switching to conventional procurement;
4. Provide feedback to improve the evidence base and potential for market management;
5. Provide improved cost estimates so that, as part of the feasibility study, the contracting Authorities can be confident that the project is affordable;
6. Test whether the PPP solution option has sufficient market interest;
7. Help ensure an efficient bid process is planned within a realistic time frame; and
8. Provide the tender evaluation team with a framework within which they can take decisions if the assessment should suggest that the market conditions are unfavourable.

Public Sector Comparator (PSC) is the hypothetical risk-adjusted cost if a project were to be financed, owned and implemented by a Government Agency

A shadow bid is effectively the hypothetical estimation of what the private sector would bid in response to the bidding documents inviting private sector partners to develop a project (derived out of the financial feasibility analysis).

Steps in Initial Value Proposition of Projects Test:

1. Calculate the Public Sector Comparator (PSC) for the project
2. Check whether the PSC is greater than the shadow bid
3. If the PSC is greater than the shadow bid, there is value in developing the project through a PPP framework

2.2. Final Assessment

The objective of the final analysis is to help the public entity to ascertain the value proposition achievable through the bids submitted by the private bidders.

When assessing the value offered by projects developed under the PPP framework, one must not rely solely on a straight comparison of a preferred bid to its PSC (explained later in the module). This comparison should never be regarded as a pass/fail test, but instead as a quantitative way of informed judgment. This is especially important where bids are very close to the value of the PSC. The assessment should also consider all the other relevant factors of bid evaluation including (but not exhaustively):

1. The value to the public sector of the risk the private sector accepts through the proposed PPP arrangement;
2. Any differences in service deliverables between the PSC and PPP bid; and
3. The wider consequences to the public sector of first receiving service from a different date under the PPP as compared to that in the PSC.

Qualitative factors become particularly important either where the lowest private bids are close to the PSC or where an important consideration cannot be quantified for the PSC. Where Value Proposition of Projects decisions reflect the consideration of qualitative factors, these must be fully documented to leave a verifiable decision trail which can be used by the parties involved in the decision-making process.

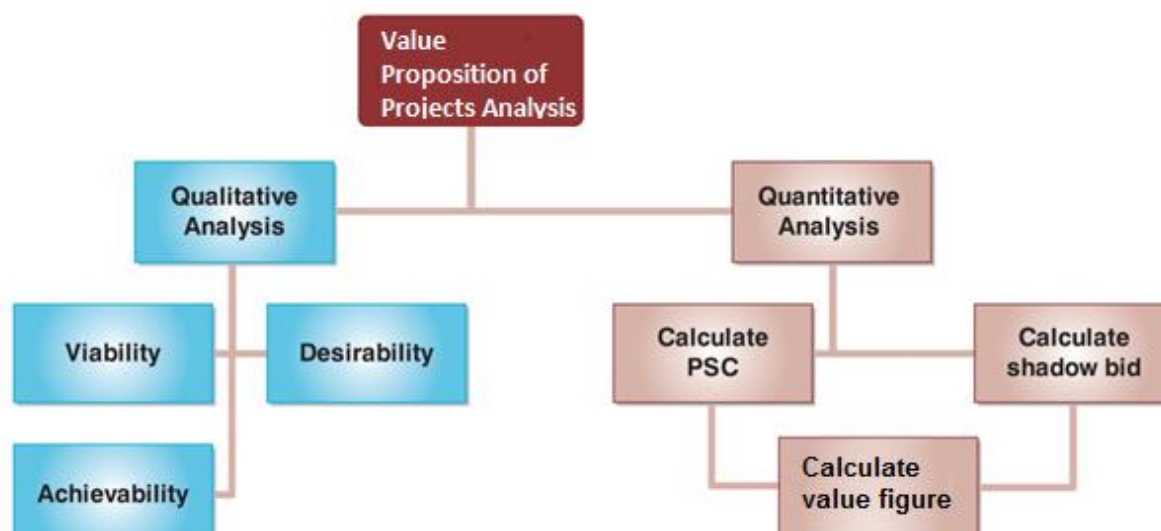
To this end, it is important that the procurement team compiles a list of all the qualitative factors at an early stage. This may be developed in conjunction with the PSC to identify costs that could not be meaningfully quantified in the PSC.

Steps in Final Value Proposition of Projects Assessment Test

1. Check whether the PSC is greater than the preferred bid/best bid/final offer.
2. If the PSC is greater than the preferred bid/best bid/final offer, then there is value in awarding the project to the preferred bidder (who submitted the preferred bid/best bid/final offer)

3. How to Assess Value Proposition?

The HM Treasury VfM assessment guide published by the Government of United Kingdom, clearly indicates the methodology to perform VfM assessment of projects. Similarly, Value Proposition of Projects assessment could also be carried out both qualitatively and quantitatively. A complete value proposition of projects analysis determines whether or not the project delivers value in development through PPP framework. The flow chart given below sets out the logical sequence of activities that form part of this analysis:



3.1. Qualitative Analysis

The purpose of the qualitative assessment is to subjectively test whether the objectives, service requirement and proposed structure of the project are likely to provide the private sector with sufficient scope to give the public entity and the end users value. The HM Treasury VfM assessment guide lists a few factors that need to be considered while undertaking the qualitative analysis:

1. **Viability:** assessing whether there are any efficiency, accountability or equity issues which demand that services are provided by the Government directly rather than through a PPP project. It also considers the extent to which the service requirements can be adequately captured in a contract based approach, with a clear specification in output terms for the PPP to transfer risk effectively to the appropriate parties.
2. **Desirability:** determining the relative benefits provided through different procurement routes, such as incentives and risk transfer in PPPs vis-à-vis the Government's lower cost of borrowing in conventional procurement. This requires an upfront consideration of the relative advantages and disadvantages associated with a long-term contractual relationship between the public and private sector, and the strength of the mechanisms that could be used to ensure that different benefits are realised.
3. **Achievability:** gauging the level of likely market interest, the skills and capacity of the private sector, their appetite for risk, any lender constraints and whether the procuring Authority has sufficient capability to manage the complex processes involved.

A project proposed for development through a PPP framework may provide value but be unaffordable if the specifications are too high.

The analysis must incorporate a broad discussion of the qualitative assessment of the project's value, with reference to each of the value drivers. As a minimum, all of the issues identified should be addressed as part of this analysis. A useful tool for summarising the qualitative assessment is to adopt a scoring mechanism against each of the value drivers.

3.2. Quantitative Assessment

Quantitative Assessment involves estimation of the risk adjusted cost of delivering a project through the PPP mode as compared to the risk adjusted cost of delivering the same project through the traditional public procurement mode. The value analysis compares the estimated

cost of procuring the project through traditional public procurement with the estimated cost of procuring it on a PPP basis.

The analysis is intended to contribute to an assessment of whether the PPP option presents value compared to a conventionally procured project. The quantitative assessment aims to:

1. Support the qualitative assessment of officials involved at the project level in determining value;
2. Enable projects to make appropriate use of private capital, to justify explicit additional costs against the benefits achieved as a result of transferring risk to the private sector; and
3. Enhance the data availability to Departments to support future procurements, and to be able to justify decisions taken in the context of Government policy.

3.3. Value Indicator

The Value Proposition of projects analysis is determined by the value figure. This is the difference between the estimated cost of procuring the project through traditional procurement and the estimated cost of procuring private sector participation for any project. However, this provides just a single estimate under a particular set of assumptions.

Consider two projects:

Project A with a value figure of 4 and

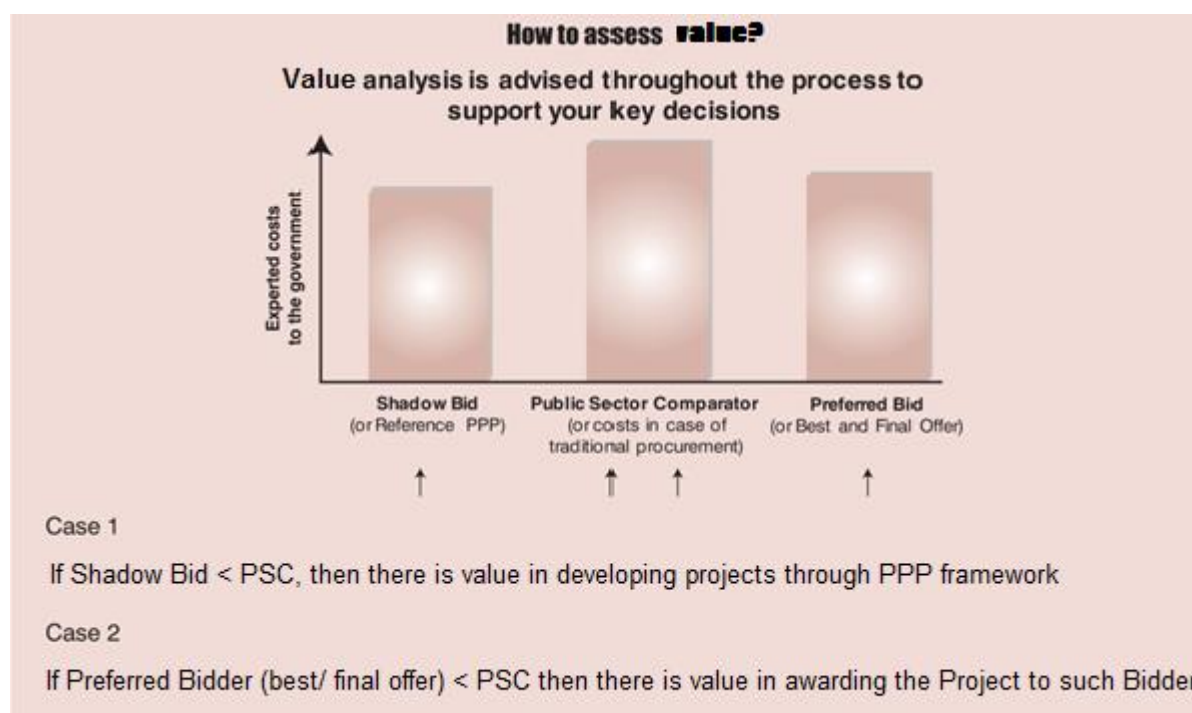
Project B with a value figure of 100

In the above case, just because the value figure of Project B is higher than that of Project A does not mean Project B could be taken on priority over Project A.

Difference between Equity Internal Rate of Return (EIRR), Project Internal Rate of Return (PIRR) and Value figure

- **EIRR** value shows the rate of return on investment that providers of equity capital would earn under the PPP.
- **PIRR** value shows the rate of return on the total project cash flows for the projects being developed under PPP framework.
- **Value figure** shows that the extent to which, based on a particular PIRR, the net present value of the option of developing the project under a PPP framework is better (if the figure is positive) or worse (if the figure is negative) than the net present value of developing the project on its own by the public entity.

Source: *Value for Money Assessment Guide, HM Treasury*



4. Public Sector Comparator

An assessment of whether a PPP project offers value is an essential part of a PPP procurement process. To understand the costs of a traditional public-sector approach, Public Sector Comparator (PSC) is used as a means to compare and understand the value proposition of projects. Various Government bodies have come up with specific definitions for a PSC. A few of those definitions are as follows:

It is useful for the Government to maintain a database of the PSC of various projects to enable value proposition of projects analysis for future projects.

The Government of Western Australia, Department of Treasury, defines PSC as:

The PSC is an estimate of the net present cost to Government if it was to deliver the project under a more traditional procurement method, for example design and construct.

The World Bank assisted presentation on “Public Sector Comparator for Highway PPP Projects” defines PSC as:

The PSC is the hypothetical risk-adjusted cost if a project were to be financed, owned and implemented by a Government Agency.

The PSC is developed in accordance with the required output specification, the proposed risk allocation and is based on the most efficient form and means of Government delivery.

Purpose of PSC

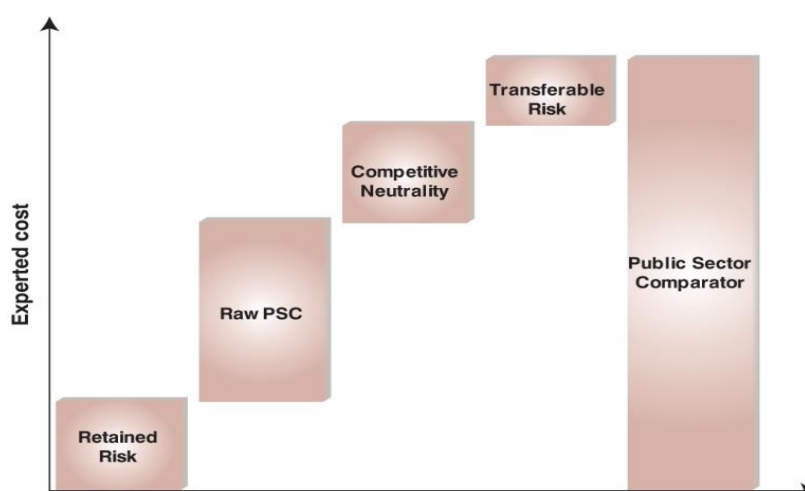
Public entities use the Comparator as a benchmark to help decide whether an alternative procurement method using private finance would offer better value to the public entity. Some of the key purposes of the PSC are:

- Encouraging the Government Agency to calculate full cost pricing at the initial stage of the project development
- Creating a uniform and consistent benchmark
- Taking decisions on implementation through PPP by demonstrating value to the public entity

4.1. Components of PSC

PSC is derived from the monetisation of the following factors:

1. Raw PSC (also referred as Whole of Life Cycle Cost)
2. Competitive neutrality
3. Retained Risk
4. Transferable Risk



PSC is calculated as the net present value (NPV) of a projected cash flow based on the appropriate discount rate for the public sector.

4.2. Project Risks – Retained and Transferable Risks

To arrive at the PSC, the risks that are present over the life of the project need to be quantified. These include those risks that are retained and those which could be transferred to the private partner. The value of project-specific risks is to be added to the cash flows while calculating the PSC.

One of the keys to constructing a PSC is the identification of the Reference Project - the most likely and efficient form of public sector delivery that could be employed. The boundaries of the Reference Project are defined by the output specification.

The risk may be quantified in terms of a regular cash-flow item or it may be reflected as a discount factor while arriving at the NPV value. Valuing risk in the cash flow of the PSC has the following advantages:

1. Optimal level of risk allocation is comparatively easy to achieve
2. Cash flow valuation takes better account of the timing of risk

3. The value and impact of a particular risk may vary over time;

It provides a transparent methodology by using a consistent Government discount rate across projects. The steps in quantifying the risks are explained in the chart below.



A PPP reference bid is a hypothetical private party bid which meets the defined output specifications (the same as that used in constructing the PSC). It is also known as a shadow bid. In this case, the costing of the output specifications should be carried out from a private party's perspective. Comparing the net present cost of a risk-adjusted PSC model with the net present cost of a risk adjusted PPP reference model to the public entity/public finances enables an assessment of whether service delivery by the Government or by a private party yields the best value to the public entity.

Since the public entity may not be able to estimate the costs associated with the output specifications to be charged by the private parties, the transaction advisor should have the necessary expertise, market knowledge and experience to construct a market related PPP reference project in the following stages:

- Determine the nature of the PPP arrangement
- Determine the proposed project structure and sources of funding
- Identify the core components of the payment mechanism
- Estimate taxes accruing to public finances
- Allocate risks
- Assess the value of the transferred risk
- Assess retained risks
- Calculate the net cost of the PPP reference bid

4.3. Competitive Neutrality

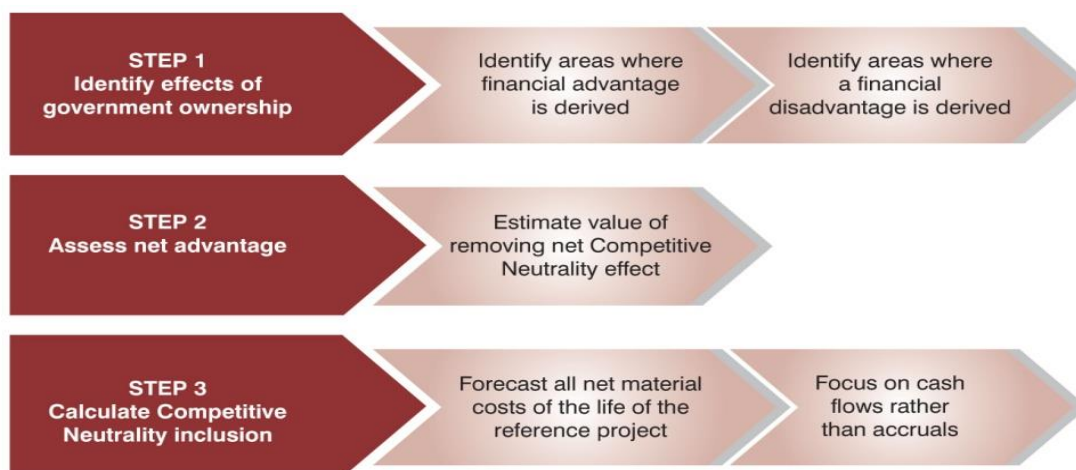
Competitive Neutrality removes the net competitive advantages that would accrue to a Government business by virtue of its public sector ownership. The purpose of including this component is to allow a like-with-like value assessment between a PSC and private bids.

Government-owned entities are engaged in many significant business activities and as a result there are distortions in resource allocation. Government business should not enjoy any competitive advantage simply as a result of their public sector ownership. Competitive advantages from public sector ownership typically

If Competitive Neutrality inclusions are not made, the PSC may be artificially lower than the private bids and may not reflect the true cost of the project to the Government, and may lead to a sub-optimal procurement decision.

include taxes that are not levied on public entities. Competitive disadvantages may also arise from public sector ownership and these are typically heightened public scrutiny and reporting requirements not faced by a private enterprise.

Competitive Neutrality inclusions in the PSC are made on a cash flow basis and the cost of capital is not included in the Competitive Neutrality component of the PSC numerator, but is reflected in the discount rate used to calculate the Net Present Value (NPV). Non-cash adjustments such as depreciation would not form part of Competitive Neutrality.



4.4. Raw PSC

The Raw PSC provides a base costing under the public procurement method where the underlying asset or service is owned by the public sector. This includes all capital and operating costs, both direct and indirect, associated with construction, finance, maintenance and delivery of the service (or underlying asset) over the same period as the term

Raw PSC provides a base costing under the public procurement method where the underlying asset or service is owned by the public sector.

under the PPP proposal and to a defined performance standard as required under the output specification. A comprehensive and realistic allocation of all direct and indirect costs is necessary. Expected cash flows for the Raw PSC need to be forecast over the life of the project. Therefore, it is important to fully understand the method of delivery under the project to identify the nature and timing of all key costs.

The raw PSC should not include any valuation of risks to which Government remains exposed. In many cases, the public procurement method may involve an element of design and construction outsourcing or other forms of private contractor management.

The raw PSC should not include any third party revenues.



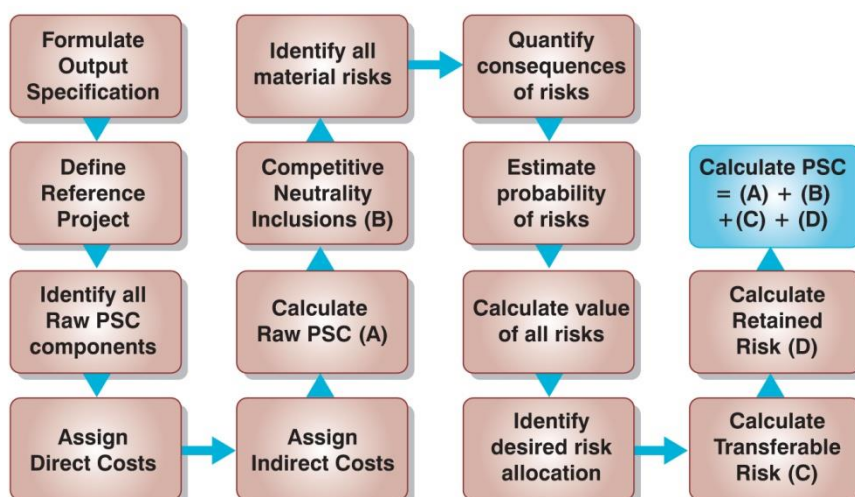
Challenges in Using the PSC

The following are some of the key challenges that are faced while using the PSC.

- Forecasting costs for new public sector projects in a sector where there has been no PPP is difficult
- It assumes the public sector can always deliver capacity, has access to funds and is compliant with best practices
- Public sector data is not always available
- Estimating the quantum, probability and timing of risks is subjective - Government agencies tend to have an 'optimism bias' while estimating the values of risks
- Estimating the PPP reference is subjective
- Choosing the discount rate is controversial

4.5. How to Calculate the PSC?

The steps that need to be followed to arrive at the PSC are explained below.



Public entities preparing projects for procurement should refer to the standard databases and standard spreadsheet models (such as the Tools and Resources section in the PPP online toolkit available at the Department of Economic Affairs website) to prepare a preliminary PSC in-house.

It is important that the scope of the PSC and the scope of the bid are equal. The output specification sets out the range of services to be delivered and the performance levels required for each of those services. It should focus on the end result rather than the means of delivery.

If the adjusted net cost for the PSC is higher than the net cost for the PPP then the value test is positive and the PPP is expected to provide value to the public entity.

5. Key Issues

The Value Proposition of Projects analysis has been criticized for an exclusive focus on quantitative analysis, which at time faces the following difficulties:

1. Inaccuracy/inadequacy of data
2. Incomplete identification of key risks
3. Lack of consensus on discount rates
4. Time inconsistency (post-analysis, inordinate delays in actual bidding)
5. Analysis may be very expensive
6. No robust public sector alternative/comparator
7. Difficulty in establishing an accurate PSC ex ante, where the public entity's expenditure is based upon distributed assets unlike ring-fenced costs as in cases where projects are developed under PPP framework.

To overcome these shortcomings it is imperative that the analysis is done with due regard to the following considerations:

1. A balanced approach should be adopted in the assessment of value through a comparison of traditional procurement and PPP procurement.
2. The tendency for appraisers to be overly optimistic in estimating key parameters for PPP projects should be explicitly countered through empirical evidence of this "optimism bias" from past projects.
3. The quantitative comparison should be considered just one aspect of appraisal, to be used only in conjunction with a qualitative analysis that looks at a project's potential distributional effects and the track record of similar projects.

The focus should be on making good use of databases in estimating project costs.

6. Conclusion

The value proposition of projects assessment aids in the decision making of whether there is value in development of projects under PPP framework. However, undertaking such an analysis is challenging due to several constraints. One of the key challenges in estimating value proposition of projects is determining PSC for like projects; developing and maintaining a database of PSC for distinct infrastructure projects would help estimating value proposition of projects.

Currently, Government of India has not mandated any particular process/ methodology to carry out value proposition of projects assessment. To estimate the value proposition of projects, practitioners in the country tend to adopt the mechanisms practiced in other countries such as the United Kingdom. There is a need for an intervention from Government of India to provide guidance on methodology to carry out the value assessment for projects. This could provide the practitioners the necessary clarity on the process to assess value proposition of projects.

7. Bibliography

1. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
2. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
3. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
4. Volume 1 - Value for Money, Public Private Partnership Manual, Department of Economic Affairs, Ministry of Finance, Government of India

8. For Further Reading

1. Commercial Policy Framework: Guidelines for Financial Appraisal, New South Wales Treasury, Office of Financial Management, 2007, July 2007
2. Equity Risk Premium in India, Working Paper (12434), NBER Working Paper Series, National Bureau of Economic Research, ©Rajnish Mehra, August 2006
3. Financing and Cost Recovery in the Water Sector, Thematic Overview Paper 7, Rachel Cardone (ERM) and Catarina Fonseca (IRC), IRC International Water and Sanitation Centre, December 2003
4. Global Infrastructure & Project Finance: Rating Criteria for Availability Based Infrastructure Projects, Global Toll Road rating Guidelines, Fitch Ratings, 2012
5. Guidelines for Successful PPP, European Commission-Directorate-General Regional Policy, March 2003
6. Guidelines to Financial Support to PPP, PPP Cell, Department of Economic Affairs, Ministry of Finance, Government of India, 2008
7. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
8. OECD Principles for Private Sector Participation in Infrastructure, © OECD 2007
9. Public Private Partnerships, A Financier's Perspective, Economic and Social Commission for Asia and the Pacific, Transport Policy and Tourism Section, Transport and Tourism Division, UNESCAP
10. Risk, Return and Cash Flow Characteristics of Infrastructure Fund Investments, Florian Bitsch, Axel Buchner, Christoph Kaserer, November 17, 2010

PPP Guide for Practitioners



Module 8: Economic Analysis

1. Introduction

Decisions to invest in projects are based on an analysis of the costs and the benefits that accrue from it. Both the private partner and public entity rely on these calculations for decision-making. It is, therefore, necessary to understand the basic principles of cost/benefits analysis for investment appraisals. The investment rationale for the private partner stems from cash flows estimated in the financial analysis:



The basis of economic analysis is the principle of utilitarianism – maximum benefit to the maximum number of people.

Benefits in economic analysis mean higher human well-being and costs mean a reduction in human well-being. The incurring of cost and the accrual of benefits, however, take place at different points in time.

While the public entity also undertakes an assessment of the financials, the investment rationale goes much beyond project boundaries and captures the cost and benefits to society at large. In fact, such analysis is usually undertaken to ascertain whether an economic case exists for an investment decision. The economic cost/benefit analysis is also termed as the economic analysis of a project.

Economic viability analysis includes an assessment of the economic benefits from, and the economic costs of, a project. The difference of these (benefits and costs as mentioned above) in present value terms, is the net economic benefit to society. Economic analysis is an integral part of project development studies and is normally undertaken before carrying out financial feasibility studies.

Economic costs and benefits are different from financial costs and benefits.

Economic analysis is carried out on behalf of the entire society (all stakeholders) whereas financial feasibility analysis is carried out for actual cash flows to and from the public entity and private partner involved in a project.

What distinguishes the economic viability analysis from a financial feasibility analysis is that economic viability analysis looks at the positive and negative effects of an investment decision that it might be difficult to attribute a market price to (such as the impact on indirect employment generation and economic activity, local environment and ecosystem, project affected people, etc.) and those that may not result in cash flows to the project.

Differences between Financial Feasibility Analysis and Economic Analysis

1. The financial feasibility analysis involves direct costs and revenues associated with the project whereas an economic analysis takes into account the net benefit of the entire society.
2. The discount factor in financial feasibility analysis is WACC; in economic analysis, the discount factor is the social discount rate (economic opportunity cost of capital)
3. In financial analysis, some inputs may not have a financial cost and are therefore not shown in the analysis (e.g. if water at the intake is available to the water utility for free). However, the cost of these inputs would be shown in the economic benefit cost analysis if the input has a scarcity value (e.g., if raw water is diverted from another alternative use such as irrigation or hydropower).
4. Business cash flows may include accrued values, depreciation and other similar allowances. Benefit cost analysis does not use accruals, depreciation allowances or other non-cash items.
5. In benefit cost analysis, each cost and benefit is recognised fully at the time that it occurs (not

accrued beforehand), timing is dealt through discounting the cash flow, and changes in the values of assets are dealt with by including residual asset values in the investment horizon.

6. In benefit-cost analysis, accounts receivable and payable are not recognised until the cash is actually received or paid. Working capital is not a cost, although the change in working capital during a particular period is either a cost or a benefit. Production costs are recognised fully at the time they occur. Changes in inventory may signal either costs or benefits, but the actual measurement of these is through production costs and sales. In brief, benefit-cost cash flows are very simple tables with everything recognised when it occurs.

Source: "Capacity Development of National Capital Region Planning Board (NCRPB) Package 1 (Components A and C); Project Appraisal Manual April 2009, by ADB

Reasons that necessitate economic analysis include the following;

1. **Prevalent market prices of inputs and outputs may not represent/indicate their social value, viz. their social opportunity cost, because some markets are socially inefficient or do not exist at all:** This would happen, for instance, in monopolistic or oligopolistic markets, where price includes a mark-up over marginal costs or in a situation where trade barriers exist that compel consumers to pay more than they would have paid elsewhere. Prices as they emerge from imperfect markets and from some public sector pricing or rationing policies may fail to reflect the opportunity cost of inputs.
2. **Financial data, while important for budgetary reasons, may be misleading as welfare indicators:** When market prices do not reflect the social opportunity cost of inputs and outputs, the usual approach is to convert them into accounting prices using appropriate conversion factors, if available, from the Planning Authority.
3. **Certain project costs and benefits are without market values:** For example, development of projects may have damaging repercussions on the environment, health and social well-being. This will require the Government to make additional investments to compensate for the damage. However, though this damage would not have a market price, it could significantly affect the success of the project.

Therefore, all direct and indirect effects of a project need to be assessed and quantified as costs and benefits for economic assessment. When market values are not available, such effects can be monetised through different techniques, in part depending on the nature of the effect considered. 'Money' valuation here has no financial implication.

2. Process for undertaking Economic Analysis

There is no uniform or standard approach for conducting economic analysis of projects. Various models are used across the world for such analysis. However, the underlying principles in the economic analysis are the same; it is the methodology that may vary. Given below are indicative steps that are involved in an economic analysis.

For ADB guidelines for economic analysis of projects, refer link: <http://www.adb.org/sites/default/files/pub/1993/eco-analysis-projects.pdf>.

1. Define objectives and scope of project

- 2. Identify options** - the widest possible range of realistic options should be identified at the earliest possible stage of the planning process. The first option to be considered is the base case of “do nothing”, i.e. what happens if the status quo is maintained? Doing nothing does not necessarily mean “spending nothing”, e.g. upgrading fire safety, where the base case in effect becomes the “minimum essential expenditure option”. The base case must be realistic. Doing nothing may involve cost penalties, loss of life or property (for example by not upgrading a facility for fire hazard or disaster) or confer positive benefits. One of the benefits of “doing something” may be the avoidance of high maintenance costs. Appraisals must report on all feasible options and clearly explain why potential options may not have been evaluated.

When trying to monetize parameters for economic analysis, there is a well-accepted technique called Contingent Valuation Mechanisms (CVM) that enables to assign numeric values on intangible variables such as, say, the loss of a unit of marshland.

- 3. Identify quantifiable costs:** Assumptions underlying all economic cost estimates should be made explicit in the evaluation. The degree of accuracy desirable will vary with the significance of the project, data availability and cost of obtaining missing data.
- 4. Identify quantifiable benefits:** would include the following benefits:
- Avoided costs-incremental costs which are unavoidable if nothing is done, but may be avoided if action is taken
 - Cost savings-verifiable reductions in existing levels of expenditure if a programme proceeds
 - Revenues-incremental revenues from introduction of the project
 - Benefits to project beneficiaries not reflected in revenue flows-while difficult, attempts should be made to quantify these, with assumptions and methodologies clearly explained, and
 - Residual value of asset (if any).
- 5. Calculate Net Benefits:** Quantifiable economic costs and benefits over the project life need to be expressed in net present value terms. Sensitivity analysis should be undertaken to test the robustness of results under different scenarios, using different assumptions about some or all of the key variables. Agencies should note that in a constrained budgetary situation, economic performance indicators such as ENPV and Cost to Benefit Ratio measures are important considerations for budget funded projects and programs.
- 6. Identify qualitative factors and summarise results** - Quantifiable costs and benefits are only part of an economic appraisal. Other aspects such as environmental considerations, social or regional impacts, resource availability, funding, distribution of benefits and costs, etc. will also have to be taken into account in choosing between competing options and projects. Some of these may be quantifiable to some extent but where they are not, qualitative aspects of options or projects should be discussed in the appraisal. The report on the appraisal should include a clear summary of results, and indicate the preferred option.

As part of economic analysis, the observed prices or public tariffs pertaining to a project are converted into shadow prices that better reflect the social opportunity cost of the goods. The externalities and indirect/remote effect of the project are also taken into account and assigned monetary values. All costs and benefits that are associated with the project are discounted by a real social discount rate. A feature of economic analysis is the use of accounting shadow prices based on social opportunity cost using a social discount rate (SDR), instead of the observed prevailing prices, which may not represent the true cost. The results of the market analysis, and the technical, social and environmental, financial cost assessment and risk analyses are all inputs for the economic analysis. Finally, the economic

performance indicators such as the economic net present value, economic rate of return and benefit/cost ratio of the project are calculated.

Specialist advisers are usually a part of the team engaged to carry out the economic viability assessment.

Social Discount Rate (SDR)

The SDR is the discount rate used in the economic analysis of investment projects. It reflects the social view on how future benefits and costs should be valued against present ones. It may differ from the financial discount rate when the capital market is inefficient (for example, when there is credit rationing or asymmetric information or because of the myopia of savers and investors).

SDR measures the rate at which a society would be willing to trade present consumption for future consumption. It is also referred to as the Social Time Preference Rate and is one of the most critical inputs in economic analysis.

3. Economic Costs and Benefits

The costs in an economic analysis are mostly comparable to the capital costs and the O&M costs whereas the benefits are less obviously defined. The economic benefits relate more to non-monetary impacts such as safety, efficiency, welfare and so on. The key challenge for these benefits is how to value them, which is commonly approximated by the Willingness to Pay (WTP)

Willingness to Pay

A fundamental concept used in welfare economics is the willingness to pay (WTP). The amount (demand price) that an individual is willing to pay for an incremental unit of food or service measures its economic value to him/her and, hence, it's an economic benefit to the economy.

Competitive markets for goods or services essentially provide data for estimating their benefits and costs. In other cases, WTP is used for measurement of benefits and costs.

Alandur Sewerage Project

P While conducting the feasibility study on the project, Willingness to Pay (WTP) survey was also conducted by the consultants in order to assess the scheme's acceptability to the citizens of Alandur town. The survey covered more than 10 per cent of the population of the municipality, spread over 42 wards.

R
O
J
E
C
T On the basis of the survey results and the financial analysis of the project, the public entity (Alandur Municipality) decided to collect one-time deposits in the form of connection charges from the people. In addition, it was also decided by the municipality to collect the sewer maintenance charges at the rate of Rs150 per month per connection from the domestic users, Rs 450 per month per connection from commercial users and Rs 750 per month from industrial users. The domestic monthly charges were proposed to be increased to 6 per cent annually till they reached a level of Rs 180per month. Similarly, the commercial and industrial maintenance charges were proposed to be increased by 6 per cent annually up to the level of Rs 540 and Rs 900 respectively.

These limits were later reduced on the basis of another WTP survey, and discussions with the citizens and officials concerned.

Source: <http://toolkit.pppinindia.com/highways/module3-rocs-asp1.php?links=asp1>

Secondary or spill over costs and benefits that have an impact beyond the project itself (sometimes called externalities) – for example

1. Impact of the project on the broader economy
2. Valuations of non-market factors from social and environmental assessment (social and environmental externalities)

An economic multiplier is a number used to estimate economy-wide impacts of industry-specific economic changes. Multipliers are generated from numerical or statistical models of a national or regional economy. Using models, multipliers can be calculated for every business or industry sector in the economy. A multiplier is always greater than one because it is a ratio that is calculated by dividing a) the estimated total effect resulting from a given economic “shock” to the economy by b) a necessarily smaller partial effect, namely the direct project- or activity-specific effect.

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

Multiplier Effect

A highway, road or public transport project provides direct benefits to the users of the infrastructure or services provided, but can also provide benefits to other road users if it reduces congestion on existing roads. Another example of secondary economic impact is the spill over effect in terms of the improved efficiency resulting from improved infrastructure. Negative environmental externalities from a road project include increased local pollution along the corridor. However, this is assessed in the context of positive effects such as improved vehicle running efficiency due to the easing of congestion.

Given below in the table are the indicative economic costs and benefits in a telecom project:

Benefits	Time saved for each communication (waiting time, transmission time, etc.), quantifiable by appropriate measurement units according to type of service. In addition to the above, the new additional services, which would be unavailable if the project were not implemented. In some cases the time saved method can be applied for their quantification and valuation, but in most cases it is possible to estimate the willingness-to-pay for the service by the users.
Costs	Local environmental impact

4. Economic Performance Indicators

After the correction of price/wage distortions and the choice of an appropriate SDR, it is possible to calculate the project's economic performance using the following indicators:

1. Economic Net Present Value (ENPV)

The ENPV is the difference between the discounted total economic benefits and costs. This captures the present value of the costs and benefits that will occur over the life of the project. It has the benefit of summarising a lifetime of project values into a single figure and allowing an easy comparison between different projects.

2. Economic Rate of Return (ERR)

ERR indicates the rate of return which equalises the present value of the economic costs and benefits of the project. It is the rate that produces a zero value for the ENPV.

3. B/C Ratio

This is the ratio between discounted economic benefits and costs.

Formula for Calculation of ENPV and ERR:

Economic net present value (ENPV): difference between the discounted total special benefits and costs.

$$\text{ENPV} = \sum_{i=0}^n a_i S_i = \frac{S_0}{(1+i)^0} + \frac{S_1}{(1+i)^1} + \dots + \frac{S_n}{(1+i)^n}$$

Economic rate of return (ERR): is the discount rate that zeroes out the ENPV. It is compared with a benchmark in order to evaluate the project performance.

$$0 = \sum \frac{S_t}{(1+ERR)^t}$$

Where:

S_t is the balance of the cash flow (net economic benefit) at time 't' and 'a' is the discounting factor chosen for discounting at time 't'.

ENPV and ERR give different types of information about a project. ENPV provides the criterion to decide whether the project should proceed at all (in general, a project with a negative ENPV would not be pursued).

ERR allows a project to be compared against a required rate of return. It gives a yes or no answer about whether the project is economically viable. However, the ERR alone does not give enough information to say whether one project should be pursued ahead of another. This is a value comparison best suited to ENPV analysis.

ENPV is the most important and reliable social cost-benefit analysis indicator. Although ERR and B/C are meaningful because they are independent of the project size, they may sometimes involve problems. In particular cases, for example, the ERR may have multiple values or may not be defined.

ENPV is not the same as Project Net Present Value (PNPV), which is an indicator of financial feasibility. ENPV uses accounting prices or the opportunity cost of goods and services instead of imperfect market prices; and it includes, as far as possible, any social and environmental externalities. This is because the analysis is done from the point of view of society, not just the project owner.

Because externalities and shadow prices are considered, several projects with a low or negative PNPV may show a positive ENPV.

In principle, every project with an ERR lower than the SDR or a negative ENPV must be rejected. A project with a negative economic return uses too much of socially valuable resources to achieve modest benefits for citizens.

The table given below provides a sample from over 400 major projects completed in the European Union and their combined economic internal rates of return. These economic rates of return should not be viewed as benchmarks; they are merely illustrative of the kinds of returns that might be generated.

Sector/ Project	Economic Internal Rate of Return
Energy	12.9
Water & Environment	15.8
Transport	17.1
Industry	18.4
Other Services	16.3
Average	16.8

Source: EC Regional Policy "Guide to Cost Benefit Analysis of Major Projects" 2006 Edition

As per the "Capacity Development of National Capital Region Planning Board (NCRPB) Package 1 (Components A and C); Project Appraisal Manual April 2009, by ADB;

The minimum rate of return of around 12 per cent could be interpreted as economically viable taking into account benefits and costs. A general decision rule may include the following:

1. Accept all independent projects (any infrastructure investment projects) and subprojects with an EIRR of at least 12 per cent;
2. Review and reassess any independent projects and subprojects (non-infrastructure) with an EIRR between 10-12 per cent for which additional unvalued benefits can be demonstrated, and where these benefits are expected to exceed unvalued costs
3. First reassess and generally reject projects and subprojects with an EIRR below 10 per cent.

The economic analysis report would ideally need to include the project background justifying the need for the project and its objectives, identifying the economic costs and benefits, and analysing the net economic benefit/cost of the project in terms of economic viability indicators. Annexure 8 to this module sets out indicative structure of an economic analysis report.

5. Conclusion

Economic analysis takes into account the bearing of any project development on the society as a whole. Thus, it provides a holistic approach in analysing the pros and cons associated with project development; its ultimate effect on the society. Undertaking an economic analysis would enable the public entity on whether the project would deliver a net benefit to the general public/ society and therefore it is considered as a crucial step in project development process.

6. Bibliography

1. Capacity Development of National Capital Region Planning Board (NCRPB) –Package 1 (Components A and C), Project Appraisal Manual, Infrastructure Professionals Enterprise Private Limited, India in association with Tamil Nadu Urban Infrastructure Financial Services Limited, India, Asian Development Bank, April 2009
2. Guide to cost-benefit analysis of investment projects, Evaluation Unit, DG Regional Policy, European Commission, July 2008
3. Guidelines for the Economic Analysis of Projects, Asian Development Bank, 1998
4. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
5. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011

7. For Further Reading

1. Canadian Cost-Benefit Analysis Guide: Regulatory Proposals, Treasury Board of Canada Secretariat, 2007
2. Capacity Development of National Capital Region Planning Board (NCRPB) –Package 1 (Components A and C), Project Appraisal Manual, Infrastructure Professionals Enterprise Private Limited, India in association with Tamil Nadu Urban Infrastructure Financial Services Limited, India, Asian Development Bank, April 2009
3. Cost-Benefit Analysis and the Environment – Recent Developments, © OECD 2006
4. Economic Rates of Return, Millennium Challenge Corporation, 2008
5. Guidelines for the Economic Analysis of Projects, Asian Development Bank, 1998
6. Guide to cost-benefit analysis of investment projects, Evaluation Unit, DG Regional Policy, European Commission, July 2008
7. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
8. Modelling Social Infrastructure & Growth, Research Paper Number 839, Martin S.Chin, Department of Economics, The University of Melbourne, Australia, March 2002

PPP Guide for Practitioners



Module 9: Legal Compliance Framework

1. Introduction

The public entity must ensure that all the activities that form the procurement process must be permissible within the legal and regulatory framework of the country. Failure on the part of the public entity to adhere to this framework makes the project vulnerable to litigation, resulting in delays or, in some cases, even annulment of the entire process.

Adherence to the legal compliance framework, although time consuming, is essential to avoid delays and litigation.

The legal framework of the country includes the Constitution of India, 1950; Central enactments/policies/rules/guidelines, etc.; State/Regional level enactments/by-laws/policies/guidelines/rules, etc, and local level by-laws/rules, etc.

What Does Legal Compliance Ensure?

- The project is within the purview of the law of land
- The project is permissible under general law
- The project adheres to regional legislation
- The bid process is in accordance with the general principles of natural justice
- The public entity has a legal and regulatory framework for award of the project
- The specific rights and obligations that arise out of a contract and whether such rights and obligations are legally tenable.

PPP projects in India are governed by several legislations, policies, regulations and rules that are promulgated at the Central, State and the local level of governance.

2. Legal Compliance Framework

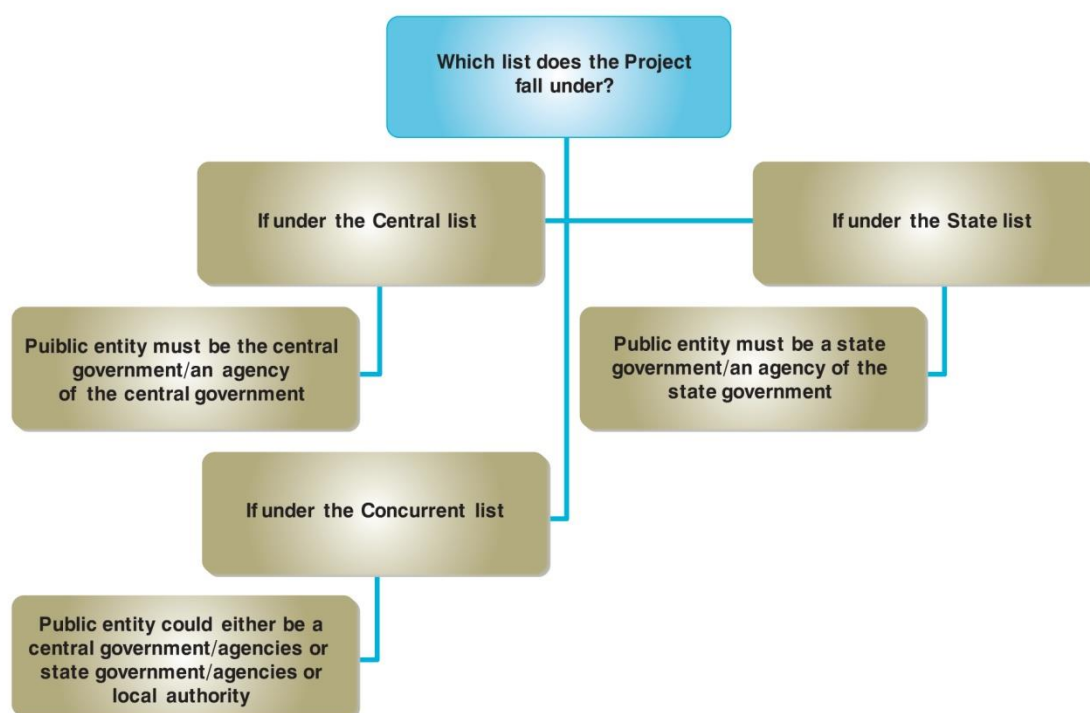
'Ignorantia juris non excusat' – Ignorance of the law is not an excuse and therefore the public entity has to ensure that the project and the procurement process adopted for the project development is structured well within the prevalent legal and regulatory framework of the land.

2.1. Whether the Project is Permissible under the Law of the Land?

The foremost step, in assessing compliance with the prevalent legal framework, is to ask the following two questions:

1. Whether the project is feasible/ permissible under the law of the land viz. the constitution?
2. Whether the process adopted for procurement is permissible under the Constitution?

The Seventh Schedule to the Indian Constitution sets out the Union list, the State list and the Concurrent List, which provides clarity on the authority of the Central and State Governments to undertake/initiate develop projects in specific sectors. The composition of the Union list, State list and the Concurrent list is given in the Annexure 9 of this module.



The key infrastructure sectors in the Union List include ports, airports, railways, national highways, inland water transport, telecommunications, oil fields and mineral resources. Parliament has enacted legislations that provide the legal framework for infrastructure projects, including private sector participation in some sectors such as national highways, airports, ports etc. These include legislations such as the Electricity Act, 2003, the amendment to the National Highways Authority of India Act, 1995, the Special Economic Zone Act, 2005, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 etc. and the constitution of regulatory Authorities/Boards such as the Pollution Control Board, Telecom Regulatory Authority, Airports Authority of India, etc. in several sectors.

The key infrastructure subjects in the State List are public health and sanitation, State highways, city roads, water supply, irrigation, prisons and corrective facilities. Every State has the right to promulgate laws that govern subjects in the State List.

In most States, local municipal laws provide enabling provisions to undertake projects under the PPP framework. Further, many States have a policy framework on various key infrastructure sectors which favour PPP as the mode for implementing infrastructure projects.

Infrastructure Division, Ministry of Finance, Government of India through a notification dated October 7, 2013 has released a harmonised master list of infrastructure sectors. The same is set out as Annexure 9A.

2.2. Whether the Project/Procurement Process is Permissible under the General Law?

The project being developed as a PPP must be permissible under the common law. The project and all its various components must be legally tenable and this includes compliance with certain enactments in the realm of general, civil and criminal/penal law such as the Indian Penal Code, 1860, Mercantile Law including the Indian Contract Act, 1872, the Companies Act, 1956/2013, Sale of Goods Act, 1930, Law of Torts, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, Transfer of

Property, 1882, Arbitration and Conciliation Act, 1986, and the Industrial Disputes Act, 1947, etc. as amended from time to time.

2.3. Whether the Project/Procurement Process Complies with Central/State/Local level Enactments Pertaining to PPP?

At the Central level, there is no overarching legislation setting out the guiding principles to develop a project under a PPP framework although there are several guidelines on specific aspects of project development.

The key responsibilities of a Project Officer in the development of PPP projects are set out as Annexure 9B of this Module.

State level statutes with regard to infrastructure development on PPPs must also be adhered to by the public entity.

Certain States such as Gujarat, Punjab, Bihar, and Andhra Pradesh have developed specific legal frameworks to enable private sector participation in infrastructure while many other States - Karnataka, Orissa, Maharashtra and Assam - have specific policy frameworks for private sector participation in infrastructure. The following table provides a list of States and the key features of the legislative and legal framework put in place by them for private investment in infrastructure.

2.4. State legislation for PPP Projects

State	Framework for PPP	Objective
Andhra Pradesh	The Andhra Pradesh Infrastructure Development Enabling Act, 2001	Facilitate greater private sector participation in infrastructure projects
Assam	The Assam Policy on Public Private Partnership in Infrastructure Development	Bring in private sector investment under the PPP mode as the preferred approach to infrastructure project development
Bihar	The Bihar Infrastructure Development Enabling Act, 2006	<ul style="list-style-type: none"> To promote rapid development of physical and social infrastructure in the State To attract private sector participation in the designing, financing, construction, operation and maintenance of infrastructure projects in the State Provide comprehensive legislation to reduce administrative and procedural delays, identify generic project risks
Goa	The Goa Policy on Public Private Partnership	To provide a framework to develop projects under the PPP framework and facilitate development of projects under it – this applies to all PPP projects sponsored by the Government or PSUs or Statutory Authorities
Gujarat	Gujarat Infrastructure Development Act (1999) (amended in 2006)	To facilitate greater private sector participation in financing, construction, maintenance and operation of infrastructure projects
Karnataka	The Karnataka	To augment and expedite infrastructure development

State	Framework for PPP	Objective
	Infrastructure Policy, 2007	through active private sector participation
Orissa	The Orissa PPP Policy, 2007	To create a conducive environment to utilise the efficiencies, innovativeness and flexibility of the private sector to provide better infrastructure and service at an optimal cost
Punjab	The Punjab Infrastructure Development and Regulation Act, 2002	To enable partnership of the private sector and public sector, in the development, operation and maintenance of infrastructure facilities through financial sources other than those provided by the State budget.
Rajasthan	The Rajasthan Infrastructure Development Fund	To facilitate and fund development of projects under a PPP framework. The fund was set up with an initial corpus of US\$500,000, contributed by financial institutions and the State Government.
West Bengal	The West Bengal Policy on Infrastructure Development through Public Private Partnership, 2003	To address the need to mobilise private sector investment in infrastructure development and evolve policy guidelines for the purpose.
Tamil Nadu	Tamil Nadu Infrastructure Development Act, 2012	To facilitate private sector participation in development of infrastructure projects.

See also http://www.pppinindia.com/pdf/state_ppp_initiativees_compendium.pdf for more information

In addition to the above, some States have enacted laws and guidelines for procurement. For instance, Karnataka has enacted a specific law that governs the procurement process in the State viz. Karnataka Transparency in Public Procurement Act, 1999 and Rules, 2000.

2.5. Whether the Project/Procurement Process Complies with Central/State/Local level Enactments Pertaining to the Sector?

There are various Central, State and local level enactments/rules/regulations/guidelines/policies that apply to certain sectors. For example, the Major Ports Act, 1963, Indian Tolls Act, 1851, MSW Rules 2000 etc., are legal documents that apply to the development of PPP projects in specific sectors.

Specific statutes/rules/guidelines pertaining to the procurement process must be followed by the public entity.

The public entity that is bidding out the PPP project needs to have the powers and authority prescribed under the applicable legislation. Unless the public entity has the legal standing to invite proposals for private sector participation, the entire procurement process could be challenged.

The table below indicates the sector specific authorities that have been constituted and the specific rules which govern these sectors.

Sectors	List	Governing Body	Central Enactments
Highways	Union	National Highways Authority of India	<ul style="list-style-type: none"> National Highways Authority of India Act, 1988. Highway Act, 2002
Railways	Union	Indian Railways, Railway Board	<ul style="list-style-type: none"> The Railways (Local Authorities Taxation) Act, 1941 The Railway Companies (Substitution of Parties in Civil Proceedings) Act, 1946 The Railway Companies (Emergency Provisions) Act, 1951 The Railway Protection Force Act, 1957 The Railways (Employment of Members of the Armed Forces) Act, 1965 The Railway Property (Unlawful Possession) Act, 1966 The Railway Claims Tribunal Act, 1987 The Railways Act, 1989 Railway Protection Force (Amendment) Act, 2003 Railways (Amendment) Act, 2005 Railways (Amendment) Act, 2008
Ports (Major)	Union	Port Trust of India	<ul style="list-style-type: none"> Indian Ports Act, 1908 Major Port Trusts Act, 1963
Airports	Union	Airport Authority of India	<ul style="list-style-type: none"> Aircraft Act, 1934 The Airports Authority of India Act, 1994
Water	State	Urban Local Bodies	<ul style="list-style-type: none"> Irrigation Act, 1931 (English) The Inter-State River Water Disputes Act, 1956 Water (Prevention and Control of Pollution) Act, 1974 Water (Prevention and Control of Pollution) Cess Act, 1977 The Environment (Protection) Act, 1986 Ground Water (Control and Regulation) Act, 2002 Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003 Water Supplies (Control) Act, 2004 Ground Water (Regulation and Control of Development and Management) Act, 2005
Municipal Solid Waste	State	Urban Local Bodies	<ul style="list-style-type: none"> Municipal Corporation Act, 1957 The Environment (Protection) Act, 1986 The Municipal Solid Waste (Management & Handling) Rules, 2000 Municipalities Act, 2007
Commercial	State	Urban Local Bodies	<ul style="list-style-type: none"> Municipal Corporation Act, 1957 Municipalities Act, 2007 Land Revenue Act

Sectors	List	Governing Body	Central Enactments
			<ul style="list-style-type: none"> Land Reforms Act Stamp Duty Act Urban Development Authorities Act Town Planning Act
Power	Concurrent	Central Electricity Authority (CEA)	<ul style="list-style-type: none"> The Electricity Act, 2003
Telecom	Union	Telecom Regulatory Authority of India	<ul style="list-style-type: none"> Indian Telegraph Act, 1885 Indian Wireless Act, 1933 Telecom Regulatory Authority of India (TRAI) Act, 1997 Information Technology Act, 2000 Telecom Regulatory Authority of India (Amendment) Act, 2000 Communication Convergence Bill, 2001 Indian Telegraph (Amendment) Rules, 2004 Indian Telegraph (Amendment) Rules, 2007 Indian Telegraph (Amendment) Rules, 2008
Irrigation	State	Water Resources Department	<ul style="list-style-type: none"> Indian Easements Act, 1882 Irrigation Act, 1931 (English) The Inter-State Water Disputes Act, 1956, The River Boards Act, 1956 Water (Prevention and Control of Pollution) Act, 1974 Water (Prevention and Control of Pollution) Cess Act, 1977 The Environment (Protection) Act, 1986 Ground Water (Control and Regulation) Act, 2002 Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003 Water Supplies (Control) Act, 2004 Ground Water (Regulation and Control of Development and Management) Act, 2005
Health	State	Department of Health & Family Welfare	<ul style="list-style-type: none"> The Medical Termination of Pregnancy Act and Rules, 2003 The Pre-Natal Diagnostic Techniques (PNDT) Act and Rules, 2002 Acts in Disability Insecticides Act, 1968 and Rules Indian Medical Council Act, 1956 Indian Dentists Act, 1948 Maternity Benefit Act and Rules, 1961 Narcotic Drugs and Psychotropic Substances Rules, 1985 The Prevention of Food Adulteration Act, 1954 Drugs and Cosmetics Act, 1940

Sectors	List	Governing Body	Central Enactments
			<ul style="list-style-type: none"> • Bio-Medical Waste (Management and Handling) Rules, 1998 • The Pharmacy Act, 1948 • The Transplantation of Human Organs Act and Rules, 1994 • Environmental Acts and Rules • Consumer Protection Act and Medical Profession Mental Health Act, 1987 • Food Safety and Standards Regulations, 2011 • Homoeopathy Central Council Act, 1973 • National Institute of Pharmaceutical Education and Research Act, 1998
Education	Concurrent	Education Department	<ul style="list-style-type: none"> • All India Council for Technical Education Act, 1987 • Central Educational Institutions (Reservation in Admission) Act, 2006 • English and Foreign Languages University Act, 2006 • Rajiv Gandhi University Act, 2006 • All-India Institute of Medical Sciences and the Post-Graduate Institute of Medical Education and Research (Amendment) Act, 2007 • Indira Gandhi National Tribal University Act, 2007 • Rajiv Gandhi Institute of Petroleum Technology Act, 2007 • Indian Maritime University Act, 2008 • South Asian University Act, 2008 • Right to Education Act (RTE), 2009 • Central Universities Act, 2009

3. Who is a Competent Authority to Procure Private Participation?

It is necessary to check whether the public entity has the legal authority and competence to procure from and subsequently the legal authority and competence to award the project to a private partner.

Unless the public entity has the legal standing to invite proposals from private sector players, the entire procurement process could be challenged for annulment. The public entity needs to answer the following questions in the affirmative prior to selecting a private partner:

3.1. Is it allowed to procure the project under the Constitution?

If the entity is a State Government department/agency, then does the project belong to the State list as set out under Schedule VII of the Constitution of India, 1950?

For instance, a public entity which is a State Government department/agency does not have the authority to procure or award projects pertaining to national highways, railways, major ports, etc. to the private sector whereas an appropriate Central Government

Department/Agency such as the National Highways Authority of India, the Ministry of Indian Railways or the Ports Trust can procure private sector participation in their sectors.

3.2. Is the Entity authorized to grant rights to the private partner?

The public entity can transfer only such rights as are vested in it and, therefore, the scope of services/rights that are transferred to the private partner must be reasonable and justified. For every project, there is only one appropriate entity which has the legal authority to grant rights to a private partner.

For instance, the district administration of district 'A' would not be the appropriate authority to develop a zilla panchayat road in district 'B'. Nor would a water board be the appropriate authority to grant rights to a private partner in the development of a scientific landfill for the disposal of municipal solid waste.

In a particular case, where a bypass road was to be developed at Sandur in Bellary Karnataka, the road to be developed was a zilla panchayat road which belonged to the Department of Rural Development and Panchayati Raj (RDPR). The State Government required the Public Works Department to develop the bypass road. Therefore, the Government issued a Government Order transferring the ownership of the road from RDPR to PWD. Later, PWD developed the road through a PPP framework.

Adherence to the Legal Framework during Project Structuring

The scope of services/rights that are being transferred to the private partner as part of the project structure must be in accordance with the prevailing legal framework. A few of the aspects that need to be borne in mind while finalising the contours of the project include:

1. Can the public entity levy and collect user fees from beneficiaries?
2. Can the private partner collect user fees?
3. Can the user fee collected from the beneficiaries serve as consideration to the private partner for the project?
4. Can the private partner have the right to discontinue the services to beneficiaries who do not pay user fees?
5. Can the private partner be allowed Rights of Way over private properties in order to rectify/repair the developed project?
6. Can the private partner be made liable for assets that are defective for historical reasons that pre-date its appointment?
7. Can the private partner be allowed access to and rights to use the public assets of the public entity?
8. Can the private partner be given the right to manage and control the employees of the public entity?

4. When the Law on the Subject is Silent/Unclear?

Public services, since independence, have been Government monopolies, subject to specific exemptions. Consequently, the provision of public service by any entity that was not an instrument of the State or public entity required specific authorisation under applicable laws and this is why an adequate legal framework is essential to attract long term private sector participation and investment.

Legal compliance must be demonstrated at every stage of the procurement process, especially during the project structuring stage.

A clear legal framework relating to the grant of enforceable rights and allocation of risks not only promotes and protects the private investor but also brings in investment for the development of infrastructure. Unless a project is developed in conformity with existing law, it may be challenged at any time in the courts. There are many examples of amendments having been brought in to facilitate private investment in the development of a project.

Amendment or enactment to facilitate private participation

The National Highways Act, 1956, governing the national highways in India, was amended in June 1995 to attract private investment in road development, maintenance and operation. The amendment allowed the private sector to levy, collect and retain fees from road users and empowered them to regulate traffic on highways in terms of the provision of the Motor Vehicle Act, 1988.

Similarly, in the power sector, the Central Government has taken a number of steps to include private sector participation. The enactment of the Electricity Act, 2003, is important in this regard. It provides for the entry of private licensees in transmission and in distribution through an independent network. The enactment has de-licenced power generation completely(except for hydro-power projects over a certain size).

Functions relating to solid waste management, water supply, provision of civic amenities etc., have traditionally been considered municipal duties and the municipal bodies/urban local bodies have been vested with powers to undertake them under the respective municipal acts governing them. There are many examples of municipal bodies/urban local bodies having implemented projects in these sectors through the PPP mode.

Although municipal acts do not have a specific provision to enable private sector participation, the general power to contract vested with these municipal bodies/urban local bodies enabled this kind of arrangement. Generally, in situations where the law pertaining to the project is silent, it might be useful to introduce a law to justify the basis of the project. The legislature at the Central or the State level, depending upon which list the project falls under, could introduce an amendment to existing legislation or introduce legislation to validate the legal basis for the assignment.

In instances where the law is silent, neutral or unclear, it is always advisable to have the legal status clarified before pursuing the project.

There still exist certain areas in which there are no proper laws governing the implementation of PPP projects.

Grey Areas on the Issues of legal coverage

'Railways' is a subject covered under the Union List - only the Central Government has the power to legislate on the matter. Under the Railways Act, 1989, the Central Government is the competent authority as far as the development of railways in India is concerned and the States have no role to play.

However, the subject 'Tramways' falls in the State List and States are competent authorities in so far the development of tramways located within a municipal area is concerned. Although the division of responsibilities is clear in terms of which entity would be involved in the development of railways and tramways, there is little clarity on the subject in a case where the development of a metro rail passes through more than one municipal area.

The Delhi Metro Rail Corporation Ltd. and the Bangalore Metro Rail Corporation Ltd. are Government-owned companies constituted under the Companies Act, 1956 for implementation of the Metro rail projects in Delhi and Bangalore respectively. The Metro Railways (Construction of Works) Act, 1978 and the Metro Railway (Operation and Maintenance) Act, 2002 provide the legal basis for metro construction and operation.

However, in the 1978 Act, there is not much scope for implementing the project through the PPP mode, as this legislation does not provide for either a non-Governmental metro railway or metro railway through the PPP model. Initially, the Bangalore Metro network was conceived in 1993 as a PPP; however, it could not make headway for almost a decade because it was not clear how it could be implemented under the PPP model. After prolonged wrangling, Bangalore Metro followed a path similar to that taken in the case of the Delhi Metro development. The Bangalore Metro Rail Corporation Ltd was formed with the Central and the State Government sharing an equal stake in the project.

This issue could be particularly contentious if a State intends to develop a rail link passing through more than one municipal area. Passing a specific legislation in this regard to facilitate private investment or amending the existing Tramway Act could be a step towards promoting PPP projects in this sector.

It is necessary for both the public entity and the private partner to comply with the existing legal framework at every stage of the project development process. Therefore, in instances where the law is silent, neutral or unclear, it is always advisable to obtain legal clarity before going ahead in the project development process.

5. Conclusion

'Ignorantia juris non excusat'; viz. ignorance of law is no excuse; therefore it is necessary that every project proposed for development under PPP framework or otherwise must comply with the existing legal framework in the country. Any project development in contravention of legal compliance would be deemed illegal in the eye of law; inviting legal persecution. Thus, a legal compliance check is an indispensable step in any project development process.

6. Bibliography

1. Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
2. The Constitution of India Act, 1950
3. The Electricity Act, 2003
4. The National Highways Act, 1956

PPP Guide for Practitioners



Module 10: Risk Analysis

1. Introduction

One of the essential conditions of a PPP, as described in Module 2 of this Guide is 'Risk Sharing'. Appropriate risk sharing between the parties in a contract is key to determining, the project structure and also the private sector's response to a bid. Well-developed projects identify risks up front, and accordingly design the institutional arrangements, the financing package, and the contractual agreements to best mitigate and manage those risks. Risks vary across project type and location.

Risk Analysis answers:

- What are the risks associated with the project?
- How can those risks be mitigated?
- How best can the risks be allocated between the public entity and the private partner?

At various stages in the project lifecycle, the potential risks should be listed and described, based on the project concept, the scale of required investment, and the past performance trends of the sector. While analysing the risks, the constraints and benefits of public and private delivery systems should also be considered. Altogether, the risk analysis provides a realistic project scope and explains what the major challenges are for implementation.

2. What is a Risk?

A risk is defined as any factor, event or influence that could threaten the successful implementation of a project in terms of time, cost, achievement of revenue estimates, and quality.

Risk Management and Contractual Issues, Partnerships Victoria, defines risk as - "Risk is the chance of an event occurring which would cause actual project circumstances to differ from those assumed when forecasting project benefits and costs"

The principal responsibilities in an infrastructure project include design, construction, operation, maintenance, revenue collection, arranging finances, and legal and physical ownership of the assets. As a part of project structuring (Refer Module 11), a comprehensive analysis of risks in the project would need to be carried out and addressed so that the project gets "de-risked" to the extent possible.

3. When is Risk Analysis Undertaken?

The various risk factors that can affect the project performance need to be assessed continuously but a comprehensive risk analysis of a project is undertaken at least three times:

- Initially by the Government as a part of the project development process
- At the time of bidding, by the prospective bidders
- By financial investors, lenders and equity providers, before investment

If risk analysis is comprehensively done as part of the project development process, there will be fewer surprises later and private investors and lenders will have greater confidence in the project, ensuring quick and efficient financing.

4. Management of Risks

The parties involved in a project can affect the amount of risk by:

- the level of influence they have over events, and
- the level of information they have about the present and the future.

Risk analysis is an iterative process and needs to be carried out at various stages of the project development process.

Approach to risk management

The typical approach to management of risks involves the following activities:

1. **Identification:** determining what risks exist during the project lifecycle
2. **Evaluation:** assessing potential impact of the risks identified
3. **Mitigation:** addressing the risks/uncertainties identified by way of contract, insurance, etc., to the extent possible
4. **Allocation:** the remaining risks are allocated to the entity most suitable to manage the risks

Influence relates to the power that parties have to create action and determine outcomes. Influence can come from delegated Authority, such as a public entity which has certain powers granted to it under law, or from good management and organisation, or from specific knowledge.

Information is directly related to risk. It is precisely because we usually don't have all the information that we can't predict future outcomes for certain. When we have better information we are better able to foresee and reduce risk.

There are certain risks which usually feature during a certain stage in the project development process therefore the parties would need to be well prepared to manage and mitigate these risks.

The public and private sectors are different in the types of influence and information that they have. This means they can control risks in different ways and are better at controlling some risks and not as good at controlling others.

For example:

The public sector has certain powers and advantages in the process of land acquisition that mean it is sometimes better suited to this task and to taking the associated risks.

By contrast, the private sector is exposed to competitive pressures that force it to establish improved management practices. It is also often the technology leader. This means it may be better suited to managing the design and construction risks.

5. Key Project Risks and Mitigation Measures

Each stage in the project development process carries certain risks. Project related risks that may arise at different stages of project development process is explained in this section. Annexure 10 of this Module sets out indicative risks that may arise in any project and respective mitigations measures for such risks

5.1. Early Project Risks

- **Developmental risks:** such as the quality and comprehensiveness of preparatory tasks (which may result in problems at a later stage, if not well conducted), conduct of the procurement process in a transparent manner, obtaining various statutory and regulatory clearances, acquisition of land (where required) and getting the buy-in of key stakeholders, could be addressed to a large extent through credible project development studies and the conduct of a transparent bidding process. Some of these are also specified as conditions precedent in the concession agreement.
- **Sponsor risks:** in order to ensure that private partners of the required experience and financial capability are selected, the qualification process is important and qualification parameters should be appropriately specified so that there would be sufficient competition and yet ensure that only bidders of the desired capability are selected to implement the project. The concession agreement also has clauses which set out certain minimum equity-holding commitments for the sponsors to ensure their continued commitment to the project.
- **Counter party risks:** where the Government is a counter party either for payment, supply of key inputs (MSW for instance) or purchase of project outputs (water or power for instance), it may require certain arrangements to be in place, such as dedicated funds to be created (just as the Government of India set up the Central Road Fund), special taxes to be levied to raise additional revenue for paying for these services (cess on fuel or for solid waste management) or ring fencing of revenues (as was done for the initial power generation projects). In some cases certain assurances may need to be given (minimum level of MSW to be supplied or power to be purchased or standing charges to be absorbed) with penalties in case of non-compliance. Credit enhancement mechanisms such as letters of credit (L/Cs) or guarantees (in the initial annuity projects – a L/C covering one annuity was provided by National Highways Authority of India to the concessionaire) may be necessary. This risk would need to be suitably addressed and the arrangements may need to be put in place as part of the development process itself.
- Another early project risk is associated with changes in the project contours. This happens when project studies are conducted post award of project and the data that emerges changes the parameters of the project considerably.

5.2. Completion Risks

Completion risk refers to the completion of construction of project risks. It is also otherwise termed as **construction risk**. This is one of the most critical risks that need to be addressed in projects, especially in those that have traditionally experienced a high level of difficulty in completing

Completion risks are commonly observed in projects where there has been a delay in the acquisition of land and its transfer to the private partner within the time stipulated in the agreement.

construction. Completion risks would also have a repercussion on commissioning of a project and thus the commissioning risk. **Commissioning risk** is the risk associated with delay in the commencement of the commercial operations of the project. The nature of completion risks are described below:

- Ability to start the project within the budgeted time
- Ability to complete the project within the budgeted costs
- Adherence of the project assets to the specifications (including the quality standards)
- Completion risks can delay the project and increase project costs very significantly

Common reasons for time and cost overruns

- Delays in the site being made available
- Delays in supporting infrastructure
- Delays in approvals
- Design and engineering risks
- Geo-technical risks: uncertain ground conditions
- Construction technology
- Availability of construction materials
- Contractor's delays and failures
- Delay in/ non-availability of labour

Mitigation Measures

- Assurances from the Government entity regarding delivery of land – either 100% or the bulk of it, with suitable penalties and comforts in the event of non-compliance
- Other assurances –environmental clearance, statutory approvals, any other support infrastructure or activity (dredging of a channel, for instance, in a port project) – with suitable comforts in the event of non-compliance
- Evaluate DPR – supply of key construction inputs – material, equipment and manpower in the vicinity of the project sites and costs of these inputs
- Evaluate need for various components and specifications – extent of civil construction, access points, grade separators, drainage etc.
- Completion Certificate by Independent Engineer – only after verification that project assets created are as specified and of desired quality
- Other construction – in a railway over bridge – portion over rails – done by Railways or private partner
- Incentive structure in the contract – bonuses, penalties and liquidated damages
- Use of good quality planning techniques such as the critical path method, lean construction, building information modelling, etc.

Significant cost overruns and delays in infrastructure projects in India are set out in the table below

Sector	Number of Projects	% of Projects with Positive Cost Overrun	% of Projects with Positive Time Overrun
Road, Transport and Highways	157	54.14%	85.35%
Railways	122	82.79%	98.36%
Shipping and Ports	61	31.15%	95.08%
Urban Development	24	41.67%	100.00%
Civil Aviation	47	42.55%	91.49%
Health and Family Welfare	2	100.00%	100.00%

Source: Adapted from article in the *Economic & Political Weekly*, May 22, 2010. (*Delays and Cost Overruns in Infrastructure Projects: Extent, Causes and Remedies*, by Ram Singh, DSE)

5.3. Operating Risks

These risks relate to technology, nature and costs of operations and maintenance and adherence to performance standards.

- **Performance risks:** refers to the risks associated with the private partner not being able to deliver/ perform as per the key performance indicators/ minimum service levels as specified in the concession agreement. It could also be referred to as **O&M risks**. Such non-performance would in most cases result in payment of liquidated damages from the private partner to the public entity; repeated and persistent non-performance could also result in termination of the concession agreement.
- **Technology risks:** includes the following aspects;
 - **Ability to deliver the desired level of performance:** For instance, while waste-to-energy technologies may successfully process organic wastes such as manure and green wastes, processing un-segregated MSW, mixed with silt and construction material, to the desired performance levels has been a challenge
 - **Risk of Obsolescence** (also referred to as **technology obsolescence risk**) – this needs to be critically evaluated for whole or components of the project, more so when the concession is for a long period of 20 – 30 years. Dealing with these risks involves careful evaluation of the likely technological changes in these areas, for which technical studies by good and credible consultants will be necessary. The use of proven technology and appropriate technology transfer arrangements, together with performance guarantees and maintenance contracts from the provider of technology, will ensure a certain level of performance.

It is commonly perceived that the private partner comes with better efficiencies in operations and so operating risks are usually transferred to the private partner in projects developed through a PPP framework.

The need to follow appropriate standards is usually reflected in the O&M specifications set out in the concession agreement and which require the concessionaire to prepare standard operating systems and procedure manuals for various aspects – operations, regular, preventive and unscheduled maintenance, safety, security etc. Periodic monitoring through site visits, reviews and project monitoring committees, help to anticipate problems during operations. To ensure that funds for major maintenance works are available, lenders and financial investors

often specify the use of sinking funds and the creation of maintenance reserves (out of the cash flows).

A better understanding of these risks and how they can be mitigated will enable the prescription of the most appropriate standards and specifications, estimation of projected costs and better capacity planning for the sector.

**P
R
O
J
E
C
T**

24x7 Water Supply Pilot PPP Projects in Three Cities of Karnataka

Water sector PPPs typically present risks such as lack of adequate/accurate information regarding the existing systems, leading to inaccurate investment and revenue forecasts.

In order to de-risk the project, the project was envisaged as a management contract, involving the private partner from the preparatory stage and engaging their services for planning, contracting out of capital works and O&M – without passing on the investment or revenue risk.

All design, construction, operating and performance risks were borne by the public entity. The contract was structured in such a way that 40 per cent of the O&M fee payable to the concessionaire was directly related to the achievement of specified outcomes. Penalties (maximum of 10 per cent) were also included in the contract.

Source: <http://toolkit.pppinindia.com/ports/module3-rocs-kuwsip1.php?links=kuwsip1>

5.4. Market Risks

Completion risk and revenue risk together constitute the two most important variables that can impact the successful implementation of a project.

- **Market risk** could be on account of uncertainty in:
 - determining the design for the project (also referred to as **design risk**) on the basis of future traffic which involves forecasting, changing elasticity of variables affecting traffic growth (transport projects), etc.;
 - estimating demand (also known as **demand risk**) viz. demand uncertainty i.e. insufficient demand for products and services, for instance for water, compost (MSW treatment facility), power etc;
 - structural changes in the industry itself which may result in insufficient demand for competing facilities, competing technologies/competition;
 - wholesale structural changes, for instance, a large part of the population switching to electric scooters could result in lower toll collection on a bridge or bypass road, or a similar shift to bottled water for drinking/cooking purposes or large scale water re-harvesting may lead to lower demand growth for water, or the re-location of industries/new townships may impact public transport usage in one part of the city etc.
- **Price/ Revenue risks** typically include non-payment due to resistance from users, regulatory control over pricing, delays in revision of prices or such revisions not keeping up with the increase in cost of service delivery.

Demand risks are common risks encountered in projects. This is the reason why the technical feasibility of a project becomes critical in project development and structuring.

The agreement would usually set out the basis, periodicity and process for revision of tariffs and user charges. An assumption on future inflation may need to be made where tariffs would be indexed either whole or in part to changes in the Wholesale Price Index (WPI). Sensitivity analysis for varying levels of WPI increase, risk of unilateral reduction in user charges (for

political reasons) or delays in notification of toll will be useful to see how the project cash flows withstand these changes.

Mitigation measures

- Where possible, firm throughput handling (ports) or off-take commitments for a significant part of the facility/ output would help address some of this risk.
- An assessment of the long-term cost competitiveness of both the input and output, and studies by experts when required as part of the project preparation would be useful.
- Financial incentives such as penalties and liquidated damages for interrupted/irregular supplies are often specified in the contracts. The adverse impact of some of these variables on the project can be assessed through a sensitivity analysis

5.5. Other Risks

Most of the residual risks such as **force majeure risks**, risk of Governmental action (early termination of the contract or expropriation) also referred to as **political risk, changes in law or regulation**, are usually addressed in the concession agreement. Any risk left open may need to be suitably priced and taken care of in the financial projections.

The remedy for **commercially insurable risks** is usually insurance cover that the concessionaire is expected to take. This needs to be suitably provided for in the financial projections. Further, though several risks/events may be identified and listed, unless one of the parties is materially adversely affected by the event and impaired from performing its obligations no relief can be sought. Any excuse from performance of obligations would also similarly only last till such time that the ability to perform is impaired. The bulk of the commercial risks will be addressed if completion, revenue and O&M risks are comprehensively evaluated.

The exhaustiveness of identification and the quality in allocation of risk will increase with experience in structuring diverse projects through a PPP framework. There are certain risks that are specific to projects and/ or sectors and/ or regions.

Financing risk, while passed on to the private partner to an extent, is taken care of in the contract document (in case financial close is not achieved within the time stipulated). It is important that financing documents submitted by the private partner (if stipulated in the agreement) are evaluated for the possibility of interest rate or **currency risk**, so that one can prepare for any adverse situation. Ideally foreign currency debt should not be used to finance a project where revenues are entirely rupee-denominated – unless suitable hedging mechanisms are put in place. **Interest rate risk** (floating or fixed or with re-pricing options) could be similarly evaluated. The tenure of the debt should be long enough to ensure that cash flows are not unduly stressed.

Environmental and social risks are identified in the EIA/SIA study undertaken as part of the process of project preparation. Since the bulk of these risks are absorbed by the Governmental Authority, it is important to put in place a plan to ensure that the project is insulated from the risks of land acquisition, environmental advocacy and social issues such as resettlement and rehabilitation issues and compensation claims etc. so that implementation is not hampered.

Issues such as access in a road project or location of a MSW treatment plant, need to be adequately discussed as part of a public consultation process for the project and dealt with early in the development cycle.

Typical Risks in a Road project are set out in the table below:

Risk type	Description
Pre-operative task risks	
Delays in land acquisition	Refers to the risk that the project site will be unavailable or unable to be used within the required time, or in the manner or the cost anticipated or the site will generate unanticipated liabilities due to existing encumbrances and native claims being made on the site.
External linkages	Refers to the risk that adequate and timely connectivity to the project site is not available, which may impact the commencement of construction and overall pace of development of the project.
Financing risks	Refers to the risk that sufficient finance will not be available for the project at reasonable cost (eg, because of changes in market conditions or credit availability) resulting in delays in the financial closure for a project.
Planning risks	Refers to the risk that the pre-development studies (technical, legal, financial and others) conducted are inadequate or not robust enough resulting in possible deviations from the planned or expected outcomes in the PPP project development.
Approvals risk	Refers to the risk that necessary permits, authorisations and approvals required prior to the start of construction are not obtained in a timely fashion, resulting in delays to construction and the project as a whole.
Construction phase risks	
Design risk	Refers to the risk that the proposed design will be unable to meet the performance and service requirements in the output specification. It can result in additional costs for modification and redesign.
Construction risk	Refers to the risk that the construction of the assets required for the project will not be completed on time, budget or to specification. It may lead to additional raw materials and labour costs, increase in the cost of maintaining existing infrastructure or providing a temporary alternative solution due to a delay in the provision of the service.
Approvals risk	Refers to the risk that delays in approvals to be obtained during the construction phase will result in a delay in the construction of the assets as per the construction schedule. Such delays in obtaining approvals may lead to cost overruns.
Operation phase risks	
Technology risk	Refers to the risk that the technology used will be unexpectedly superseded during the term of the project and will not be able to satisfy the requirements in the output specifications. It would result in increased costs of a replacement technology.
Operations and maintenance risk	Refers to the risks associated with the need for increased maintenance of the assets over the term of the project to meet performance requirements.
Traffic risk	Refers to the risk that demand for a service will vary from that initially projected, such that the total revenue derived from the project over the project term will

Risk type	Description
	vary from initial expectations. There is no risk in annuity contracts.
Payment risk	Refers to the risk that tolls are not collected in full or are not set at a level that allows recovery of costs. This is a risk for the public sector under shadow tolls and for the private sector under user tolls. There is no risk in annuity contracts.
Financial risk	Refers to the risk that the private sector over stresses a project by inappropriate financial structuring. It can result in additional funding costs for increased margins or unexpected refinancing costs.
Handover risks	
Handover risk	Refers to the risk that the concessionaire will default in the handover of the asset at the end of the project term or will deviate from the minimum quality/ value of the asset that needs to be handed back to the public entity.
Terminal value risk	Refers to the risk relating to differences from the expected realisable value of the underlying assets at the end of the project.
Other risks	
Change in law	Refers to the risk that the current legal/regulatory regime will change, having a material adverse impact on the project.
Force Majeure	Refers to the risk that events beyond the control of either entity may occur, resulting in a material adverse impact on either party's ability to perform its obligations under the PPP contract.
Concessionaire risk	Refers to the risk that the concessionaire will prove to be inappropriate or unsuitable for delivery of the project, for example due to failure of their company.
Sponsor risk	Refers to the risk that the Sponsor will prove to be an unsuitable partner for the project, for example due to poor project management or a failure to fully recognise the agreed terms of the Concession Agreement.
Concessionaire event of default	Refers to the risk that the private partner will not fulfil its contractual obligations and that the Government will be unable to either enforce those obligations against the sponsors, or recover some form of compensation or remedy from the sponsors for any loss sustained by it as a result of the breach or the private partner will prove to be inappropriate or unsuitable for delivery of the project.
Government event of default	Refers to the risk that the Government will not fulfil its contractual obligations and that the private partner will be unable to either enforce those obligations against the Government, or recover some form of compensation or remedy from the Government for any loss sustained by it as a result of the breach.

6. Conclusion

Project structure for development through PPP frameworks is largely determined on the basis of allocation of risks between the public entity and the private partner. Experience has shown that the public entity is best able to handle risks associated with regulations and approvals whereas the private partner is best placed to handle risks pertaining to development, operation, and maintenance. Risk analysis is instrumental in the successful execution of projects through a PPP framework. Listing out all the risks that may emerge in a project during its lifecycle and setting plans to mitigate them would always benefit the project.

7. Bibliography

1. A Primer on the Management of Risk and Uncertainty, © D. Robinson, 2006
2. Module 1: PPP Background, India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
3. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
4. Private Financing of Toll Roads, (RMC Discussion Paper Series 117), Gregory Fishbein, Mercer Management Consulting, Inc. and Suman Babbar, World Bank, Project Finance and Guarantees Group

8. For Further Reading

1. Draft Paper on Project Risk Assessment for PPP Projects sponsored by Government/ Government agencies/PSUs prior to bid, January 2007
2. India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
3. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
4. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
5. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
6. Public Private Partnership Manual, National Treasury PPP Unit, South Africa, 2004
7. Public-Private Partnerships Reference Guide Version 1.0, World Bank Institute, The World Bank, Washington DC, PPIAF, 2012.

PPP Guide for Practitioners



Module 11: Project Structuring

1. Introduction

Each component of an infrastructure project, such as its technical design, financial package, approach to management of its assets for revenue generation and cost recovery, relationship with stakeholders including the Government, etc. has a bearing on the other. A well-structured project ensures that the relationship between the various components is complementary and leads to the desired outcome optimally.

The process of configuring a particular project in a manner that comprehensively addresses the various facets of designing, engineering, financing, constructing/rehabilitating, operating and maintaining the asset/delivering the service economically and sustainably, is referred to as project structuring.

An efficient project structuring of a viable PPP project provides for on-going Value for Proposition to the stakeholders involved.

Project Structuring, among other things, answers:

- What is the scope of the project?
- What are the contours of the procurement process?
- How is the project defined and whether it addresses the need?
- Are the expectations of stakeholders adequately addressed?
- What are the general and project specific roles and responsibilities of the parties in the PPP arrangement?
- What is the duration of such an arrangement?
- What forms the consideration in the arrangement, payment terms and conditions?
- What are the risks associated with the project and how are they allocated, mitigated and managed?
- What are the remedies and redress mechanism set out for non-compliance of obligations?
- What are the events of default, which of them lead to termination and what are the consequences of termination?

It is a holistic and comprehensive project structure that addresses the concerns of all stakeholders goes a long way towards creating a beneficial impact on the society.

Defining the Optimal Structure for PPP

The technical analysis, financial analysis, value proposition analysis and the economic analysis contribute significantly to deriving an optimal project structure for development.

To design an optimal project structure under a PPP framework, different options will have to be first analysed and valued. This needs to be done to ensure that the sharing of risks between the parties is done in a manner that creates a win-win situation not only for the private partner and the public entity but also provides maximum value to the society at large.

The first condition to be met for each option is a positive value from an economic perspective. In other words: is the project warranted and does it provide a net positive economic value to the society? This is assessed through an economic analysis. If the project does not have a positive

impact on society, it should not even be considered as a project let alone as a PPP.

The second condition to be met is a positive value to the private sector i.e. is the PPP viable? This implies that the PPP should generate sufficient revenues for the private partner for an acceptable rate of return. This is assessed through financial viability indicators obtained from the viability analysis.

The third analysis aims to assess which of the viable options available (fulfilling both of the above conditions) provides the maximum value proposition and is therefore the most attractive structuring solution to pursue. The various options to be analysed include the different types of PPP configurations as well as the traditional format of procuring the needed infrastructure services to determine the optimal structure.

The key tenets of project structure include – the scope of the PPP, the appropriate PPP mode, the financial scheme, how costs can be recovered, the duration of the PPP, and the overall operating framework. These tenets serve as key inputs for developing a PPP structure emanate from a range of studies or investigations that a public entity undertakes prior to configuring a structure.

The feasibility report could be the basis for structuring the PPP in terms of output specifications i.e., scope, risk allocation, PPP mode, contract duration, fiscal support scheme (if necessary), the tariff setting strategy (if applicable) and the regulatory mechanism.

2. Inputs to Project Structuring

Usually, most of the inputs for a PPP structure are obtained from the feasibility studies addressing the technical, financial, commercial, legal and institutional aspects of the project.

Indicative Studies that Impact Project Structuring:

Market analysis and project scope - assessment of the need for and appropriate scope of the project, building on the work already done at the investment planning and pre-feasibility stage. This would include:

1. **Needs analysis** - does the project meet an end-user need? Does it contribute to meeting the objectives of the sponsoring Authority? Who will the users be?
2. **Define the output** - what services will the project provide?
3. **Estimate and forecast demand** - what level of demand is there for the outputs / services from the project, and how much are users willing to pay (what is the value of the demand)?
4. **Social and environmental feasibility** - including the requirements for impact assessments and for the associated mitigations
5. **Technical feasibility and technical parameters** - based on the market analysis, including specification of required facilities and scenarios of project size, for use in preliminary project design
6. **Risk studies and refined PPP mode** - assessment of the risks associated with the project, study of which party is best able to bear each risk, and refinement of the PPP mode selected at the pre-feasibility stage
7. **Preliminary cost assessment** - based on the technical specification and assessed project

risks

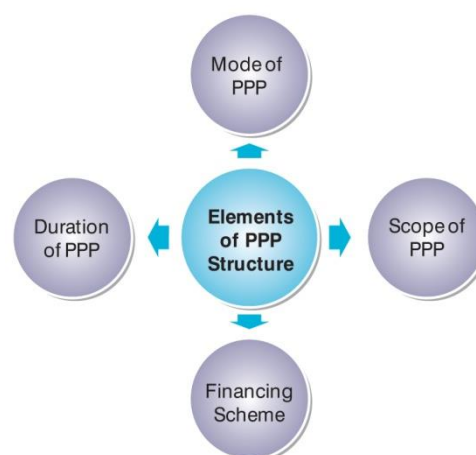
8. **Financial analysis and due diligence** - incorporating a projected revenue structure (e.g. proposed tariff, required annuity) and assessing any need for financial support from the public sector
9. **Economic feasibility** - assessment of an overall net economic benefit of the project, incorporating estimated project benefits and costs including non-market factors such as those from the social and environmental assessment.
10. **Other PPP due diligence activities** - including value proposition analysis if data is available
11. **Project implementation schedule** - including an outline of the proposed PPP procurement and award process, technical and financial close, an outline of the construction schedule and target operation date, and any phasing that is planned for project extensions or ongoing development.

3. Elements of a PPP Structure

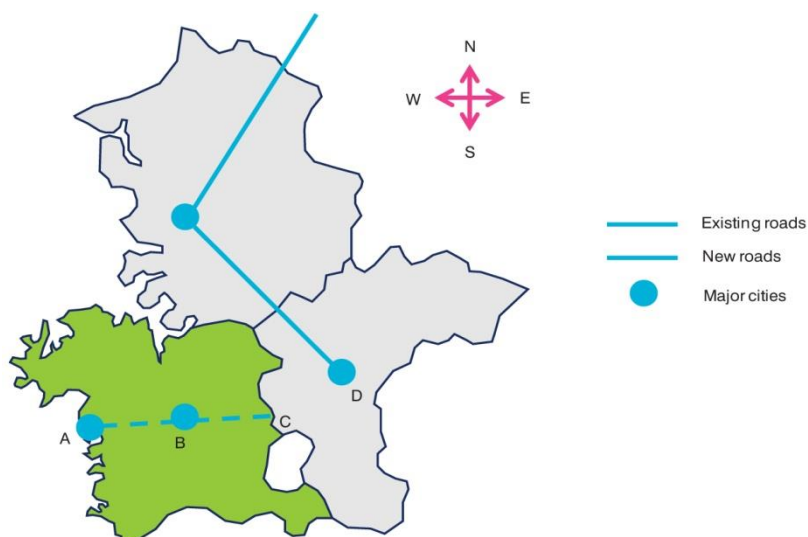
The elements that constitute a good PPP project are usually derived from a set of fundamental aspects of the framework such as:

1. Does the PPP involve building new assets to provide the service (capital expenditure project) or are the services required for operations and maintenance only?
2. Which roles will the private partner carry out? For example, who will provide finance? Who will design and construct?
3. Who will take ownership of the assets?
4. If there are different private partners carrying out different functions, how will the relationship between the various parties affect the final project outcome?
5. What will be duration of the PPP contract?
6. How should the various risks be allocated between the private and public partners?
7. 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 (shadow toll or annuity)?
8. Is demand for the infrastructure service expected to be stable over the period of the contract?

The ultimate project structure will be a result of answers to multiple questions pertaining to the project.



The elements of structuring are well demonstrated by the illustrative case given below:



A Government with limited fiscal resources but with a strong economic growth perspective wants to construct a new road from east to west to connect its port A via the capital city B to the border with the neighbouring State at C. The road is approximately 200 kilometres partly through a mountainous area east from the capital B. Demand east of the capital B is limited though expected to grow once the neighbouring State connects its capital city D to the border at C

The construction costs amount up to INR 5,000 crore, mostly related to the required civil works in the mountainous area

The key issues include:

- The demand risk between B and C is quite significant as it will strongly depend on the construction of a road by the neighbouring State between C and D. It is fair to assume that the demand risk between A and B will be significantly less as it involves two main economic centres (a port and a capital)
- The construction risk between B and C will also be quite significant as it will cross a mountainous area which will require the construction of tunnels and bridges which are commonly riskier than regular road infrastructure

The considerations indicate the impact of risks on the mode of PPP and the scope of PPP. An integrated BOT from A to C is unlikely because of the high risk profile of the B to C section. Demand is uncertain and construction is very risky in view of the required civil works because of the terrain.

By splitting the project, the attractiveness and achievability of a PPP from a private sector perspective increases. A BOT from A to B is more likely to be viable than a BOT from A to C.

Then the question is to ascertain what the best way to connect B to C is? One may consider developing this in a conventional manner using Government resources; however the Government, in this example, is facing fiscal constraints. Given the high economic growth perspective, it is likely that the fiscal situation will improve in the future. Hence it may be more attractive to shift the fiscal burden to the future. This can be done via a BOT annuity where the private sector finances the construction and operates the infrastructure and the Government will repay the cost of the infrastructure over a period of time.

However, the optimal solution in future may be different should the neighbouring State decide to construct the road from C to D and consequently traffic takes off between B and C. Then, the Government in the end may decide to introduce a public tolling system.

If traffic takes off because of the construction of C-D the BOT concessionaire A-B will significantly benefit. And that benefit is not related to its own performance but from a decision of the neighbouring Government. It may be advisable to share that additional benefit between the concessionaire and the Government or between the concessionaire and the users by reducing the tariffs.

Source: Knowledge Series, Training of Trainers Curriculum, PPP, Module II - Project Analysis and Structuring, Department of Economic Affairs, Ministry of Finance, Government of India

3.1. Mode of PPP

The mode of PPP will define the nature of the risk allocation, specifically with regard to demand risk, construction risk, performance risk and residual value risk (relating to the ownership issues).

The choice of mode of PPP would need to be based largely upon the value it provides to both the parties viz. the public entity and the private partner. The main objective of deciding on a mode of PPP is to create a win-win situation for the parties associated with the development of the project under a PPP framework. More on the choice of mode of PPP is explained in the online PPP toolkit available on the website of the Department of Economic Affairs, Government of India.

Usually, PPP modes such as Management Contracts, Lease Contracts, Concessions, BOT and its variants are commonly adopted for the development of projects across sectors. More on various PPP models are set out in Module 2 of the PPP Guide for Practitioners.

The main differences between the various PPP structures concern the allocation of risks, including the following:

1. The investment risk, e.g. who will invest in the project and contribute towards the capital and operation and maintenance costs; whether it is the public entity or the private partner or jointly
2. The residual asset risk, e.g. who will be the owner of the asset and ensures directly or via contract that the residual value at the end of the contract is as estimated
3. The construction risk, i.e. who is responsible for designing and building an asset on time and within budget
4. The demand risk i.e. who is responsible for the use of the asset and who will be hurt if demand is less than expected
5. The revenue risk, e.g. who is responsible for ensuring that optimum levels of revenues are earned by the project; this could be a derivative of risk associated with demand for the project, collection of revenue and revenues losses/ leakage. It becomes all the more critical to the public entity where the bid parameter for selection of the private partner is the highest revenue share
6. The performance risk i.e. who is responsible that the asset is available for use in accordance with performance standards

The project structure is usually developed iteratively, rather than drafting a single option in the first instance. The dynamics of scope definitions, risk allocation, and financial analysis have an impact on the mode of PPP.

3.2. Scope of PPP

The scope of the PPP project is defined in terms of tasks and responsibilities transferred to the private entity. Tasks and responsibilities are related to the different project components that are to be designed, built, financed, maintained and operated. It is to be noted that the scope of the PPP project does not have to be the same as the scope of the overall project identified for the purpose of meeting a specific public objective.

For example, the scope of the PPP project can be less than the scope of the overall project i.e. excluding certain tasks and responsibilities, because it is more attractive or more achievable, in other words splitting up the project.

The scope of the PPP project can be larger than the scope of the overall project also, i.e., adding certain tasks and responsibilities because it is more attractive or more achievable in cases where the land development rights or advertisement rights are transferred to the private partner in addition to the original project.

The matrix shown below helps to visualise the scope of the project discussed in the case above. The rows indicate the different project components that the scope of the project comprises and the columns indicate the key tasks related to the different project components for the purpose of providing a specific public service.

Project components	Design	Build	Finance	Maintain	Operate
Road A-B					
Road B-C					
Rest Areas					
Fuel Stations					
Road side Infrastructure					

Applying the scope matrix to a road project implies that first;

1. Different project components are identified, e.g.
 - a. Different road sections;
 - b. Who will get the responsibility to develop rest areas?
 - c. Who will get the responsibility to develop fuel stations?
 - d. Roadside Infrastructure
 - e. Public entities can also think of respective civil works like tunnels and or bridges
2. Each of these assets may have to be
 - a. Designed
 - b. Built
 - c. Financed
 - d. Maintained, and
 - e. Operated

It is usually advised to start with the assumption of an integrated BOT project. The rationale for this is that all the interface risks are transferred to the private partner, who could be more incentivized to manage this risk. Also it means that the public sector risk exposure is reduced.

Sample risk matrix for integrated BOT is set out in the table below.

Project components	Design	Build	Finance	Maintain	Operate
Road A-B					
Road B-C					
Rest Areas					
Fuel Stations					
Road side Infrastructure					

However, in practice, it may well be that such a BOT is not viable or attractive and that the project needs to be split up in different contractual arrangements. These contractual arrangements may not all have to be BOT and they can be different PPP modes.

Sometimes, it may be more viable and more attractive to apply different contractual arrangements for the different elements. However, it will all depend on the financial analysis and the value proposition analysis. A critical element in the scope of the project relates to so-called interface risks. In principle each element of the scope depends on another element. For example if road A to B is not ready, demand on road B to C will be impacted. If road B to C is not ready, it does not make sense to operate rest areas.

In selecting a multiple contract structure for achieving the overall project objective, additional agreements or contracts will be needed to define the interaction between the various elements and specifically allocate responsibilities for resolving interparty issues.

The scoping of a PPP project is critical. Sometimes it may be a better option to limit the scope of individual PPP arrangements and adopt multiple PPP modes to deliver different service needs if it provides value proposition.

It might be useful to narrow down to an acceptable 'mode' of PPP arrangement, i.e., management contract, lease, BOT etc. The remainder of risk allocation and other contract elements are details, though important.

A sample of combination of PPP modes is set out in the diagram given below:

Project components	Design	Build	Finance	Maintain	Operate
Road A-B					
Road B-C					
Rest Areas					
Fuel Stations					
Road side Infrastructure					

The challenge is to define who will manage these interface risks; - Will it be the public entity which is the case when different contractual arrangements are applied, or, Will it be the private partner which is the case when an integrated BOT is applied.

3.3. Financing of PPPs

The output of the financial feasibility analysis is an assessment of whether the investors get their required returns. The key indicators that reflect financial viability include Net Present Value (NPV) and Internal Rate of Return (IRR).

Financial Viability Assessment of a Project:

When a project has:

- A positive Net Present Value (NPV) of the project as a whole i.e., a project IRR exceeding the weighted average cost of capital
- A positive NPV of the cash flow to the shareholder i.e., an equity IRR exceeding the cost of equity
- Meets all debt service requirements

It indicates that the project is financially viable.

Typically, it is assessed whether the project is viable on its own – i.e., without any support from the public entity (financially free standing project).

If a project is financially free standing, then it is analysed to see if the private partner could share some of the benefits with the public entities (typically in cash terms) and that could be the bidding parameter, all other things being addressed. The sharing of benefits is usually above an expected return by the private partner. For example, if the expectation of the equity investor is 22 per cent and the project generates an equity rate of return of 30 per cent, then it is expected that the private partner shares a return of 8 per cent (viz. 30 per cent minus 22 per cent). The same would also hold true for the support required for meeting equity return expectations. In other cases where the project is financially free standing, the public entity could also look for other options in that user charges could be reduced or the commitments of the public entity towards the project (in terms of share of obligations/risks) could be reduced.

Viable means that the PPP is financially viable, i.e., the private sector is willing to provide the necessary funds/services and expects to receive them back over time, along with a fair rate of return.

However, if the project is not financially free standing, multiple options need to be assessed to encourage private partner's participation in the project (i.e., ensuring that the benefits from the project meet the return expectations of the private sector). The returns estimate and the assumptions to be made for such an analysis are set out in Module 6 of the PPP Guide for Practitioners which sets out Financial Feasibility.

With regard to the financing of PPPs the following key questions need to be answered:

1. Are users willing and able to pay fees?
2. Is demand sufficiently stable or is demand very uncertain implying a need for alternative cost recovery schemes or guarantees?
3. Is demand sufficient for generating sufficient revenues to recover costs or is there a viability gap?
4. Is the private partner able to misuse possible monopolistic characteristics and generate excessive profits or is there a need for regulation?

5. If demand is more than expected will the private partner incur excessive profits or is there a need for regulation?
6. If necessary, how can the Government offer support e.g. Viability Gap Funding, guarantees, annuity payments, shadow toll?

When public entities want to make good decisions about whether to provide fiscal support for private infrastructure services, they need to be clear about the objectives they will be pursuing. Providing fiscal support for one service usually means providing less support to another particular service, or raising taxes, which means raising the cost of services generally. Therefore public entities need to have clear grounds for providing fiscal support.

The public entity needs to ask itself the following questions when considering providing public support to a particular private infrastructure project:

1. What objectives is the Government seeking to secure by providing fiscal support to the project?
2. Are current Government policies inhibiting the implementation of a satisfactory purely private project and, if so, could the Government achieve its objectives by changing those policies at no fiscal cost?
3. If not, what instruments of fiscal support does the Government have at its disposal?
4. How well does each instrument address the problem, taking into account problems of implementation as well as the desired effects? What is its expected benefit?
5. How much is each option likely to cost?

Given the assessment of the project not being financially viable with the defined scope and assumed PPP mode, the next challenge is to optimise the structure. There are several options to optimise the scope ranging from applying the Ministry of Finance, Government of India's Financial Support for PPPs in infrastructure, viz. VGF scheme or guarantees to scope changes. A well-structured financial model will be able to assess the impact of the different options on the NPV of PPP arrangements.

One should also assess the impact of the different options on the risk profile of the PPP. It is obvious that using capital grant (under Financial Support for PPPs in infrastructure) will increase the NPV from a private sector perspective as it will reduce its financing. Extending the duration will also increase the NPV as it will add positive cash flows to the NPV calculation. Tariff increases may increase the NPV assuming that tariffs have not already been set at the profit maximising level. However tariff increases are also likely to increase the risk profile of the PPP. The way the users will react to higher tariffs and the elasticity would also have a bearing on the NPV. In this case the increased NPVs are not sufficient to offset the higher risk profile.

Allocation of risks should be to maximise the efficiencies of each of the parties, and to minimize overlaps of responsibilities.

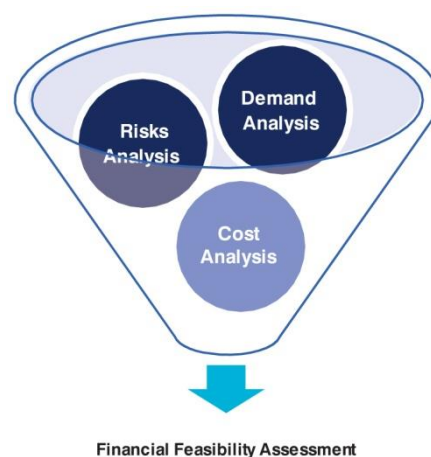
Reducing the scope may increase the NPV from a private sector perspective because the scope reduction may imply that costs will be reduced without a significant impact on the revenue potential. The scope reduction may also imply that the risk profile is reduced because it no longer includes, say for instance, the construction and maintenance risk of the excluded asset. In this case the consequence of the scope reduction is a financially viable project from a private sector perspective even through this may result in increased public sector risk exposure and a fiscal burden.

The implications of the change in scope of the project NPV and risk allocation must be considered while finalising the best project structure. This process may need to be iterative in nature.

Expanding the scope may increase the NPV e.g. advertisement rights that create additional revenues. However, the additional revenue stream may be very uncertain and consequently increase the risk profile. In such an event, the increased risk profile outweighs the increased NPV potential.

The following questions are typically answered in conjunction with the value drivers of the project:

1. Demand (which translates into revenues or other benefits to the project)
2. Risks (across the spectrum of project development, implementation and operations)
3. Costs (capital and operating expenditures)



3.4. Risk Analysis

It is not without reason that risk management is seen as an integral activity in project structuring. Risk management spans demand analysis, revenues, discount rates, and costs, as each of these elements has a set of underlying “uncertain” assumptions.

Relevance of Risks in Structuring PPPs

Risk is the chance of an event which may cause a project circumstance to differ from what was earlier envisaged (while forecasting project costs and benefits). The outcomes of risks can either be negative or positive. They can present opportunities (for excellence) as well as threats. Risk management is a widely recognized discipline or practice that can be applied across many business boundaries. Risk management requires having practices in place to identify and then monitor risks; convenient access to dependable, current information about risks; the correct balance of control in place to deal with the risks; and decision-making processes that are supported by a framework of risk analysis and evaluation.

More on Risk Management can be found in Module 10.

3.5. Demand Analysis

Demand assessment is a key input to the financial analysis. It is useful to envisage as many scenarios as practically possible, as this is one of the reasons for project failure post implementation.

Projects are characterised by the fact that they meet a certain demand which may lead to revenues in case of user charges, investments in capital expenditure and for operation & maintenance and management of risks, which are intrinsic to the project.

Delhi Gurgaon Expressway

The expressway currently carries 200,000 passenger car units per day. The design of the project was complex with nine flyovers, four underpasses, two foot over-bridges, and three toll plazas located in close proximity to densely populated areas.

The project experience clearly demonstrates the impact of land use development which has been more intense than anticipated. The traffic study did not take into account the higher than expected economic growth in the past decade which allowed Gurgaon to accelerate its land use development. Also, there was a 10 year time gap between the traffic study and the opening of the road which rendered the initial estimates outdated. As a consequence, the developed capacity of the Gurgaon expressway remains insufficient which is demonstrated by the frequent traffic jams and long queues at the toll booths.

Use of scenarios and simulations during project design could have mitigated the negative consequences e.g. defining a high-growth scenario which would assume a high economic growth and a more intense land development and where capacity would be designed based on the highest possible estimates.

Source: <http://toolkit.pppinindia.com/ports/module3-rocs-dge1.php?links=dge1>

It is useful to assess the demand for the project over its lifecycle. For instance, in a greenfield project, demand during construction is not known. Upon commissioning the new infrastructure, during the initial years the demand could still be uncertain.

These initial years are called the ramp up period. After the ramp up period, demand will normally reduce. At this stage, people would have been accustomed to the new service offering and the market will mature and follow the economic growth rates more closely.

In the long run it is advisable to be cautious with too optimistic demand forecasts. Markets normally consolidate. Competing alternatives are likely to increase as they see an opportunity in the steady growth rates upon maturing. It makes sense to see a reduced growth rate in the long run in comparison with the ramp up period and maturing phase. Assuming reduced market growth rates in the long run also provide a buffer for periods of economic stress.

3.6. Cost Analysis

For carrying out cost analysis, it is essential to possess the required estimation methods and tools. This involves costs pertaining to capital expenditure and also related costs for operations and maintenance (commonly referred as operating expenditure).

Scientific tools and methods pertaining to cost estimation must be utilised to estimate the costs – both capital and O&M expenses. Cost estimates during the feasibility stage determine the quantum of financing required for the project which is an integral part of project structuring.

3.7. Duration of PPP

PPPs are typically characterized as long term arrangements and their duration is generally aligned with the economic life and the design capacity of the asset. The duration is largely determined on the basis of lifecycle costing and the accrual of sufficient revenue streams from the project. Analysis must be carried out to define the most suitable duration as it has a significant bearing on project structuring.

4. How to Derive the Optimum Project Structure?

As it is a complex and iterative process to structure PPPs, a few points that may be kept in mind while structuring projects include the following:

1. **New (“greenfield”) or existing assets** – Greenfield developments, which involve huge capital expenditure to build new infrastructure or additions to existing infrastructure, have different requirements as compared to the rehabilitation or management of existing assets in brownfield developments. The role of private sector is broader in greenfield projects.
2. **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 (e.g. resistance to private ownership of certain facilities that are seen as providing strategic or ‘vital’ services, such as electricity). Restrictions on ownership rule out PPP modes that specifically contain ownership aspects, such as Build-Own-Operate (BOO) and its variants (e.g. BOOT). In this case, other options such as lease management contracts, BOT, BTL, could be considered.
3. **Lifetime of the asset & capital costs** – Infrastructure assets that involve large upfront capital costs or long timeframes for cost recovery, may be more amenable to long-term contracts (e.g. BOT, BLT etc). However, long timeframes also bring greater uncertainties increasing the risk profile of the project. The public entity may be required to take on some of these risks, by, say providing payment guarantee mechanisms, in order to attract private sector finances.

Structuring also depends on ownership of assets, lifetime of assets, the nature of service provision, cost recovery options and stability of the Government.

For example, in 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-tenure finance from the private sector is not available, public sector financing may need to step into the gap (e.g. India Infrastructure Finance Company Limited, is one such entity which provides long term finance for infrastructure projects). The willingness or ability of the public entity 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 more appropriate.

Key expectations of various stakeholders from the project must be always kept in mind during project structuring. The iterative process in structuring must aim at addressing such expectations in the best possible manner.

4. **Nature of the service provision and supporting assets** – More broadly, the nature of the end-user service itself will tend to favour a particular 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 the contract or by a dedicated regulatory agency.
5. **Services provided on the network** - For instance, municipal buses, electric energy or solid waste collection, can be subject to market competition wherein different contracting structures can be explored. There could be a greater opportunity for shorter duration contracts looking at periodic competitive re-bidding, so as to maintain a healthy competition on costs.

6. **Cost recovery options** – Will the revenue in a PPP project come from a user-charge or an annuity paid by the public sector? This aspect has important implications for the nature of the risk sharing.
7. **Stability of demand for the services** – 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 a lower risk of unforeseeable outcomes compared with projects whose services are subject to change (for example, sectors that are subject to rapid technological change). In some cases, it may be necessary to provide the project with some protection 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 will not be allowed nearby within a set number of years or until traffic has reached a specified level.

Impact of SPVs in Structuring

The financing structure should be analysed within the context of the contractual structure for the PPP. When establishing a project consortium under a privately financed PPP project, the sponsor(s) generally set up (through a holding company) a Special Purpose Vehicle (SPV) or project company to contract with the Government as PPP contractor.

The SPV itself has no historical, financial or operating record that the Government can assess. So it has to rely on the historical performance of the consortium members to fulfil the project obligations.

- **The SPV is supported by external equity contributions from shareholders** - The SPV also raises debt or debt/equity (hybrid) finance. The debt providers are concerned with ensuring repayment of the debt plus interest and other returns as agreed. They provide term sheets offering finance subject to conditions precedent that must be fulfilled before the SPV can actually use (or draw down) the financing.
- **Sponsor and financial risks stem from the complex structure of these arrangements** - Upon contract execution, the SPV becomes the 'vital centre' of the project, coordinating and overseeing the work of the sub-contractors, providing the formal liaison with the Government over contractual issues, and ensuring that the financiers receive their revenue returns. Incompetence or a lack of probity in the SPV is therefore a key risk for all parties and one that all parties have an interest in managing. Both the project financiers and Government will scrutinise the SPV, lifting the corporate veil to ascertain which persons or companies have controlling interests in it.

Source: Knowledge Series, Training of Trainers Curriculum, PPP, Module II - Project Analysis and Structuring, Department of Economic Affairs, Ministry of Finance, Government of India

The major functions in a project, as stated in the table below, need to be identified and appropriately allocated to the parties. It must be noted that each function/ responsibility has an associated risk, and in case it is felt that too much premium needs to be paid for such an allocation, the public entity may reconsider allocating that responsibility in a different manner.

Functions	Parameters
Design & Scope	<ul style="list-style-type: none"> • Boundary conditions • Design, engineering scope & standards • Timelines • Ancillary infrastructure provision
Performance Management	<ul style="list-style-type: none"> • Performance indicator • Measurement & monitoring
Financial & Commercial Covenants	<ul style="list-style-type: none"> • Payments • Guarantees & performance securities • Variations • Incentives & penalties • Transaction costs • Lender protection • Insurances
Governance Mechanism	<ul style="list-style-type: none"> • Auditing • Regulation • Reporting • Dispute resolution mechanism
Events of Default & Consequences	<ul style="list-style-type: none"> • Duration • Either parties default of performance • Termination payments • Termination procedures

5. Conclusion

The project structure emanates from an iterative process of role, responsibility and risk allocation to the various parties. It is important not to lose sight of the key expectations of the various stakeholders before such a distribution of roles, responsibilities and risks.

To re-iterate, the private partner (and its investment associates) seek to be fairly compensated, in a sufficiently stable environment. The public entity will want to deliver the service in a sustainable manner, and to limit the possible abuses of monopoly power of the private partner. The public and the regulators expect transparent and fair practices that result in a favourable value proposition. Balancing these expectations will mean some trade-offs that have to be made among the various objectives. Various contract elements need to be defined, in addition to the risk allocation, to give shape to such a project structure.

6. Bibliography

1. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
2. Module 2: PPP Process Guide, Phase 3: PPP procurement, India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010

7. For Further Reading

1. Chapter 3 - Quantitative Demand Analysis, Michael R. Baye, Managerial Economics and Business Strategy, Copyright © 2010 by the McGraw-Hill Companies, Inc, 2010
2. Forecasting the demand for privatized transport: what economic regulators should know and why, Policy Research Working Paper 2446, Lourdes Trujillo, Emile Quinet, Antonio Estache, The World Bank, World Bank Institute. Governance, Regulation, and Finance Division, September 2000
3. How (In) accurate Are Demand Forecasts in Public Works Projects?, The Case of Transportation, Bent Flyvbjerg, Mette K. Skamris Holm, and Søren L. Buhl, Journal of the American Planning Association, Vol. 71, No. 2, Spring 2005. © American Planning Association, Chicago, IL, 2005
4. Inaccuracy Traffic Estimation Empirical Analysis, Robert Bain, 2009
5. India: Developing Tool Kits for Improving PPP Decision-Making Processes Toolkit content, Draft, Economic Consulting Associates and CRISIL Infrastructure Advisory, September 2010
6. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
7. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
8. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
9. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
10. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
11. S&P Traffic Report, 2002
12. Section 6: Demand Analysis Water, Water System Master Plan, City of Newport, Lincoln County, Oregon, November 2008
13. The Challenge of Demand Assessment in Pro-Poor Infrastructure Projects, Dale Whittington, Departments of Environmental Sciences & Engineering, City & Regional Planning, and Public Policy, University of North Carolina, November 2002
14. Why traffic forecasts in PPP contracts are often overestimated?, Research Paper, EIB University Research Sponsorship Programme, Final Draft, December 3, 2007

PPP Guide for Practitioners



Module 12: Pre-procurement Activities

1. Introduction

Pre-procurement activities include all the activities that need to be conducted by the public entity prior to the bid process for procurement of private partner is initiated. Ideally, these activities are to be carried out after the project has been structured so that its contours are set for the procurement of services to be provided by a private partner.

What are Pre-procurement Activities?

Pre-procurement activities are those activities which are expected to be undertaken usually after the project structure is confirmed. An indicative list of these activities includes:

- Land Acquisition, Right of Way and Shifting of Utilities
- Administrative approvals – Permissions from State Government, Cabinet approvals, Permission from GOI, etc.
- Familiarity with Government Schemes – VGF, IIPDF, etc.
- Clearances & Permits – From statutory and regulatory Authorities
- Inter-departmental coordination as per requirement

Each of the pre-procurement activity mentioned in the box above is to be fulfilled by the public entity. The sequence in which they are to be carried out may vary based on the project specifics. It is useful to start these activities concurrently.



At this stage of the project development process, the public entity would need to also make an assessment and provide for committed & contingent liabilities that may arise out the proposed PPP arrangement. In such cases, before inclusion of the contingent liabilities section in the agreement, it is prudent that the public entity has obtained all necessary approvals from appropriate Authority in this regard. Refer Annexure 12 of this Module for more on 'Committed & Contingent Liabilities'

The public entity must also ensure that all stakeholders associated with project are clear with respect to the objectives and outcome of the project. Effective communication strategy must be deployed to spread adequate awareness and knowledge about the project. More on communication strategy and stakeholder consultations is set out in Module16 of the PPP Guide for Practitioners.

2. Land Acquisition, Right of Way and Shifting of Utilities

Land is the most critical component for project implementation and it defines the project itself. Governments may find it difficult to get project partners and lenders for their projects where it has not completed acquisition of a substantial proportion of the land required.

The significance of acquisition of land (for development of project under PPP framework) by the public entity prior to commencement of the bidding process has been supported by the Government of India. The Model Concession Agreement for development of National Highways under PPP framework, issued by the Government of India includes transfer of right of way to the private partner as a condition precedent of the concession agreement. It states transfer of not less than 90 percent of the total right of way required for the project from the public entity to the private partner.

One of the key factors that determine approval of Public Private Partnership Approval Committee (PPPAC) for development of PPP projects includes the extent of land availability (usually must not be less than 60% of the total land requirement) with the public entity for purposes of project development.

Acquisition of land affects people's lives. A few of the reasons why it attracts resistance among different quarters are

- Social impact on people
- Economic impact - loss of livelihood
- Damage to the environment

2.1. Process of Land Acquisition

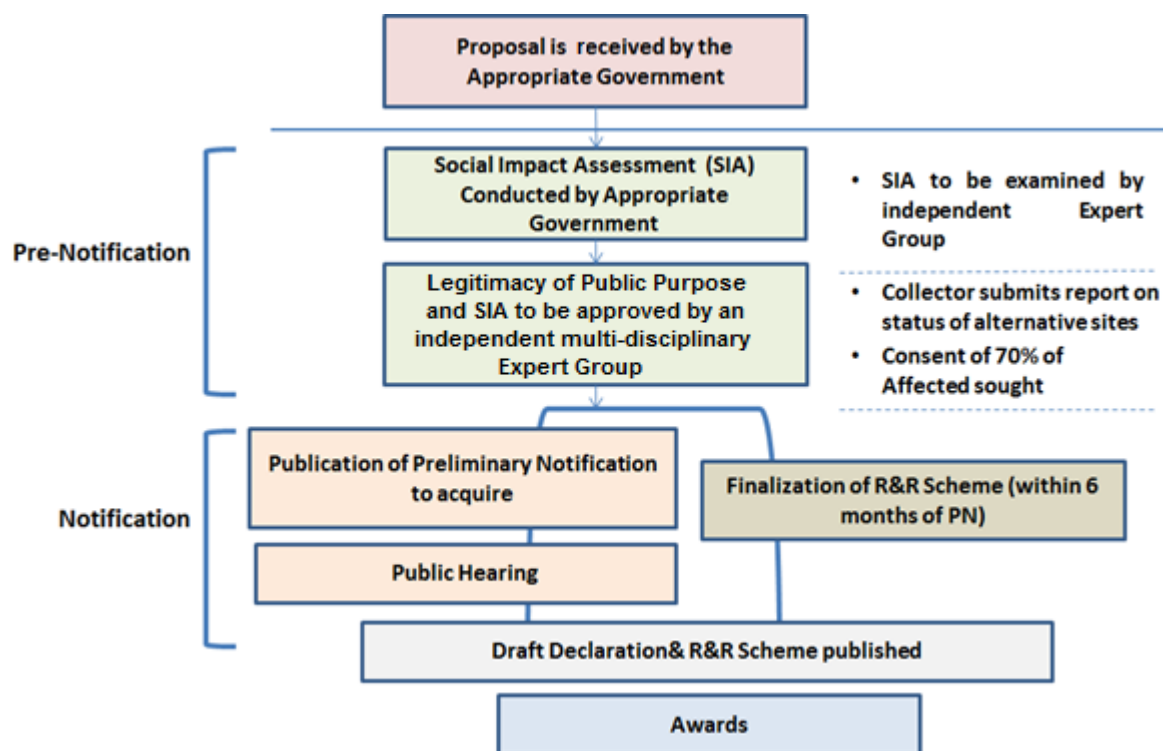
The land acquisition process includes an assessment of the land required for a project, notification and eventual acquisition, and the ability of the Government or the line Department to fulfil its obligation to provide land without any encumbrance or encroachments. Shifting of utilities from the project site and the acquisition of right of way for project development are also part of the process.

Ideally, land acquisition for projects such as development of roads, water supply network, power distribution network, etc. must be completed ahead of bidding so as not to impede the project development process. Currently, the Central Legislation Land Acquisition Act 1894 is used by the union Government as well as State Governments primarily to acquire land for a public purpose..

Following protests and controversies over land acquisition, the Government of India introduced an enactment for land acquisition, the "Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act", 2013 (RFCTLARR Act) in September 2013.

Objective of the enactment is to acquire land for public purpose under a humane, participative, informed and transparent process and to provide just and fair compensation to the affected families. Public Purpose is defined under the enactment and includes strategic purposes relating to naval, military, air force and armed forces of the Union, including central paramilitary forces or any work vital to national security or defence of India or State police, safety of the people, for infrastructure projects, project for project affected people, project for housing for such income groups, as may be specified from time to time by the appropriate Government.

The enactment clearly sets out the procedure to be adopted for acquisition of land with respect to development of projects under PPP framework. The flowchart given below sets out the key steps involved in acquisition of land for development of projects under PPP framework.



As set out in the flowchart given above, the entire process of land acquisition could be dealt in two stages; viz. (i) Preliminary Notification Stage which pertains to land acquisition and (ii) Notification Stage which involves Land Acquisition and the Rehabilitation & Resettlement (R&R) Scheme.

Stage 1 – Publication of Preliminary Notification for Land Acquisition

To acquire land for purposes of development of projects under PPP framework; the public entity would need to submit a proposal to the Appropriate Government. A few of the key clauses pertaining to the publication of preliminary notification are set out herein below

1. Section 4(1) of the RFCTLARR Act, 2013, states that -

Whenever the Appropriate Government intends to acquire land for public purpose, it shall consult the concerned Panchayat, Municipality or Municipal Corporation, as the case may be, at village level or ward level at affected area, , at village level or ward level at affected area, and carry out a Social Impact Assessment study in consultation with them, in such manner and from such date as specified by such Government by notification

2. Section 4(2) of the RFCTLARR Act, 2013, states that -

The notification issued by the Appropriate Government for commencement of consultation and the Social Impact Assessment study under Section 4(1), shall be made available in the local language to the Panchayat, Municipality or Municipal Corporation, as the case may be and in the offices of the District Collector, the Sub-Divisional Magistrate and the Tehsil and shall be published in the affected areas, in such manner as may be prescribed, and uploaded on the website of the Appropriate Government

Provided that the Appropriate Government shall ensure that adequate representation has been given to the representatives of the Panchayat, Gram Sabha, Municipality or Municipal Corporation, as the case may be at the stage of carrying out the Social Impact Assessment Study.

Provided further that the Appropriate Government shall ensure the completion of the Social Impact Assessment study within a period of six months from its date of commencement.

3. Section 4(4) of the RFCTLARR Act, 2013, states that -

The Social Impact Assessment study referred to under Section 4(1) shall amongst other matter, include all the following, namely -

- a. Assessment to whether the proposed acquisition serves public purpose*
- b. Estimation of affected families and the number of families among them likely to be displaced*
- c. Extent of lands, public and private, houses, settlements, and other common properties likely to be affected by the proposed acquisition*
- d. Whether the extent of land proposed for acquisition is the absolute bare minimum extent needed for the project*
- e. Whether land acquisition at an alternate place has been considered and found not feasible*
- f. Study of social impacts of the project, and the nature and cost of addressing them and the impact of these costs on the overall costs of the project vis-à-vis the benefits of the project.*

Provided that an Environment Impact Assessment study, if any, shall be carried out simultaneously and shall not be contingent upon the completion of the Social Impact Assessment study.

The Appropriate Government shall also ensure that the Social Impact Assessment report is evaluated by an independent multi-disciplinary Expert Group. The Appropriate Government must also ensure that, there is a legitimate and bona fide Public Purpose for the proposed acquisition which necessitates the acquisition of the land identified and the potential benefits and the Public Purpose shall outweigh the social costs and adverse social impact.

4. Section 11(1) of the RFCTLARR Act, 2013, states that -

Whenever it appears to the Appropriate Government that land in any area is required or likely to be required for any public purpose, a notification (preliminary notification) to that effect along with details of the land to be acquired in rural and urban areas shall be published in the following manner

- a. in the Official Gazette*
- b. in two daily newspapers circulating in the locality of such area of which one shall be in the regional language*
- c. in the local language in the Panchayat, Municipality or Municipal Corporation as the case may be and in the offices of the District Collector, the Sub-Divisional Magistrate and the Tehsil;*
- d. uploaded on the website of the Appropriate Government*
- e. in the affected areas, in such manner as may be prescribed*

5. Section 15(1) of the RFCTLARR Act, 2013, states that -

Any person interested in any land which has been notified under Section 11(1) of the enactment, as being required or likely to be required for a public purpose, may within sixty days from the date of the publication of the preliminary notification, object to

- a. the area and suitability of land proposed to be acquired,*
- b. justification offered for Public Purpose and the*
- c. findings of the Social Impact Assessment report.*

Stage 2 – Publication of Notification, Land Acquisition, R&R Scheme

The enactment makes it mandatory to devise a rehabilitation and resettlement scheme where the extent of land being acquired is equal to or more than 100 acres. A few of the key clauses of the enactment are presented herein below:

1. Section 16(1) of the RFCTLARR Act, 2013, states that -

Upon publication of the preliminary notification under Section 11(1) by the Collector, the Administrator for Rehabilitation and Resettlement shall conduct a survey and undertake a census of the affected families, in such manner and within such time as may be prescribed, and which shall include –

- a. Particulars of lands and immovable properties being acquired of each affected family;*
- b. Livelihoods lost in respect of land losers and landless whose livelihoods are primarily dependent on the lands being acquired*
- c. A list of public utilities and Government buildings which are affected or likely to be affected, where resettlement of affected families is involved*
- d. Details of the amenities and infrastructural facilities which are affected or likely to be affected, where resettlement of affected families is involved*
- e. Details of any common property resources being acquired*

Meantime, a public hearing would be conducted to understand the concerns of all stakeholders involved especially the affected families. The Administrator upon completion of the public hearing shall submit the draft R&R scheme along with the proceedings of the public hearing to the Collector. The Collector shall review the draft scheme for R&R scheme and submit the same to the Commissioner, Rehabilitation and Resettlement for approval of the scheme.

The R&R scheme would also be required to be published in the lines of publication of the preliminary notification discussed above. The Commissioner shall cause the approved R&R scheme to be made available in the local language to the Panchyat, Municipality or Municipal Corporation as the case may be.

2. Section 19(1) of the RFCTLARR Act, 2013, states that -

When the Appropriate Government is satisfied, after considering any report, if any made under Section 15, that any particular land is needed for a public purpose, a declaration shall be made that effect along with a declaration of an area to be identified as the “resettlement area” for the purposes of rehabilitation and resettlement of the affected families, under the hand and seal of a Secretary to such Government or of any other officer duly authorised to certify its orders and different declarations may be made from time to time in respect of different parcels of any land covered by the same preliminary notification irrespective of whether one report or different reports has or have been made (wherever required).

3. Section 20 of the RFCTLARR Act, 2013, states that -

The Collector shall thereupon cause the land, unless it has been already marked out under Section 12, to be marked out and measured, and if no plan has been made thereof, a plan to be made of the same.

4. Section 21 (1) of the RFCTLARR Act, 2013, states that -

The Collector shall publish the public notice on his website and cause public notice to be given at convenient places on or near the land to be taken, stating that the Government intends to take possession of the land, and that claims to compensations and rehabilitation and resettlement for all interests in such land may be made to him.

5. Section 25 of the RFCTLARR Act, 2013, states that -

The Collector shall make an award within a period of twelve months from the date of publication of the declaration under section 19 and if no award is made within that period, the entire proceedings for the acquisition of the land shall lapse:

Provided that if the Appropriate Government shall have the power to extend the period of twelve months if in its opinion, circumstances exist justifying the same

Provided further that any such decision to extend the period shall be recorded in writing and the same shall be notified and be uploaded on the website of the authority concerned.

The Collector having determined the total amount of compensation to be paid, shall arrive at the final award and issue individual awards detailing the particulars of compensation to each of the affected family. The Collector shall take possession of land after ensuring that full payment of compensation as well as rehabilitation and resettlement entitlements are paid or tendered to the entitled persons within a period of three months for the compensation and a period of six months for the monetary part of rehabilitation and resettlement entitlements.

Need for Consent of Affected Families to be obtained for Land Acquisition

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 mandates Appropriate Government to obtain the consent of Affected Families prior to land acquisition. Prior to passing an order for land acquisition;

- where the land is being acquired for purposes of development of project under PPP framework then; consent must be obtained from atleast 70% of the Affected Families
- where land acquisition is for “private projects”, consent must be obtained from atleast of 80% of the Affected Families.

2.2. Delays in Land Acquisition

The land acquisition process includes meeting the claims of many stakeholders such as the Affected Families who are to be relocated from the project site, people who stay in the vicinity of the project site, the public entity, environment protection groups, social welfare groups, the private partner and Ministries such as the Ministry of Environment and Forests, the Revenue Department, the Pollution Control Boards, etc. The delays/challenges which occur include:

1. Delay in the start of the land acquisition process
2. Time consumed in obtaining consent of the Affected Families
3. Court cases/litigations – restraining orders/stay orders, etc.
4. Rehabilitation and resettlement issues
5. Clearing of titles and encumbrances over the land

Since the process of land acquisition is time consuming, it is important to start the acquisition of land at the earliest - once the extent of land required and the location have been finalised at the project structuring stage and the project is ready to be bid out.

In cases where the project site is under Government ownership but not under the ownership of the particular Department, it is advisable for the public entity to get the title of the land transferred in its name through inter-departmental transfer of ownership of land.

2.3. Right of Way

No project can be implemented by the private partner without the transfer of Right of Way from the public entity. MCA for development of National Highways defines Right of Way as:

Right of Way means the constructive possession of the site, together with all way leaves, easements, unrestricted access and other rights of way necessary for construction, operation and maintenance of the project in accordance with the agreement.

2.4. Shifting of Utilities

Projects may encounter existing utilities either on the site or in the vicinity. Their presence may hamper project execution and will require relocating. Shifting of utilities will need to be carried out before the bidding process for the project begins so that, when the private partner has been selected, the right of way pertaining to vacant land is transferred by the public entity. The utilities that need moving vary from underground pipelines – water, storm water drain, underground drainage – to electric lines/ telephone lines/ poles/ buildings, etc. Approval of the respective line Departments such as Urban Development Department, Water Resources Department, etc. that are in charge of such utilities is to be sought prior to shifting of utilities from the project site.

If the public entity requires the private partner to make arrangements for shifting utilities at its own cost, it is advisable that the public entity facilitates the matter without delay.

2.5. Provision of Utilities

As part of the project structuring activities and discussions with stakeholders, it should be agreed that certain utilities will be made available to the private partner upto the battery limits of the project site. These are a sample of the utilities such as water supply, power supply, waste water management, telecom lines, solid waste management collection and transport, etc. that the private partner may require for project execution:

The Governments of Gujarat and Haryana have introduced legislation to enable the public entity to lay out underground utilities related to project development.

Sometimes, depending on the project structure, the private partner will need to make its own arrangements for the provision of utilities for the project. If so, all the approvals, clearances and permits that need to be obtained will be handled by the private partner, along with the costs.

3. Administrative Approvals

Administrative approvals are those approvals that have to be taken by the public entity prior to taking any decision on project development/procurement. The administrative approvals and processes differ, not just between the States and the centre but even between two State Governments.

Administrative approvals may depend upon the project size and scope – extent of land and purpose of project, project cost and jurisdiction – district/ State in which the project is proposed and whether it is located inter-district or inter-state. Administrative approvals are required to be obtained for most of the projects proposed for development under PPP framework, depending upon the project cost, size and scope. The public

In inter-state projects, administrative approvals from both States, in addition to central Government approvals, will be required.

entity might need to obtain administrative approvals under two heads - administrative approvals for State PPP projects and, administrative approval for central sector projects.

3.1. Administrative Approvals for State level PPP Projects

Most State Governments have devised mechanisms and processes for obtaining necessary administrative approvals for development of projects under PPP framework. Usually, depending on the estimated project cost of development; the appropriate Authority from which the approval is to be obtained by the public entity varies.

Administrative approvals usually are sought at two stages of project development; viz. (i) prior to commencement of procurement process and, (ii) upon selection of the successful bidder and before issuing Letter of Award to such bidder.

Administrative Approval Process for Development of State Level PPP Projects in Karnataka

In Karnataka, a Single Window Agency (SWA) has been constituted at the State Level under the Chairmanship of the Chief Secretary to approve the PPP projects up to Rs.50 crore and to recommend the projects above Rs.50 crore to the State High Level Committee under the Chairmanship of the Chief Minister constituted under section 3 of the Karnataka Industries (Facilitation) Act 2002.

The Committee shall consist of the following members:

1. Chief Secretary – Chairman.
2. Additional Chief Secretary – Member
3. ACS & Development Commissioner - Member
4. Principal Secretary, Planning Department - Member
5. Principal Secretary, Finance Department – Member
6. Principal Secretary, Commerce & Industries Department – Member
7. Principal Secretary, PWD Department - Member
8. Principal Secretary, Urban Development Department – Member
9. Principal Secretary of the Department concerned with PPP project – Member
10. Principal Secretary, Infrastructure Development Department-Member Secretary.

The Chairman of the Committee may co-opt/invite additional members as and when required. The PPP Cell, constituted under the Infrastructure Development Department, Government of Karnataka will be the nodal agency to receive the proposals in respect of the PPP projects and place them before the SWA for consideration and approval. The Committee shall examine and consider the PPP proposals relating to any Department/ agency in the State.

3.2. Administrative Approvals for Central Sector PPP Projects

At the central level, the Cabinet Committee on Economic Affairs (CCEA) in 2005 approved the process of approving of Public Private Partnership (PPP) projects. Subsequently, a Public Private Partnership Approval Committee (PPPAC) was set up comprising the following:

1. Secretary, Department of Economic Affairs (in the Chair)
2. Secretary, Planning Commission
3. Secretary, Department of Expenditure
4. Secretary, Department of Legal Affairs and
5. Secretary of the Department sponsoring a project

The Committee is aided by the Department of Economic Affairs, Ministry of Finance, for servicing the proposals. The Committee may co-opt experts as necessary.

Department of Economic Affairs, Ministry of Finance, vide Notification No. 10/32/2006-Inf dated April 2, 2007 has modified the approval of PPPAC projects. The modified guidelines set out the following criteria for approval of PPP projects sponsored by Central Government Ministries, statutory authorities or other entities under their administrative control;

- For projects, wherein the estimated project cost is greater than Rs.100 Crores but less than Rs.250 Crores, the Committee shall comprise of Secretary, Department of Economic Affairs, and Secretary of Ministry sponsoring the scheme.

Department of Economic Affairs, Ministry of Finance through its Office Memorandum issued a Notification for Modification in Delegation of powers for Formulation, Appraisal and Approval in respect of National Highways Projects dated March 12, 2015. In view of the decision of the Cabinet Committee on Economic Affairs dated 9.7.2014 to increase the threshold, of submission of projects for approval by the Cabinet Committee on Economic Affairs, on the recommendations of Public Private Partnership Appraisal Committee, from Rs.500 crore to Rs. 1000 crore, the delegation of powers in respect of Ministry of Road Transport and Highways has been revised.

- For National Highways projects with estimated project cost less than Rs.25 Crores, the project is to be appraised by the Ministry of Roads Transport and Highways and approval of the same is to be accorded by the Secretary, Road Transport and Highways.
- For National Highway projects with estimated project cost greater than Rs.25 Crores but less than Rs.1000 Crores, the project is to be appraised by SFC chaired by Secretary and approved by the Ministry of Roads, Transport and Highways.
- For National Highway projects with estimated project cost greater than Rs.1000 Crores, appraisal is to be carried out by PPPAC and approved by Cabinet Committee on Economic Affairs.

For detailed information on the process, please refer to Guidelines - Formulation, Appraisal and Approval of Public Private Partnership projects, published by the Secretariat for the Committee on Infrastructure, Government of India and Modification in Delegation of powers for Formulation, Appraisal and Approval in respect of National Highways projects, published by the Department of Economic Affairs, Government of India.

In addition to the above, each public entity has its own rules of governance and administrative set-ups. Prior to the procurement of any project under the PPP framework, based on the rules applicable to the respective department, an approach towards getting approvals needs to be adopted.

4. Government Schemes

Projects need funds for developing capital assets, undertaking operations, and for the maintenance of the project. The funding options are determined by the project size. Projects that are financially viable on a standalone basis are expected to be funded by the private partner. However, projects that are not viable on a standalone basis require funding support to make them viable for development by a private partner. More on funding mechanisms and the sources of finance is discussed in Module 6.

There are several GoI and State Government sponsored schemes that provide grant support for development of infrastructure projects under PPP framework. In projects that require financial support/grant from the Government to become viable, the funding arrangements must be in place by the public entity prior to bidding for the project.

4.1. Financial Support for PPPs in Infrastructure

The Government of India under the Financial Support for PPPs in Infrastructure has introduced a Viability Gap Funding Scheme. Infrastructure projects are often not commercially viable on account of having substantial sunk investment and low returns, they however continue to be economically essential. The Scheme has been formulated which provides financial support in the form of grants, one time or deferred, to infrastructure projects undertaken through public private partnerships with a view to make them commercially viable. The Scheme provides total Viability Gap Funding up to twenty percent of the total project. The Government or statutory entity that owns the project may, if it so decides, provides additional grants out of its budget up to further twenty percent of the total project cost.

The guidelines for forwarding proposals for Financial Support to PPP in Infrastructure under (VGF scheme) is can be downloaded from the link:

http://finmin.nic.in/the_ministry/dept_eco_affairs/ppp/GuidelinesPPApp250106.pdf

Annexure 12A to this Module provides an excerpt of the Scheme for Support of PPPs in Infrastructure which is published under the guidelines for forwarding proposals for financial support to PPPs in infrastructure (VGF Scheme).

Financial Support to PPP in Infrastructure - Viability Gap Funding Scheme

VGF plays a major role in making a project financially viable. Infrastructure projects have long gestation periods and, in certain cases, are not financially viable on their own. It may not be possible to fund the very large investment requirements of these projects fully from the budgetary resources of the Government of India alone. In order to remove this shortcoming and to bring in private sector resources and techno-managerial efficiencies, the Government is promoting Public Private Partnerships (PPP) in infrastructure development through VGF. This facility reduces the capital costs of the projects and makes them viable and attractive for private investments through supplementary grant funding. Provisions for this facility are made on a year to year basis.

Source: Guidelines for forwarding proposals for Financial Support to PPP in Infrastructure

4.2. India Infrastructure Project Development Fund (IIPDF)

Department of Economic Affairs, Ministry of Finance, Government of India shall have issued scheme and guidelines for the India Infrastructure Project Development Fund. While quality advisory services are fundamental to procuring affordable, value proposition PPPs, the costs of procuring PPPs, and particularly the costs of transaction advisors, are significant. For providing financial support for quality project development activities to the States and the Central Ministries a corpus fund titled 'India Infrastructure Project Development Fund' (IIPDF), with initial contribution of Rs. 100 crore is being set up. Although it is envisaged as a revolving fund and would get replenished by the reimbursement of 'investment' through success fee earned from successfully bid projects, should there be a need, it can be supplemented in subsequent years through budget support.

The IIPDF would assist ordinarily up to 75% of the project development expenses. The assistance from IIPDF would ordinarily be in the form of interest free loan. On successful completion of the bidding process, the project development expenditure would be recovered from the successful bidder.

4.3. Other Initiatives

In addition to the above, the Government has also introduced training toolkits for development of projects under PPP framework; issued standardised bidding documents including Request for Qualification and Request for Proposal documents, guidelines on post-award contract management, renegotiations framework, and so on. All these initiatives of the Government have benefitted practitioners' understanding of PPPs.

5. Approvals and Clearances

There are several clearances/approvals which are required at different stages of the project cycle by both the developer as well as the Government.

MCA for development of National Highways require that the parties to the agreement to obtain whatever clearances or approvals are required. The term 'Conditions Precedent' refers to the obligations of the concerned parties which, if not fulfilled, render the rest of the agreement ineffective or unenforceable.

The key approvals/clearances to be obtained by the public entity include the environmental clearance, forest clearance, clearance from the railway Authorities, a no objection certificate and consent letters from the State Pollution Control Board under the Water and Air Pollution Control Acts etc. The non-compliance of 'Conditions Precedent' by any of the parties within the stipulated time may result in termination of the agreement.

Depending upon the nature of the project, the public entity is required to obtain clearances under various legislations such as the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Forest (Conservation) Act, 1980, the Wildlife (Protection) Act, 1972, the EIA Notification, 1994, and the CRZ Notification, 1991 etc. A few other key clearances which the contracting Authority is required to obtain with regard to specific sectors are listed below;

- Where the project to be implemented is in a coastal region – clearance from the Ministry of Environment and Forests (MOEF) as per the Coastal Regulation Zone Notification 2011 issued under the Environment (Protection) Act, 1986
- Where the implementation of infrastructure projects requires a diversion of forest land - clearances from the State Forest Department/ MOEF as per the Forest (Conservation) Act, 1980

- If the road being developed passes through a railway line – clearance from the railway Authority.

A list of the approval/permits/clearances required during the project development process is set out as an Annexure 12B to this module.

P R O J E C T	<h3>Delhi-Gurgaon Expressway</h3> <p>The project was envisaged to ease-up traffic congestion across a 27.7 km four-lane road connecting Delhi to Gurgaon through construction of an eight-lane access controlled carriageway. It was the first BOT project to be awarded on negative grant basis where the private party offered to pay an upfront fee to the public entity keeping in mind the robust traffic projections.</p> <p>There was a delay in project completion due to the requirement of approvals and clearances from a multiplicity of agencies. There were more than 15 Government agencies/civic bodies (Delhi Jal Board, the Ministry of Defence, GAIL, BPCL, Delhi Development Authority, Haryana Urban Development Authority, Airports Authority of India, etc), affected by the development of this carriageway that had to grant various approvals.</p> <p>This became a complex and time consuming process during the construction period. The importance of a single window agency for approvals and inter-departmental coordination was highlighted during this project.</p> <p><i>Source: http://toolkit.pppinindia.com/highways/module3-rocs-dge1.php?links=dge1</i></p>
--	--

6. Inter-Departmental Coordination

It is necessary for the public entity to coordinate with other line Ministries during the project development/procurement process. The need for inter-department coordination is particularly noticeable in the development of urban rail systems across the country. Development of urban rails systems inter alia would include activities such as land acquisition and shifting of utilities along the proposed alignment; coordination with the traffic police, station development, integration of the urban rail system with other modes of transport, etc. This means that the public entity would need to coordinate with line Departments such as the urban local bodies, development Authorities (for purposes of land acquisition, conformance with development bye laws, issue of transfer of development rights, etc.), other para-statals such as water supply boards, electricity boards (for shifting of utilities); and so on.

Inter-departmental coordination in a case of development of a tourism property is also discussed herein below; For example, in cases of development of a tourism property on a land parcel which belongs to the Revenue Department. The Department of Tourism, which is the line Department, will need to coordinate with the Revenue Department for a transfer of the title of the land. The Tourism Department will also need to coordinate with the Department of Forests if it intends to organise, say, wildlife safaris for tourists staying at the proposed property.

For the smooth and timely development of a project and of the procurement process, it is necessary for the public entity to carry out the activities which have been discussed in this module. Starting these activities well in time will avoid the delays that are inevitable if they are undertaken later.

7. Conclusion

It is in the interest of timely and effective development of project that the public entity performs all the activities mentioned in this module prior to commencement of procurement process. In most cases, it is seen that despite selection of private partner and execution of the project agreement with the private partner; the project fails to see the light of the day. Common reasons attributed to failure of project development are delay in acquisition of land, lack of approvals and permits, inter-Departmental conflict and discontent among stakeholders. The activities mentioned in this module have been culled out and aggregated on the basis of past experience in projects developed under PPP framework. Most of these activities are also required to be fulfilled as conditions precedent mentioned in the MCA for development of National Highways. The public entity may initiate the pre-procurement activities much early in the project development process; however going forward, it must revisit the status such activities from time to time, and strive to complete them prior to commencement of the procurement process.

8. Bibliography

1. Accelerating Implementation of Infrastructure Project, India Infrastructure Summit, FICCI and Ernst & Young, 2012
2. Contingent Liabilities, The Colombian Experience, Ministry of Finance and Public Credit, Republic of Columbia, Bogota DC, 2011
3. Guidelines: Financial Support to Public Private Partnerships in Infrastructure, The Secretariat for the Committee on Infrastructure, Government of India, 2006
4. Guidelines: Formulation, Appraisal and Approval of Public Private Partnership Projects, The Secretariat for the Committee on Infrastructure, Government of India, May 2009
5. International Public Sector Accounting Standards (IPSASs) and Statistical Bases of Financial Reporting: An Analysis of Differences and Recommendations for Convergence, Research Report, International Public Sector Accounting Standards Board, International Federation of Accountants, January 2005
6. Land Acquisition Act, 1894 (As modified up to the 1st September,1985), Ministry of Law and Justice, Government of India Managing Contingent Liabilities in Public-Private Partnerships, Practice in Australia, Chile, and South Africa, Timothy Irwin and Tanya Mokdad, The World Bank, PPIAF, 2010
7. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010Module 5: PPP Procurement, South African Regulations for PPPs, Public Private Partnership Manual, National Treasury PPP Unit, South Africa, 2004
8. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
9. Promoting Infrastructure Development Through PPPs, A compendium of State Initiatives, Department of Economic Affairs, Ministry of Finance, Government of India
10. Public Private Partnerships - Model Concession Agreement, Government of India, 2009
11. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013

PPP Guide for Practitioners



Module 13: Procurement Process

1. Introduction

The increasing complexities in projects coupled with governance exigencies has made it paramount for the procurement process to be carried out in a fair and transparent manner. The contours of the procurement process typically need to be finalised during the project structuring stage and the actual process for selection of a private partner starts only after the project structuring exercise is completed and the administrative approvals have been obtained.

Procurement processes are governed by the business and financial rules that need to be adhered to by the public entity. A transparent, fair and competent procurement process would go a long way in establishing the project's credentials and building trust in a PPP project.

Objectives of Procurement Process

- To lower cost associated with the selection of a private partner
- To provide fair opportunities to eligible participants to compete
- To bring transparency and legal certainty to procurement
- To optimise delivery of public services
- To ensure efficient allocation and use of public funds

The procurement process is preceded by the project structuring stage and is followed by the post award contract management stage. The procurement process involves preparation of bid documents depending upon project specifics and the process for selection of a private partner for the project. This stage culminates in the issue of a Letter of Award (LoA) to the private partner.

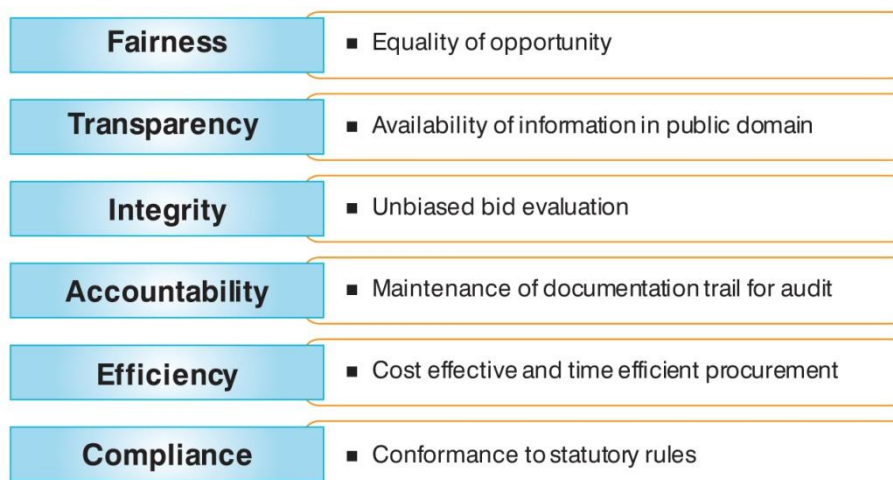
It is appropriate to start with the procurement process only when the bid documents for the project are prepared.

The public entity, prior to starting the procurement process, needs to ensure that the following matters are ascertained and/or the following exercises are undertaken with respect to a given project.

- Technical feasibility, financial feasibility and test for legal compliance of the project is complete;
- Project assumptions have been discussed and finalised;
- Risks and responsibilities have been identified and allocated;
- Critical issues have been identified and addressed;
- Project delivers value proposition, i.e., efficient and cost-effective delivery of services;
- Project is bankable;
- Public entity initiating the process has power to award the project;
- Public entity has an encumbrance-free title over the land/project asset or at least is committed and takes necessary steps in this regard to make the land free of encumbrances available in a timely manner for project development;
- Funding sources have been identified; and
- Appropriate administrative approvals have been obtained

Once these basic pre-requisites for the procurement process have been fulfilled, the next step is to choose a procurement strategy. To ensure the success of any PPP project, it is critical that a

transparent strategy suitable for the type of contract is selected. The procurement strategy or bid structure that is adopted must be transparent, open, competitive, free, fair, as well as cost and time effective. The key principles that govern the procurement process are set out below:



The public entity must always strive to ensure that the procurement process adopted for any project/service delivery is fair, transparent, unbiased, brings in accountability, efficiency, and is compliant with the legal and regulatory framework of the country.

Procurement Guidelines by Chief Vigilance Commission & Other State Governments

- The Central Vigilance Commission (CVC), Government of India from time to time has issued guidelines and circulars that govern public procurement of goods and services. In line with the CVC guidelines, several State such as Karnataka, Gujarat, Uttarakhand, etc. have also issued procurement laws, rules and guidelines that govern public procurement in respective States. It is imperative that the public entity must comply with CVC guidelines and State specific procurement laws/ guidelines, if any; for public procurement. All CVC guidelines for public procurement of goods, works and services are available for download in the link: http://cvc.nic.in/proc_works.htm
- Since, the inception of CVC in the year 1964, its Technical Wing namely Chief Technical Examiner's (CTE) Organisation as has been discharging its duties in the form of intensive examination of public procurement contracts, under the guidance of CVC. The Organisation has also published guidelines on intensive examination being carried out by CTE's Organisation in the form of a booklet titled 'Intensive Examination of Works' (Guidelines). In 2014, revised Guidelines on Intensive Examination of Procurement and Other Contracts was published for the benefit of public entities.
- CVC Act 2003 empowers the Commission to call for reports, returns and statements from all Ministries/ Departments/Corporations/Central Undertakings so as to enable the Commission to exercise general check and supervision over the vigilance and anti-corruption work in the Ministries/Departments/ Undertakings. Chief Vigilance Officers of various organisations covered under the jurisdiction of the Commission are required to furnish Quarterly Progress Reports (QPRs) in respect of ongoing contracts for the quarter by 15th day of the month following the quarter. Even though, CTE's Organisation may examine Contracts of any magnitude, yet considering limitation of resources, it generally undertakes examination of Contracts of larger value only. Circular No. 15/07/12 (issued vide Letter No.98-VGL-25/18 dated 30.07.2012), states the monetary limit for reporting the Procurement Contracts with in QPRs. It states that any PPP procurement, the monetary limit (cost/ revenue value) of which is Rs.5 Crores or above need to be mentioned a part of QPR.

2. Types of Procurement

Over a period of time, several procurement practices have emerged among public entities, such as, direct negotiations, suomoto/unsolicited proposals (Swiss Challenge proposals), and competitive procurement, through single stage and / or two stage procurement process.

The first two options of procuring a private partner are not encouraged due to inherent lacunae in delivering the services in the best possible manner. The direct negotiation approach in project procurement is used cautiously as it lacks transparency and competition in procurement. States like Andhra Pradesh and Gujarat, which have specific legislations to enable the infrastructure development process, have provided a set of situations in which direct negotiation could be adopted by a public entity.

Unsolicited proposals/suomoto proposals refer to proposals that are not requested by a Government and usually originate in the private sector (generally referred to as “Original Project Proponent”). The proposal submitted by the original project proponent should be supported by project specifications, and proof of its technical, commercial and financial viability and the technical and financial capacity of the original project proponent to undertake the proposed project.

Like direct negotiations, the unsolicited approach is also adopted as an exception to the competitive rule. Discomfort with the use of unsolicited proposals in the public sector is because of the lack of competition, the lack of transparency and the lack of fair and equal treatment of potential bidders associated with it.

A competitive procurement strategy is the one that is largely followed in India. Competitive procurement strategies include a single stage or a two stage bid process. Sometimes, even Expressions of Interest (EoI) are invited from interested parties as part of competitive procurement strategies.

The competitive procurement process is the most efficient forms of procurement as it ensures the highest transparency and competition when compared to the other procurement processes that are discussed earlier in this Module. It takes into consideration most of the key principles governing procurement. Even though this strategy is not as cost and time effective as direct negotiation, it is preferred as it ensures that the public service is procured in a manner that stands the test of public scrutiny. Competitive procurement process is seen as the preferred procurement strategy to identify the private partner for a PPP arrangement.

In a competitive procurement process, the terms and conditions of the PPP arrangement and project specific information are made known to the participants of the procurement process to enable them to make informed decisions while procurement process.

Usually, the bidding documents include a project information docket (which would provide adequate information about the project to the bidders), the draft agreement (which provides information on the terms and conditions of the PPP arrangement) and the general instruction to bidders thereby resulting in a procurement process that is transparent, fair, and competitive.

Even the Government of India support schemes such as the Financial Support to Public Private Partnership Projects in Infrastructure (Viability Gap Funding Scheme) and India Infrastructure Project Development Fund (IIPDF) require that the private partner is selected through a transparent and open competitive procurement process. Depending upon the requirements and characteristics of the project, the public entity may opt for either a single-stage or multiple-stage bid process.

The online PPP Toolkit for Improving Decision Making Processes sets out certain factors to be considered by the public entity when choosing a procurement option; and such factors are set out in the table given below:

Procurement Options	Factors to consider	
	How well defined is the project?	How well defined are the bidders? How much work will the proposal require?
Single-stage: RFP	Project scope is clear Service options have been well-defined	<ul style="list-style-type: none"> Number of interested bidders limited Potential bidders are known and identified In this case it is not necessary to identify interested bidders or to reduce their number
Multi-stage option 1: RFQ +RFP (with or without request to submit technical proposal)	Project scope is not clear, extensive discussions are needed to finalise the service option	<ul style="list-style-type: none"> Potential bidders are known and identified but Number of interested bidders is large. Considerable effort required by bidders to submit proposals. In this case RFQ is useful to reduce the number of bidders
Multi-stage option 2: EOI +RFP (with or without request to submit technical proposal)	Project scope is not clear, extensive discussions are needed to finalise the service option	<ul style="list-style-type: none"> Number of bidders likely to be limited, but potential bidders not yet well known or identified. Considerable effort required by bidders to submit proposal In this case EOI is useful to identify interested bidders
Multi-stage option 3: EOI+RFQ +RFP (with or without RTP)	Project scope is not clear, extensive discussions are needed to finalise the service option	<ul style="list-style-type: none"> Uncertainty about the level of interested in the project- unknown if interest is large or limited Considerable effort required by bidders to submit proposals In this case EOI is useful to identify interested bidders and level of interest ; RFQ to reduce the number of bidders if necessary

Source: <http://toolkit.pppinindia.com/ports/module2-leapsfp-dotpp.php?links=ctbspm1b>

3. Expression of Interest

The bid documents used for procurement of private partners may comprise one or more of expressions of interest. An advertisement called “Invitation for Expression of Interest (EOI)” needs to be released as part of this stage which includes, among other things, the last date of submission of EOI, how to get a copy of the EOI document, and the contact information of the employer with the name of contact person, etc.

An EOI document would ideally need to contain the following information:

- 1. Invitation to EOI:** It should include a copy of the advertisement in which interested parties are invited to submit their EOI

Marketing the project contributes significantly towards attracting better private sector participation in the bid process for the project. It is useful to discuss the project with prospective bidders and understand their issues and concerns in participating in the procurement process prior to submission of their bids for the project.

2. **Brief about objectives and scope of work:** This may include a brief description about the objective of the assignment, the broad scope of work and the expected deliverables. It may also include the place of execution of the assignment.
3. **Instructions:** These may include information on the nature of the job; submission requirement; requirement of bid processing fees; if any; last date of submission; place of submission; and any related instruction.
4. **Pre-qualification criteria:** These specify the pre-qualification criteria which will be applied by the public entity for short listing the applicants.
5. **Formats for submission:** This section states the format in which the interested parties are expected to submit their EoI.

Expression of Interest vs. Request for Qualification

In situations where the public entity is not sure about the market's likely interest in taking up the project, it may decide to go in for an 'expression of interest (EoI)' stage preceding the Request for Qualification (RFQ) stage. However, EoI must not be used to either shortlist or disqualify any entity from participating in the RFQ stage. The main objective of the EoI is to guide the public entity to make an informed decision based on likely market interest. The EoI need not include the same details as provided in the RFQ. The emphasis has to be on providing information to the private parties on the proposed project and not on soliciting full bids or proprietary information from private parties.

4. Request for Qualification

Government of India has issued model RFQ documents to facilitate the procurement process in few of the infrastructure sectors. The purpose of the model RFQ document is to enable public entities' to draft project-specific RFQ documents for pre-qualification and short-list bidders in a manner that is fair, transparent, and inexpensive.

The RFQ process is carried out to short-list and pre-qualify applicants who will be required to submit financial bids at the RFP stage. The objective is to identify experienced bidders who have the requisite technical and financial capacity to undertake the project. Through this process, the public entity weeds out unsuitable firms and stimulates qualified firms to prepare a good proposal.

The rationale for short-listing firms is that only those firms that are capable to undertake the project are considered for evaluation in the procurement process. It also rests on the fact that if this is not done, a large number of firms are likely to be selected and firms with lower capability, in their competition with established firms, are likely to undercut and offer irrationally low financial bids compared to their better qualified counterparts. This could affect the quality of service that may eventually come to be offered, since an enterprise with lower capacity might have been selected due to its irrationally low bid submission. As per the overview of the framework given for Model RFQ document issued by Ministry of Finance, Government of India, it is an international best

Usually, Earnest Money Deposit/ bid security may not be collected as part of the RFQ stage as there is no financial bid submitted at this stage. The financial bid is submitted only during the RFP stage.

The parties participating in the RFQ process are termed as 'Applicants' as per the Model RFQ issued by the Ministry of Finance, Government of India and the parties participating in the RFP stage are termed as 'Bidders' as per the Model RFP issued by the Ministry of Finance, Government of India.

practice to short-list about three to four bidders for the final stage of procurement process. Considering this factor and also recognising that, restricting the list of shortlisted bidder to the best available bidders improves the chances of successful PPP operation, a short-listing of about six to seven pre-qualified bidders has been specified in the Model RFQ to secure high quality and competitive financial bids.

The various steps followed in the RFQ process are given below:



4.1. Notice Inviting Tender and Release of RFQ

The publication of the Notice Inviting Tender (NIT) is a step through which potential developers are informed officially about the project. In publishing the NIT, the public entity, apart from following the internal rules in this regard, must also follow the mode and manner set out in the procurement laws applicable to their respective jurisdiction. Normally, any NIT of the tender document needs to be published in the State or district tender bulletin as well as the Indian Trade Journal.

NIT would need to provide the following key information related to the tender process:

1. minimum time for submission of bids;
2. date of sale of the tender document;
3. last date and time of sale of the tender document and receipt of tender;
4. place or the website from which the tender document can be obtained; and
5. amount of earnest money deposit/bid security to be deposited.

4.2. Pre-qualification Conference

The pre-qualification conference is organised after the issue of tender documents like RFQ, RFP, etc. The purpose of pre-qualification is to provide clarification to the interested bidders on their understanding of the project, submission of proposal and to obtain feedback and understand their concerns on any issue relating to the implementation of the project or the qualification criteria provided in the tender document. The public entity may, at its discretion and based on the complexity of the project, arrange one or multiple rounds of the pre-qualification conference. Based on the suggestions gathered from the pre-qualification conference, the public entity may revise the tender documents, where appropriate.

4.3. Issue of Addendum

The public entity may, at any time before the last date specified for submission of proposal/qualification, modify the tender documents by issuing an addendum or corrigendum. The modification in tender documents may be made by the public entity either on its own initiative or as a result of any clarification or comment made by the bidders during the pre-bid meeting.

The addendum has to be communicated to all the bidders who have purchased the bidding document. It has to be published in the same dailies, trade journals, business publications, other periodicals and websites in which the advertisement for the project was published.

The addendum issued forms part of the tender document and must be treated as if it were provided originally in the tender document. If the addendum necessitates an extension of the period for bidders to prepare their bids, the public entity has to extend the due date prescribed for submission of the proposal. Generally, in the case of significant amendments, at least 15 days must be provided between the date of amendment and the application due date while in the case of minor amendments, at least seven days must be provided. The public entity cannot make any modification in the bidding document after the bid due date.

4.4. Qualification Document Submission

All applicants interested in submitting their applications for the project have to submit their application before the application due date and time and in the manner and form as prescribed in the bid document. Applications submitted after the application due date are liable to be rejected by the public entity. Though, applicants can modify, substitute or withdraw their Qualification Submissions (Applications) only within the deadline prescribed in the bid document.

4.5. Evaluation of the Qualification Submission

The public entity must evaluate all applications received within the applications due date according to the evaluation process laid down in RFQ. The public entity has to ensure that the applications received for a project are kept valid throughout the procurement process. The public entity may seek extension of the application validity period if the evaluation process is likely to take longer than the period prescribed as the application validity period. The public entity is free to consult any bidder to receive the clarifications or additional information needed to evaluate the submissions. However, the public entity cannot seek additional information except where such information is required to supplement or authenticate qualification submissions.

4.6. Short-listing Bidders for the RFP Stage

The last step in the RFQ stage is to shortlist the bidders who meet the qualification criteria set out in the bidding document for the RFP stage. The public entity may constitute an evaluation committee which could provide necessary assistance to the public entity in short listing the bidders.

5. Request for Proposal

The purpose of the RFP process is to obtain financial offers from the bidders pre-qualified at the RFQ stage. As part of the RFP document, the procuring Authority needs to provide the feasibility report and draft agreement to all pre-qualified bidders.

The feasibility report is generally provided as a preliminary reference and its contents are not binding on the project Authority. The bidders, while submitting their financial bid, are expected to conduct their own due diligence. The feasibility report generally provides information about the market and technical features of the project, soil investigation or geotechnical report (if applicable), revenue source etc. The draft agreement must document the risk allocated between the parties and the duration of the agreement. Unlike the terms provided in the Project Information Memorandum (PIM), the terms in the draft agreement are binding on the procuring Authority and have an overriding effect over anything to the contrary contained in the RFP.

If a single stage procurement process is adopted by the public entity, it would issue only RFP to interested entities to submit their bids. In such cases, the procurement process would involve multiple

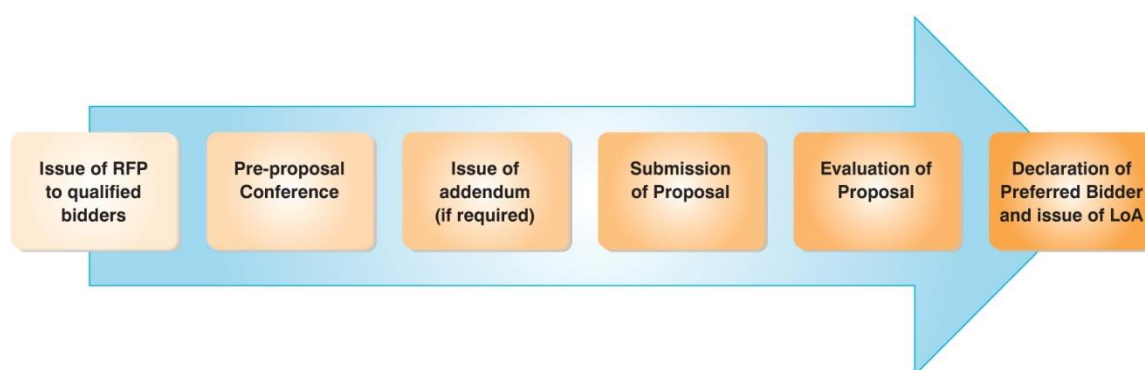
stages of evaluations comprising qualification submissions evaluation (of technical and financial capacities), technical proposal evaluation (optional) and financial bid evaluation. At each stage, bidders are shortlisted for evaluation in the next stage. More on the technical proposal stage is set out later in this module. In the case of a two stage procurement process, the RFP involves only the financial bid evaluation with or without the technical proposal evaluation. In this case, the qualification submissions evaluation of technical and financial capacities of the bidder would have been completed in the RFQ stage.

The financial bids for PPP projects in the RFP stage should normally be invited by way of a single objective bidding parameter. The bid parameter is ideally an outcome of the project structuring exercise. The risk sharing among the parties to the arrangement determining the mode of PPP also provides the public entity with the most optimum choice of the bidding parameter. Depending on the project structure which is finally determined for project development, the public entity may consider the following criteria in its selection process:

1. Lowest present value of financial support requested by the bidder – in projects that involve the development of infrastructure projects under PPP framework for all sectors that are identified under the Financial Support for PPPs in Infrastructure scheme.
2. Lowest quantum of land required to complete the project
3. Lowest present value of asset-based support from the Government
4. Highest share (or present value of) of revenue – in projects that involve the development of tourism properties/ hotel properties/ convention centres, etc.
5. Lowest unit value or present value of payments by Government – lowest unit value offered by the bidder or the lowest discount sought by the bidder as a bid parameter, is used in the development of renewable energy projects where the bidder is expected to quote the lowest power purchase tariff/ discount the bidder sought from the public entity.
6. Highest upfront payment (or present value of upfront payment) offered by the bidder – in projects that involve the development of tourism properties/hotel properties, etc.
7. Highest present value of future payment offered by the bidder
8. Lowest agreement period
9. Lowest unit value or present value of user fees
10. Highest premium on (or present value of) equity shares offered
11. Lowest annuity payment sought from the Government – in projects that are financially not viable, often seen in water supply projects, development of roads, etc.
12. Highest periodical payment offered by the bidder – in projects like the development of commercial property/ markets, tourism properties, etc.
13. Highest revenue share – in projects that involve the development of container terminals/ berths in ports.

The various steps followed in the RFP process are given below. The steps to be followed in this regard are similar to the RFQ process. After the evaluation of the financial proposal submitted as part of the bid under the RFP stage, the public entity declares the preferred bidder (the bidder who quotes the best bid) to whom the letter of award/letter of acceptance (LoA) is issued, inviting the bidder to execute the agreement.

The bid parameter for the project is a critical component in the bidding documents and it is determined during the project structuring stage. There can be only one bid parameter for a project.



Frequently asked Questions on Procurement Process

1. Whether the qualification criteria set out for the selection of the private partner is suitable for the project?
2. The qualification criteria must be stringent enough to ensure that only capable parties bid but at the same time should not restrict the competition in the procurement process.
3. Whether the methodology for evaluation set out in the bid process is suitable for the project?
4. The evaluation methodology must be in line with the project requirements. If the procurement process is for the selection of a developer then a least cost method of evaluation would be suitable whereas in the case of selection of a consultant, a quality and cost based selection process would be suitable. The evaluation method would change with the project requirements.
5. What would be the amount of bid security? What is its purpose and what if the bid submission is not accompanied by bid security?
6. The amount collected as bid security would usually be for an amount which is equal to 1 per cent of the estimated project cost. Bid security is also termed as earnest money deposit and it is collected to ensure that a bidder whose bid is accepted would be willing to enter into a formal contract with the public entity as failure to do so would result in forfeiture of the bid security. Bids that are not accompanied by bid security are rejected.
7. Whether late bids can be accepted?
8. Late bids are usually not entertained by the tender accepting Authority.
9. Whether sealing and marking of bids are important?
10. Sealing and marking of bids are important instructions pertaining to submission of bids that are listed out in the bidding documents. The bidders must at all times ensure that their bids are signed, sealed and marked as required as per the bidding documents. They may also be required to submit their bids in duplicate if required.

6. Technical Proposal Stage

The general rule is not to seek any technical proposal from the interested bidder during the bidding stage (also referred to as RFP stage) as it leads to difficulties in evaluating diverse proposals on a common set of parameters. The GoI recommends the public entity to set the technical parameters and to seek only the financial bid at the RFP stage. However, in the case of exceptionally complex PPP projects where the public entity wants to assure itself that the qualified applicants understand its requirements fully, it may seek technical proposals. Such technical proposals are invited along with the financial bids in two separate covers: the technical proposals are opened and evaluated at an intermediate stage before the opening and evaluation of financial bids. In cases where a technical proposal is sought under the RFP stage, the evaluation of technical proposal must be in the form of a pass or fail test, and only submissions that pass the minimum technical criteria should be invited to submit a bid in the RFP stage.

A technical proposal may be sought along with the financial bid to ensure price competition when the number of bidders is expected to be low, and to optimise cost and effort, when the PPP project does not merit a separate stage of request for technical proposal.

7. Procuring Consultants in PPP Projects

Apart from the selection of the private partner for a PPP project, the procurement process also needs to be followed for the selection of consultants whose services may be required by the public entity to assist in carrying out project development activities. The selection of consultants with expertise in various fields – technical, commercial, legal, financial, managerial – may be required at different times on a need basis. The services of a technical consultant and financial consultant are required during the project feasibility and structuring stage; transaction advisors and legal consultants' services are required during the procurement stage and the services of an independent engineer are required during the implementation and monitoring stage. Accordingly, the procurement process for identifying each of these consultants must be initiated by the public entity at the appropriate stages, depending on need.

Ministry of Finance, Government of India has issued Model RFP for selection of financial consultants and transaction advisors vide Ref:24(32)/PF-II/09 dated March 2010. A 'quality cost-based selection' (QCBS) method is set out for selection of consultants in the above mentioned Model RFP for selection of financial consultants and transaction advisors. Under QCBS, weight is given to both technical and financial capacity before arriving at a combined score. The bidder securing the highest combined score is selected as the preferred bidder.

8. Conclusion

The cardinal principle of public procurement is to adopt a transparent, independent, impartial and competitive procurement process. The public entity must ensure that it complies with all the applicable laws (CVC guidelines, State procurement guidelines/ law, etc.) pertaining to procurement. If the public entity is governed by any Department/ agency specific procurement manual then, such manual must

be revised from time to time so that it is relevant to the changing procurement environment. Compliance of the public entity with the regulatory framework pertaining to procurement builds confidence among with private sector players with respect to the credibility of the project and the public entity's commitment towards effective project development.

9. Bibliography

1. Frequently Asked Questions on Model RFQ Document, Committee on Infrastructure, Government of India, May 2009
2. Guidelines for Pre-qualification of Bidders for PPP projects - Model RFQ, Committee on Infrastructure, Government of India, June 2009
3. Guidelines for procurement of PPP Projects through Swiss Challenge Proposals Route for State of Karnataka, Draft version, Government of Karnataka, December 2009
4. Gujarat Infrastructure Development Act,1999, as published in the Part IV of The Gujarat Government Gazette, Government of Gujarat, 05 October, 1999
5. Gujarat Infrastructure Development Act, (Amendment) 2006, as published in the Part IV of The Gujarat Government Gazette, Government of Gujarat, 31 March, 2006
6. Overview of the Framework- Extract from Model RFQ, Government of India, June 2009

10. For Further Reading

1. Frequently Asked Questions on Model RFQ Document, Committee on Infrastructure, Government of India, May 2009
2. Model RFP, Ministry of Finance, Government of India, 2009
3. Model RFQ, Ministry of Finance, Government of India, 2009

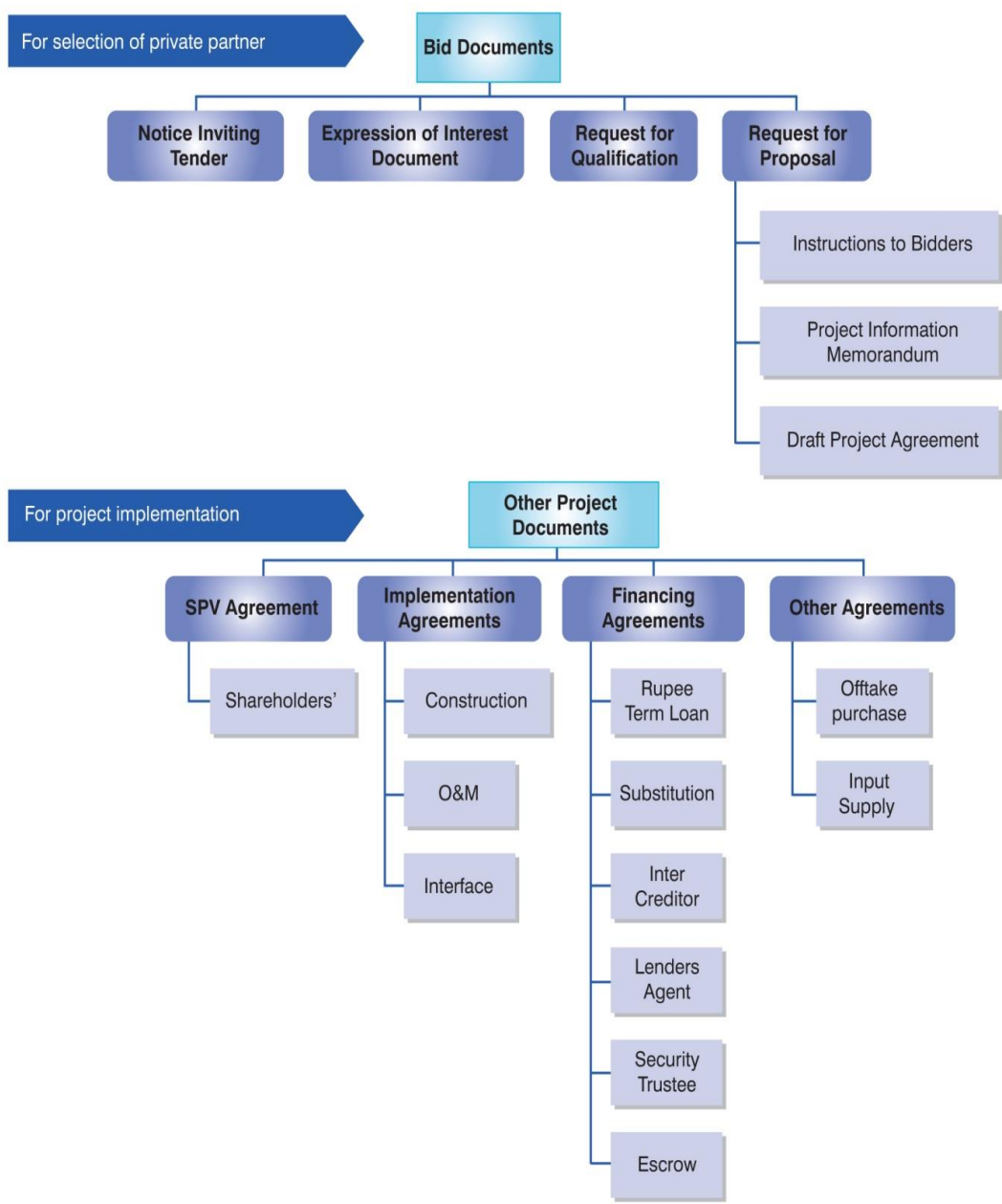
PPP Guide for Practitioners



Module 14: Bid Documents and Other Project Documents

1. Introduction

During the course of a PPP project lifecycle, various legal documents are drafted and executed between the public entity and the private partner or among the public entity, private partner and a third party entity (such as lender, operator, etc.) or among a combination of these entities. These legal documents might be drafted, published and executed between parties at various stages during the course of the PPP project lifecycle. They also provide legal strength and tenability to the transactions that are carried out by the stakeholders in the PPP arrangement. They can be classified into bid documents and documents which deal with the period after the project agreement between the public partner and the private partner has been executed. The legal documents that feature in PPP arrangements are set out in the diagram below:



2. Significance of Bid Documents

A fair, transparent and competitive procurement process involves making the prospective bidders aware about project details, eligibility criteria for selection, evaluation methodology, instructions for bidding, manner of submission of their proposals/bids, timelines for procurement, and terms and conditions of the ultimate arrangement between the public entity and the private partner, in the event of selection in the bidding process. Bid documents which are drafted during the bid documentation phase of the project development process ensure that bidders have all the information they need to help them make an informed decision while submitting their bids.

Significance of Bid Documentation:

- Ensures fair and transparent process
- Helps submission of informed proposals
- Puts into words the contours of the project that will be binding on the public entity and the private partner upon completion of the procurement process.

Bidding Documents (also referred to as bid documents or tender documents) generally are those documents that are issued by public entities with an objective to invite proposals from interested parties for implementation of project (which may include project development, operations and maintenance, delivery of service or a combination of the above). The proposals received are evaluated as per the terms and conditions set out in the bid documents for selection of the private partner for the PPP arrangement.

There are many bid processes which have been challenged in the courts due to lack of land acquisition, funding arrangements, obtaining administrative approvals and other clearances for the project/ procurement process.

Certain activities need to be carried out prior to the bid process, simultaneously with the bid process, or afterwards.

Bid documents provide all the information that is required for interested parties to participate in a procurement process for a project. More on the procurement process is discussed in Module 12.

Generally, bidding documents comprise the following;

- Notice Inviting Tender (NIT),
- Request for Qualification (RFQ) document,
- Request for Proposal (RFP) document including an Invitation to Proposal & Draft PPP Agreement; setting out terms and conditions of procurement. It may also include a Project Information Memorandum or Feasibility Report about the project.

Sometimes, in addition to the above, an Expression of Interest (EoI) document is also issued seeking interested parties to express their interest in the project. More on the EoI process is discussed in Module 13 of the PPP Guide for Practitioners which sets out the Procurement Process.

The procurement procedure specified in the bid documents should conform to the prevailing public procurement rules/laws of the State/country and should be governed by the principles of non-discrimination, mutual recognition, transparency and equal treatment.

3. Notice Inviting Tender

The procurement process for any project developed through a PPP framework commenced with the issue of a Notice Inviting Tender (NIT). NIT should be published in the manner set out in the procurement laws applicable to the concerned jurisdiction in which the project is to be implemented. Generally, NIT is published in daily newspapers with a wide circulation. It is useful to publish it in at least one English newspaper and one in the regional language. The public entity may, at its discretion, issue NIT documents in newspapers of other languages, including foreign languages.

Based on the nature of the procurement and the potential bidders, NIT could also be issued in trade journals, tender bulletins, or business publications or other periodicals. The public entity should also publish NIT on its own website and on the centralized PPP e-procurement website of the Government of India.

The following information should be clearly indicated in the NIT/advertisement.

1. Name and address of the public entity, the designation and address of the tender inviting public entity;
2. Brief information about the scheme/project/programme;
3. Period up to which, and places from where, the bid document can be obtained;
4. Amount of earnest money deposit/bid security payable;
5. Date and time for receipt of proposals;
6. Date, time and place for opening of proposals;
7. Website details of the procuring entity from which the interested parties can download the bid documents;
8. Cost of RFQ document; and
9. Any other information which the tender inviting Authority considers relevant.

NIT must be published in the print media (newspapers, trade journals, tender bulletins, business publications, etc. as the applicable laws may require) and on the website of the public entity, if any

4. Expression of Interest

As a means to assess the interest of market in the proposed development of projects; the public entity may in some cases issue an Expression of Interest document. In this regard, an advertisement called “Invitation for Expression of Interest” is issued. The advertisement must include, among other things, the last date of submission of EoI, the procedure for obtaining a copy, and the contact information of the public entity with the name of the contact person, etc. The advertisement shall be followed by issuance of an EoI document. Module 13 on Procurement Process provides details on the contents of EoI document.

5. Request for Qualification

Where a two stage procurement process is adopted by the public entity, the first document to be issued after the NIT is the RFQ document. In large and complex projects, it is advisable for the public entity to follow a two stage bidding process.

5.1. Purpose of RFQ Stage

Under the two stage procurement process, the purpose of RFQ is to identify credible bidders who have the requisite technical and financial capacity for undertaking the project. It should, therefore, contain information restricted to the technical and financial capabilities sought for the purposes of pre-qualification from the interested parties with the requisite qualifications and experience.

To encourage greater participation from credible domestic and international investors, it should be ensured that the conditions stipulated in the RFQ do not require the interested bidders to incur significant expenses in preparing their proposal.

The RFQ must inter-alia include instructions to applicants (including project information, scope of project, eligibility and qualification of applicants, mode and manner of application submission, etc.), evaluation criteria, and the process of short listing of applicants.

5.2. Eligibility Conditions

Eligibility conditions refer to those conditions that need to be fulfilled by the applicant, for its application to be considered for evaluation in the RFQ stage. Indicative eligibility conditions for applicants that may be prescribed by the public entity are given below;

Ministry of Finance, Government of India has issued a model RFQ for the procurement of private sector participation in various infrastructure sectors.

1. The applicant for pre-qualification may be a single entity or a group of entities (otherwise referred to as a consortium) coming together to implement the project. However, no applicant applying individually or as a member of a consortium, as the case may be, would be eligible to submit another application either in individual capacity or as part of consortium.
2. An applicant may be a natural person, private entity, Government-owned entity or any combination of them
3. An applicant shall not have a conflict of interest that affects the bidding process. A few instance wherein an applicant is said to have conflict of interest are;
 - If such applicant has common controlling shareholders with other applicant;
 - If a constituent of such applicant is also a constituent of other applicant;
 - If such applicant, receives or has received/ provided any direct or indirect subsidy, grant, concessional loan or subordinated debt to/ from any other applicant
 - If such applicant has the same legal representative for purposes of the application as any other applicant;
 - If such applicant, has a relationship with another applicant, directly or through common third party/ parties, that puts either or both of them in a position to have access to each others' information about, or to influence the application of either or each other;

- If such applicant thereof has participated as a consultant to the public entity in the preparation of any documents, design or technical specifications of the project.
4. Disqualification of any applicant, if the applicant has engaged any legal, financial or technical advisor of the public entity, for matters related to or incidental to the project

It may be noted, that in cases where eligibility conditions allow consortiums to submit application, additional conditions pertaining to such consortiums such as

- number of members in the consortium,
- extent of equity to be held by each of the members of the consortium in the special purpose company (also referred to as a Special Purpose Vehicle or SPV) which may be formed for implementation of the project and the duration thereof, etc.
- requirement to submit a joint bidding agreement setting out the roles and responsibilities of the consortium members. It shall also convey intent to form an SPV and commitment of minimum equity stake to be held by each of the consortium members in such SPV.

As per the model RFQ issued by the Ministry of Finance, Government of India, upon award of the project to an applicant which is either (i) a consortium or (ii) a single business entity other than a company incorporated under the Companies Act, 1956/ 2013; it is mandatory for such applicant to form an SPV. However, in cases where the applicant is a single business entity which is a company incorporated under the Companies Act, 1956/ 2013; formation of an SPV is optional.

Ramana Dayaram Shetty vs The International Airport

[AIR 1628, 1979 SCR (3)1014]

The International Airport Authority invited tenders for putting up restaurants and snack bars at Delhi Airport. As per the tender document, only 'Registered IInd class hoteliers with atleast 5 years' experience in putting up and running a IInd class restaurant were qualified to submit the tender. The Authority accepted the highest tender from an applicant who was not a registered IInd class hotelier. The acceptance of such a tender was challenged in the Supreme Court which observed that:

"The State is not entitled to depart from the standard or norm prescribed by it in the tender document and arbitrarily accept the tender of the applicant not satisfying the conditions laid down in the tender document. Such a departure from the standard will amount to denial of equality of opportunity to those who felt bound by the standard of eligibility and therefore did not submit their tenders. If there is no acceptable tender from a person who satisfied the condition of eligibility, the procuring entity shall reject the tenders and invite fresh tenders on the basis of a less stringent standard or norm".

What is the Significance of Including Lock-in Conditions for a Consortium?

Where the applicant is a consortium, a lock-in condition for each of the members of the consortium who claim experience or financial capacity in the special purpose vehicle, shall be mentioned in the Bid Document. This is necessary for ensuring that only the experience of those members who have a substantial stake is counted for the purposes of pre-qualification, and members with a small equity holding are not added with the sole objective of improving the ranking in pre-qualification.

5.3. Qualification Criteria

The qualification criteria for the short-listing of bidders to the next stage viz. the RFP stage, generally refer to the technical and financial capacity of the bidder to implement the project. RFQ prescribes the minimum capacity/threshold capacity to be met by each bidder. Only those bidders who meet the threshold capacity will then be ranked for being shortlisted for the next stage.

The model RFQ & model RFP issued by the Ministry of Finance, Government of India use the term 'applicants' for participants in the RFQ process and the term 'bidders' for participants in the RFP process.

While stringent qualification criteria ensure that only applicants well suited for the RFP stage are pre-qualified, they may also reduce the number of qualified bidders. Therefore, a balance needs to be maintained to achieve the objective of pre-qualifying a reasonable number of bidders for the RFP stage. The principles for determining the qualification criteria should be formulated keeping these considerations in view.

Technical capacity refers to the past experience of the applicant in the project specific sector and core infrastructure sectors (refers to all other infrastructure sectors other than the project specific sector).

Generally, in infrastructure projects, technical capacity is measured in terms of the development and construction experience of the bidder in both the specific sector and core sectors in a defined period. In a complex project even the experience of the bidder in the operation and maintenance of the sector specific project could also be considered.

The technical capacity to be met by the applicant should be fixed considering the complexity and size of the project for which the bids are invited. In setting the criteria, the public entity needs to follow the principle of fairness to ensure healthy competition.

Tender Process Should be Fair and not Arbitrary

M/s. Monarch Infrastructure (P) Ltd. Vs. Commissioner, Ulhasnagar Municipal Corporation & Ors. [AIR2000SC2272]

Ulhasnagar Municipal Corporation (UMC) issued a notice inviting tenders for the appointment of agents for collection of octroi. UMC received five bids for the project. After receipt of all the bids and on expiry of the last date for acceptance of the bid, the Commissioner, UMC, took a decision to delete two of the qualification conditions provided in the Bidding Document. This resulted in the selection of one M/s. Monarch Infrastructure (P) Ltd which was otherwise not qualified to be selected because it had failed to meet the conditions that were later removed. The act of UMC

was challenged by M/s. Konark Infrastructure (P) Ltd, one of the bidders for the project.

The High Court in this case took the view that, “if a term of the tender has been deleted after the players have entered into the arena, it is like changing the rules of the game after it has began”. The Supreme Court, reiterating the principle that the Government cannot arbitrarily choose any person it likes for entering into a relationship and cannot discriminate between persons similarly situated, set aside the award of contract made in favour of M/s. Monarch Infrastructure (P) Ltd. by UMC.

The financial strength of the applicant is checked to examine its financial capacity to implement the project. As such, the financial strength of the selected bidder should be commensurate with the size of the project. Therefore the financial capacity to be met by the applicant shall be fixed taking into account the amount of investment required to be made by the private developer in the project.

The financial capacity of the applicant can be measured in terms of the net worth which is considered as the comprehensive indication of the financial strength. If required, the minimum annual turnover and/or net cash accruals can also be sought by the public entity to measure the applicant’s cash flow and financial health.

How is the Associate's Experience Considered for Evaluation?

In calculating the eligibility criteria, the experience and financial capacity of the applicant/consortium member’s Associate is also considered. The Associate means a person who controls, is controlled by, or is under the common control with such applicant/consortium member. The expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50percent of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law.

5.4. Short-listing of Applicants

The number of applicants to be pre-qualified and short-listed for the final stage of bidding, i.e. the RFP stage, needs careful consideration. On the one hand, the number of pre-qualified applicants should be adequate for ensuring real competition in bidding. On the other, a large number of short-listed applicants are viewed as a factor that dampens participation by serious applicants, thus diluting competition because credible investors are normally less inclined to spend the time and money necessary for making a competitive PPP bid if the zone of consideration is unduly large.

Moreover, restricting the list to the best available applicants improves the chances of a successful PPP operation. It is also international best practice to short-list about three to four bidders for the final stage of bidding. Considering all these factors, the short-listing of about six to seven pre-qualified applicants should be specified in the RFQ to secure high quality and competitive financial bids.

6. Request for Proposal

Request for Proposal (RFP) is the second stage in the procurement process and is open only for those applicants who have been qualified and shortlisted in the RFQ stage. The duration, bidding parameter, and risk allocation suitable to the project characteristics are important components of RFP. These are the pre-requisites of issuing the RFP document and should have been thought through at the project structuring stage.

The following matters should have been fulfilled by the public entity prior to the issuance of RFP:

- A reasonable number of pre-qualified bidders are available to participate in the RFP stage;
- Extent of land acquisition, utility relocation, Environmental Impact Assessment, Social Impact Assessment, Resettlement and Rehabilitation plan and associated costs have been assessed for the project;
- A project information memorandum has been prepared providing enough information to the bidders to enable them to estimate the financial bid variable;
- An evaluation and selection process has been defined; and
- A draft Concession Agreement/Contract document has been prepared.

6.1. Purpose of RFP Stage

The purpose of the RFP stage is to invite financial offers from the bidders pre-qualified at the RFQ stage in order to select the private partner for the project. As such, the information sought in the RFP is normally restricted to financial offers only. The financial offer which is the bidding parameter for the selection of the bidder in this stage should be decided keeping in view the nature of the project and its revenue stream.

Where a single stage procurement process is followed, an RFP is only issued to the bidders who need to make their submissions on qualification criteria, the technical proposal (if applicable) and the financial proposal in three different sealed covers on or before the last date for submission of the proposal/bid. The manner in which bids are evaluated is set in Module 13.

The RFP should be simple and transparent and should require the bidder to quote only the value for a single objective financial parameter. Normally, depending on the viability of the project, the bidding parameter could be fixed either as the premium or the grant. The premium may be in the form of an upfront payment or the revenue share which is offered by the bidder to the public entity. The grant refers to the amount which is sought by the bidder from the public entity for undertaking the project.

Options for Selection Criteria

Other criteria used for selection would include objective technical/financial parameters such as:

- Level of service, quality of assets offered;
- Lowest quantum of land;
- Lowest present value of asset based support from the Government;
- Lowest unit value or present value of payments by contracting Authority;
- Highest present value of future payments;
- Lowest concession period;

- Lowest unit value or present value of user fees;
- Highest premium on (or present value of) equity shares offered.

6.2. Components of RFP

As part of the RFP, the public entity will also provide a draft PPP Agreement which the preferred bidder (bidder offering the best bid for the project) has to sign on award of the project. The draft PPP Agreement should clearly provide the terms and conditions subject to which the project will be awarded.

The terms of the Agreement form part of the bid conditions and the project company formed by the successful bidder should not deviate from it on award of the project. Similarly, since the selected bidder submits its financial offer based on the terms provided in the draft agreement, the public entity should also abide by it. Since the terms in the draft agreement are binding in nature, much effort and expertise are required for drafting it.

The Ministry of Finance, Government of India has issued a model RFP to enable transaction process for procuring private participation in infrastructure projects.

The public entity shall, in order to assist the bidders in submitting their financial proposal, provide a feasibility report or a project information memorandum (PIM) as part of the RFP. The PIM generally contains information relating to viability, market data, technical features, traffic/volume, soil investigation/geo tech report, revenue sources and climate details etc. which are available with the public entity on the proposed project.

The contents of the PIM are only provided as information to assist the bidders in understanding the project. It is neither binding on the public entity nor does it confer any rights on the bidders. Bidders must carry out their own due diligence before submitting their financial offer. The public entity should ensure that a disclaimer to this effect is provided as part of the feasibility report/PIM document to avoid any dispute in future.

Evaluation of Technical Proposal

In exceptionally complex projects, the public entity may request submission of technical proposals/plans. Technical proposals/plans should be invited at the qualification stage, either along with the initial applications or at an intermediate stage preceding the RFP stage.

The evaluation of technical proposals is not done as a rule because the proposals submitted by different bidders vary significantly and it is very difficult to compare or evaluate such diverse proposals on a common set of parameters. Further, where the technical proposals are sought, the project outcomes are decided based on the technical proposal submitted. Thus, to avoid this in PPP projects, the Government sets the technical parameters and asks for financial bids only, leaving sufficient flexibility for bidders to design and engineer the project in line with pre-determined standards and specifications, including service outputs.

6.3. Bid Security

In order to minimise or pre-empt frivolous bids, each bidder must submit a bid security along with the bid. Any bid which is not accompanied by the bid security is rejected. The model RFQ issued by the Government of India prescribes an amount equivalent to about one

The amount of bid security and the mode and manner of its payment must be clearly stated in the bid documents.

per cent of the estimated project cost as the bid security.

The mode and manner of submission of the bid security would be set out in the RFP. The RFP should list the circumstances or events that could lead to the bid security being forfeited. These include the following;

- if the bidder submits a non-responsive bid, i.e. without the bid security
- if the bidder engages in corrupt, fraudulent, coercive, undesirable or restrictive practices
- if the bidder withdraws the bid during the bid validity period
- if the selected bidder fails to sign and return the duplicate copy of the Letter of Award, or to sign the agreement or furnish performance security
- if the bidder has signed the CA and commits any breach.

Forfeiture of Bid Security

The National Highway Authority of India (NHAI) invited bids for developing a stretch of road in West Bengal and Orissa on a Design, Build, Finance, Operate and Transfer basis under a PPP framework. After the competitive bid process, NHAI selected M/s Patel Engineering Ltd as the successful bidder for implementing the project. On receipt of the Letter of Award, M/s Patel Engineering Ltd expressed its inability to do the project on the ground that its bid was, on closer examination, not commercially viable. NHAI forfeited the bid security and even barred the petitioner from bidding for future projects for a period of one year and eventually awarded the contract to the next highest bidder.

Consequence of Non-submission of Bid Security in the Prescribed Manner

In *Poddar Steel v. Ganesh Engineering* (AIR 1579 1991 SCR (2) 696), the Diesel Locomotive Works, Indian Railways, invited tenders for the disposal of ferrous scrap. One of the conditions mentioned in the tender notice was that the earnest money should be deposited by cash or by demand draft drawn on the State Bank of India. One of the applicants submitted a cheque of the Union Bank of India drawn on its own branch. The bid so submitted was accepted by the tender accepting Authority which was questioned before the High Court of Kerala. In this case the Supreme Court, while overruling the decision given by the Kerala High Court, observed as follows;

“It is true that in submitting its tender accompanied by a cheque of the Union Bank of India and not of the State Bank of India, the condition in the tender notice was not obeyed literally, but the question is as to whether the said non-compliance deprived the tender accepting Authority to accept the bid. As a matter of general proposition it cannot be held that an Authority inviting tenders is bound to give effect to every term mentioned in the notice in meticulous detail, and is not entitled to waive even a technical irregularity of little or no significance. The requirements in a tender notice can be classified into two categories -- those which lay down the essential conditions of eligibility and the others which are merely ancillary or subsidiary with the main object to be achieved by the condition. In the first case the Authority issuing the tender may be required to enforce them rigidly. In the other cases it must be open to the Authority to deviate from and not to insist upon the strict literal compliance of the condition in appropriate cases.”

The court in this case took a view that the manner in which the applicant furnished the bid security is sufficient for the purpose of achieving the object of the condition and it is not correct to hold that the tender accepting Authority had no Authority to waive the technical literal compliance of clause 6 of the tender document.

6.4. Composition of Bidders

Since the bidders to the RFP stage are shortlisted based on their qualification submitted in the RFQ, any change in the composition of the bidders at the RFP stage is left to the sole discretion of the public entity and should always be subject to following conditions:

The bid parameter for the project must be clear, objective and unambiguous. It must always be mentioned in the bid document.

- Lead member continues to be the lead member of a consortium
- The substitute is equal in terms of technical and financial capacity
- The modified consortium continues to meet pre-qualification and short listing criteria for applicants
- Application for change in composition is submitted no later than 15 days prior to the bid due date
- The modified consortium shall submit a revised Joint Bidding Agreement
- The new member(s) reconfirm the application already made on their behalf as if it were party to it originally

6.5. Award of Project

The ultimate purpose of the RFP is to select the private partner for the award of the project/contract. Based on the bid parameter provided in the RFP, the best bidder is selected on the strength of the financial proposal submitted by them. Bid parameters are to be determined by various factors depending on the nature of the project. Where the bid parameter is in the form of a premium, the bidder submitting the highest premium will be selected. If the bid parameter is a grant, then the bidder submitting the lowest grant is selected. Sometimes, multiple criteria are also used to select the private partner. In such cases, combinations of two or more criteria are used.

Under highway projects, generally bidders are allowed to bid on the amount of grants sought by them and the one who quotes the lowest amount wins the bid. If the bid parameter is the concession fee, then the one who states the highest concession fee is the winner. And if the project is on a revenue sharing basis, then the bidder who offers the highest revenue share will be the winner.

In the selection of the successful bidder, it is open to the procuring entity to reject even the highest bid at a tender where such a rejection is not arbitrary or unreasonable or such a rejection is in the public interest for valid reasons.

Food Corporation of India Vs. M/s. Kamdhenu Cattle Feed Industries

The Food Corporation of India (FCI) invited tenders for the sale of stocks of damaged food grains. The respondent's bid was the highest. Since the FCI was not satisfied about the adequacy of the amount offered even in the highest tender, it invited all the tenders to participate in the negotiations, instead of accepting the highest tender. During the course of negotiations, the respondent refused to revise the rates in its offer. On the basis of the highest bid made during the negotiations, the appellant disposed of the stocks of damaged food grains to a third party, rejecting the highest tenders. The respondent, whose tender was the highest, challenged the decision of the FCI on the ground that the action of the appellant was arbitrary and hence violated Article 14 of the Constitution.

The Supreme Court in this case observed that, as per the terms of the tender, the appellant reserved the right to reject all tenders and the inadequacy of the price is a cogent reason to reject it. Since an equal opportunity was given to all the applicants to revise their bid by inviting them to negotiate, the grant of tender to a third party whose bid significantly superseded the bid of the respondent cannot be considered valid and so dismissed the appeal.

The Letter of Award is the decision notice sent out to the successful bidder by the public entity on completion of the evaluation and selection of the preferred bidder. There may be certain conditions such as the formation of a special purpose vehicle/project company to implement the project, the submission of a bank guarantee towards performance security, the payment of an upfront payment etc.

The timeframe for acknowledgement of the Letter of Award issued to the private partner by the public entity must be clearly mentioned in the bid document.

which the successful bidder may have to fulfil before the parties enter into a contractual relationship. These conditions, along with the timeline for execution of the agreement, should be mentioned in the Letter of Award, which the successful bidder must fulfil before coming forward for execution of the Agreement. The Letter of Award has to be acknowledged by the successful bidder within the period stipulated. Failure to do so, or failure to execute the agreement within the time period stipulated in the Letter of Award or any extended period, permits the contracting Authority to forfeit the bid security and cancel the award.

M/s. Lotus Constructions vs. the Government of Andhra Pradesh and another [AIR1997AP2001]

The Government of Andhra Pradesh invited tenders from reputed groups for the development of tourism and inter-related activities at three different places. The tender submitted by the petitioner was found to be in order and the latter was invited for discussion with the necessary documents. At this point, the Government decided to entrust the project to the respondent and an order were issued in this connection, directing the concerned Authority to prepare a MoU and also issue a work order after the signing of the MoU and after the finalization of the terms and conditions. Before the signing of the MoU as well the issue of the work order, the Government passed an order cancelling its earlier order entrusting the projects to the respondent. This order of the Government was questioned in a writ petition on the ground that there already exists a contract between the petitioner and the respondent.

The court observed that the letter of communication of acceptance itself is not enough unless it is followed by an agreement and if no agreement/MoU is entered within the stipulated period, the letter of acceptance stands cancelled. Entering into an agreement is not a mere formality, but one of the necessary conditions for concluding the contract.

As the order entrusting the project to the petitioner itself contained directions to issue the necessary work order after the MoU is signed by both the parties and after finalizing the terms and conditions, it would conclusively show that the contract would be concluded only after the finalisation of the terms and conditions. It is thus clear that in the absence of MoU/agreement, no concluded contract has come into existence.

6.6. Execution of Project Agreement

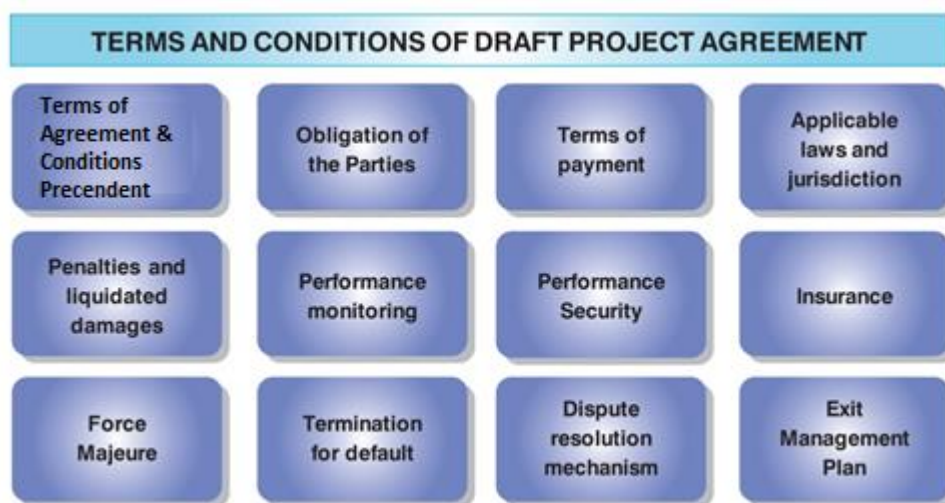
A few of the points that need to be considered while executing the Project Agreement are;

1. The Agreement should be executed on stamp paper of relevant value as per the law applicable in the jurisdiction in which the agreement is to be made;

2. It should be signed by an authorised person and this authority can be established through power of attorney or charter document of the company;
3. The bid submitted by the successful bidder, along with the bid security, should be kept valid till execution of the Agreement;
4. Representatives of all the parties to the Agreement with the authority to sign should execute the Agreement in the presence of atleast two witnesses whose signatures must be taken; and
5. Both the parties will sign each page of the agreement and the seal of the parties should be applied. The common seal of the SPV signing the agreement shall also be put on the contract.

7. Draft Project Agreement

Draft project agreement sets out the terms and conditions that govern the public entity and the private partner in a PPP arrangement. The draft project agreement comprises several sections or chapters and each of those sections set out terms and conditions pertaining to a specific aspect of project. There are multiple annexes or schedules attached to this main body of the draft project agreement which provide more details on some specific matters, for example, the technical and performance specifications for the project or other agreements relating to the project, etc. The indicative terms and conditions that form part of the draft project agreement includes the following:



In the interest of the project, the private partner should disclose information such as copies of this project agreement, the maintenance manual, etc. to the public entity. MCA for development of National Highways under PPP framework includes a section on Disclosure. For more guidance on 'Disclosures', refer Annexure 14 of this module.

7.1. Commonly Used Project Agreements in PPP Projects

The commonly used project agreements in PPP arrangements are management contracts, lease agreements/affermage contracts and concession agreements. Of the three, concession agreements are the most standardised format of agreement. This is because MCA for development of National Highways and MCA for development of private sector projects in Major Ports have been issued by the Ministry of Shipping, Road Transport and Highways which are adopted by. In sectors where there are no MCA available; usually the MCA for development of National Highways may be used as template and guidance material for

preparation of draft concession agreement. This is because the MCA captures all the standard clauses and provisions that need to form part of the contractual arrangements between the public entity and the private partner.

More on various contractual frameworks is set out in Module 2 of the PPP Guide for Practitioners on 'Understanding PPPs'.

1. Management Contracts

A management contract is a contractual arrangement for the management of a part or whole of a public asset by the private partner. Management contracts allow private sector skills to be brought into service design and delivery, operational control, labour management and equipment procurement.

Management contracts tend to be task specific; they are input rather than output focused. The ownership of the asset and the facilities are retained by the public entity. The simplest management contracts involve the private partner being paid based on its performance; its remuneration does not depend on the collection of tariffs and the private partner does not typically take on the risk of asset condition.

The Government of India has issued model bidding documents for development of roads on an operation, maintenance and transfer (OMT) framework.

Usually, the contract period is short, typically two to five years. But longer periods may be used for large and complex operational facilities such as a port or airport.

Use of management contracts is commonly found in the water and energy sectors. There is limited potential for improvements in efficiency and performance under the management contract, although more sophisticated management contracts (which are often called operation and maintenance contracts) may introduce some incentives for efficiency or improved bill collection by defining performance targets and basing a portion of the remuneration on its fulfilment (and cover longer time periods).

Other variants of management contract are:

- Supply/service contract
- Maintenance management
- Operational Management

2. Lease Agreement/Affermage Contracts

Under the leases and affermage contracts, the private partner is generally responsible for operating and maintaining the utility but not for financing the investment. The lease/affermage model is chosen mainly when the public entity intends to combine public financing with private efficiency. Under this model, a greater commercial risk is passed on to the private partner compared to that of the management contract, with incentives to perform. However, this model is often applied in combination with other models such as build-rehabilitate-operate-transfer. In such a case, the contract period is generally much longer and the private partner is required to make a significant level of investment.

How is lease different from affermage?

The arrangements in an affermage and a lease are very similar. The difference is technical. Under a lease, the private partner retains revenue collected from customers/users of the facility and makes a specified lease fee payment to the public entity. Under an affermage, the private partner and the public entity share revenue from customers/users. Further, in the case of a lease, the rental payment to the public entity tends to be fixed irrespective of the level of tariff collection

that is achieved and so the private partner takes a risk on bill collection and on receipts covering its operating costs. In the case of affermage, the private partner is assured of its fee (assuming that the receipts are sufficient to cover it) and it is the public entity that takes the risk on the rest of the receipts collected from customers covering its investment commitments.

3. Concession Agreement

A concession gives a private partner (referred to as the concessionaire in this format of a PPP arrangement) a bundle of rights such as developmental rights, operating rights, rights to collect user charges, etc. in return for certain specified obligations to be undertaken, including responsibility for operations and maintenance. The Concession Agreement is designed to identify the rights and obligations of the parties, the contracting Authority and the concessionaire. The concession arrangement is generally for a longer period of time typically ranging between 5-60 years. Under this arrangement, the ownership of the project asset remains with the Authority, while the constructive possession is passed on to the concessionaire. At the end of the agreement period, all the project assets, including the assets purchased by the concessionaire for the purpose of the project, revert to the public entity.

In a concession, the commercial viability of a project determines whether the payment is to be made by the private partner to the public partner (in form of revenue share/ concession payment) or vice versa (in the form of grant/ annuity payment).

A good understanding of the key dates that appear in the concession agreement is necessary among practitioners. Key dates set out in a concession agreement and their definitions as set out in the MCA for development of National Highways under PPP framework, are as follows;

- a. **Appointed Date** – *‘Appointed Date’ means the date on which Financial Close is achieved or an earlier date that the Parties may by mutual consent determine, and shall be deemed to be the date of commencement of the Concession Period; For the avoidance of doubt, every Condition Precedent shall have been satisfied or waived prior to the Appointed Date and in the event all Conditions Precedent are not satisfied or waived, as the case may be, the Appointed Date shall be deemed to occur only when each and every Condition Precedent is either satisfied or waived, as the case may be.*
- b. **Project Completion Date** – *‘Project Completion Date’ means the date on which the Completion Certificate or the Provisional Certificate, as the case may be, is issued under the provisions of Article 14.*
- c. **Commercial Operations Date (COD)** - *“COD” shall have meaning set forth in Clause 15.1. Clause 15.1 reads as follows:*

“[Two-Laning shall be deemed to be complete when the Completion Certificate or the Provisional Certificate, as the case may be, is issued under the provisions of Article 14, and accordingly the commercial operation date of the project shall be the date on which such Completion Certificate or the Provisional Certificate is issued] (the “COD”). The project Highway shall enter into commercial service on COD whereupon the Concessionaire shall be entitled to demand and collect Fee in accordance with the provisions of Article 27.”
- d. **Transfer Date** – *“Transfer Date” means the date on which this Agreement and the Concession hereunder expires pursuant to the provisions of this Agreement or is terminated by a Termination Notice.*

8. Significance of Other Project Documents

Project documents include those agreements that are executed after signing of the project agreement between the public entity and the private partner. These project documents are executed for various purposes and they enable project performance.

Other Project Documents Enable...

- Constitution of Special Purpose Vehicle/project Company
- Sustainable and efficient project implementation
- Structured project financing
- Planned and systematic purchase of inventories and supply of services or finished products/goods

8.1. Shareholders' Agreement

A shareholders' agreement is the agreement to be executed by the successful bidder (in case of a consortium, it includes all members of the consortium) and other investors who intend to hold equity stake in the SPV/project Company for the development and management of the project.

It is an agreement among the shareholders of an SPV/ project Company determining how the company must be operated and what are the roles and responsibilities of each shareholder in such SPV/ project Company.

8.2. Construction Contract

The construction contract covers provisions relating to construction works and related activities needed for completing the project in accordance with the project agreement. It could cover engineering, procurement, and construction contracting and further include support project facilities and major maintenance works.

In order to take advantage of specialised skill sets or to defray risks, the private partner may enter into a specific EPC contract for construction and/or maintenance of the project.

There will normally be only one construction contract to ensure that the private partner has a single recourse in the event of any problems arising from the construction of the infrastructure. Generally, this will reflect the terms of the private partner insofar as it relates to the construction:

- to ensure that risk is flowed down as much as is practicable from the concessionaire, but with necessary changes in default times, notice periods and longstop dates etc.
- to ensure that the private partner has sufficient time to deal with issues that arise from the public entity or from unexpected events.

8.3. O&M Contract

This contract is between the private partner and the Operation & Management contractor and governs the operation of the services agreed under the project agreement, including the maintenance of the facilities constructed and provision of support facilities (if applicable). The private partner could have the option of undertaking the O&M contract by itself, or entering into a separate O&M contract with one or more entities. The separate O&M contract enables the private partner to defray his risks and also take advantage of any specialist skill sets if required.

In cases where an O&M contract has been executed between the private partner and the O&M contractor, the default committed by the O&M contractor would amount to the default of the private partner with respect to its obligations under the project agreement. Under the MCA for development of National Highways under PPP framework, the private partner makes an express commitment that the selection or replacement of the O&M contractor and the removal of the O&M contractor will be subject to the prior approval of the public entity from the perspective of national security and the public interest.

8.4. Interface Agreement

The Interface Agreement, though not used always, regulates the relationship between the construction contractor and the O&M contractor (with the private partner joining in some cases). The agreement allocates responsibility for services and risk that may affect the provision of those services as a result of issues related to the construction of the infrastructure. The Interface Agreement, thus, covers the relationship between the private partner's overall activities, construction, and O&M. Specifically this covers the situation where the private partner has a separate agreement for construction and a separate agreement for O&M.

Under these circumstances, there needs to be clarity of roles and responsibilities for the construction contractor and the O&M contractor for smooth project implementation and operations. This is the purpose of the Interface Agreement. It has been used in the UK and some other countries. The concept is a constituent of the formal structure of agreements supporting PPP arrangements in the Indian context.

8.5. Rupee Term Loan

The Rupee Term Loan Agreement is executed between the private partner, the senior lenders, the lenders' agent and security trustee. This agreement generally provides for the commercial terms on which a loan has been approved for the project. The pre-commitment conditions and pre-disbursement conditions for release of funds specified in this agreement should have been fulfilled to achieve financial closure.

It is to be noted that multiple lenders may have one or separate rupee term loan agreements with the concessionaire and security trustee.

8.6. Substitution Agreement

This is a tripartite agreement among the lenders, the private partner and the public entity. The objective of the Substitution Agreement is to create or strengthen the framework for enhancing the flow of institutional debt finance, especially bank finance, to infrastructure projects. The public entity agrees to assign the rights, title, and interests in the concession to, and in favour of, the lender's representative (the nominated company under the provisions of the Substitution Agreement).

The scope of both the construction contract and the O&M contract must be in line with the scope of the project agreement.

In general, the lender's representative may invoke the Substitution Agreement arising from private partner default to the public entity or from private partner default to the financial institutions under the financing agreements.

The Substitution Agreement may arise out of financial default by the private partner and this includes:

- material breach in the terms and conditions of financing agreements
- continuous default in debt service by the concessionaire for three months or more

If the private partner defaults, the public entity informs the lenders' representative of the need to substitute the private partner with a nominated company.

The senior lender's representatives may procure offers either by private negotiations, public auction or tenders for the takeover and transfer of the assets and liabilities of the private partner. The proposed nominated company needs to fulfil the eligibility criteria that were laid down by the Government for the original short-listing of the award of the concession.

8.7. Inter-creditor Agreement

The Inter-creditor Agreement is to be executed between the lenders, lenders' agent and the security trustee. The agreement sets out the terms and conditions for sharing the proceeds of the security/monies among them.

8.8. Lenders' Agent Agreement

The Lenders' Agent agreement is to be executed between the lenders, the borrower and the lenders' agent. The agreement generally sets out the duties of the lenders' agent who acts on behalf of the lenders. In PPP arrangements, the borrower would be the SPV/project Company

8.9. Security Trustee Agreement

The Security Trustee Agreement is to be executed between the private partner, lenders, lenders' agent and the security trustee. The agreement specifies the activities of the security trustee acting as the trustee for the lenders.

8.10. Escrow Agreement

An Escrow Agreement is an agreement that is entered into by the private partner, lenders' representative, public entity and the bank which has been designated as the Escrow Bank. The objective is to control and regulate all project related accounts and financial flows as per the requirement of the project and in support of the project. The Escrow Agreement ensures that there is no mixing up of the project-related cash flows and that the various stakeholders' business activities and fund flows, including those of the private partner, are kept strictly separate.

The Escrow Agreement provides detailed instructions to the Escrow Bank on receipts and more importantly on the payments and the terms of payments under various categories. A series of sub-accounts in the Escrow Account will cater to these requirements. The concept of escrow provides additional confidence to the lenders and is intended to enhance their potential contribution to the PPP project (subject to project viability and debt coverage assessments).

Monies and properties received by the Escrow Bank are regarded as being held in trust by the Bank and is segregated from other funds and properties of the Bank (i.e. these shall not be considered as assets of the Bank). All deposits and withdrawals for payments related to the project are to be undertaken through the Escrow Account under the Escrow Agreement.

The agreement provides for permissible withdrawals from the escrow account and the priority of such withdrawals to different categories of stakeholders.

8.11. Off-take Purchase Agreement

An Offtake Purchase Agreement is executed between an offtake purchaser and the private partner. It secures the project payment cash flow and obliges the offtake purchaser to procure a certain amount of project output or pay for an amount of project service, whether or not it is used, over a given time.

The Offtake Purchase Agreement may provide sanctions if the private partner/project company fails to deliver output as promised, particularly if the construction of the project is not finished on time or does not perform as required when completed. The offtake purchaser will typically look for a guaranteed long-term output from the project. One example of an Offtake Purchase Agreement is a 'power purchase agreement' between a private power producer and State power distribution companies.

An Offtake Purchase Agreement is unnecessary for some projects, such as hospitals, tunnels, roadways and bridges, where no physical offtake is produced. It is often the client of the public entity who will pay the private partner/project company for use of the project. In such instances, a separate offtake agreement may not be needed.

8.12. Input Supply Agreement

The Input Supply Agreement obliges an input supplier to deliver to the private partner/project company a specified quantity of input necessary to the operation of the project, at a certain level of quality. This agreement allocates the market risk involved in the price and availability of the input. The Input Supply Agreement is only required where some supply of input is necessary for the operation of the facility. An example is the fuel supply agreement between Coal India Limited and various power companies obliging Coal India to supply coal to them.

9. Conclusion

Bid documentation is a very crucial step in the PPP project development process as the repercussion of the same are felt over the agreement period. It is to be noted that structuring issues cannot be resolved through bid documentation; drafting of the bid documents and other project documents puts into text the terms and conditions that emerge out of the project structuring exercise. To the extent possible, these documents need to be unambiguous so as to rule out disputes arising out of interpretation of its contents.

Ministry of Finance, Government of India has issued model RFQ & RFP for development of projects under PPP framework. In addition, there are also MCA available for development of National Highways and development of private sector projects in Major Ports. All these initiatives have benefited both the public entity and the private partner, as most of the sector specific terms and conditions associated with the procurement process and the PPP arrangement remain standard and it is only the project specific terms and conditions that vary. It also aids the private partner to be more informed of and equipped for the procurement process, especially with respect to the mode and manner of submission of bids.

10. Bibliography

1. A Guidebook on Public-Private Partnership in Infrastructure, Economic and Social Commission for Asia and the Pacific, UNESCAP, Bangkok, © United Nations 2011, January 2011
2. Contract Design in Public-Private Partnerships (report prepared for the World Bank), Elisabetta Lossa, Giancarlo Spagnolo and Mercedes Vellez, Final Version, September 2007
3. Frequently Asked Questions on Model RFQ Document: Committee on Infrastructure, May 2009
4. Guidelines for Pre-qualification of Bidders for PPP projects - Model RFQ, Committee on Infrastructure, Government of India, June 2009
5. Guidelines for procurement of PPP projects through Swiss Challenge Proposals Route for State of Karnataka, Draft version, Government of Karnataka, December 2009
6. Gujarat Infrastructure Development Act, (Amendment) 2006, as published in the Part IV of The Gujarat Government Gazette, Government of Gujarat, 31 March, 2006
7. Overview of the Framework- Extract from Model RFQ, Government of India, June 2009
8. The Andhra Pradesh Infrastructure Development Enabling Act, 2001, (act no. 36 of 2001), Government of Andhra Pradesh
9. The Andhra Pradesh Infrastructure Development Enabling Act, 2001, (act no. 36 of 2001), Government of Andhra Pradesh
10. The Punjab Infrastructure (Development & Regulation) Act, 2002, Department of Legal and Legislative Affairs, Punjab, Government of Punjab, 2002
11. Unsolicited Infrastructure proposal: How some countries introduce competition and transparency, John T. Hodges and Georgina Dellacha PPIAF, Working paper No. 1, 2007
12. Volume 6 - Jurisdictional Requirements, National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008

11. For Further Reading

1. A Guidebook on Public-Private Partnership in Infrastructure, Economic and Social Commission for Asia and the Pacific, UNESCAP, Bangkok, © United Nations 2011, January 2011
2. Contract Design in Public-Private Partnerships (report prepared for the World Bank), Elisabetta Lossa, Giancarlo Spagnolo and Mercedes Vellez, Final Version, September 2007
3. Frequently Asked Questions on Model RFQ Document, Committee on Infrastructure, Government of India, May 2009
4. Model Request for Proposal for PPP projects, Ministry of Finance, Government of India, 2007
5. Model Request for Qualification for PPP projects, Ministry of Finance, Government of India, 2009
6. PPP Projects – Project Guidebook , State of Kuwait – Partnerships Technical Bureau, November 2009
7. Practical Guide to Public Private Partnership Projects, Hong Kong Institute of Surveyors, 2009
8. Volume 6 - Jurisdictional Requirements, National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008

PPP Guide for Practitioners



Module 15: Post Award Contract Management

1. Introduction

The success of a project developed through a PPP framework is determined mostly when the project is executed and its commercial operations are underway. Post award period commences from the date of issue of Letter of Award to the Successful Bidder and ends after the expiry of Project Agreement/ Concession Agreement. Department of Economic Affairs, Ministry of Finance has issued a 'Post Award Contract Management Manual for PPP Concessions' which defines Post Award Contract Management; viz.

"Post- Award Contract Management denotes all those activities that are required to be undertaken by the Authority to administer, manage, govern and execute the project from time of Award of project up till its termination."

The type of post award contract management required for projects developed under a PPP framework is very different from what is required for projects that are conventionally developed by a public entity. The post award contract management issues in PPP arrangements largely pertain to the provision and delivery of services whereas those in conventional arrangements are focussed towards asset creation.

Why is post award contract management required?

1. Public Entity Perspective

- To ensure that the private partner is performing its obligation as per the terms and conditions of the agreement
- To ensure that the project is executed and operating as per the minimum service levels specified in the agreement
- To prevent any revenue loss to the public entity

2. Private Partner Perspective

- To ensure that the public entity also adheres to its obligations as set out in the agreement
- To provide a platform for sharing its concerns and issues in project execution

3. Societal Perspective

- To ensure safeguards, both environmental and social

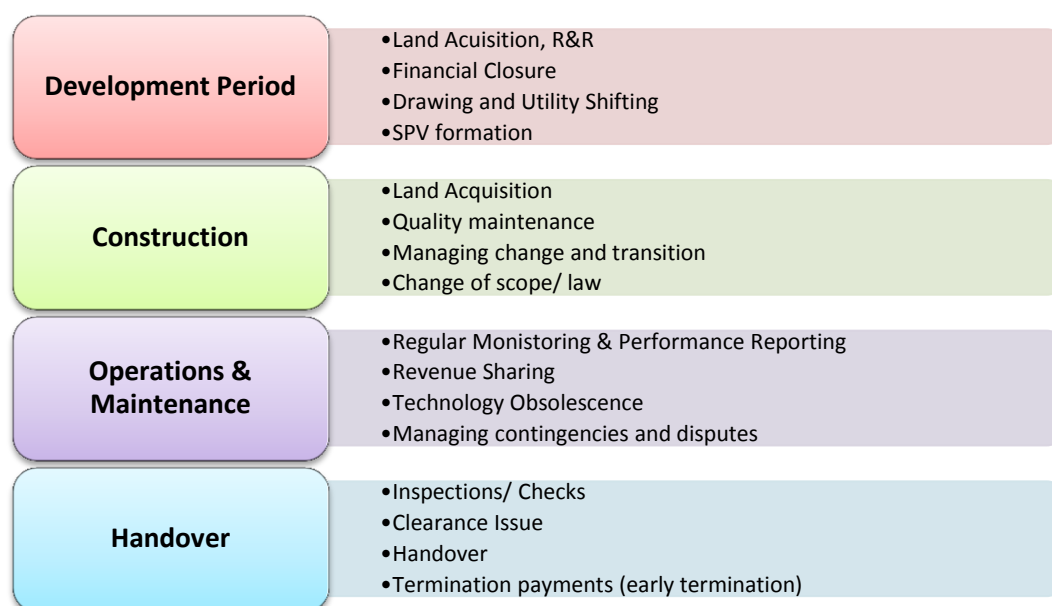
2. Key Stages of Post Award Period

The Post-award Contract Management involves four key stages which are mentioned below:

- 1. Development Stage:** includes the process leading up to contract execution, starting from the date of Letter of Award up till the date of commencement of construction consisting of all pre-construction project activities like land acquisition, meeting financial handover, etc.
- 2. Construction Stage:** involves the period commencing from the date of commencement of construction through the commissioning process to the completion of construction as specified in the terms and conditions of concession agreement.

3. **Operations & Maintenance Stage:** this stage extends for the longest portion of the PPP project development lifecycle. It covers the provision of service by the private partner and the use of such services during the concession period.
4. **Handover Stage:** includes the period leading up to and after contract expiry or termination.

During the various stages of the post award period, the public entity will need to carry out certain activities which are largely related to management of the contract between the private partner and the public entity. There are various issues that may arise during the post award period which would have a bearing on the project performance. An indicative set of such issues are set out in the diagram given below:



2.1. Development Stage

Under the post award contract management process, the following questions need to be deliberated upon at this stage of the post award period.

1. Are other agreements between the private partner and other public entities such as the State Support, Tripartite Agreement under the Financial Support for PPP in Infrastructure – VGF Scheme (or as applicable) being executed?
2. Has the lead financial institution submitted a project appraisal report within three months of contract award?
3. Has the public entity provided the land free from encumbrances and other assets, as applicable?
4. Have the necessary notifications to enable the private partner to perform its functions been made by the public entity?
5. Is the public entity doing its part in enabling the private partner to obtain approvals, as applicable?
6. Are both parties complying with the conditions precedent set out in the Project Agreement?
7. Has the public entity appointed the Independent Engineer, Auditor, etc. for the project?
8. Have the designs, construction plans, etc. been reviewed by the public entity with assistance from the Independent Engineer?

9. Has the Independent Engineer confirmed that the detailed drawings provided by the private partner conform to the proposed development plan?

In addition to the above, the post award contract management activities at this stage ensure the parties' commitment to comply with each term/condition set out in the agreement.

2.2. Construction Stage

The construction period begins with the Appointed Date and ends with the Commercial Operations Date (COD). This is the period when the actual construction of the project takes place. The time required for construction is assessed during the technical feasibility assessment stage and is also indicated in the bidding documents.

The following are verified as part of post award contract management activities during the construction period:

1. Has the remaining land been made available by the public entity to the private partner as per the project schedule?
2. Are bi-monthly site visits to the project site being carried out by the public entity?
3. Is the progress being reviewed on a monthly and quarterly basis by the Independent Engineer through the submission of inspection reports to the public entity?
4. Is continuous fulfilment of mutual obligations and the duty to implement course corrections (if any) being carried out?
5. Is the progress and adherence to performance indicators being reviewed?
6. In the case of non-compliance by the private partner, have the course correction clauses been invoked?
7. Is monthly reporting on the project status to the relevant central Ministry/State Government happening?
8. Has the public entity approved the Operations & Maintenance manual submitted by the private partner?
9. Has the public entity carried out adequate tests prior to COD, in order to ensure quality of the construction and complete issuance of completion certificate?

Time over runs result in cost escalation and in turn affect the project's revenue model. Effective construction is key to successful outcome of an infrastructure project.

The challenge in post award contract management at this stage of the project development process is to ensure that the project is constructed on time. Experience shows that projects are often not finished on time, leading to an escalation in costs. One of the main causes of the delays is the time taken for land acquisition and its transfer to the private partner by the public entity. This process needs to be monitored as part of the project. More on land acquisition and the process involved is set out in the Module on Pre-Procurement Activities, viz. Module 12.

2.3. Operations Stage

The operations period includes the period between the Commercial Operations Date (COD) and the term date/expiry in a project. The following questions need to be answered as part of post award contract management activities during the operations period:

1. Are the service delivery quality, safety, user satisfaction, and emergencies duly monitored?

2. Is the maintenance (preventive, routine, periodic, major) being done as per the standards and in accordance with the O&M manual?
3. Are bimonthly site-visits carried out?
4. Are the financial performance, including the revenues, revenue sharing, etc. monitored and scrutinised from time to time?
5. Are the continuous fulfilment of mutual obligations and the implementation of course corrections (if any) happening?
6. Has there been a review of progress and adherence to the performance indicators set out for the project?
7. Have the contractual terms in case of non-compliance by the private partner been invoked?
8. Whether monthly reporting on the project status to the relevant Central Ministry/State Government is taking place?

The operations period is the longest of all the stages. Transparency and accountability in carrying out these activities must be ensured during all stages of project implementation.

2.4. Handover Stage

This stage in the post award period is final stage of the project development process; it includes expiry of the agreement period until actual handover of the project asset by the private partner to the public entity. Prior to the completion of the agreement period, the following questions need to be answered by the public entity:

1. Is the public entity satisfied that the private partner performed all its contractual obligations as detailed in the contract?
2. Have all project related assets and resources been duly transferred to the public entity in good condition?
3. Has a vesting certificate been issued to the private partner by the public entity after handing over project assets?

Compliance with an exit management plan or a handover plan would be monitored at this stage of the post award period. Such a plan would usually form part of the concession agreement and both the public entity and the private partner are expected to perform their obligations in consonance with such plan.

3. Contract Management Framework

Contract management encompasses various aspects of an organization or a PPP project. The large number of PPP contract failures and renegotiations in the last decade highlight the importance of a thorough understanding of the post award contract management function. Well-structured contracts and effective on ground preparation are key to good contract management. Contract management involves developing and implementing processes and procedures to enable the public entity and the private partner to meet their obligations in achieving the desired outcomes as per the contract terms. Contract management activities go beyond mere administration of contracts.

From the time of issue of the Letter of Award until the expiry of the Concession Agreement, there are a number of specific activities pertaining to the post award contract management which are to be performed by the public entity. The need for contract management is driven by:

1. the social impact for not being able to deliver the service as per the PPP arrangement;

2. the financial impact of cost and time over-runs
3. the damage to reputations due to project disruption on account of disputes between the parties

Contract management requires defining the processes enabling both public entity and the private partner meet their respective obligations, building good working relationships, monitoring project performance in meeting the stated objectives and mitigating risks

Contract Management takes into account, performance monitoring of the private partner, relationship management with all stakeholders, resolution to disputes if any, and in a nutshell tries to serve all the objectives set out in the Concession Agreement in the best possible manner.

The diagram below provides an overview of key components of Contract Management in context of PPP projects:



Keeping in view the distinct set of issues and risks that the projects developed under PPP framework encounter during the project development life cycle; it can be stated that a Contract Management framework would need to serve the following set of objectives:

No.	Objective	Key Aspects
1	Planning and Project Management	<ul style="list-style-type: none"> • Identification of constraints and addressing the same • Advance planning/ risk management through early alarm bells
2	Regular Management/ Monitoring	<ul style="list-style-type: none"> • Management of public entity’s rights, obligations and contingent liabilities • Ensuring performance of obligations by private partner • Management of incentives and penalties • Monitoring of critical tasks/ timelines • Tariff/ payment adjustments • Handover management • Dispute resolution
3	Compliance	<ul style="list-style-type: none"> • Ensuring adherence to laws, policy and regulation • Ensuring adherence to required Governance principles
4	Public entity’s	<ul style="list-style-type: none"> • Continuity of adherence of objective of the project

No.	Objective	Key Aspects
	Accountability	<ul style="list-style-type: none"> Ensuring intended use of public resources
5	Managing Eventualities	<ul style="list-style-type: none"> Management of eventualities/ contingencies like force majeure, termination, etc. Renegotiation management Change management
6	Effective Coordination	<ul style="list-style-type: none"> Relationship management with private partners Internal coordination amongst Departments Coordination with third parties
7	Institutional Perspective	<ul style="list-style-type: none"> Ensuring uniformity in contract management approach Streamlining communication\Maintaining institutional memory Capturing and monitoring performance indicators
8	User Perspective	<ul style="list-style-type: none"> Protection of user rights User grievance/ feedback management Knowledge management and information sharing with stakeholders

Source: Post Award Contract Management Guidelines for PPP Concessions, PPP Cell, Infrastructure Division, DEA, Government of India

4. Contract Management Team

A contract management team has the primary responsibility of monitoring and reviewing the PPP project to ensure that the performance of the private partner meets the contractual terms. It mostly acts like an Ombudsman for managing contracts. Hence, it is important that the team executing the contract management activities is selected with great care and thought to ensure the selection of the right set of people with the required skillsets.

The Contract Management Team is to be identified and it should consist of representatives' at all three (3) levels required for the contract management:

1. Operations level
2. Supervisory level
3. Decision making level

Thus, members of Contract Management Team from each level within the public entity have to be clearly appointed keeping in mind their roles and responsibilities and ensuring that each one of them is apprised of his/ her duties in a clear and transparent manner. The process of identification and setting up of the team begins from appointing the contract manager who plays a critical role in coordinating with each team member and is the overall in- charge of the project.

4.1. Appointment of Contract Manager

The Contract Manager (Project Director/ Field Officer at Operations Level) has direct responsibility for the project execution and contract administration. He/she is the first point of contact for all project related issues and coordinates with other officials within the public entity's institutional structure.

Since the Contract Manager is appointed during the procurement stage itself, immense care is needed to ensure that the right person is appointed. The key personnel from the public

entity's side during the operational phase of the PPP project will be the Contract Manager. Hence, he/ she will represent the public entity's interests and ensure that service quality is in sync with the contract terms.

4.2. Contract Management Team Structure

After the Contract Manager is selected, the next task is defining the contract management team requirements, its structure and composition. The Contract Manager must communicate the requirements for the contract management team and its operations to the public entity at the Decision Making Level. The size of the team is required to be decided based on:

1. Size of project
2. Complexity of project Activities
3. Risks estimated and their potential consequences
4. Amount of regular duties each of the appointed officials is required to fulfil

Understanding the significance of the contract management team in post award contract management of PPPs; Department of Economic Affairs, Ministry of Finance, Government of India has issued "Guidelines on Institutional Mechanism for Monitoring PPP projects" which provides institutional level framework for monitoring of PPP projects within the Government of India. The guidelines document also provide for checklist with respect to constitution of a contract management team.

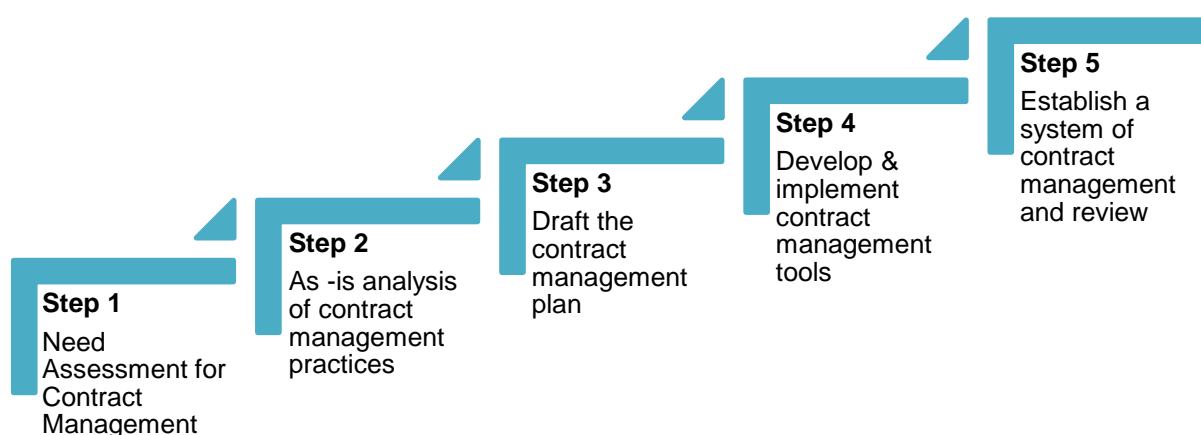
5. Contract Management Plan

A contract management plan forms the basis of all the contract management functions. Development and implementation of a contract management plan should start at an early stage during the procurement process so that the contract management requirements are included in the draft agreement developed by the public entity.

The contract management plan must also have clear defined objectives which are to:

- a. Provide a clear understanding of how to approach the contract management activity;
- b. Be meticulous and exhaustive for stages throughout the lifecycle;
- c. Develop a comprehensive understanding of in- depth procedures of approaching each contract management activity;
- d. Adopt a pro- active approach to resolution of issues and disputes and define a procedure for the same; and
- e. Support the contract management team in reviewing their current contract management.

The diagram below sets out a five step approach to design the contract management plan.



A contract management plan must ideally address aspects such as performance monitoring, reporting and review, risk management, relationship management, issue management and dispute resolution, contingency planning & change management, knowledge management & information dissemination and ongoing review. Each of the aspects of contract management is explained herein below.

5.1. Performance Monitoring, Reporting & Review

Performance Monitoring and Reporting deals with keeping a check on the project progress and its sub- activities throughout the lifecycle so that an appraisal can be done for the same from time to time and necessary corrective actions can be employed to get it back on track.

Along with constant monitoring it is also important that the public entity should report any exceptions and provide feedback to the private partner from time to time. Also, a review of the existing frameworks and policies for Performance monitoring is important from time to time to improve and incorporate newer challenges and complexities which evolve over time.

Performance monitoring and reporting is a critical aspect of contract management plan and it addresses the following aspects of contract management:

- Confirm that the private partner is performing according to the output specifications in the contract and evaluate it on the basis of those specifications;
- Give the public entity an understanding of the sustainability of the contract;
- Help so that best project value is realized;
- Give the public entity a clear idea on the project progress;
- Monitor change;
- Manage risks;
- Conduct contingency planning for ensuring continuity of services and potential Government step-in under the contract;
- Apply remedial measures, improvements is service quality hasn't been met with and check for effectiveness;

KPIs can be both qualitative and quantitative measures. The nature of specific indicators and the frequency of their monitoring depends upon the nature and importance of service delivery and its impact on the State exchequer.

- i. Amend the output standards if they are impossible to achieve / have been defaulted on a regular basis by the private partner because of external factors;
- j. Monitor that meetings are held on a regular basis and in accordance with the contractual requirements;
- k. Ensure obligations for payments of Annuity / Tipping Fees, bonus etc.;
- l. Encourage appraisal of existing practices.

The guidelines document on post award contract management issued by the Department of Economic Affairs, Government of India sets out a checklist for managing and monitoring performance.

What are Key Performance Indicators (KPIs)?

KPIs are metrics to track the progress or performance of a project in terms of its service objectives. They should be defined in such a manner that they describe the desired output or performance levels and not the means or methods of achieving such output.

The process of developing KPIs begins at the procurement stage of the PPP project lifecycle when the contract manager/team provides a support role to the procurement team in developing the KPIs. At the tendering and contracting stage, the performance requirements are identified and defined. Later, the KPIs are developed and detailed. At the next level, area-specific KPIs are defined. The reporting requirements for the KPIs are also detailed at this stage.

Indicative KPIs:

- Service Quality: Quality of Road, 24x 7 water supply
- Financial Efficiency: Average cost of ambulance trip, average cost per water connection
- Process Related: Arrival processing time at airport, average connection time

Source: Knowledge Series, Training of Trainers Curriculum, PPP, Module II - Project Analysis and Structuring, Department of Economic Affairs, Ministry of Finance, Government of India

5.2. Risk Management

Risk is “the chance of an event occurring which would cause actual project circumstances to differ from those assumed while forecasting project benefit and costs.” Management of risks holds the key to project success or failure. The Contract Management process must thus, identify, mitigate and monitor the key potential risks over the life of the project to achieve targeted project outcomes.

Risk monitoring and reporting structures will depend on the duration, size and complexity of PPP projects. As with performance monitoring, risk monitoring is also particularly important in projects which depend heavily on the exchequer, as in VGF projects or annuity based projects. The intensity of risk monitoring also depends on the nature of the services provided by the project. Analysis and management of risk should be able to effectively answer the following questions for each risk identified:

- a. Which contracting party is best able to control events leading to risk occurrence?
- b. Which contracting party is best able to manage the risk?
- c. What is the level of end-user involvement anticipated in managing the risk?
- d. If the risk is not successfully managed, which contracting party will be impacted the most?

- e. Does the risk transfer to the private partner have an adverse impact of cost of service to the end-user?

More details on types of risks and mitigation measures is set out in Module 10 of the PPP Guide for Practitioners on 'Risks Analysis'

5.3. Relationship Management

Relationship management aims at maintaining a harmonious relationship between the contract parties, the key elements of which are:

1. **Mutual trust based on an understanding of mutual benefit:** The parties to the agreement should view the PPP arrangement as a mutually beneficial enterprise.
2. **Understanding objectives:** The institution and the private partner must understand and respect the independent objectives of each entity and also the overall project objectives.
3. **Open communication and information sharing:** The institution should foster an environment for sharing information with, and obtaining information from, the private partner on matters directly or indirectly related to the project. The key to developing an effective long term relationship is the establishment of a collaborative working arrangement along with systems and communications that actively support the partnership throughout the life of the project.

Communication is the essence of a good working relationship. Such communication happens in the following ways:

- a. **Strategic level communication** focuses on discussing the partnership, its management, and any initiatives within it that they could promote or initiate. The idea is to promote the relationship and commitment to a healthy relationship by leading through example.
- b. **Business level communication** is more formal and structured. Changes to the contract are managed at this level and any issue that arises may be dealt.
- c. **Operational level** is where the actual service delivery occurs and is monitored by the contract management team. Day-to-day problems in the delivery of services may be resolved here. If this is not possible, they can be escalated to the contract manager.

Successful relationships in contract management are typically spearheaded by the top management by establishing a collaborative rather than a confrontational approach to contract management. A collaborative approach is encouraged when officials of both the public entity and the private partner to engage in meetings and discussions. The objective should be to review information and engage in a constructive and collaborative dialogue. Points of discussion could include contract performance, KPIs, operations, etc., evolving risks and issues; use the registers and joint plans to address issues.

Sustained interactions are essential for strengthening any relationship and for forming trust.

The guidelines document on post award contract management issued by the Department of Economic Affairs, Government of India sets out a checklist for relationship management.

5.4. Dispute Resolution/ Management

As in any contractual arrangement, differences of opinion may arise between the public entity and the private partner in PPP arrangements. It is in the interests of the project that the parties ensure that such disagreements are managed and resolved without affecting the progress of the project.

Dispute management in PPPs refers to the mechanism for the amicable management of disputes that can arise during the agreement period. The focus in dispute management is not on the resolution of disputes but on creating an environment that reduces their occurrence. Dispute management thrives on a cordial relationship between the public partner and the private entity. It also requires the presence of open communication channels and a periodic assessment of the relationships between the parties.

While drafting agreements, it is important to refer to the proposed means of resolving disputes because, given that conflict is common, having an effective dispute resolution mechanism in place, encourages investors by giving them confidence that should problems occur there are ways to resolve them. At the detailed level, agreements should always include both formal and informal approaches to dispute resolution. Clear and fair processes to resolve disputes to attract investors are not the only objective. They allow many disputes to be resolved earlier, saving time and money for both parties. Long and acrimonious disputes also generate bad publicity and deter investment.

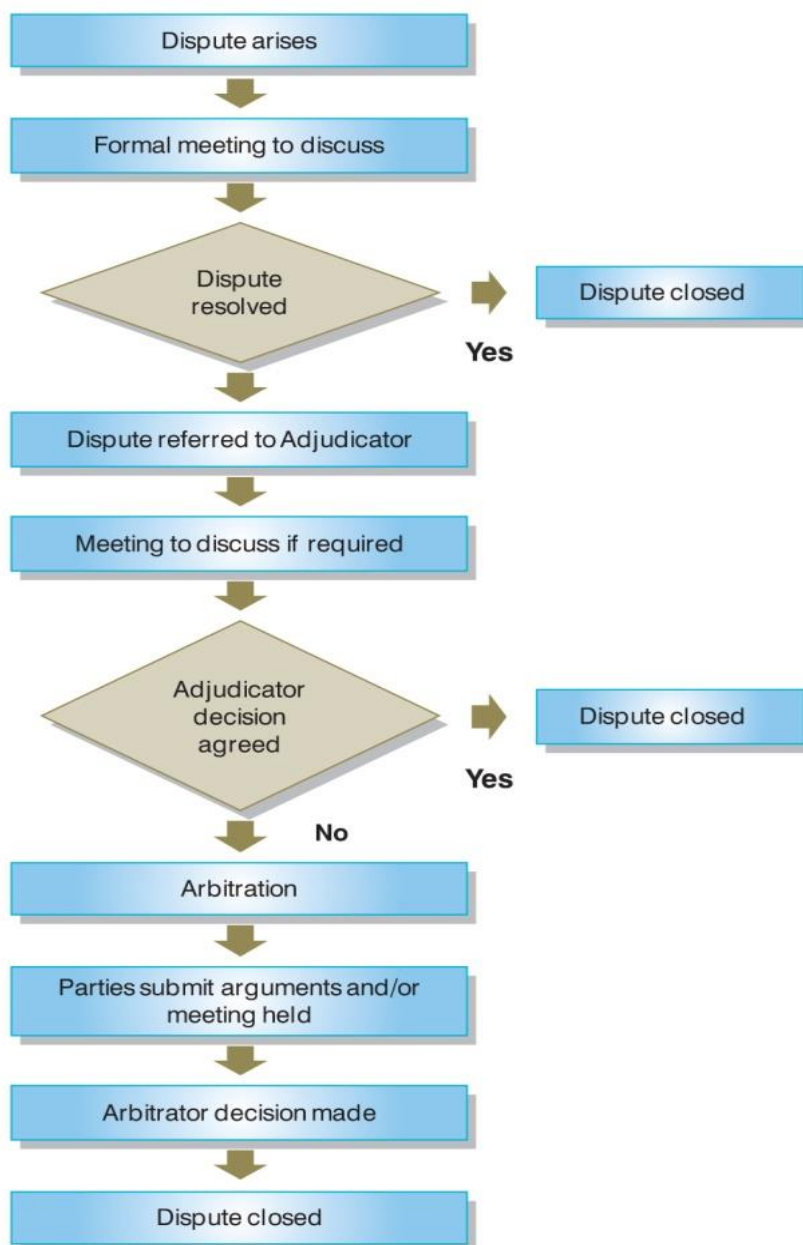
Certain sectors also employ the concept of regulatory adjudication where the regulatory authority has the legal power to resolve disputes between contracting parties.

Disputes should typically be resolved by the contracting parties and attempts should be made to reach an amicable solution outside the judicial system. Invoking the law to resolve disputes increases the cost and risk to both parties to contract and at the same time takes away control of the outcome as the legal decisions are binding on both parties. Public entities should use informal methods to resolve disputes and ensure that regular communication is in place. It is useful to adopt certain benchmarks in dispute management. It may be useful to resolve disputes through informal means such as meetings when the disagreement does not require any amendment to the project agreement. Differences involving amendments to the project agreement may be escalated to arbitration.

MCA for development of National Highways has set out a detailed description of the procedure for arbitration as means of dispute resolution. One way of preventing disputes even arising is through efficient information sharing to see how and why disputes have risen in other PPP projects. This will enable the public entity to look at course correction whenever an issue arises. Sharing information and keep communication open also ensures that issues are resolved as soon as they arise. Issue management is, in fact, a critical element in minimizing disputes. Conflict can be kept to a minimum by maintaining a 'register' of issues which is updated regularly, clear documentation, and strict adherence to escalation procedures.

The guidelines document on post award contract management issued by the Department of Economic Affairs, Government of India sets out a checklist for dispute resolution.

The diagram given below sets out the process that can be adopted in the management of disputes:



The techniques for dispute resolution can either be as simple as one to one negotiation between the parties to the agreement or more complex, formal procedures.

- a. Negotiation is the most commonly used form of dispute resolution where the parties come together to discuss a mutually agreeable settlement.
- b. Expert determination is useful when it is a technical issue. In a typical expert determination, the parties would agree to be bound by the expert's decision.
- c. Mediation involves negotiations with the support of an independent third party. It has the benefit of balanced inputs from a neutral third party.
- d. Neutral evaluation is used when the dispute cannot be resolved and the law is likely to be invoked. A test of the merit of such a case can be gauged by a neutral third party with the necessary legal expertise.
- e. Arbitration procedures are outlined in the contract. They involve the process for resolving disputes in which both sides agree to be bound by the decision of a third party, the arbitrator. The decision of the arbitrator is binding on the contracting parties.

f. Litigation in court is often a lengthy and costly process.

The features of some typical forms of dispute resolution are set out in the table below:

Form	Time	Cost	Binding	Adversarial	Special features
Negotiation	Varies	Low	No	No	Can continue throughout dispute resolution process
Expert Determination	Quite fast	Moderate	Not unless agreed to	Yes	Normally follows directly after negotiations
Mediation	Fast	Low	Not unless agreed to	No	-
Conciliation	Fast	Low	Not unless agreed to	No	Often within the scope of mediation
Arbitration	Fairly slow	Fairly high	Yes	Yes	-
Litigation	Slow	High	Yes	Yes	-

Source: Adapted from *Dispute Resolution Guidance of the Office of Government Commerce, U.K.*

Regulatory Adjudication in Sectors

- Regulatory adjudication involves the use of legal powers by a regulatory Authority to amicably resolve disputes which are brought before it in its sector of operations
- Regulatory adjudication is commonly used in the telecom sector in a number of countries
- Regulatory agencies have the flexibility of holding formal court-like proceedings or a more informal approach through fact finding based on the specific circumstances of the dispute
- In certain countries and for specific disputes, judicial adjudication is used to validate the regulatory decision making process.
- Some countries also require Government adjudication subsequent to regulatory adjudication. This may cause a conflict of interest if the Government has a stake in the disputing party.

Disputes are likely to arise when specific issues are not effectively handled as and when they arise. In such cases, both parties incur huge costs in resolving disputes. To prevent this, all measures to prevent disputes should be taken. If, however, a dispute is unavoidable, then effective dispute resolution measures should be adopted. Recourse to legal adjudication should be made only under exceptional circumstances.

Despite all these methods, some disputes may not be amenable to resolution and may lead to a termination of the agreement before expiry or before the completion of agreement period. Annexure 15 of this Module sets out the 'Procedure for Termination'.

5.5. Contingency Planning

PPP projects are generally spread over a long project life typically of over 15- 20 years. As such, there is significant probability for the project to face financial, political, physical contingencies. These contingencies will affect the risk-return ratio of the private partner and in extreme cases might even lead to failure to meet agreed upon terms. Such a failure by the private partner could lead to severe reputational damage to the public entity and possible delays/extension in the operationalizing the PPP project. As such, it's a good practice for the public entity to identify and detail major contingencies and the response to the same. This would also provide an exhaustive list of key stakeholders/ paradigms to be considered while drafting a solution. Contingencies can be majorly broken into 3 categories:

1. **Contingencies that involve default by Private Partner but cause no interruption of service delivery.** For example, When the Private party defaults on its insurance payments, there is no loss to the service obligations but the Authority has the right to recover the premium payments from the Concessionaire.
2. **Contingencies that interrupt service delivery but do not involve default by Private Partner.** For example, Change of Scope, Force Majeure events, etc.
3. **Contingencies that interrupt service delivery and involve default by Private Partner.** For example, Non- adherence of private party to meet the service obligations as per the Concession Agreement, in ability to finish project in time and request for extension, request for refinancing/ restructuring of project costs, etc.

MCA for development of National Highways provide detailed list of all major contingency and force majeure events. Major contingencies and rare events include change in scope, change in law, renegotiation, force majeure and termination.

More on management of Committed and Contingent liabilities by the public entity has been discussed in Module 12 on "Pre-Procurement Activities"

5.6. Knowledge Management

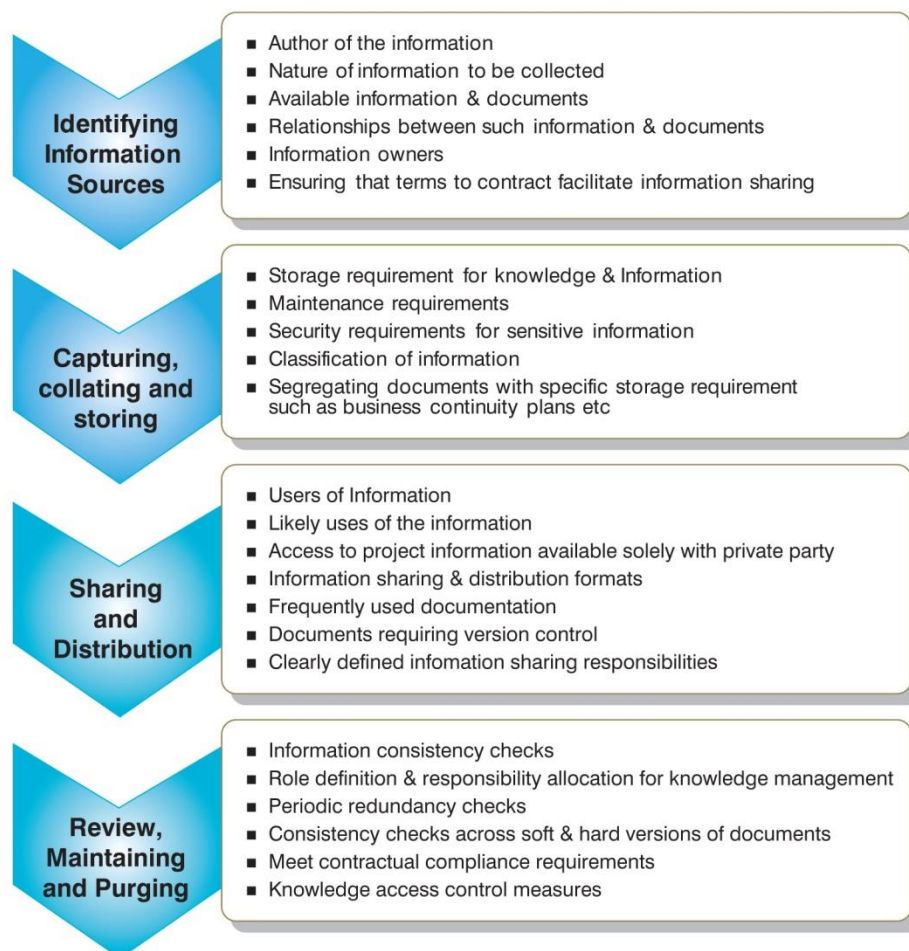
One of the key objectives of contract maintenance and knowledge management is ensuring the continuous availability of project related knowledge and information through the project lifecycle. This objective is achieved through efficient knowledge management by the contract management team.

Efficient knowledge management requires, among other things:

1. **Maintaining a document/information management system** – the degree of complexity and need of automation of the system would be dependent on project variables like project duration, scope, inter-linkages etc.
2. **Establishing necessary tools and processes** – these include policies and procedures for managing information, records and documents
3. **Fostering an enabling culture** – this helps adherence to specified policies and procedures and information/knowledge exchange at appropriate levels

To ensure continued service delivery, the contract administration function should define a contract expiry strategy which would come into effect at the end of the contract term. It should define the resources and procedures for ensuring continued service delivery after contract expiry. Developing, testing and periodically updating a contract expiry strategy is important in ensuring a smooth transition of services and continuity of service at the end of the agreement term.

The activities that form part of knowledge management is set out in the diagram given below:



5.7. Ongoing Review

Regular review of projects is a significantly important exercise for Contract Management. It helps in keeping both the project information and the issue management activities up-to date. At all points of time, new and more complex challenges surround project managers and hence these new problems might cause severe delays in the project execution and management. Thus, reassessing the risks involved is a necessary foundation for ongoing review of the project's contract management framework.

Renegotiation of PPP Agreements

Given the characteristics of PPP arrangements and the fact that PPPs have been used in great numbers in many jurisdictions around the world, it is no surprise that a number of such projects have become distressed in terms of the emergence of risks that may not have been contemplated at the time of signing. Many such projects have been renegotiated over time. The forms of distress may vary but factors that lead to such distress could include any or a combination of the following:

- Lower than expected revenue;
- Higher than expected costs;
- Delays;
- Variations in contractual specifications and;
- Disagreements between the parties as to cause and effect of actions/inactions.

Any of these could give rise to a call for amending the terms of the Project Agreement/

Concession Agreement to better reflect the project realities. However, it is observable that such calls typically (but not always) originate from the private partner to the Concession Agreement and, since the objectives behind such a call will be biased towards maintaining a required return on investment, or preventing a default under financing agreements undertaken by the private partner or avoiding a risk or set of risks, the amending of the Concession Agreement may not be in the best interests of the public entity (acting on behalf of the Government). It is therefore sensible to develop and implement a framework for dealing with such proposed amendments.

Department of Economic Affairs, Ministry of Finance, Government of India, has developed a framework for renegotiation of PPP Contracts. The document could be used as reference material while renegotiating PPP arrangements. The framework document is available for download in the weblink given below:

http://pppinindia.com/NPBCP_images/PDFs/DEVELOPING%20A%20FRAMEWORK%20FOR%20RENEGOTIATION%20OF%20PPP%20CONTRACTS.pdf

An indicative timeline for reference of the public entity given below:

Activity	Indicative Timeline
Appointment of Contract Manager	Up to 15 Days prior to commencement of Bidding
Appointment of Contract Management Team	Within 7 days of selection of Preferred Bidder
Team Briefing & meeting as per project Requirements	Within 7 days of formation of Contract Management Team
Development of Contract Management Plan	Within 2 months of signing of Concession Agreement
Execution of Contract Management Plan	Right after the approval of pPlan from thr Authority Chief
Regular Review of Contract Management Plan	Every month depending upon project progress updated in the a project stage
Regular Public Communication Activities	Every 1-3 months depending upon project progress updated in the a project stage
Commencement of project Exit Plan	5-6 months prior to the Completion Date
Completion of Asset Handover & maintenance of service continuity	Within 1 month of the Completion Date

Source: Post Award Contract Management Guidelines for PPP Concessions, PPP Cell, Infrastructure Division, Department of Economic Affairs, Government of India

6. Conclusion

The success of PPPs lie in the ultimate benefit they offer society at large. Many projects developed through the PPP framework have suffered due to the emergence of post award contract management issues such as non-performance of obligations, occurrence of uncertain/ unforeseen events, etc. It is necessary for the public entity to anticipate the entire set of issues that could curb project development post award to the private partner and be geared up to manage these issues.

It is also required that the public entity monitors and governs the performance of the private partner in accordance with the terms and conditions of the agreement executed between them. This will also be in the interests of the private partner as there is a mechanism to ensure that the public entity also performs its part in the project diligently. Constitution of an effective contract management team which in turn devises a comprehensive contract management plan for the project, would go a long way in ensuring performance of obligations of both the private partner and the public entity.

7. Bibliography

1. Ex-Post Management of PPP Contracts, PPP Unit National Treasury, South Africa, World Bank, 08 June, 2007
2. Guidelines for Monitoring of PPP Projects, The Secretariat for the Committee on Infrastructure, Government of India, May 2009
3. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
4. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
5. Post Award Contract Management Guidelines for PPP Concessions, PPP Cell, Infrastructure Division, Department of Economic Affairs, Government of India
6. Post Award Contract Management Manual for PPP Concessions, Volume 1, PPP Cell, Infrastructure Division, Department of Economic Affairs, Government of India
7. Post-Award Implementation and Monitoring of PPPs, Richard Foster, PPP Nodal Officers' Round Table 16-17 June, Jaipur, 2011
8. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
9. Public Private Partnerships - Model Bidding Documents, Government of India, 2009

8. For Further Reading

1. Ex-Post Management of PPP Contracts, PPP Unit National Treasury, South Africa, World Bank, 08 June, 2007
2. Guidelines for Monitoring of PPP Projects, The Secretariat for the Committee on Infrastructure, Government of India, May 2009

3. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, , December 2010
4. Public Private Partnerships - Model Bidding Documents, Government of India, 2009
5. Post Award Contract Management Guidelines for PPP Concessions, PPP Cell, Infrastructure Division, Department of Economic Affairs, Government of India
6. Post Award Contract Management Manual for PPP Concessions, Volume 1, PPP Cell, Infrastructure Division, Department of Economic Affairs, Government of India
7. Post-Award Implementation and Monitoring of PPPs, Richard Foster, PPP Nodal Officers' Round Table 16-17 June, Jaipur, 2011
8. Public Private Partnerships (PPP) in Infrastructure Projects – Public Auditing Guidelines, Comptroller and Auditor General of India, 2009

PPP Guide for Practitioners



Module 15A: Financial Closure

1. Introduction

On execution of the contract between the private partner and the public entity, one of the key activities that the private partner undertakes is to achieve financial closure for the project. Activities that lead to financial closure include identifying and organizing the sources of finance for project development. MCA for development of National Highways sets out achieving financial close as one of the conditions precedents to be fulfilled by the private partner.

In this regard, the term 'financial close' is often used by both the public entity and the private partner, the fulfilment of which means that the private partner has made provisions for the disbursement of funds for project implementation. This module sets out key elements of financial closure.

Why is Financial Close Relevant?

1. Perspective of the Public Entity

- To ensure that the private partner has made all suitable arrangements for disbursement of funds required for the project
- To understand the presence of pre-disbursement conditions (if any) prescribed by the lenders

2. Perspective of the Lenders

- To get a clear picture about the revenue model of the project
- To understand the debt service capability
- To understand the acceptability or bankability of the risk sharing framework

3. Perspective of the Private Partner

- To be ensured of the financial support and commitment of lenders' towards the project

2. What is Financial Close?

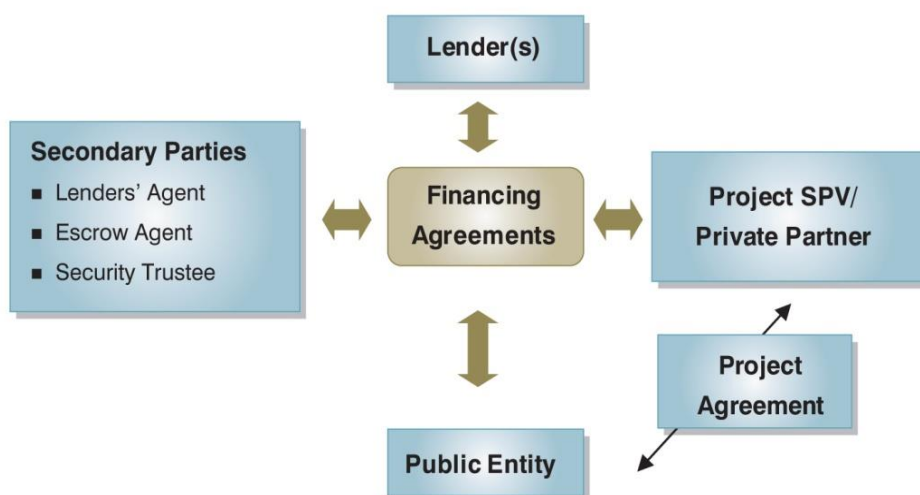
Financial close occurs when all the project and financing agreements have been signed and all the required conditions mentioned in them have been met. It enables funds (debt, equity, grant etc.) to be available so that the implementation of the project may start with immediate effect. In simple words, financial close means that the funds for the project have been arranged.

Financial Close includes a set of agreements being executed that are supported by various other legal documents (such as declarations, undertakings, etc.).

The diagram given below demonstrates the several arrangements between public entity, private partner and other entities that have a bearing on achieving the financial close.

MCA for development of National Highways defines financial close as:

“The fulfillment of all conditions precedent to the initial availability of funds under the financial agreements”



The primary parties involved in the process of financial close are the public entity, the private partner and the lenders.

From the perspective of the public entity, it is important to know whether the private partner has tied up all the funds required to undertake the project. Therefore, achievement of financial close by the private partner is considered as a condition precedent in the PPP arrangement. An excerpt from the MCA for development of National Highways on conditions precedent is set out as Annexure 15A of this module.

MCA for development of National Highways also provides the following provisions relating to financial close with respect to the timeline for achievement of financial close, extension of time for achievement of financial close and remedy in the event of failure to achieve financial close. In addition to the above, the financial close is also linked to some of the key terms/conditions of the concession agreements such as:

As the expectations of each stakeholder in a project are different, their interest in achieving financial close is also different.

What is common is that every stakeholder wants financial close to be achieved for the project.

- **Appointed Date/Commencement Date/Date of Award of Concession** - For instance, the date of the start of the concession (in the case of a concession agreement), depends on the date of achievement of financial close and conditions precedent. This is a key date in the project timelines as the start period of a concession is mostly linked to this date.
- **Total Project Cost (TPC)** - The definition of the TPC may also be linked to the cost approved in the financial package or the financial close. This definition in turn is used to finalize the termination payments.

In many PPP arrangements, in the event of termination, the public entity may be liable to protect the lenders' interests to varying extent. In such cases, it is in the interest of the public entity to understand the quantum of debt financing that the private partner has availed off and the terms of such borrowing.

- **From the private partner's perspective**, achieving financial closure means that all the funds required for the project in terms of both equity and debt are tied up.
- **From the lenders' perspective**, they will commit their funds (debt) to the project only after the necessary due diligence has been completed. The promoter's ability to execute the agreement and fund the equity will also be assessed. Further, other conditions precedent, if any, to be fulfilled by the public entity and the private partner are also verified.

In addition to the primary parties, there are several other parties that are involved during the execution of the financing agreements depending on the nature of the project and the requirement of such services. The role of these parties begins only after the financing agreements have been executed and financial closure has been achieved. The secondary parties commonly involved and their roles are listed below.

- 1. Lenders' Agent:** Lenders' Agent is a party who is identified to act on behalf of all the lenders to a project. Generally, a Lenders' Agent Agreement is executed between the Lenders which sets out the rights and duties of the Lenders' Agent.
- 2. Escrow Agent:** The Escrow Agreement is executed between the concessionaire, the Authority, lenders and the escrow bank. This agreement generally provides for the role of the escrow bank as a trustee, its obligations, and the process to be followed for deposits and withdrawals from the escrow account of the project.
- 3. Security Trustee:** A security trustee is identified through a Security Trustee Agreement that specifies the activities of the security trustee acting as the trustee for the lenders.

3. Process of Financial Close

A project is generally funded through equity, debt, grant or a combination of the three. More on sources of financing a project is explained in Module 6.

The equity in the project is brought in primarily by the private partner and financial investor, if any. The majority stakes in the project are normally held by the private partner who, while submitting a bid for the project, has usually made a commitment to financing it.

The financial investor could form a part of the project either during the bidding stage or after the project has been awarded. If the financial investor is part of the consortium which bids for the project, then by virtue of being the bidder, it will also commit funds (equity contribution) for the project. If the financial investor invests in the project after the selection of the private partner, it will need to buy out the equity stake of the private partner in the project to the extent provided for in the agreement. However, in both cases, the financial investor will undertake sufficient due diligence prior to making equity investments in the project.

In cases where financial closure is linked to the conditions precedent, the lenders/ banks also emphasise the need for the conditions precedent to be fulfilled in order to disburse the first tranche of funding. The debt component of the cost is brought in by a single lender or a consortium of lenders. In such cases, the process normally followed by the private partner to secure a term loan for the project is set out below:

The necessary documentary proof should be submitted by each party to the other, demonstrating the fulfillment of each of the conditions precedent. If the approval of any conditions precedent is subject to conditions, all such conditions should have been fulfilled.



4. Financing Agreements

For the debt component of the project funded by the banks/ lenders, a number of agreements are executed between the private partner and the lenders/bankers. In some cases, these agreements may also need to be submitted to the public entity.

What are Financing Agreements?

Financing Agreements are the agreements executed by the private partner on the financial assistance to be provided by the Senior Lenders by way of loans, guarantees, subscription to non-convertible debentures and other debt instruments including loan agreements, guarantees, notes, debentures, bonds and other debt instruments, security agreements, and other documents relating to the financing (including refinancing) of the TPC.

A common set of financing agreements that need to be executed are listed below.

1. **Rupee Term Loan Agreement** - is an agreement to be executed between the private partner, the senior lenders, the lenders' agent and security trustee. This agreement generally provides for the commercial terms on which loans have been approved for the project. The pre-commitment conditions and pre-disbursement conditions for the release of funds specified in this agreement should have been fulfilled to achieve financial closure. It is to be noted that multiple lenders may have one or separate rupee term loan agreement with the concessionaire and security trustee.
2. **Substitution Agreement** – is an agreement executed between the private partner, the public entity and the lenders or lenders' agent (also known as lenders' representative). This agreement generally provides for the rights covered under the event of substitution of the private partner in favour of lenders, events which would trigger substitution, procedure of substitution etc.

3. **Inter Creditor Agreement** – is an agreement executed between the Lenders, Lenders' Agent and the Security Trustee. The agreement sets out the terms and conditions for sharing the proceeds of the security/monies available for distribution among these parties.
 4. **Lenders' Agent Agreement** – is an agreement executed between the Lenders, Borrower and the Lenders' Agent. The agreement generally sets out the duties of the Lenders' Agent which is acting on behalf of the Lenders.
 5. **Security Trustee Agreement** – is an agreement to be executed among the Concessionaire, Lenders, Lenders' Agent and the Security Trustee. The agreement specifies the activities of the Security Trustee acting as the trustee for the Lenders.
- **Escrow Agreement** – is an agreement to be executed between the private partner, the public entity, lenders' agent and escrow bank. This agreement generally provides for the role of the escrow bank as a trustee, the details of deposits and the withdrawals from the escrow account of the project, the obligations of escrow bank, and the opening and termination of the escrow agreement etc. The Escrow Agreement provides for the execution of a supplementary escrow agreement between the lenders' representative and the private partner for details that are not generally covered under the escrow agreement.

5. When is Financial Close achieved?

Financial close is achieved when the private partner has arranged the required funds for implementing the project and has a commitment from the lenders that all the requirements for the financing and the initial disbursement of funds have been fulfilled. In short, financial close means that the private partner has access to funds for development of the project. In order to achieve financial close, the private partner should have submitted the financing agreements and a proof of fulfilment of all conditions precedents by both the public entity and the private partner, if required to the lenders/ bankers.

Financial close is relevant whether or not the project is to be developed through a PPP format.

Hyderabad Metro Project

L&T Metro Rail (Hyderabad) Limited, the SPV incorporated to implement the Hyderabad Metro Project, achieved financial close in a record time of six months. This is the largest fund tie up in India for a PPP project to date.

Hyderabad Metro Project was announced by the Government of Andhra Pradesh (GoAP) in PPP mode under the Design-Build-Finance-Operate-Transfer (DBFOT) basis and the bidding process was as per the guidelines specified by the Government of India (Ministry of Urban Development, Planning Commission and Ministry of Finance). L&T emerged the lowest bidder in the face of stiff competition (the bid winning criteria was the minimum grant quoted by the bidder) and signed the concession agreement on 4th September, 2010.

A consortium of banks led by the State Bank of India sanctioned the entire debt requirement of Rs.11,480 crores. The equity component for the project, around Rs.3,440 crores, was infused primarily by the L&T Group. The project received a viability gap grant of Rs.1,458 crores from the Central Government through the Government of Andhra Pradesh.

A total of 10 banks participated in the funding for this prestigious project. The leading banks which associated with the project, besides the State Bank of India, included Canara Bank, Indian Bank, Indian Overseas Bank, Jammu & Kashmir Bank, Punjab & Sind Bank, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and Syndicate Bank.

L&T Metro Rail (Hyderabad) Limited gave a performance guarantee for Rs 360 crores to GoAP underlying its clear intent to do the prestigious project in the stipulated time frame. As per the provisions of the Concession Agreement, construction will have to be completed in five years. The concession period for the project is 35 years (including five years of the construction period) and is extendable by an additional 25 years.

Source: <http://toolkit.pppinindia.com/ports/module3-rocs-hm1.php?links=hm1>

6. Review of Contents of Final Letter from Lenders

The public entity will need to review the following in the final letter issued by lenders declaring their readiness to disburse the first tranche of funds:

- Whether the private partner has immediate access to the funds?
- Whether any pre-disbursement conditions are mentioned in the letter? If so, all the pre-disbursement conditions indicated in the letter should have been fulfilled.

As per the Sourcebook for PPPs in TEN-Transport from the European PPP Expertise Centre, the pre-disbursement conditions typically include:

- Permits and planning approvals secured;
- Key land acquisition steps achieved;
- Clarification of remaining design issues;

Usually, a final letter from the lenders stating the concessionaire's immediate access to funds and fulfillment of all pre-disbursement conditions signals financial close.

- Finalization and signing of any remaining key project and financing documents;
- All funding approvals in place.

Financial Close in cases of Funding only through Equity

In case of funding through only equity and grant, financial close would not involve executing financing agreements with lenders. Instead, to demonstrate the availability of funds, a board resolution from the project sponsors would be provided stating that their company has such funds available and is ready for disbursement for the project.

7. Conclusion

Financial close occurs when all the project and financing agreements have been signed and all the required conditions contained in them have been met. It enables funds to start flowing so that project implementation can actually start. Both the public entity and the private partner must understand the fact the reaching financial close is a time consuming exercise which would involve execution of several financing agreements. It is at this stage that the lenders feature in the project development process; the lenders perform their due diligence on all aspects of the project prior to issuing the letter to the private partner of its reaching financial close.

8. Bibliography

1. Model Concession Agreement for Development of National Highways, Government of India
2. Module II - Analyse and Structure, PPP Advanced Course, Knowledge Series, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010
3. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
4. PPP Manual for Nigeria, Infrastructure Concession Regulatory Commission, Nigeria Infrastructure Advisory Facility, Nigeria, 18 October 2011
5. Presentation on Management of Financial Close and Long-Term Bankability of PPP Projects, Robert Sheppard, Infrastructure Experts Group, Washington, DC, 17 December, 2008

9. For Further Reading

1. A Guide to Guidance - Sourcebook for PPPs in TEN-Transport, European PPP Expertise Centre (EPEC), European Investment Bank
2. National Public Private Partnership Guidelines, Infrastructure Australia, Australian Government, December 2008
3. Presentation on Management of Financial Close and Long-Term Bankability of PPP Projects, Robert Sheppard, Infrastructure Experts Group, Washington, DC, 17 December, 2008
4. Public-Private Partnerships Reference Guide Version 1.0, World Bank Institute, The World Bank, Washington DC, PPIAF, 2012

5. Public Private Partnerships - A Financier's Perspective, Economic and Social Commission for Asia and the Pacific, Transport Policy and Tourism Section, Transport and Tourism Division, UN ESCAP.

PPP Guide for Practitioners



Module 16: Communication Strategy

1. Introduction

Public Private Partnerships is 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 and pre-determined performance standards, measurable by the public entity or its representative.

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 that requires a change in the mind-sets 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.

A well thought out communication strategy can add to a PPP project's success if it is used continuously to engage with stakeholders to convey the benefits of the project to them, to understand their concerns and expectations, and to ensure that necessary measures are undertaken to address them.

2. Key Objectives of an Effective Communication Strategy

The macro objective of a communication strategy is to enable an understanding among all stakeholders of this arrangement to improve the quality and availability of infrastructure, allocate appropriate risks associated with the project to the best suited stakeholder, promote innovation, and ensure efficiency, effectiveness and economy in all stages of project development and implementation.

The key objectives of a comprehensive and effective communication strategy include the following:

- Identify stakeholders such as other Government agencies involved in the project, Non-Government organisations (NGOs), target population etc. and continuously gauge their perception of the project. Any concerns that the stakeholders might have regarding the project need to be adequately addressed in a timely manner throughout the project development and implementation stage.
- Develop trust, credibility and acceptability for the project by ensuring transparency in the project development process and providing adequate opportunities for communication and feedback amongst the stakeholders.
- Create a favourable environment for the implementation and success of the project by positively affecting stakeholder perception of the project.

If it meets these objectives, the communications strategy will enable greater involvement and project ownership by stakeholders, set realistic expectations, address misunderstandings and misinformation regarding the project, maintains an information resource centre, and helps attract private sector interest. Further, an effective communication strategy will enable fine-tuning of the project structure and improve the sequencing of the development process, thereby ensuring the acceptance, sustainability and durability of the PPP project.

3. Communication Strategy – Project level

Communications at the project level are applicable across various phases of the project lifecycle. These phases are the following:

1. **Identification phase** – The project is initiated and project scope, suitable PPP models, points of likely support and concerns, financing requirements etc. have been identified.
2. **Preparation phase** – The project concept is detailed into a well-structured and bankable project. Further, relevant project documentation including bidding and contractual terms are finalised.
3. **Bidding phase** – A competitive bidding process is conducted to select a suitable bidder. The phase ends with the signing of an agreement between the public sector entity and private developer selected.
4. **Implementation phase** – The successful bidder takes over the responsibility for project development and operation in line with the signed agreement.

An effective communication strategy will enable fine-tuning the project structure and improve the sequencing of the development process, thus ensuring the acceptance, sustainability and durability of the PPP project.

The following table exhibits a generic framework to manage project level communication.

Communication Aspects	Identification	Preparation	Bidding	Implementation
Priority Stakeholders	• Policy Makers	• Users	• Bidders	• Media
	• Government Departments	• Advocacy groups	• Authority	• Users
	• Users	• Employees	• Media	• Employees
	• Employees of Authority	• Government Departments	• Financiers	• Project affected persons
	•	• Mass media		• Private sector
Communication Focus	• Project need/benefits	• Assess stakeholder needs and concerns	• Project attractiveness	• User awareness
	• Precedents	• Mobilise support	• Sponsor credibility	• Grievance redressal
	• Government support	• Assuage concerns	• Process integrity	• Benefit reinforcement
	• Points of	• Build credibility of project and sponsor		

Communication Aspects	Identification	Preparation	Bidding	Implementation
	support and concern			
		<ul style="list-style-type: none"> PPP model 		
Tools and Channels	<ul style="list-style-type: none"> Interpersonal communications 	<ul style="list-style-type: none"> Importance-Influence grid, behaviour analysis 	<ul style="list-style-type: none"> Road shows, conferences and events 	<ul style="list-style-type: none"> Helpdesk, consumer care centres
	<ul style="list-style-type: none"> Consultations 	<ul style="list-style-type: none"> Interpersonal communication 	<ul style="list-style-type: none"> Websites 	<ul style="list-style-type: none"> Community channels
	<ul style="list-style-type: none"> Discussion Papers 	<ul style="list-style-type: none"> Consultations 	<ul style="list-style-type: none"> Press briefings on project 	<ul style="list-style-type: none"> Mass media
		<ul style="list-style-type: none"> Peer sharing 		<ul style="list-style-type: none"> Arbitration forums
		<ul style="list-style-type: none"> Community channels 		<ul style="list-style-type: none"> Counseling sessions
		<ul style="list-style-type: none"> Internet/website 		<ul style="list-style-type: none"> Ombudsperson

Source: *Effective communication in PPP projects*, Department of Economic Affairs, Ministry of Finance

As the table indicates, effective communication involves prioritising stakeholders and directing communication actions through appropriate channels towards them, in line with the intended objectives of the project phase and those of the overall project. However, it must be noted that the above exhibit is generic and not exhaustive and may not apply as outlined in all projects.

The following sections discuss communication strategy at various phases of the project in detail.

3.1. Project Identification Phase

Communication during this phase involves consultations with Government, bureaucrats, and sometimes, political leaders. Depending on the project context, visits to the project site and dipstick surveys and interaction with a cross-section of users and potential project affected parties (PAPs) in the project area may be required. If the project does not have a precedent or if the policy environment is evolving, additional communication initiatives within the Government on policy and funding support may be needed. This could be addressed through consultations or discussion papers.

During this phase, all stakeholders who affect the project (or get affected) during the course of the project life cycle should be mapped. Stakeholders in a PPP project typically include users, advocacy groups, PAPs, political leaders, Government officials, employees of Authority, developers, and the media.

The key outcomes of the project identification phase include:

- Reaching clarity on the project contours in terms of its scale and scope
- A preliminary assessment of the universe of stakeholders who need to be engaged with, both within the Government and externally, and
- The nature of support required from the Government in terms of policy and funding.

From a communication perspective, it is critical to evaluate and assess the intensity of communication actions required at the start of the project. Depending on the level of policy

clarity, institutional context and project characteristics, the intensity of communication actions required during the implementation of a particular PPP project can vary significantly.

The three tools, namely communication needs assessment, importance-influence grid, and behavioural analysis, which can help systematically analyse stakeholders with respect to their needs, expectations, views and support towards the project is discussed herein below.

Various tools such as importance-influence grid and behavioural analysis can help to systematically analyse stakeholders with respect to their needs, expectations, views and support for the project.

Tools for Stakeholder Analysis

1. **Communication Needs Assessment** – A CNA exercise systematically captures stakeholder views on issues pertinent to the project or to PPPs in general, benefits and concerns about the project, views on the public sponsor and prevailing service levels, by deploying a range of qualitative and quantitative methods. The scope and depth of a CNA exercise is context specific. A CNA exercise is conducted typically at the preparation phase of a project but may need to be repeated during subsequent phases of a project to confirm the continued validity of findings from earlier CNAs, particularly if development timeframes are long or if new developments induce a behavioural change.
2. **Importance-Influence Grid** – The Importance-Influence grid provides a useful approach to group and segment stakeholders in a manner that aids communication planning. ‘Importance’ relates to the degree of involvement of stakeholders in achieving project objectives. ‘Influence’ refers to the power that stakeholders could potentially exercise to control the decision-making process either directly or by facilitating or resisting the project’s implementation.

‘Positioning stakeholders’ on the grid provides a guide for communication actions. Care should be taken to validate judgment with analytical rigour and inputs from the CNA while categorising and analysing stakeholders on this grid. Generally, it is necessary to keep the following thumb rules in mind.

 - Stakeholders of high influence and high importance should be closely involved throughout the project cycle to promote their participation and ownership.
 - Stakeholders of low influence and high importance may not have a role in decision-making, but may be affected by the project. Practitioners should ensure that their needs are met.
 - Stakeholders of high influence and low importance need to be carefully dealt with. In the absence of adequate information sharing and engagement, influential stakeholders, who may not be positively inclined, could potentially wean away support from the project.
 - Stakeholders of low influence and low importance are unlikely to be closely involved with the PPP project. However, they need to be kept informed to avoid mis-perceptions.
3. **Behaviour Analysis** – Behaviour analysis helps understand and deal with stakeholders’ overall disposition towards the project.



Communication actions should achieve four important behavioural objectives.

- Deal pro-actively with extreme perceptions: Even a small proportion of influential stakeholders such as political leaders or advocacy groups in extreme positions, viz. ‘advocating’ or ‘opposing’, can skew overall perceptions about the project. Identifying and engaging with such stakeholders should be the foremost priority.
- Encourage project advocacy by the important and influential: The ‘important’ and ‘influential’ stakeholders should be invited to become project ambassadors. This tends to create a positive spiral and helps mobilise wider public support.
- Address underlying factors leading to resistance: Communication actions should address underlying sources of resistance. These factors typically include mis-perceptions, lack of trust, genuine grievances and vested interests.
- Win support of neutral/unaware: Such stakeholders should be kept informed.

The above tools group stakeholders in a manner that helps initiate communication actions for each stakeholder grouping.

3.2. Project Feasibility and Structuring Phase

This is the phase at which an identified and approved project idea/concept is transformed into a bankable and well-structured PPP project opportunity. It involves establishing project specifications and viability, crystallising the proposed PPP model and structuring and finalising the bidding and contractual terms. The bidding phase begins after the completion of the project preparation phase.

During the project feasibility and structuring phase, the focus of communication actions must be on generating wide support and enthusiasm for the project among stakeholders.

During this phase, the focus of communication actions should be on generating wide support and enthusiasm for the project among stakeholders. Actions that reinforce support, mitigate concerns and build assurance and credibility for the project among stakeholders should be initiated. The stakeholder wise actions are summarised in the following exhibit.

Stakeholders	Communication Objectives	Communication actions	Preferred channels
Users /advocacy groups and project affected persons	<ul style="list-style-type: none"> • Reassure users on benefits in terms of service quality and affordability • Dispel misperceptions about the project 	<ul style="list-style-type: none"> • Showcase benefits to users - service access, quality and affordability • Highlight service assurance and contractual safeguards to protect user rights • Use audio-visual cases of other successful projects and user experience to reinforce benefits and features 	<ul style="list-style-type: none"> • Community channels • Consultations with opinion leaders /advocacy groups • Web based information dissemination and consultations

Stakeholders	Communication Objectives	Communication actions	Preferred channels
Employees of public entity/ labour unions/ existing vendors and contractors	<ul style="list-style-type: none"> • Provide assurance with respect to safeguarding their interest • Disseminate information on the project • Encourage participation and involvement 	<ul style="list-style-type: none"> • Showcase benefits to employees – skill building, better working conditions etc. • Disseminate alternatives and redress in case of genuine grievances (redeployment etc.). • Initiate on-going dialogue with labour union • Clarify existing vendor concerns about work allocation etc. 	<ul style="list-style-type: none"> • Open consultations and hearings. • Consultations (with labour unions) • Employee newsletters for information dissemination • Peer experience sharing with labour unions • Champion-led communication
Political Leaders	<ul style="list-style-type: none"> • Provide assurance of public benefits and support • Gain commitment and advocacy • Showcase aspirational aspects 	<ul style="list-style-type: none"> • Showcase benefits to public and assure public support to the project • Establish precedence of successful PPP projects and alignment with policy goals • Facilitate experience sharing and peer influence to reinforce above 	<ul style="list-style-type: none"> • Interpersonal communication • Orientation visits to project sites • Interaction with project users • Interaction with peers with experience
Government Officials	<ul style="list-style-type: none"> • Gain commitment and advocacy • Validate conformity with policy objectives • Facilitate faster decision-making/ approvals • Showcase aspirational aspects 	<ul style="list-style-type: none"> • Articulate tangible benefits to Government • Highlight alignment with policy objectives. • Highlight safeguards and differences in case of negative precedence • Facilitate experience sharing and peer influence to reinforce above. 	<ul style="list-style-type: none"> • Interpersonal communication • Formal consultation forums (steering group, committees) • Orientation visits to project sites • Interaction with project users, peer experience sharing
Private sector	<ul style="list-style-type: none"> • Reassure service providers who were involved under traditional procurement methods, of the suitability of PPP and its 	<ul style="list-style-type: none"> • If the project is first of its kind being developed under PPP framework then, engage the potential private partners early in the project development process to build confidence, generate interest and ensure better 	<ul style="list-style-type: none"> • Pre-bidding conferences and interactions • Web-based information dissemination

Stakeholders	Communication Objectives	Communication actions	Preferred channels
	potential benefits • Dispel mis-perceptions about the project, if any.	participation	

P R O J E C T	<h3>Alandur Sewerage Project</h3> <p>The project was initiated by the municipality of Alandur, a suburb near Chennai for upgradation of the local sewerage system. Political ownership of communication was a key enabling factor in mobilising support and raising public contribution towards the financing of the project.</p> <p>In a sector where user charges are frowned upon, the mayor of this municipality personally campaigned and urged residents to contribute towards project construction. He would go around the municipality with a microphone, announcing details of the project and its benefits in street corners and in meetings with residents’ welfare associations.</p> <p>These efforts created a thorough understanding of the new approach and helped collect user deposits of Rs12.5crore (or one-fourth of the project cost) even before construction began. Direct communication by an accepted political leader thus helped create awareness about project benefits, conveyed the seriousness of the implementation agency, and secured citizens’ support for an innovatively structured project.</p> <p><i>Source: http://toolkit.pppinindia.com/highways/module3-rocs-asp1.php?links=asp1</i></p>
--	---

Effective Communication During Project Planning Promoting Advocacy by ‘Users’

In a PPP water-supply project in South India, the private operator identified select customers as “Water Friends” from among opinion leaders in the project area, particularly those who were happy with the services provided and who understood the concept of 24x7. These Water Friends appreciated the services delivered and were happy to interact with neighbours with apprehensions about the project. They helped the operator resolve local problems and generate goodwill. Proactive engagement of “advocates” from within the community helped improve credibility and inculcate wider support.

24x7 Water Supply Pilot PPP Projects in Three Cities of Karnataka

P The project contract, awarded in 2005, was structured as a management contract where the private partner was to undertake rehabilitation/construction activity as specified by the public entities involved [Karnataka Urban Water Supply and Drainage Board and Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC)].

R Negative perceptions about the water supply being handed over to a private player and fears of tariff increases were among the communication challenges that had to be overcome.

O While implementing the pilot PPP projects, KUIDFC set up a Social Intermediation and Communication Strategy (SICS) Cell, at the same time as it embarked on implementation. The SICS Cell appointed a Non-Government organisation (NGO) and engaged with residents' associations, teachers, students and youth through public interaction, press releases and media meetings. These efforts contributed to wider project acceptance, aided timely implementation of the project and helped achieve tangible user benefits.

J *Source: <http://toolkit.pppinindia.com/highways/module3-rocs-kuwsip1.php?links=kuwsip1>*

Use of Community-Based Channels to Engage with Users in a 24x7 Water Supply Project

While implementing 24x7 water supply pilot PPP projects in Hubli-Dharwad, Belgaum and Gulbarga in Karnataka, the project implementation agency and the private operator used the following channels in a demonstration PPP project to engage with users. Notably, multiple categories of users were targeted through specific communication initiatives.

Communication channel/tools	Target group
Baseline survey	Demand zone households
Street level awareness programme	Street level committee members
Project orientation	CBOs/SHGs/NGOs
Communication campaign (debates and essays)	High school children
Community-based events (workshops, audio visual programmes, street plays and folk media)	Ward level committees
Training on water use, health and hygiene	Women/members of SHGs
Orientation to volumetric billing	User groups
Motivation camps for arrears recovery	User groups
Group discussions on attitude change on tariff recovery	User groups
Awareness campaigns on water meters and connections	User groups
Handouts in local languages highlighting project features	Households in demonstration zones
Information on website	Various users

3.3. Bidding Phase

The primary focus of the communication effort during the project bidding phase should be on the universe of private developers who could potentially bid for this project. A fair contest among qualified bidders is critical for efficient price discovery. Engaging the private sector through an active communication focus is therefore critical in the bidding phase. In addition, communication during this phase should also signal the transparency and integrity of the bid process. Public and Government scrutiny of PPP projects is generally intense, particularly during the bidding process.

Communication actions during the project bidding phase should facilitate transparent and equitable sharing of information with all stakeholders and with this objective, a continuous dialogue with all parties involved must be maintained.

Communication actions during the project bidding phase should facilitate transparent and equitable sharing of information with all stakeholders and with this objective, a continuous dialogue with all parties involved must be maintained.

To ensure a keen contest, attempts should be made to identify and engage wide a set of private players as potential bidders and position the project as an attractive investment opportunity

In this regard, it is critical to underscore that interactions with potential bidders should go beyond just floating bid documents and conducting pre-bid meetings. This is particularly so when the project does not have direct precedence and/or if earlier PPP projects have not evoked adequate bidder response. Developing an active engagement strategy to attract private operators and facilitate a keen contest during and prior to the bidding phase is an important element of communication in a PPP project. There are two stages of interactions with the private sector:

1. **Early stage interactions** - It is important to identify and compile the universe of bidders during the project preparation phase. In the bidding phase of the project, it is necessary to engage the private sector through a series of pre-marketing efforts such as contacting and marketing the opportunity to potential bidders and sharing a Preliminary Information Memorandum that provides project details through a range of channels, including road shows and presentations at conferences.

During these interactions, the procuring agency should highlight facets of the project that make it an attractive investment opportunity including a stable policy environment where it exists and examples of successful projects implemented earlier in the context of say, the same State or sector. When a project does not have precedents, the procuring agency may need to highlight the innovative nature of the project and/or its potential for replication.

2. **Formal Consultations with Bidders** - Pre-bid meetings are a key element of a communication strategy that helps build trust and confidence among stakeholders. The pre-bid meetings need to be seen as a crucial communication tool at the disposal of the public entity.

Although the focus during this phase is on the bidders, it is essential to maintain a base level of communication with other stakeholders. The focus of communication during this phase within Government is on keeping all Government stakeholders informed. During this phase, the public entity may also require specific approvals, such as approval of bid documents and pre-qualified bidders after the evaluation of responses to the RFQ from a superior Authority.

Direct interaction with users during the bidding phase is likely to be limited to providing updates on the project. Judgement should be used to decide on stakeholders with whom

more active consultations might be required to keep them updated. This could include political leaders, advocacy groups and other such parties.

3.4. Project Implementation Phase

During the project implementation phase, the successful bidder takes over the responsibility for project construction and subsequent operation of the project, with the terms of the concession determining the bidder's boundaries of responsibility. Ideally, the successful bidder, i.e. the developer, should be contractually obligated by the Authority for a range of communication actions during the Implementation phase, particularly in terms of interacting with users to increase their awareness of the project and the rules for use.

Communication with users during this phase should address issues pertaining to awareness creation, consumer care, and benefit reinforcement. Communication with PAPs should focus on creating awareness on compensation processes (for those who gave up land or lost their livelihoods, for example) and/or providing grievance redressal mechanisms. Communication mechanisms to inform and educate users on the nature and type of services that could undergo significant changes before and after project implementation should be put in place well in time. For instance, implementation of a toll road may require creating awareness amongst pedestrians on using foot over-bridges to cross the road. In some cases, such communication may be required even during the construction stage (e.g. signboards and press releases when blocking select roads or diverting traffic during the construction of a metro transport system).

Communication actions to address citizen grievances on service delivery such as setting up consumer help-desks, call-centres, and web-based complaint redressal etc. should be implemented. While these are normally obligations of the developer and, in all likelihood, will be covered by the concession agreement, it is essential to ensure that these obligations are adhered to.

The focus of communication within the Government is on facilitating better co-ordination initially and reporting on project progress, service delivery and corrective actions (when there are deviations from contractual obligations). Communication between the Authority and developer is critical, particularly in the initial stages of project construction, when clearances and approvals may be required. This may necessitate a structured co-ordination mechanism consisting of the Authority, developer and other agencies (through formal forums such as an empowered steering committee) to facilitate smooth communication and implementation.

Reporting on project progress and compliance with contractual obligations and policy directives is a critical component of communication with Government and other stakeholders. While part of this action may be driven by statutory requirements or the reporting requirements of a funding agency or a Government Department, sharing such information more widely (for instance, on the website of the Authority) would improve the project's credibility. Further, such reporting should contain information on action taken when there is non-compliance with contractual obligations.

Communication between the implementation agency and the developer requires a shared understanding of contractual obligations. Communication with the developer should focus on resolving non-compliance, should that occur. Further, the sponsor and developer should share joint responsibility in managing communication with users and other stakeholders.

3.5. Evaluation of Communication Actions and Outcomes

Mechanisms to evaluate communication actions and outcomes need to be incorporated across various stages of project development and implementation. Given that the PPP project cycle often spans a long time frame, it is critical to:

- Periodically monitor the progress of the communication actions planned; and
- Evaluate if the planned activities are achieving the intended outcomes to enable mid-course corrections and fine-tuning of communication actions.

At the start of project implementation, it would be a good practice to put together a communication plan indicating the information dissemination and engagement plan with all stakeholders and how the responsibility will be shared between the public entity and the private partner.

Practitioners should periodically report compliance with respect to contractual commitments of both the private partner and the public entity.

3.6. Resource Planning

To create adequate organisational and financial capacity for implementing the communication interventions required for a PPP project over all the four phases, the following steps need to be taken. Formulating and implementing communication actions requires two pre-requisites:

1. **Organisational accountability and capacity**—The organisational accountability for communication is enabled by nominating a lead organisation that will be responsible for formulating and implementing communication actions for the PPP project. The responsible party should generally be the Authority of the PPP project in question. However, it may sometimes be necessary to designate another agency as the responsible party for communication.

Within the agency responsible for communication, a nodal official should ideally be designated as the communication officer through whom all information should flow. In cases where a project is complex or large and communication involves co-ordination across a number of entities within and beyond the Government, a communication committee may be constituted from among these organisations to take decisions pertaining to communication.

Given the heterogeneity of activities and organisations involved in PPP initiatives, the lead organisation will have to co-opt partners and clarify their roles and responsibilities. Collaborating partners may be required for research, monitoring, and evaluation; advertising, media placement and public relations; and community-based activities and training.

2. **Financial capacity for the communication programme** - A budget should be drawn up for communication at the start of the project and the funds allocated. The extent of financing required for communication is a function of project complexity and sensitivity, the heterogeneity of the stakeholders to be dealt with, the state of evolution of a stable policy environment and precedents for the project, the internal organisational capacity of the implementing agency and the extent of outsourcing that is required.

The extent of financing required for communication is a function of the project complexity and sensitivity, the heterogeneity of the stakeholders to be dealt with, the state of evolution of a stable policy environment and precedents for the project, the internal organisational capacity of the implementing agency and the extent of outsourcing that is required.

Communication activities to be undertaken at all stages of the project life cycle would need to be planned for and a budget for contingencies to carry out additional activities (e.g. in terms of

additional CNA exercise and mid-course corrections), if required, may need to be provided for. The long timeframe for the development of PPP projects means that ground realities could change over the period.

Organising for PPP Communication: Global Experience

- Partnerships for Schools UK has a dedicated communications team. Its board of directors has to approve of its communication strategy. The strategic communication exercise covers all key stakeholder groups including private sector companies, local Authorities/local Government (as a partner), schools, and commentators/opinion makers/media community, which includes politicians and journalists. The communication strategy clearly defines the specific engagement strategy and approach for different sets of stakeholders.
- At Partnerships British Columbia, communications and Government relations responsibilities are an integral part of its service offering. It is linked to the partnerships services area of responsibility of Partnerships BC. Of the total of 45 staff and contractors, there are four dedicated communications and Government relations positions. There is a detailed corporate communications and Government relations plan that outlines process, strategy, tactics, messaging, etc. for the company as a whole and for the partnership/PPP programme across B.C. There are dedicated communications resources assigned to each individual project, with a focus on developing and delivering procurement communications. PBC also has a dedicated communications budget which accounts for 10-15 per cent of its total budget.
- At Partnerships Victoria, there is no specific, articulated, project-level communications programme with a specific budget at present. However, the unit supports communication activities in a number of ways, including writing articles for publications as appropriate on PPP issues, publicly releasing documents on PPP issues where the unit believes that better and broader understanding is required, providing advice to Departments through Department of Treasury and Finance officers on specific communication issues, making presentations at conferences and training courses nationally and internationally on various PPP topics, supporting the treasurer with activities such as contributing to speeches and press releases and contributing to initiatives through PV's national body, Infrastructure Australia.

4. Communication Channels

Choosing the appropriate communication channels is an important element of the overall communication strategy. This enables delivery of messages and exchange of ideas and views amongst stakeholders. The following table provides a summary of possible channel options in the context of a PPP project, its audience, their features and limitations.

Choosing the appropriate communication channels is an important element of the overall communication strategy.

Channel	Audience	Features	Limitations
Interpersonal Channels			
Personal consultations	Policy makers, opinion leaders (including politicians)	Interactive, enables formal and informal communication. Face-to-face discussions allow frank communication that brings out issues that may not be voiced openly	Cannot be done too often; hence needs a lot of planning and preparation
Community Channels			

Channel	Audience	Features	Limitations
Community channels (street corner meetings, open hearings, focus groups)	Users, advocacy groups, target communities/groups	Participatory, relatively more credible and lower-cost than mass media; institutionalises community effort and sustainability	Localised, may not be able to reach a large audience
Mass Media Channels			
Television	General public, all stakeholders	Used for visual experience and demonstration. Makes issues come alive and delivers a strong image	Expensive and more “urban”; poses the reach vs. cost dilemma
Radio	Individuals, users, households, project-affected persons	Can be more personal, with higher reach than television, less expensive and more localised	Costly to build reach, fragmented
Print	Readers	Creating awareness and topicality, disseminating information, creating a positive image	Confined to a few who follow print media, has a short shelf life, and is not always cost-efficient
Outdoor/ Transit	Users and public at large	Glance and reminder value and location specific reach	Limited exposure time and durability of message
Internet			
Internet and Websites	Private developers, users, advocacy groups	Dynamic, interactive, and allows real time update	Reach limited

- 1. Interpersonal consultation** channels include one-to-one communication, such as between line Ministry-implementation agency, implementation agency-political leaders etc. They cover consultations, one-on-one interactions and group interactions, structured deliberations through committees and taskforces set up for the project. Communication among officials across different arms of the Government, between officials and political leaders/representatives and among officials and employees happen largely through interpersonal channels in view of the highly consultative and interactive nature of communication.
- 2. Community-based channels** reach a community or a group of people within a geographic area, or based on common characteristics, such as occupation and includes community media (local newspapers, radio stations, bulletin boards), community activities (health fairs, folk dramas, concerts, rallies, and parades) and mobilisation (street meetings and consultations). They offer scope for ‘interactivity’ and tend to be the preferred channels for PPP communication for the project sponsor to engage with users and the public-at-large.
- 3. Mass media channels** are used more to “broadcast” or “disseminate” information and offer limited scope for interactive communication. Mass media channels help in reaching large audiences within a short time, and include television, radio, the print media, outdoor/transit advertising and direct mail. Mass media campaigns could be relevant and useful for large PPP projects or for those undertaken as part of a wider PPP programme than for small or standalone projects, whose budgets would limit the scope for use of mass media channels. There have been several nationwide public policy campaigns that have used mass media channels, like the Voluntary Disclosure of Income-Tax Scheme (VDIS) and the Pulse Polio campaigns of the GoI. These campaigns integrated mass media into their communication strategy and were fairly successful in terms of the outcomes achieved.

4. Internet and web-based communications have emerged as an important channel for communication on PPP projects. Although the Internet is a mass-media channel, it is classified separately, given its importance in information sharing and its interactive features. Apart from the active use of web-based communication during the course of the bidding process, web-based dissemination of information on the project and reporting on project progress signals transparency and provides for a cost-effective mechanism to reach a wider audience. In addition, interactive functionality on websites can support consultative processes and help elicit stakeholder feedback and participation among advocacy groups and other opinion leaders.

Public entities may choose to communicate through web-based media such as launching a page on the popular social networking websites or evaluate using avenues such as twitter and blogs.

While they may not have evolved adequately in India, social networking sites and blogging sites could emerge as an important opinion mobilising channel for public service delivery in the future. They could be leveraged, particularly in urban areas and/or where the stakeholders are in the younger age brackets, to perform a similar role in PPP projects. For instance, the Delhi traffic police recently launched a page on the popular social networking website, Facebook, to engage with citizens and provide traffic alerts through mobile text messages. In this context, one may also evaluate using avenues such as twitter and blogs. While these avenues may not be widely accessed in India, their popularity is on the rise, particularly among the affluent young.

Delhi Metro Project

P
R
O
J
E
C
T

The Delhi Metro Rail Corporation's (DMRC) media management strategy reaches out not only to users at large but also to other stakeholders. It undertakes low-budget activities to involve users in various areas, for instance by organising programmes such as the following:

- Outreach programmes, involving the community, to obtain user feedback
- Nukkad Natak (street plays) to educate and involve users, especially in regions where users are unlikely to read newspapers
- Safety weeks to spread awareness about elevators, escalators and other safety issues

A special cadre of customer care employees, called customer relations assistants, have been appointed to respond effectively to queries and suggestions. These customer relations assistants were put through a rigorous, eight-week training programme on aspects relating to customer care, communication skills, public complaints, behavioural management, and team building.

The public relations Department of DMRC is also responsible for keeping employee motivation levels high, publishes regular newsletters and organises other programmes to involve employees.

Source: <http://toolkit.pppinindia.com/highways/module3-rocs-kuwsip1.php?links=kuwsip1>

5. Communication Strategy – Policy Level

Well-articulated policies contribute significantly to scaling up PPP initiatives in a structured manner and contribute significantly to smooth implementation at the project level. Policy formulation for PPPs typically involves initiatives to signal Government commitment to PPPs, to spread awareness of PPP concepts and their applicability across sectors and to support line Ministries in developing and implementing PPP programmes.

Apex level PPP units or nodal Ministries/agencies such as the Ministry/Department of infrastructure or finance often have the responsibility to communicate on PPPs as a concept. Dedicated institutions set up by State Governments such as Infrastructure Development Boards also play an important role in communicating policy and conceptual issues relating to PPPs. For instance, States like Punjab and Gujarat have set up Infrastructure Development Boards to facilitate development of infrastructure.

Policy-making is typically the responsibility of senior officials in various arms of the Government such as the Ministry of Finance, various line Ministries/Departments, Niti Ayog, nodal PPP agencies and other implementing agencies. Governments also interact with external organisations such as research institutions, development agencies and multilateral/bilateral agencies while formulating policies for various sectors.

While designing communication strategies in the context of policy formulation, a policy maker needs to address three objectives:

1. **Soliciting Inputs:** The policy maker may not be aware of all the solutions to a given problem or the ramifications of specific solutions to issues raised by various stakeholders. This is more so in the case of policy formulation in general and PPP in particular, where multiple disciplines (economics, engineering, science, law, and sociology to name a few) are involved, and there may not be precedents to provide guidance.
2. **Identifying and resolving policy conflicts:** Positions that the Government may want to take could potentially be in conflict with other policy objectives and extant legislation, which may need to be revised to ensure policy consistency. Some issues may require extensive inter-departmental deliberations to arrive at a shared understanding.
3. **Mobilising stakeholder support and consensus:** Given that policy decisions tend to impact a cross-section of stakeholders, there is need to establish consensus and acceptability among a cross-section of stakeholders both within and outside the Government, both during formulation (and review) and dissemination after arriving at a consensus.

5.1. Communication Considerations in Policy Formulation

The policy maker needs to identify a cross-section of stakeholders who influence policy making and are also affected by the proposed policy. These could include stakeholders both within the Government and outside. It may also be necessary to identify the objectives and the rationale for engaging these stakeholders – whether it is to obtain technical inputs, address potential conflicts and/or contradictions if any or just to solicit wider support – and plan out the communication actions to be taken – for example, consultations through a website, structured forums such as a group of ministers or a committee of secretaries, holding a series of roundtables with a wider set of stakeholders etc.

The rationale for engaging stakeholders must be clearly determined – whether it is to obtain technical inputs, address potential conflicts and/or contradictions if any or just to solicit wide support.

Communication considerations in policy formulations across various stakeholders are discussed below in brief.

1. **Officials and civil servants** – Policy formulation for PPPs often requires interfacing and soliciting the views of multiple Ministries/Departments. For instance, a cross-sector, national level PPP policy may require buy-in and acceptance from a wide range of line Ministries and Departments both at the National and State levels. Such deliberations among Departments typically take place once a discussion document is prepared by the nodal Department/Agency that assumes stewardship and overall responsibility. Communication towards policy formulation is then through a series of consultations among the originating Department and other line Departments/agencies involved, which requires seeking inputs and having exchanges towards finalizing of the policy.

In cases where specific technical inputs are required for policy formulation, expert committees may need to be set up to deliberate policy. In addition, inputs from academic and research institutions, contributions from economic research and technical assistance from think tanks, development agencies and multilateral/bilateral agencies may also support and contribute to the technical inputs needed for policy formulation.

2. **Ministers and political leaders** – Policy should finally be reflected in the form of Government Orders and guidelines or, in some cases, enacted as legislation. It is important to understand fairly early the scope of the policy and the range of approvals that are required from various levels, i.e., those from within the Ministry, or from the cabinet or from a group of ministers.

When there is need for wider political buy-in, the intensity of consultations required among Departments/Ministries is relatively higher to ensure that the concerns and feedback of all concerned are taken into account. As the discussion document is circulated, there is a need for significant inter-personal consultations to mobilise political support. Wider political support requires setting a positive environment through a combination of precedence-led and assurance-led communication

Utility of a Peer Group in Policy Formulation

A peer group can be quite useful for consensus building, particularly in situations of inter-state policy formulation.

The implementation of the value added tax at the State level is a good example in this regard. Given the complexities and heterogeneity in tax structures, the approach to create a structured platform through an Empowered Committee of State Finance Ministers (that was scaled up from 15 members to 30 members) to iron out initial differences and build consensus paved the way for a relatively sustainable implementation of the initiative. The Empowered Committee met periodically and deliberated on the implementation based on a formal Terms of Reference, which included outlining the steps to ensure that VAT was revenue enhancing, specifying the principles and levels of compensation to be paid to States for revenue loss, if any, due to the implementation of VAT and working out modalities for phasing out central sales tax.

3. **Regulators** – In the case of policies involving sectors having independent regulators, as in the case of power and telecommunication, consultation with the concerned regulator is critical to ensure consistency with existing regulations in the sector. In regulated sectors, there may also be a statutory requirement for open-house hearings among a wider set of stakeholders.

- 4. Private sector** –The principal goal of communication with the private sector at a policy level should be to promote the programme as an attractive investment opportunity and to establish the Government as a credible partner for the private concessionaire to work with over a period to attain the objectives of the programme. Communication with the private sector in this context should, therefore, be aspiration-led (with a focus on targets and goals) and assurance-heavy (a commitment to honour contractual obligations, policy continuity and transparency).

Policy makers should also engage with industry through industry-level consultative committees that provide recommendations to formulate and review policy periodically. Road shows and seminars/conferences are useful forums where policy makers from Government can fruitfully engage with the private sector on public platforms to create a shared understanding and build mutual confidence.

- 5. Public at large** – Creating a favourable public image for PPPs among the public at large and creating a groundswell of support can help counter unwarranted opposition to policy. As part of its advocacy role, policy makers could leverage the mass media for positive reinforcement. For instance, policy makers could collaborate with television/radio news channels and/or print media to produce a series of programmes and columns respectively on PPPs that could be suitably packaged (e.g. PPPs in practice, successful PPP projects and so on).

A policy maker can mobilise popular support for PPPs across sectors by widely disseminating their positive impact by showcasing the real, ‘on-the-ground’ impact of select PPP programmes/projects across the country.

- 6. Media and Journalists** –Given the complexity of PPP structuring and the multiplicity of stakeholders involved, a proactive engagement with the media is critical to ensure balanced and factual reporting. There appears to be a case for creating content for specialised training programmes for PPP reporting. Agencies like World Bank and PPIAF are well-placed to support the development of course content and training modules for such tool-kits in view of their multi-country experience. Such courses could also be developed and offered as part of graduation courses in journalism and/or as executive development programmes in collaboration with leading broadcasters/universities. Over and above generic courses, early and continuous engagement with local and national media on the facts of the chosen PPP project model will still remain critical to the overall success.

A policy maker can mobilise popular support for PPPs across sectors and widely disseminate their positive impact by showcasing the real, ‘on-the-ground’ impact of select PPP programmes/projects across the country.

Role of Journalists’ Training in PPP Reporting

A key factor in the success of a communication effort is journalists’ involvement and interest in economic issues. Any attempt to promote a dialogue and build public support about the merits of PPPs requires journalists to promote the principles of transparency and public accountability. In order to allow journalists to take an informed look at PPPs and to develop a deeper understanding of its mechanisms, it is necessary to remind them of the leading role that the media plays in society as a watchdog of democracy, as a platform for accountability in politics, and as a catalyst for the overall advancement of well-being. Engaging in a dialogue directly with the media through nationwide training-like programmes on economic issues, therefore, can be a key element of a communication programme.

The World Bank Institute has organised such a training programme for journalists in several

African countries to equip them with the basic tools needed to understand the complex economic issues associated with privatisation. This training was not designed to directly promote the Government's privatization programme, individual transactions, or World Bank-financed projects. Experience has shown that such training is more credible and effective if organised by a well-established academic institution and designed in a format that combines the teachings of economic theory with concrete suggestions on how to report better about the public merits of PPP projects.

Source: "Strategic Communication for Privatization, PPPs, and Private Participation in Infrastructure Projects", Daniel Calabrese, World Bank, 2008

5.2. Periodic Evaluation and Review

A policy action is judged not by how well it is formulated, but by its impact in mainstreaming and scaling up implementation efforts. A pro-active approach to communication should be embedded in policy by establishing mechanisms to generate active feedback, progress reports and reviews. This could potentially help avoid challenges in the implementation of the communication policy. In this context, policy makers would do well to define and articulate the following as part of the policy:

- Time period for which the policy is applicable before it is due for a review
- Intended outcomes and specific goals of policy – these should be measurable and amenable to monitoring
- Accountability for implementation of the policy
- Accountability and periodicity for reporting performance and progress on policy implementation to stakeholders both within the Government and outside.

Communication in the context of policy implementation thus involves closing the loop in terms of creating these feedback and progress reporting mechanisms, and accountability to help the different sets of stakeholders involved in policy formulation process to understand the positive aspects as well as the shortcomings of the policy.

5.3. Communication Considerations in Developing PPP Programmes

The objectives of PPP communication at a programme level are to:

- Articulate the PPP vision and targets at a sector level;
- Disseminate sector-specific models and project level opportunities;
- Drive a shared understanding of PPPs through interactive development and dissemination of sector-specific standards, policy guidelines and toolkits for operationalisation; and
- Showcase impact and benefits to the public at large.

Continuous communication ensures that the perspectives of all stakeholders are heard and considered by other parties and that the proposed project is able to achieve its objectives.

Communication at this level is typically sector specific and is driven by the nodal Department (say Department of health/Department of higher education etc.) or by the specific implementation agency (National Highways Authority of India, State road development corporations etc.) in charge of the programme. Apart from the nodal Department/implementation agency, the PPP cells (both at the State level and at the national level under DEA) could play a catalytic role through wider dissemination of best practices, standards and guidelines.

To sum up, an effective communication strategy is an important tool that must be used in an appropriate manner.

6. Conclusion

The public entity must always ensure that an effective communication strategy is deployed continuously throughout the project development process to engage the diverse set of stakeholders associated with the project. An effective communication strategy would be instrumental in marketing the project to interested private players; conveying the project benefits and understanding the concerns, expectations of stakeholders; that are instrumental in successful development of projects under PPP framework.

However, it must also be understood that effective communication alone may not be sufficient especially if the project has inherent structural faults or when communication is perceived as an isolated event or a public relations initiative with no follow through or accountability.

7. Bibliography

1. Effective communication in PPP projects, Department of Economic Affairs, Ministry of Finance, Government of India
2. Public Private Partnership National Communications Strategy, Ireland, Central Policy Unit in consultation with other PPP Units and the Social Partners, 2002
3. Strategic Communication for Privatization, Public-Private Partnerships, and Private Participation in Infrastructure Projects, Daniele Calabrese, World Bank Working paper No 139, The World Bank, 2008

PPP Guide for Practitioners



Module 17: Capacity Building

1. Introduction

Over the years, an increasing number of projects have been developed through a PPP framework. Further, given the need for increasing infrastructure capacity rapidly to meet the economic and social needs of the country, PPP will continue to remain a critical procurement process for infrastructure projects even in the future.

To enable public entities to successfully design and execute PPP projects, it is critical to build their capacity on the concepts and practices in PPPs, the project development and award process, and the post award contract management issues that arise in PPPs.

In fact, PPPs being a relatively new paradigm for several public and private entities, it is imperative for all the stakeholders to possess sufficient technical and managerial competencies for undertaking such projects. The success of such projects would, hence, largely depend, in addition to proper planning and implementation, also on development of appropriate skills in both the public as well and private sectors. This can be achieved with the help of well-structured capacity building initiatives for continuous dissemination of PPP information and good practices.

2. Objectives & Principles

The objective of a capacity building programme is to create an understanding among all stakeholders of how the PPP mechanism works to improve the quality and availability of infrastructure, allocate appropriate risks to the best suited stakeholder, promote innovation, ensure efficiency, and aim for effectiveness and economy at all stages of project development and implementation.

Capacity building of stakeholders will enable a more sustainable development of projects through a PPP framework.

Capacity Building in PPPs ensures

- Better understanding of PPP concepts and practices among stakeholders
- Appreciation of issues and concerns involved in the development of PPP projects
- A cordial and professional relationship among the PPP parties

The key principles for planning of Capacity Building programmes would include the following:

- Prior assessment of the training needs of the beneficiaries through detailed discussions;
- Clear delineation of the roles and responsibilities of stakeholders involved;
- Assessment of the existing knowledge gap, expertise and areas of improvement;
- Involvement of local or regional organizations to the extent possible since they would be more sensitive to the needs of the beneficiaries and fully aware of situation on ground;
- Customization of content for different categories of programmes and use of suitable pedagogy techniques for information dissemination;
- Impact assessment or measuring effectiveness of the programme through feedback and continual improvisation of programmes.

3. Target Audience

Any PPP project would include various Stakeholders as discussed in the Communication Strategy Module which can be grouped as provided below:

1. Practitioners- Employees of the Authority or the existing contractors, vendors and the private sector
2. Policy makers- Government officials
3. Elected Representatives- Political and administration leaders
4. Consumers- Users, advocacy groups and Project Affected Persons (PAP)

The diagram below sets out the different target groups for such a programme:

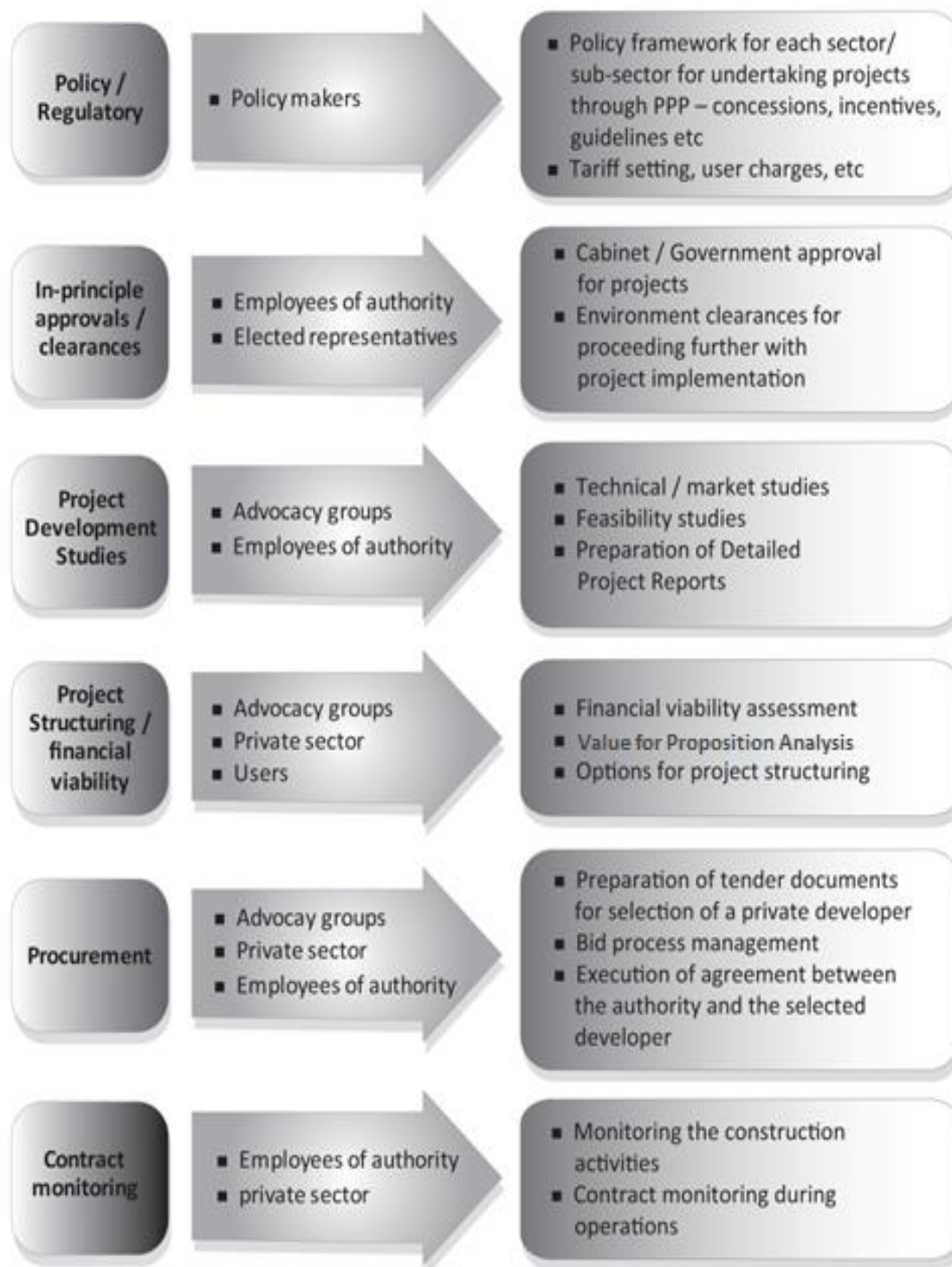


Every stakeholder's training needs will be different and they will change depending on the stage the project is going through. Training methods will also differ for different groups. For example, workshops might work best for policy makers while practitioners might benefit from site visits and direct hands-on experience. Whatever the method, training needs to be interesting and interactive through the use of case studies and specific examples.

Training needs differ across stakeholder groups and across the project development lifecycle.

3.1. Roles and responsibilities of each stakeholder

The figure below depicts the importance of the role played by each stakeholder and the capacity requirements for every aspect of the project implementation:



The roles and responsibilities and the capacity requirements of major stakeholder segments is set out herein below.

- Practitioners:** At the project level, it is important for officials of the public entity to be aware of PPP concepts and practices, the project development process, and the project structure. The private partner should also be aware of what is required for PPPs to be

successful so that all the stakeholders in a project think along the same lines. This will help everyone develop the project in a smooth and hassle free manner.

2. **Policy Makers:** Policy making is typically the responsibility of senior officials of the Ministry of Finance, various other line Ministries, Nit Ayog, key PPP agencies and other implementing agencies. Governments also interact with external organisations such as research institutions, development agencies and multilateral/bilateral agencies while formulating policies for various sectors. When policies are well conceived, they can contribute significantly to smooth implementation of a PPP project. The process of formulating policies usually involves demonstrating the Government's commitment to them, spreading awareness of PPP concepts and their applicability across sectors, concessions, incentives provided under schemes if applicable, setting of tariff structures and supporting line Ministries as they develop and implement PPP programmes etc. all of which makes it essential that officials engaged in policy making should possess the necessary skills.
3. **Elected representatives:** The regional elected leaders and administrators are the drivers of any projects undertaken in a given region as they are responsible for finally providing all the approvals and clearances required for implementing projects. Hence, in order to ensure a local support for implementation of any PPP project which impacts all the stakeholders throughout the project lifecycle, it is important to bring on board the local representatives elected by the communities themselves. It has been seen in past several cases, that commitment from such representatives has been the reason for success of several PPP projects.
4. **Consumers:** The users who are the most important group among the stakeholders would need to be taken into confidence before initiation of any PPP project implementation. Being the end users to the public services, the response of the users would decide the success or failure of any PPP project. Advocacy groups include the transaction advisors and consultants who play the key role of project identification, feasibility assessment, structuring, procurement, monitoring etc. and hence would assist the Government Authorities with their inherent capabilities. PAP community forms an important sect of the project beneficiaries, hence their understanding of the benefits of the projects and acceptance for rehabilitation cannot be ignored during the project development activities.

4. Approach to Capacity Building- Building blocks

The requirements for an effective Capacity Building of various stakeholders at each stage of project development are provided in the following sections.

4.1. Project identification stage

At the project identification stage, the public entities need to possess sufficient technical expertise for carrying out the market assessment and demand analysis for execution of the project. Several stakeholder consultations would need to be undertaken to build consensus among all the stakeholders to the project. The capabilities at this stage would include: market/demand assessment techniques, options analysis and requirements of numerous approvals and clearances etc. Various States have established PPP Cells in their Urban/Infrastructure development Departments to undertake such activities. Such PPP cells would need to have a team with the required experience and qualifications for carrying out such studies. In the absence of such a capability, the Authority might need to appoint external consultants for carrying out such studies on their behalf. In order to enhance such capacities

of the employees of the practitioners, sufficient skill building activities would need to be undertaken by the administration.

4.2. Project Feasibility Stage

The practitioners would need to assess the technical, financial, legal and economic feasibility of the project for making a decision on whether the project should be implemented under a PPP framework or not. This necessitates capabilities in terms of techno-commercial, legal, financial and economic viability assessment of the project. The capacities of the key decision makers at this stage would need to be built for ensuring sound decision making at this critical stage.

4.3. Project Structuring Stage

During the project structuring stage, the practitioners need to understand how best to finalise the contours of the project by using past experience of similar projects for sectors in which such projects have been implemented. In case of projects for which there are no precedents, capabilities to assess the various options and arrive at the most suitable options after analysing the pros and cons of all options would need to be built among all the practitioners. The capacity requirements at this stage include a thorough understanding of the various aspects of PPPs in terms of roles & responsibilities, risks, challenges and issues of PPPs, contractual frameworks, legal and financial implications and suitable risk mitigation techniques etc. by both the practitioners as well as policy makers. Hence, capacity building at this stage could focus on the critical enablers of PPPs as well as learning from the best and worst case studies with similar PPP experiences elsewhere.

4.4. Procurement Stage

The capacities required at the procurement stage would include a thorough understanding of fairness, equity, transparency and administration aspects of the procurement procedures to be followed. PPPs being an equitable partnership between the public and private sectors need to ensure sufficient capabilities in both the parties. Hence along with the practitioners and policy makers, the private sector entities would also need to possess required capacities in understanding and abiding by the requirements of the PPP procurement processes.

4.5. Post Award Contract Management Stage

The capacities required during the post award stage include proper monitoring and management skills. All the stakeholders of PPP projects need to understand their respective roles and the means to resolve/manage all the issues and challenges arising post construction of the project.

Capacity building can be carried out through workshops, seminars, television, websites, movies, documentaries, and Government websites which host case studies on PPPs and also capacity building material for the benefit of users.

5. Government Initiatives in Capacity Building

The Department of Economic Affairs, Ministry of Finance, Government of India, had successfully completed the National PPP Capacity Building programme for civil servants. The training calendars for the programme are finalized upon discussions with the Administrative Training Institutes/ Central Training Institutes in the respective States. Annexure 17 of this Module sets out the structure of the Training of Trainers curriculum that has been developed. Annexure 17A sets out a Checklist for conducting capacity building programme.

Government of India has completed capacity building in PPPs in a big way through the Training of Trainers programme and by rolling it out to practitioners under the National PPP Capacity Building Programme

PPP cells have been constituted within various State Governments which have experienced officers who can offer advice and guidance on PPP concepts, practices, development processes, project structures, post award contract management and other matters pertaining to PPPs. PPP cells constituted in the State Governments offer assistance to line Departments in the development of projects through PPP arrangements.

Several private sector entities are involved in providing training and capacity building services to Governments of States and Departments/Agencies with different programme modules targeted for all stakeholders.

6. Conclusion

Building capacities among all the stakeholders with respect to PPP would benefit the project development process. Informed and learned stakeholders contribute effectively in better structuring of projects, bid documentation, procurement process and post award contract management. It is also to be noted that the training needs of each of the stakeholder is distinct; such need must be carefully ascertained and accordingly programmes must be devised to build capacities. It is necessary every public entity appreciates the significance of capacity building needs across stakeholder groups and invests adequate time and effort towards building capacities.

7. For Further Reading

1. India: Building Capacities for Public Private Partnerships, The World Bank, June 2006.
2. Knowledge Series, PPP Awareness Course, Training of Trainers Curriculum, Department of Economic Affairs, Ministry of Finance, Government of India, December 2010



PPP Guide for Practitioners



Annexures

Annexure 2 – Other Definitions of PPP

1. **India's Scheme for Financial Support to Public Private Partnerships in Infrastructure** define PPP as:
"A Public-Private Partnership (PPP) project means a project based on a contract or concession agreement between a Government or statutory entity on the one side and a private sector company on the other side, for delivering an infrastructure service on payment of user charges."
2. **Andhra Pradesh Infrastructure Development Enabling Act, 2001** defines PPPs as:
"Public Private Partnership" means Investment by a Private Sector Participant in an Infrastructure Project of the Government Agency or the Local Authority in the State."
3. **Karnataka New Infrastructure Policy, 2007**, defines PPPs as:
"Public Private Partnership" means Construction/ Renovation/ Rehabilitation and Operation & Maintenance, or Operation & Maintenance of an Infrastructure Project of the Central Government or Government Agency for common use where a Private Sector Participant:
 - has an investment; and
 - Is responsible for such construction/ renovation/ rehabilitation and operation & maintenance, or operation & maintenance for a period of not less than 3 years, in each case."
4. **Tamil Nadu Infrastructure Development Act, 2012, defines PPPs as:**
"Public-private partnership" means an arrangement between a public agency and a private sector participant for the provision of infrastructure through investment made or through design, development, construction, maintenance or operation undertaken by the private sector participant, where risks are allocated between them such that the private sector participant takes on the risk beyond the stage of design and construction and the payment for the services are performance linked, in the form of user charges, annuities or unitary payment."
5. **Australian National PPP Guidelines** defines PPP as follows:
"A PPP is a long-term contract between the public and private sectors where Government pays the private sector to deliver infrastructure and related services on behalf, or in support, of Government's broader service responsibilities."
6. **South African Regulations** defines PPP as follows:
"Public Private Partnership" or "PPP" means a commercial transaction between an institution and a private party in terms of which the private party
 - a) *performs an institutional function on behalf of the institution; and/or*
 - b) *acquires the use of State property for its own commercial purposes; and*
 - c) *assumes substantial financial, technical and operational risks in connection with the performance of the institutional function and/or use of State property; and*
 - d) *receives a benefit for performing the institutional function or from utilising*
 - e) *the State property, either by way of:*
 - i. *consideration to be paid by the institution which derives from a revenue fund or, where the institution is a national Government business enterprise or a provincial Government business enterprise, from the revenues of such institution; or*
 - ii. *charges or fees to be collected by the private party from users or customers of a service provided to them; or a combination of such consideration and such charges or fees."*

Annexure 2A - PPP Modal Families and Main Variants

FEATURES MODES	Asset ownership during contract	PPP duration	Capital investment focus & responsibility	Private partner revenue risk and compensation terms	Private partner roles	Features, relevance in India & examples
Management Contracts	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.					
Note: service contracts and management contracts of less than 3 years duration are not included in the definition of PPP in India.						
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	<p>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 entity, the day-to-day management control is vested with the private sector. Usually the private sector is not required to make capital investments.</p> <p>These are prevalent in India across sectors. e.g., Karnataka Urban Water Supply and Improvement Project, performance based maintenance contracts in highways.</p>
Management Contract (with rehabilitation/ expansion)	Public	Medium – long	Limited Focus Brownfield (Rehabilitation / expansion Private	Medium (Tariff / Revenue share)	Minimum Capex, Management, Maintenance	<p>This is similar to management contracts but include limited investments for rehabilitation or expansion of the facility.</p> <p>This mode has been adopted in the power distribution and water</p>

FEATURES MODES	Asset ownership during contract	PPP duration	Capital investment focus & responsibility	Private partner revenue risk and compensation terms	Private partner roles	Features, relevance in India & examples
						supply sectors e.g. Bhiwandi Distribution Franchise, Latur Water Supply Project.
Lease Contracts	Asset is leased by the public entity to the private partner					
Lease	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 Indian Railways
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 Govt. and transferring the facility after recovery of investment. Primarily taken up for railway projects such as gauge conversion 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 & Operation	Involves building an asset, transferring it to the Govt, and leasing it back. Here the private sector delivers the service and collects user charges.
Concessions	Responsibility for construction (typically brownfield / expansions) and operations with the private partner while ownership is retained by the public entity.					
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

FEATURES MODES	Asset ownership during contract	PPP duration	Capital investment focus & responsibility	Private partner revenue risk and compensation terms	Private partner roles	Features, relevance in India & examples
						<p>capital investment while the assets are publicly owned even during the concession period. The public entity's role shifts from being the service provider to regulating the price and quality of service.</p> <p>For example, water distribution concession for a city or area within the city.</p>
Build-Operate-Transfer Contracts	Responsibility for construction (typically greenfield) and operations with the private partner while ownership is retained by the public entity.					
Design-build-operate (DBO)	Public	Short-medium (e.g. 3-5 yrs)	Greenfield Public	Medium-High Tariff revenue	Design, construct, manage, maintain	Not very common in India. Typically financing obligation is not retained by the public entity.
Build-operate-transfer (BOT)/ Design-Build-Finance-Operate-Transfer (DBFOT)	Public	Long (e.g. 20-30 yrs)	Greenfield Private	High Tariff revenue	Design, finance, construct, manage, maintain	Most common form of BOT concession in India. e.g. Nhava Sheva International Container Terminal, Amritsar Interstate Bus Terminal, Delhi Gurgaon Expressway, Hyderabad Metro, Salt Lake Water Supply and Sewage Disposal System.
Build-operate-transfer (BOT) Annuity	Public	Long (e.g. 20-30 yrs)	Greenfield Private	Low Annuity revenue / unitary charge	Design, finance, construct, manage, maintain	This has been adopted for NHAI highway projects in the past. More recently, it is the preferred approach for socially relevant projects where revenue potential is limited. e.g. Tuni Anakapalli Project, Alandur Underground Sewerage Project

FEATURES MODES	Asset ownership during contract	PPP duration	Capital investment focus & responsibility	Private partner revenue risk and compensation terms	Private partner roles	Features, relevance in India & examples
Build-own-operate Transfer (BOOT) Contracts	Private partner has the responsibility for construction and operations. Ownership is with the private partner for the duration of the concession.					
Build-own-operate-transfer (BOOT) or DBOOT	Private	Long (e.g. 20-30 yrs)	Greenfield Private	High Tariff revenue	Design, construct, own, manage, maintain, transfer	Most common form of BOOT concession in India. For example, Greenfield minor port concessions in Gujarat are on a BOOT basis.
Build-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. Not common in India.

Annexure 5 – Indicative Checklist for a Technical Feasibility Study

It may be useful to prepare a checklist of steps/activities in a format which would need to be prepared by the agency/urban local body proposing to undertake a project. An indicative checklist for technical feasibility study is set out herein below.

Indicative for Technical Feasibility Study

1. Project Name
2. Project Description
3. How the project would meet the present or future needs of the public and likely benefits to users?
4. How the project would meet the sponsoring Authority's strategy or plans?
5. How the project would complement other developments in the area assessed through a review of sector strategic plans?
6. Brief description of environmental and social assessment work plans
7. Brief description of land acquisition and resettlement requirements, community consultation undertaken, willingness and compensation/assistance plan
8. Briefly describe various options identified to deliver service/facility/product:
 - a. Option A
 - b. Option B
 - c. Option C
9. Major project cost components (capital, operations, maintenance)
10. Technical scope of the project
11. Basis for assumptions regarding major project cost components and their justification (all assumptions to be supported with quotations/comparative numbers for similar projects)
12. Findings of preliminary market demand analysis (tariffs, volume)
13. Assumptions on tariffs/prices and their justification (all assumptions to be supported with numbers for similar projects). Findings of assessment of willingness to pay survey
14. Assumptions on reasonable volume/quantity of usage and their justification
15. Findings of analysis of similar projects done in the past for project cost, tariff/prices and volume/quantity of usage
16. Reasonableness of assumptions in the proposed project when compared to similar projects done in the past. If not, the economic rationale that justifies these assumptions
17. Impact of, and the management strategy to tackle, the financial and commercial risks to the project
18. Whether findings of sensitivity analysis have been undertaken?
19. Identifying the likely economic benefits generated by the project
20. Financial and economic viability of the project concept.

Annexure 5A - Sample ToR for Selection of Consultant for Feasibility Study in Roads Sector

The contents of a sample ToR for the selection of a technical consultant for preparation of a feasibility report for the development of road stretches is set out below. The public entity may choose to improvise on the contents indicated below.

Indicative Content – ToR for Selection of Consultant for Preparation of Feasibility Report for Roads

Contents

1. General
2. Objective
3. Scope of Services
 - 3.1. Scope of Services
 - 3.2. Traffic surveys and demand assessment
 - 3.3. Engineering surveys and investigations
 - 3.4. Proposal for Sections passing through urban areas
 - 3.5. ROBs/RUBs
 - 3.6. Protective works in hill sections, retaining walls, breast walls, etc
 - 3.7. Road signs, safety devices
 - 3.8. Toll Plazas
 - 3.9. Truck lay byes
 - 3.10. Bus bays and bus shelters
 - 3.11. Social impact assessment
 - 3.12. Environment impact assessment
 - 3.13. Preliminary designs
 - 3.14. Project cost
 - 3.15. Financial analysis and bid process
4. Deliverables
 - 4.1. Inception Report
 - 4.2. Report on Alignment and First Traffic Survey
 - 4.3. Land Plan Schedules
 - 4.4. Utility Relocation Plans
 - 4.5. Reports on Environment and Social Impact Assessment
 - 4.6. Report on Indicative GAD of Structure
 - 4.7. Feasibility Report
 - 4.8. Schedules of Concession Agreement
 - 4.9. Financial analysis
 - 4.10. Assistance during bid process
5. Specific requirements for the Project Highway
6. Time and Payment Schedule
7. Meetings

8. Consultancy Team
9. Reporting
10. Data and software to be made available by the Authority
11. Completion of Services
12. ATTACHMENTS
 - Attachment A : Topographic Survey
 - Attachment B: Indicative List of Drawings for Schedule-H of the Concession Agreement
13. PROFORMA
 - Proforma 1: Road Inventory
 - Proforma 2: Inventory and Condition Survey for Culverts
 - Proforma 3: Inventory of Structures
 - Proforma 4: Road Condition Survey
 - Proforma 5: Bridge Condition Survey

Annexure 6 – Description of Financial Terminologies

Terminology	Description
Capital Expenditure	Capital Expenditure is an amount spent to acquire or improve a long-term asset such as equipment or buildings. Usually the cost is recorded in an account classified as Property, Plant and Equipment. The cost (except for the cost of land) will then be charged to depreciation expense over the useful life of the asset
Debt	An amount of money borrowed by one party from another. In project financing, it is the amount borrowed for project development by the lenders.
Debt Service Coverage Ratio	DSCR is calculated as a ratio between the net operating income to the total debt to be serviced. The ratio must ideally be over 1.
Discount Rate	The discount rate is the interest rate used in discounted cash flow (DCF) analysis to determine the present value of future cash flows. The discount rate in DCF analysis takes into account not just the time value of money, but also the risk or uncertainty of future cash flows; the greater the uncertainty of future cash flows, the higher the discount rate.
Equity	In a project financing, the cash or assets contributed by the sponsors. In accounting, the difference between total assets and total liabilities.
Internal Rate of Return (IRR)	IRR is the interest rate at which the net present value of all the cash flows (both positive and negative) from a project or investment equal zero. Internal rate of return is used to evaluate the attractiveness of a project or investment
Net Present Value (NPV)	NPV is the difference between the present value of cash inflows and the present value of cash outflows. NPV is used to analyse the profitability of a projected investment or project.
O&M Expenditure	O&M Expenditure is amount spent on an ongoing, day-to-day basis in order to run a business or system. Depending upon the industry, these expenses can range from the ink used to print documents to the wages paid to employees.
Weighted Average Cost of Capital (WACC)	WACC is the weighted average of all capital sources (equity and debt)

Annexure 6A - Indicative Structure of Financial Feasibility Report

Indicative contents of a financial feasibility report are given below:

1. **Introduction** – the project background, current status, brief about the technical feasibility study and limitations of the financial feasibility study
2. **Assumptions** – would include about all the key assumptions that form part of the financial feasibility analysis. This would in turn include the following:
 - a. General Assumptions – construction period, date of commencement of commercial operations, concession period, about the roles and responsibilities of private partner and the public entity, etc.
 - b. Financing Assumptions – tax rates, interest rates, etc.
 - c. Cost assumptions – project cost, cost of capital, debt to equity ratio, operational expenses (general and admin expenses, maintenance expenses, repairs, replacement, etc.)
 - d. Revenue Assumptions – user fee, rate of increase every year.
3. **Financial Feasibility Analysis** – findings of the financial feasibility analysis, key financial parameters (such as NPV, IRR) would be presented. This chapter would also include a section on sensitivity and scenario analysis.
4. **Conclusion & Recommendation** – states the following
 - a. Whether the project is financially viable on a standalone basis?
 - b. If the project is financially not viable on a stand-alone basis then, assess and recommend the financial support that is required for the project to be financially viable?

Annexure 8 – Indicative Structure of Economic Analysis Report

The indicative structure set out below is drawn on the basis of the structure of economic analysis report mandated by ADB in Capacity Development of National Capital Region Planning Board (NCRPB) – Package 1 (Components A and C), Project Appraisal Manual:

1. **Introduction:** the project background and genesis.
2. **Demographic scenario:** the population over a time series, its composition in terms of gender, children, literacy, etc.
3. **Economic background** - the existing key economic activities of the population and its association with the project, contribution of various economic activities to the growth of the region.
4. **Components of the project** – description and purpose of the components of the project and component wise cost of the project.
5. **Objectives of the project** – the macro level objectives, the principle on which the project is implemented, expected results of the project components and the project as a whole.
6. **Evaluation parameters** - the economic benefits of the project and analysis of the methodology for ascertaining the benchmarks.
7. **Effects of the project** - the impact on society without the project and improvements which the project would bring.
8. **Selection of alternatives** - the alternatives for achieving project objectives, the benefits and drawbacks of the alternatives and the rationale for selection of the best alternative.
9. **Winners and losers** – identify negatively affected people (losers) and the people who would benefit (winners), remedies planned under the project for losers.
10. **Fiscal Impact** - the financial impact of the project on the lenders and how it is addressed
11. **Financial sustainability of the project** - financial sustainability as a standalone project and if only part cost recovery is possible, an explanation of the positive externalities
12. **Environmental impact** - both positive and negative environmental impact of the project to be discussed
13. **Economic viability** - the economic cost and economic benefit to be clearly identified

Annexure 9 – Union List, State List and the Concurrent List

List	Subjects covered
Union List	Atomic energy and mineral resources necessary for its production
	Railways
	National highways
	Shipping and navigation on national waterways
	Maritime shipping and navigation
	Lighthouses for the safety of shipping and aircraft
	Major ports
	Port quarantine, seaman and marine hospitals
	Airways; aircraft and air navigation, provision of aerodromes
	Carriage of passengers and goods by railway, sea, air national waterways
	Posts and telegraphs; telephones, wireless, broadcasting and other like forms of communication
	Oil fields and mineral oil resources; petroleum and petroleum products; other liquids and substances which are inflammable
	Regulation of mines and mineral development in public interest
	Regulation of labour and safety in mines and oil fields
	Regulation of development of inter-state rivers and river valleys
Terminal taxes on goods or passengers, carried by railway, sea or air; taxes on railway fares and freights	
State List	Public health and sanitation
	Communications, that is, roads, bridges, ferries and other means of communication not specified in Union List
	Water, that is, water supplies, irrigation and canals, drainage and embankments, water storage and water power
	Land, that is, right in or over land, land tenures and the collection of rents
	Regulation of mines and mineral development
	Gas and gas-works
	Taxes on mineral rights
Taxes on the consumption of sale of electricity	

List	Subjects covered
	Taxes on goods and passengers carried by road or on inland waterways
	Tolls
Concurrent List	Forests
	Economic and social planning
	Ports other than major ports
	Shipping and navigation on inland waterways
	Electricity

Annexure 9A – Updated Harmonised Master List of Infrastructure Sectors

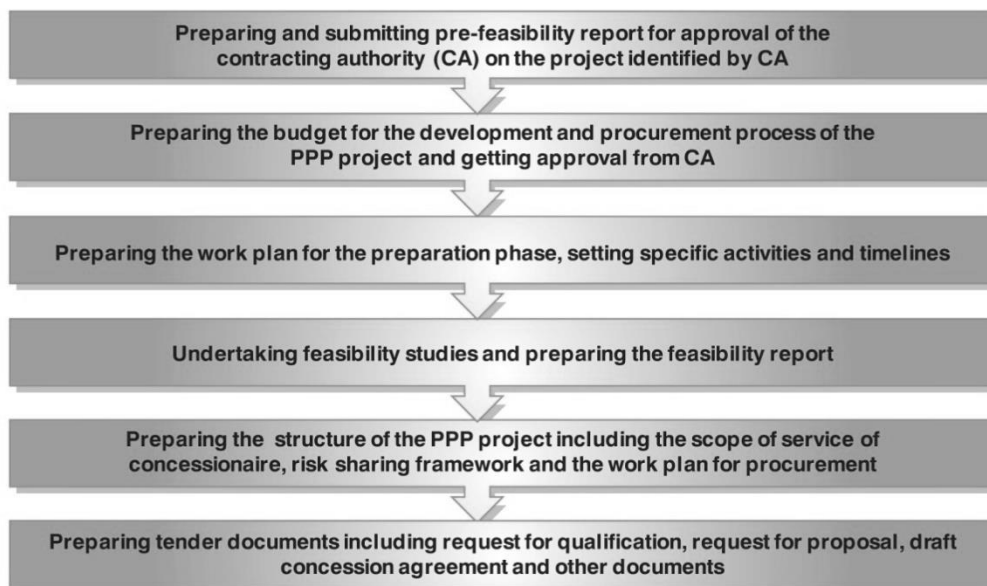
The Infrastructure Section, Department of Economic Affairs, Ministry of Finance, Government of India through a Gazette of India Notification dated 7th October, 2013 has notified an updated Harmonised Master List of Infrastructure Sub-sectors which is set out in the table below.

No.	List	Subjects covered
1.	Transport	<ul style="list-style-type: none"> Roads and Bridges Ports* Inland Waterways Airports Railways track, tunnel, viaducts, bridges** Urban public transport (except rolling stock in case of urban road transport)
2.	Energy	<ul style="list-style-type: none"> Electricity Generation Electricity Transmission Electricity Distribution Oil Pipelines Oil/ gas/ liquefied natural gas (LNG) storage facility[#] Gas pipelines^{##}
3.	Water & Sanitation	<ul style="list-style-type: none"> Solid Waste Management Water Supply pipelines Water treatment plants Sewage collection, treatment and disposal system Irrigation (dams, channels, embankments, etc.) Storm water drains Slurry pipelines
4.	Communication	<ul style="list-style-type: none"> Telecommunication (fixed networks)[^] Telecommunication towers Telecommunication & Telecom Services
5.	Social & Commercial Infrastructure	<ul style="list-style-type: none"> Education Institutions (capital stock) Hospitals (capital stocks)[§] Three- star or higher category classified hotels located outside cities with population of more than 1 million Common infrastructure for industrial parks, special economic zones, tourism facilities and agriculture markets Fertilizer (capital investment) Post-harvest storage infrastructure for agriculture and horticultural produce including cold storage Terminal markets Soli-testing laboratories Cold chain^{\$\$} Hotels with project cost^{\$\$\$} of more than Rs.200 crores each in any place in India and of any star rating Convention centres with project cost of mor than Rs.300 Crores each

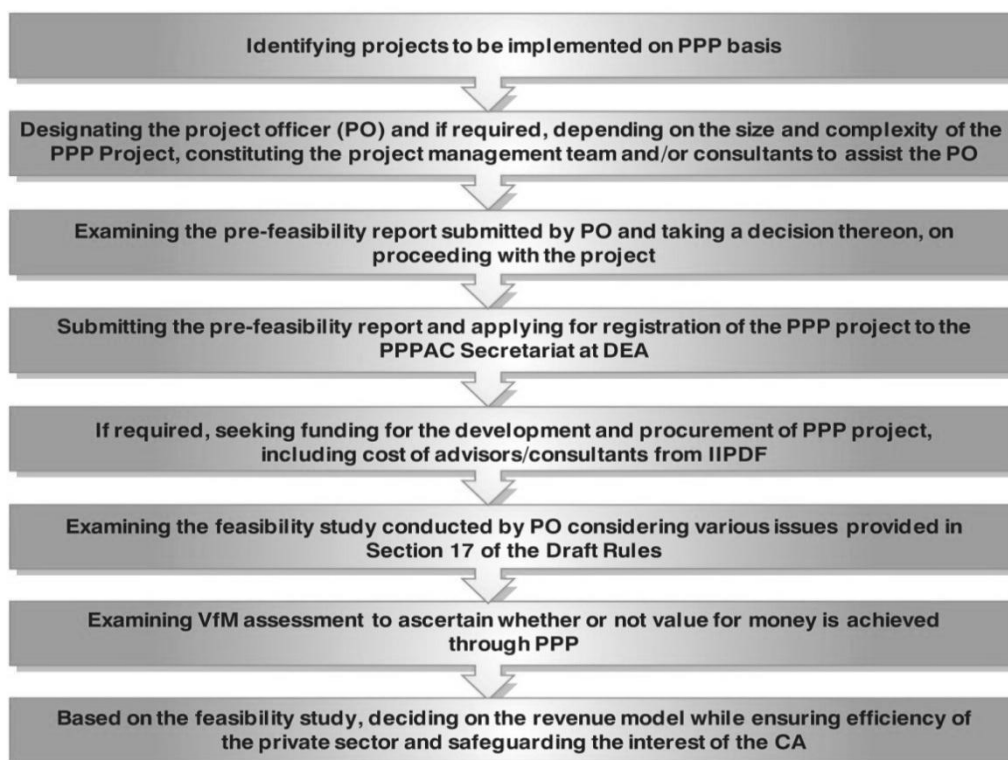
- * includes capital dredging
- ** includes supporting terminal infrastructure such as loading/ unloading terminals, stations and buildings
- # includes strategic storage of crude oil
- ## includes city gas distribution network
- ^ includes optic fibre/ wire/cable networks which provide broadband/ internet
- \$ includes medical colleges, para medical training institutes and diagnostic centres
- \$\$ includes cold room facility for farm level pre-cooling, for preservation or storage of agriculture and allied produce, marine products and meat
- \$\$\$ applicable with prospective effect from the date of notification and available for eligible prospects for three years from the date of notification; Eligible costs exclude cost of land and lease charges but include interest during construction

Annexure 9B – Roles & Responsibilities of Project Officer and Public Entity

The key responsibilities of the Project Officer (PO) in the development of a PPP project are set out below.



The role of the public entity (Contracting Authority) in the development of the project and procurement are set out below:



Annexure 10 - Indicative Project Risks & Mitigation Measures

Given in the table below are the indicative projects risks that may emerge during the project development process and the respective mitigation measures.

Risk Category	Description of Risk	Direct Consequence
Commissioning risk	Delay/ failure in achieving all required approvals	Additional costs, cost of providing a temporary alternative solution
Construction risk	The construction of the assets may not be completed on time, within budget or to specification	Additional costs
Demand risk	The risk that actual demand for a service is lower than planned	Reduced revenue
Design risk	The proposed design may be unable to meet the performance and service requirements	Cost of modification, redesign costs
Financial risk	Inappropriate/insufficient financial structuring	Additional funding costs for increased margins, refinancing costs
Force majeure risk	Unanticipated or natural disaster	Additional costs to rectify
Operating risk	Risks associated with the routine operation of the project	Increased operating costs or reduced revenue
Performance risk	Failure to perform to the specified service level	Costs of meeting performance standards
Change in law risk	Change in current regulatory regime	Costs of complying with new regulations/reduction in revenues
Residual value risk	Failure in achieving the expected realisable value at the end of the project	Lower value for assets at end of project term
Technology obsolescence risk	Risk of technology obsolescence	Cost of replacing technology
Social & environmental risk	Adverse effect of the project on social or environmental set up	Cost associated with rehabilitation, restoring the damage caused
Political risk	Change in political will/ commitment towards the project	Stalling of project, its suspension or termination

Annexure 12– Committed & Contingent Liabilities

PPPs involve the development of projects or services through the mechanism of project finance. They also allow the public entity to have the projects built or services provided without having to pay for them immediately or without having to pay for all of it immediately. In certain cases, the public entity pays for the service/project in instalments over the agreement period or sometimes, the users pay for it. In all these cases, the public entity usually bears some of the risks of the project. One such risk is to compensate the private partner if the agreement is terminated before expiry. The sharing of risks and liabilities between the public entity and the private partner makes lenders and investors cautious about their investments in PPPs.

What are Committed and Contingent Liabilities?

Committed liabilities are those liabilities and obligations which are set out in the agreement. The parties to the agreement are liable to perform such obligations and they are not dependent on certain events happening or not happening. Examples of committed liabilities include the payment of annuity, construction /development expenses, insurance, sharing of revenue, etc.

The term 'contingent liability' is problematic, both conceptually and in practice, and the International Accounting Standard Board has proposed eliminating it from accounting standards (IASB 2005). The probability of payment under a contractual obligation can vary continuously from 0 to 1, and any division of that interval into two parts, one for contingent liabilities and the other for ordinary liabilities, is arbitrary.

Although not all these risks create contingent liabilities for accounting purposes, they do create obligations that are conveniently, if loosely, called contingent liabilities.

Traditionally the conditions which determine the value of the contracting liabilities were known (committed liabilities), as opposed to contingent liabilities whose value depends on the occurrence of future events and uncertainties. The contingency factors may be endogenous or exogenous with respect to who is responsible for them. For example, a natural disaster is an exogenous factor for the State, while a change in the tax rate is an endogenous factor.

Source: Managing Contingent Liabilities in PPPs in Australia, Chile and South Africa, Timothy Irwin and Tanya Mokdad, June 2009

In India, many projects are being implemented across sectors and in various formats. Public entities usually take up multiple projects simultaneously. Most of these projects involve contingent liabilities and these liabilities would be fiscal or otherwise in nature. It would be useful for any public entity, before providing for contingent liabilities in any project, to adequately understand the liability, quantify it and estimate its future bearing on the public entity. It is prudent for a public entity to commit itself to liabilities only when it has the capacity to bear them. Therefore, it is crucial to continuously balance and check the provisions for contingent liabilities in agreements.

As contingent liabilities call for expenditure from the parties to an agreement on the occurrence of an unlikely event, it becomes all the more necessary to manage this issue. The Chapman's Peak Drive project in South Africa reflects the need for management of contingent liabilities during the contract documentation and contract management stages of a project lifecycle.

Chapman's Peak Drive Case

- Chapman's Peak Drive is a road developed alongside a mountain near Cape Town in South Africa. It was considered to be a challenge to develop the road and was constructed over a span of seven years from 1915 to 1922. The road was usually prone to falling rocks and other debris owing to landslides in the region. In January 2000, the Western Cape Provincial Government closed the road after fire and heavy rain caused major rockslides and the death of a passenger.
- The Government then proposed to develop the proposed road through a PPP arrangement and invited proposals from interested private parties in August 2001. Two consortia bids were received for the project, and in May 2003, the Government and the Entilini concession company signed a 30-year concession contract. The private partner repaired the road and, using modelling and engineering, reduced its vulnerability to rock falls. The road reopened in December 2003, at an estimated capital cost of about South African rand (R) 150 million. The estimated cost of construction of the project was split equally between the Government and the private partner.
- The Government hoped that tolls would cover the costs incurred by the private partner. At the same time, it also agreed to compensate the private partner in certain circumstances if the toll revenue was less than a forecast made in 2002. When the road was opened for commercial operations, the private partner was required to collect tolls from a temporary plaza while it waited for approval from the national Department of Environmental Affairs and Tourism to build permanent toll plazas. The provincial Government agreed to bear the traffic risk until that approval was granted and the plazas were built. It also agreed to bear the traffic risk during certain road closures. Additionally, the Government gave a revenue guarantee that, independent of the provisions relating to toll plazas and road closure, partially protected the private partner's lenders from revenue risk.
- After lengthy appeals, final approval for the toll plazas was granted in June 2008, and only then could construction of the toll plazas begin. As often happens, traffic initially fell short of forecasts. In the absence of permanent toll plazas, the Government had to top up the private partner's revenue. Revenue eventually reached forecast levels. But in July 2008, the private partner closed the road because of another rockslide. Because the toll plazas were not yet constructed, the Government bore the traffic risk and had to pay the private partner an amount equal to all its forecast revenue.
- From December 2003 to January 2009, it paid the private partner R 57 million. This experience raises the question whether the best means to compensate the private partner for the absence of permanent toll plazas was for the Government to pay the difference between actual and forecast traffic. But it is easy to be wise after the fact; decisions about risk-bearing are better judged on the basis of the information available at the time of the decision.
- Nevertheless, this case illustrates the kinds of contingent liabilities that arise in PPPs and the need for Governments to pay attention to them, both after a contract is signed and before.

Source: Excerpt from the World Bank and PPIAF report on Managing Contingent Liabilities in PPPs, Practices in Australia, Chile and South Africa; Timothy Irwin and Tanya Mokdad, June 2009.

Typically, projects such as the development of roads on a shadow toll format, projects developed on a take or pay principle or power projects that operate on guaranteed returns, involve contingent liabilities.

1. Instances of Contingent Liabilities in PPP Arrangements

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

A few of the common instances of contingent liabilities that have been observed under PPP arrangements include:

- a. **Guarantees on particular risk variables** - an arrangement to compensate the private partner for loss in revenue in the event of a particular risk variable deviating from a contractually specified level. The associated risk is thereby shared between the public entity and the private partner. For example, this could include guarantees on demand remaining above a specified level or on exchange rates remaining within a certain range.
- b. **Compensation clauses** - for example, a commitment to compensate the private partner for damage or loss due to certain specified, uninsurable force majeure events.
- c. **Termination payment commitments** - a commitment to pay an agreed amount, in the event of the contract getting terminated due to default by the public entity or the private partner then, the amount may depend on the circumstances of default.
- d. **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.

Provisions for Contingent Liabilities in the MCA for Development of National Highways

The following articles of the MCA provide for contingent liabilities arising out uncertain events:

- Article 26 – Concession Fee
- Article 27 – User Fee
- Article 28 – Revenue Shortfall Loan
- Article 29 – Effect of Variation in Traffic Growth

2. Management of Contingent Liabilities

PPPs are complex and long term arrangements between the public entity and private partner. In such arrangements, it is a challenge to foresee all possible risks and liabilities that could emerge during the project lifecycle (during the agreement period). It is in such situations that all the risks and liabilities that are identified are clearly explained and addressed in the agreement executed between the parties (also referred to as committed liabilities) and those liabilities which trigger but are uncertain events, are referred to as contingent liabilities.

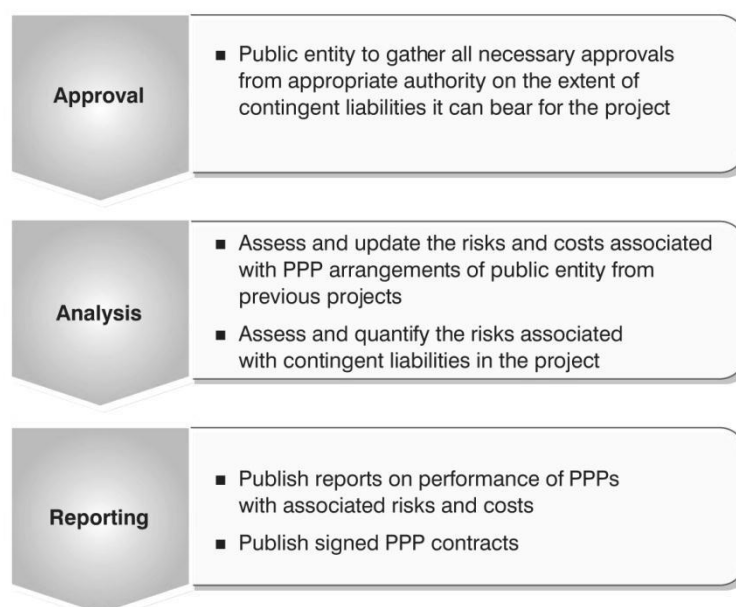
Contingent liabilities can create management problems for Governments. They have a cost associated with them and it is difficult to estimate or assess the probability of occurrence of such costs. It has been observed that, except in the case of contingent liabilities created by simple guarantees of debt, public entities usually incur contingent liabilities without budgetary approval or recognition in the public entity's accounts. This could lead to inadequate provisioning of funds even in cases of a reasonable likelihood of the event arising.

3. Provisioning for Contingent Liabilities

Not providing for contingent liabilities from the agreement is not a feasible option given the complexity and risks associated with PPPs. The only other way is to provide for contingent liabilities but with an adequate plan in place to address such liabilities if they occur. The ideal scenario would be for the public entity to obtain all necessary budgetary approvals and put in place a plan to address the contingent liabilities before providing for this in agreements/contracts.



The process of managing contingent liabilities needs to be put in place starting with the approval of the project to be developed, analysis of the project benefits to society and its development through the PPP route and the reporting and monitoring mechanism during the project implementation stage. The diagram given below sets out the process of management of contingent liabilities across different stages of the project lifecycle:



4. Approval

The public entity must ensure that all the necessary approvals are obtained prior to starting the bid process for selecting the private partner and also before executing the project agreement between the public entity and the private partner. This is because PPPs involve contingent liabilities and the public entity must make adequate provisions to bear the risks associated with such liabilities in future. All recommendations of the Government pertaining to the economic and commercial aspects of the project must be duly considered by the public entity to bid. The Government also needs to make provisions for revenue guarantees and other contingent liabilities from its budgetary allocations.

5. Analysis

A quantitative analysis all the risks and costs associated with PPPs must be adopted for better management of contingent liabilities arising from a project. It is always useful to conduct a cost-benefit analysis/economic analysis for the project before taking up the project. A value for proposition analysis may be carried out to ensure that PPP is a better mode of project implementation when compared to the conventional mode of procurement. Economic analysis and value for proposition analysis are to be carried out prior to the procurement process. In addition to the above, the public entity could also attempt to quantify the costs/

risks and contingent liabilities associated with the project. Countries like Chile have already developed standard spread sheet models to quantify such risks and understand their probability distribution. These models are updated with real time data on projects across sectors to estimate the cost of possible guarantees, to set guarantee fees and report information on the costs and risks of guarantees.

6. Reporting

It is useful for the public entity to prepare and publish reports annually, reflecting the use of public finances and contingent liabilities. The report on public finances would include estimates of the maximum amount that the Government could spend on revenue guarantees and estimates of the net present value of the guarantees and revenue-sharing arrangement. The report could also estimate the present value of committed subsidies and availability payments. The report on contingent liabilities discusses not only expected cash flows from revenue guarantees but also the variability of those cash flows. It is also prudent to publish contracts and related documents, including changes made after renegotiation in any PPP arrangement.

Practices Prevalent in Other Countries

The table given below is an excerpt from the World Bank and PPIAF report on Managing Contingent Liabilities in PPPs, Practices in Australia, Chile and South Africa; Timothy Irwin and Tanya Mokdad, June 2009.

	Chile	South Africa	Australia
Approval	Minister of Finance must approve concession contract. Minister is advised by a Contingent Liabilities and Concessions Unit. But most PPP expertise resides in the Concessions Department of the Ministry of Public Works.	Proposed PPPs and associated contingent liabilities must be approved at four stages by the National Treasury, which contains a specialist PPP unit. The Treasury's fiscal liability committee reviews at fourth stage.	PPPs must be approved at four stages by the Cabinet, which is advised by the Department of Treasury and Finance, which has a PPP group.
Analysis	Ministry of Finance measures and values revenue guarantees for existing and proposed concessions.	Approval of Gautrain project was based on a 50-page report that analyzed many associated contingent liabilities, some small, others large.	PPP guidelines focus on estimating the expected costs of uncertain payments in publicly financed projects in comparisons between the costs of a PPP and a publicly financed project
Reporting	Government agencies include a disclosure note on PPPs in their modified-cash based annual reports.	Government agencies include a disclosure note on PPPs in their modified-cash based annual reports.	Government reports according to IFRS. Most PPP assets and associated liabilities are on the Government's balance sheet. Contracts are published

Many sources provide recommendations on managing contingent liabilities created by PPPs. The underlying premise of all recommendations is that the rules governing PPPs should ensure that the officials in charge have incentives, information, and the capability to take account of the costs and risks of contingent liabilities. A few of the suggestions include:

1. Cost-benefit analysis should be used to select projects, and value proposition analysis should be used to choose whether a PPP is the best mode for implementation of the project rather than implementation through the conventional means of procurement.
2. Costs and risks associated with contingent liabilities should be quantified.
3. PPP arrangements would need to be approved by the Cabinet, the Ministry of Finance, or some other body with an interest in future spending. The Ministry of Finance, for instance, could review proposed PPPs.
4. Public entities should bear only those risks that they can best manage, which generally are those that they can control or at least influence.
5. Modern accrual-accounting standards should be adopted for financial reporting, to reduce the temptation to use PPPs to disguise fiscal obligations.
6. PPP arrangements should be published, along with other information on the costs and risks of the financial obligations they impose on the Government.
7. Budgetary systems should be modified to capture the costs of contingent liabilities.
8. A guarantee fund should be used to encourage recognition of the cost of guarantees when they are given, or to help with payments when guarantees are called.
9. Governments should charge fees for guarantees. Although there is no shortage of recommendations, it is hard to discover what Governments have done to improve the management of contingent liabilities associated with PPPs.
10. Carry out a Probability analysis which in turn includes the following
 - a. Listing out all contingent liabilities (i.e. any trigger that would entail a payment by the public entity over & above the direct liabilities, if any).
 - b. Assessing the monetary value of each (and arranging them in descending order).
 - c. Alongside assessing the monetary value of each contingent liability, assessing the periodicity of each (i.e., a particular contingent liability could arise once during the construction period, another could arise through the operations period, etc.,)
 - d. Then, based upon an analysis of precedence in the sector/location/ public entity's track record, etc., the probability of the risk materializing. For instance, if the delay in release of payment by the public entity by 30 days entails a penalty of x% of total project cost per day is the track record so far; probability has to be assessed on the basis of the track record and the financial amount thereof calculated.
 - e. Probability-wise testing is done with a broad rule of thumb, say, >75% chance of occurrence would be High Probability whereas 50 -75% is Medium Probability and so on.
 - f. If a 75% contingent liability has an impact of, say < [a defined amount: the threshold] it can be ignored as if negligible and then, on an increasing scale, even a rare event which may have a high contingent liability impact, could be rated as a contingent liability that needs to be addressed, even if it is at the low end of the Medium Scale
 - g. The contingent liability provisioning would have to be spread over the years of likely occurrence or as a lumpsum fund that is provided on a reducing balance (old risks vanishing and no new ones replacing them, etc.).

It is prudent and in the interest of any project that is being developed through a PPP format to set up a mechanism to manage contingent liabilities during drafting of agreements and also during the post award contract management stage of the project.

Accounting Principles

The International Public Sector Accounting Standards Board (the “IPSASB”) has issued a consultation paper on Accounting and Financial Reporting for Service Concession Agreements. The paper proposes that the public entity which grants a concession or awards a project to be developed through PPP framework would also be in control of the property underlying a PPP arrangement and it must recognise that property as an asset in its financial statements. Given below are certain proposals made as part of the consultation paper that concern issues pertaining to the accounting of contingent liabilities:

- Guarantees and commitments made in the project agreement – how would they feature in the accounts of the public entity?
- Revenue from revenue-sharing arrangements in the event any contingent event is deemed to have occurred – whether such revenues are considered to be earned by the public entity?
- Revenue from contractually-determined inflows – whether it would be recognised from the beginning of the agreement period on a straight-line basis or another basis that better reflects the consumption of access to the property or the time value of money?

Currently, the manner in which assets created through PPP projects, revenue guarantees, revenue shares, etc. are accounted by the public entity is not clear in the Indian context.

The Government Accounting Standards Advisory Board has adopted certain provisions of the IPSAS especially pertaining to adoption of cash basis IPSAS for cash transactions and corresponding accrual IPSASs for those transactions recorded on other than a cash basis. India is also witnessing a transition from the cash to accrual accounting system. The Government of India and the majority of State Governments have accepted the idea of accrual accounting. Local urban bodies are also attempting to incorporate IPSAS in their accounting.

Annexure 12A – VGF Scheme for PPP in Infrastructure

Excerpt from Annexure I: Scheme for Support to Public Private Partnerships in Infrastructure taken from Guidelines for Financial Support to Public Private Partnerships in Infrastructure, Government of India”.

- A. Whereas the Government of India recognizes that there is significant deficit in the availability of physical infrastructure across different sectors and that this is hindering economic development;
- B. whereas the development of infrastructure requires large investments that cannot be undertaken out of public financing alone, and that in order to attract private capital as well as the techno-managerial efficiencies associated with it, the Government is committed to promoting Public Private Partnerships (PPPs) in infrastructure development; and
- C. whereas the Government of India recognizes that infrastructure projects may not always be financially viable because of long gestation periods and limited financial returns, and that financial viability of such projects can be improved through Government support.
- D. Now, therefore, the Government of India has decided to put into effect the following scheme for providing financial support to bridge the viability gap of infrastructure projects undertaken through Public Private Partnerships.

1. Short Title and Extent

- 1.1. This scheme will be called the Scheme for Financial Support to Public Private Partnerships (PPPs) in Infrastructure. It will be a Plan Scheme to be administered by the Ministry of Finance. Suitable budgetary provisions will be made in the Annual Plans on a year-to-year basis.
- 1.2. The scheme shall come into force with immediate effect.

2. Definitions

In this scheme, unless the context otherwise requires:

- 2.1. **Empowered Committee** means a Committee under the Chairmanship of Secretary (Economic Affairs) and including Secretary Planning Commission, Secretary (Expenditure) and the Secretary of the line Ministry dealing with the subject.
- 2.2. **Empowered Institution** means an institution, company or interministerial group designated by the Government for the purposes of this scheme.
- 2.3. **Lead Financial Institution** means the financial institution (FI) that is funding the PPP project, and in case there is a consortium of FIs, the FI designated as such by the consortium;
- 2.4. **Private Sector Company** means a company in which 51% or more of the subscribed and paid up equity is owned and controlled by a private entity;
- 2.5. **Project Term** means the duration of the contract or concession agreement for the PPP project;
- 2.6. **Public Private Partnership (PPP) Project** means a project based on a contract or concession agreement, between a Government or statutory entity on the one side and a private sector company on the other side, for delivering an infrastructure service on payment of user charges;
- 2.7. **Total Project Cost** means the lower of the total capital cost of the PPP project: (a) as estimated by the Government/statutory entity that owns the project, (b) as sanctioned by the Lead Financial Institution, and (c) as actually expended; but does not in any case include the cost of land incurred by the Government/statutory entity; and

2.8. **Viability Gap Funding** or Grant means a grant one-time or deferred, provided under this Scheme with the objective of making a project commercially viable.

3. Eligibility

In order to be eligible for funding under this Scheme, a PPP project shall meet the following criteria:

- 3.1. The project shall be implemented i.e. developed, financed, constructed, maintained and operated for the project Term by a Private Sector Company to be selected by the Government or a statutory entity through a process of open competitive bidding; provided that in case of railway projects that are not amenable to operation by a Private Sector Company, the Empowered Committee may relax this eligibility criterion.
- 3.2. The PPP project should be from one of the following sectors:
 - Roads and bridges, railways, seaports, airports, inland waterways;
 - Power;
 - Urban transport, water supply, sewerage, solid waste management and other physical infrastructure in urban areas;
 - Infrastructure projects in Special Economic Zones; and
 - International convention centres and other tourism infrastructure projects;

Provided that the Empowered Committee may, with approval of the Finance Minister, add or delete sectors/sub-sectors from the aforesaid list.
- 3.3. The project should provide a service against payment of a predetermined tariff or user charge.
- 3.4. The concerned Government/statutory entity should certify, with reasons;
 - that the tariff/user charge cannot be increased to eliminate or reduce the viability gap of the PPP;
 - that the project Term cannot be increased for reducing the viability gap; and
 - that the capital costs are reasonable and based on the standards and specifications normally applicable to such projects and that the capital costs cannot be further restricted for reducing the viability gap.

4. Government Support

- 4.1. The total Viability Gap Funding under this scheme shall not exceed twenty percent of the Total Project Cost; provided that the Government or statutory entity that owns the project may, if it so decides, provide additional grants out of its budget, but not exceeding a further twenty percent of the Total Project Cost.
- 4.2. Viability Gap Funding under this scheme will normally be in the form of a capital grant at the stage of project construction. Proposals for any other form of assistance may be considered by the Empowered Committee and sanctioned with the approval of Finance Minister on a case-by-case basis.
- 4.3. Viability Gap Funding up to Rs. 100 crore (Rs. One hundred crore) for each project may be sanctioned by the Empowered Institution subject to the budgetary ceilings indicated by the Finance Ministry. Proposals up to Rs. 200 crore (Rs. Two hundred crore) may be sanctioned by the Empowered Committee, and amounts exceeding Rs. 200 crore may be sanctioned by the Empowered Committee with the approval of Finance Minister.
- 4.4. Unless otherwise directed by the Ministry of Finance, the Empowered Institutions may approve project proposals with a cumulative capital outlay equivalent to ten times the budget provisions in the respective Annual Plan.
- 4.5. In the first two years of operation of the Scheme, projects meeting the eligibility criteria will be funded on a first-come, first served basis. In later years, if need arises, funding may be provided based on an appropriate formula, to be determined by the Empowered Committee, that balances needs across sectors in a manner that would make broad base the sectoral coverage and avoid pre-empting of funds by a few large projects.

5. Approval of project proposals.

- 5.1. Project proposals may be posed by a Government or statutory entity which owns the underlying assets. The proposals shall include the requisite information necessary for satisfying the eligibility criteria specified in paragraph 3 above.
- 5.2. Projects based on standardized/model documents duly approved by the respective Government would be preferred. Stand-alone documents may be subjected to detailed scrutiny by the Empowered Institution.
- 5.3. The Empowered Institution will consider the project proposals for Viability Gap Funding and may seek the required details for satisfying the eligibility criteria.
- 5.4. Within 30 days of receipt of a project proposal, duly completed as aforesaid, the Empowered Institution shall inform the sponsoring Government/ statutory entity whether the project is eligible for financial assistance under this Scheme. In case the project is based on standalone documents (not being duly approved model/standard documents), the approval process may require an additional 60 (sixty) days.
- 5.5. In the event that the Empowered Institution needs any clarifications or instructions relating to the eligibility of a project, it may refer the case to the Empowered Committee for appropriate directions.
- 5.6. Notwithstanding the approvals granted under this scheme, projects promoted by the Central Government or its statutory entities shall be approved and implemented in accordance with the procedures specified from time to time.
- 5.7. In cases where viability gap funding is budgeted under any on-going Plan scheme of the Central Government, the inter-se allocation between such on-going scheme and this scheme shall be determined by the Empowered Committee.

6. Procurement process for PPP Projects

- 6.1. The Private Sector Company shall be selected through a transparent and open competitive bidding process. The criterion for bidding shall be the amount of Viability Gap Funding required by a Private Sector Company for implementing the project where all other parameters are comparable.
- 6.2. The Government or statutory entity proposing the project shall certify that the bidding process conforms to the provisions of this Scheme and convey the same to the Empowered Institution prior to disbursement of the Grant.

7. Appraisal and monitoring by Lead Financial Institution

- 7.1. Within four months from the date on which eligibility of the project is conveyed by the Empowered Institution to the concerned Government/ statutory entity, the PPP project shall be awarded in accordance with paragraph 6 above; provided that upon application made to it by the concerned Government/statutory entity, the Empowered Institution may extend this period by not more than two months at a time.
- 7.2. The Lead Financial Institution shall, within three months from the date of bid award, present its appraisal of the project for the consideration and approval of the Empowered Institution; provided that upon application made to it by the concerned Government/statutory entity, the Empowered Institution may extend this period by not more than one month at a time.
- 7.3. The Lead Financial Institution shall be responsible for regular monitoring and periodic evaluation of project compliance with agreed milestones and performance levels, particularly for the purpose of disbursement of Viability Gap Funding. It shall send quarterly progress reports to the Empowered Institution which will make a consolidated progress report once every quarter for review by the Empowered Committee.

8. Disbursement of Grant

- 8.1. A Grant under this scheme shall be disbursed only after the Private Sector Company has subscribed and expended the equity contribution required for the project and will be released in proportion to debt disbursements remaining to be disbursed thereafter.
- 8.2. The Empowered Institution will release the Grant to the Lead Financial Institution as and when due, and obtain reimbursement thereof from the Finance Ministry.

8.3. The Empowered Institution, the Lead Financial Institution and the Private Sector Company shall enter into a Tripartite Agreement for the purposes of this scheme. The format of such Tripartite Agreement shall be prescribed by the Empowered Committee from time to time.

9. Revolving Fund

A revolving fund of Rs. 200 crore (Rs. Two hundred crore) shall be provided by the Finance Ministry to the Empowered Institution. The Empowered Institution shall disburse funds to the respective lead financial Institutions and claim reimbursement thereof from the Ministry of Finance.

10. Guidelines

The Guidelines issued vide Ministry of Finance Press Release as well as OM of F. No. 2/10/04-Inf. dated 19th August 2004 stands withdrawn with immediate effect.

Annexure 12B- Approvals & Clearances

The table below provides the list of applicable permits/clearances required for projects under the specific sector of infrastructure.

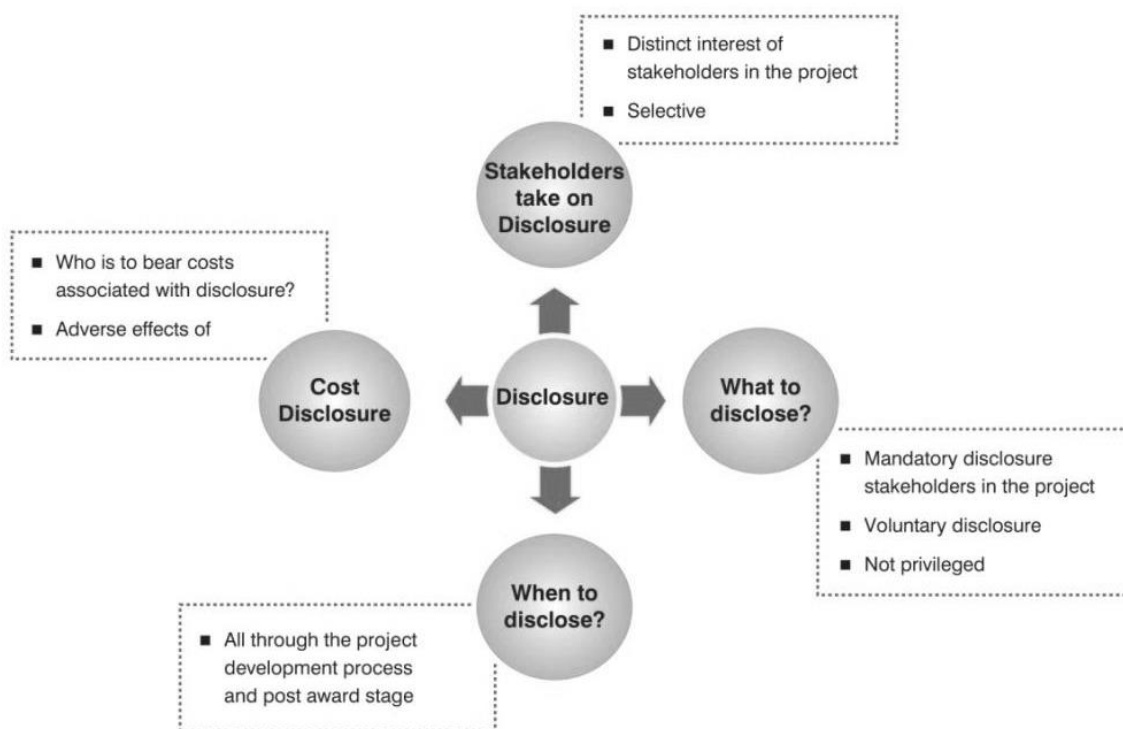
Sector	Applicable Permits/Clearances Required
Highways	<ul style="list-style-type: none"> • Permits for right of way the site/ land acquisition • Clearance from Railway Authorities • Approval with respect to environmental protection and conservation of the site • Approvals and clearances for Utility shifting • Permits for extraction of boulder from quarry from Additional District Magistrate (ADM) Mines • Permit for installation of crusher from village panchayat/relevant Authority and State/Central Pollution Control Board (PCB) • Licence for explosives from the Office of Explosive Controller • Explosive licence for storing diesel • Permits for drawing water from river/ reservoir • Approval of PCB for setting up of plant, asphalt plant, • Clearance/ approval from Village Panchayat and State Government for Borrow Earth • Approvals for cutting of trees/ No Objection Certificate from Forest Officer • Special approval from inland water ways Departments in case of bridge over river or any water body • Approval from Traffic Police in case of traffic diversion required • Any other approval/ clearance as per applicable laws
Railways	<ul style="list-style-type: none"> • Indian Railways • Customs Notification • Central Electricity Authority, Govt of India - Electrical Installations
Port	<ul style="list-style-type: none"> • Environmental clearance from Ministry of Environment and Forests • TAMP Approval • Notification from Customs Department • Clearance from the Coastal Regulation Zone Clearance • Notification on Port Limits • Permission for use of ground water • Clearance for transportation of heavy material /machinery by ships, on roads/bridge
Airport	<ul style="list-style-type: none"> • Cabinet approval • Gazette notification for establishment of airport from Ministry of Civil Aviation (MoCA) • Clearance from MoCA for establishment of airport • Final approval for the site from Director General Civil Aviation (DGCA) • NoC to establish the airport from Ministry of Defence • Environmental clearance from Ministry of Environment and Forest • Approval for use of the forest land for non- forest purpose from Ministry of Environment and Forest • NoC for location of the aviation fuel depot from the Department of Explosives

Sector	Applicable Permits/Clearances Required
	<ul style="list-style-type: none"> • NoC for construction of airport Master Plan approval from DGCA, Bureau of Civil Aviation Security (BCAS) and Airports Authority of India (AAI) • NoC for construction of airport building and ATC Tower from State Fire Service • NoC for construction of ATC Tower and Height Clearance of Building from AAI • Clearance from High Tensed Line Network and Low Tended Line Panel from Central Electrical Authority • Other approvals/ clearances from the following Departments/ Authorities: • Customs Department • BCAS/ Central Industrial Security Force (CISF) • Health Department • Quarantine Department • Immigration Department • Traffic Department • Ministry of External Affairs • Fire Services Department • Water supply boards/ agencies • Any other approval/ clearance as per applicable laws
Water supply	<ul style="list-style-type: none"> • Irrigation Department/ Relevant Competent Authority • State Government/ Relevant Competent Authority – RoW, water pumping mains and interconnecting mains, utility shifting and road cutting, etc
Municipal Solid Waste	<ul style="list-style-type: none"> • Water supply and sewerage board/relevant Authority • Sanction from respective ULB/relevant competent Authority • No objection certificate from Airport Authority of India
Commercial	<ul style="list-style-type: none"> • Licence for Food & Beverages
Power	<ul style="list-style-type: none"> • Industrial licence/approval • Preliminary clearance from financial institutions • NOC from municipality/panchayat • Water Availability Certificate • Approval for factory layout • Boiler registration & explosive licence
Education	<ul style="list-style-type: none"> • AICTE • UGC
Irrigation	<ul style="list-style-type: none"> • Irrigation Department/ relevant competent Authority • State Government/ relevant competent Authority – RoW, water pumping mains and interconnecting mains, utility shifting and road cutting, etc
Health	<ul style="list-style-type: none"> • Certificate of Building Completion/Occupation Certificate • Clearance to run generators • Licence for lift • Registration under Nursing Home and Hospital Act • Registration under Shops & Establishments Act (FOR HOSPITAL) • Licence to store and sell drugs, pharmacy

Sector	Applicable Permits/Clearances Required
	<ul style="list-style-type: none"> • Licence for Narcotics (Dangerous Drugs Act) • Licence for Blood Bank : Operation / Collection / Storage • Licence to perform medical termination of pregnancy (For HOSPITAL) • Reg. Under Prenatal Diagnostic Techniques (PNDT FOR HOSPITAL) • Registration of Echo Machines (PNDT FOR CLINIC) • Licence for bulk storage of HSD/Fuel Oil • Licence for storage of compressed gas cylinders (Liquid Oxygen) • Licence for storage, use and disposal of radioactive materials • Registration of Radiology Diagnostic Machines • NOC from Pollution Control Authorities (Consent to Establish) • Authorization for generation, storage and disposal of Bio medical waste • Spirit Licence

Annexure 14 – Disclosures

The evolution of a PPP differs widely across sectors and regions. While such implementation frameworks are seen as firmly established in sectors such as roads, in other sectors, much more understanding and adoption of the PPP model is required. As more and more experience is gained in the implementation of projects, there is increasing evidence of lapses in conceptualization, development, construction or maintenance. Another concern is that project transparency is not what it should be because of the lack of access to the data that is needed for making informed decisions, not to mention the reluctance of the private partner and public entity to share information about the project. The relatively lower levels of disclosures of PPPs have also been noted. This usually emanates from poor or limited information being made available to the public at large and other stakeholders concerned. PPP projects are increasingly becoming popular methods of public procurement, and are expected to garner a significant share of investment in the 12th Five Year Plan. Consequently, it is vital to set out systems and best practices that ensure the sustainability of such projects.



Mature PPP markets such as Australia have put in place regulations that make disclosure of information mandatory.

Disclosure policy and requirements in Australia

All Australian Government PPP projects will be subject to the disclosure requirements of the CPGs. Further information is available in FMG No.15: Guidance on Procurement Publishing Obligations and FMG No.8: Listing of Contract Details on the Internet (Meeting the Senate Order on Departmental and Agency Contracts) available at www.finance.gov.au/publications/fmg-series.

New South Wales

All PPPs are subject to Ministerial Memorandum No.2000-11 and the Freedom of Information Act (NSW) 1989, as amended from time to time, which sets specific disclosure requirements arising from NSW Government tenders and contracts.

Source: Extracts from National Public Private Partnership Guidelines, Australia, Volume 6: Jurisdictional Requirements

1. Stakeholders' take on Disclosure

In the context of public sector procurement practices, Disclosure refers to the type, amount and timing of information related to procurement decisions that is to be made available to each party to the agreement. All material information or documents, whose non-disclosure would have a material adverse effect, should be disclosed. Unless the public entity is satisfied that the larger public interest warrants the non-disclosure of any information, such information would be disclosed. However, information which would harm the competitive position of the bidders/preferred bidder/private partner could be exempted from disclosure.

PPP arrangements involve stakeholders including the public entity, the private partner, the public at large, lenders, policy makers, etc. All these stakeholders have different interests to protect. For instance, the public entity will be particular about the public good arising out of the project whereas the private partner will be interested in the revenues generated by the project. Sometimes, certain information about the project cannot be disclosed owing to legal/regulatory restrictions. In other cases, such information could be marked as 'confidential' where its disclosure is restricted under the agreement.

2. What to Disclose?

In India, the provisions relating to disclosure are very sparingly used in the contractual documentation, in the absence of settled legal positions on the applicability of statutes to PPPs. Consequently, the contracts provide for only a portion of the information to be available publicly.

MCA for Development of National Highways – Relevant Clauses on Disclosure

- **7.3. Disclosure**

In the event that any occurrence or circumstance comes to the attention of either party that renders any of its aforesaid representations or warranties untrue or incorrect, such party shall immediately notify the other party of this. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any right, remedy or obligation of either party under this Agreement.

- **45. Disclosure**

- **45.1. Disclosure of Specified Documents:** The Concessionaire shall make available for inspection by any person, copies of this Concession Agreement, the Maintenance Manual, the Maintenance Programme and the Maintenance Requirements (hereinafter collectively referred to as the "Specified Documents"), free of charge, during normal business hours on all working days at the Toll Plaza[s] and Concessionaire's Registered Office. The Concessionaire shall prominently display at [each of] the Toll Plaza[s] and toll booths, public notices stating the availability of the Specified Documents for such inspection, and shall provide copies of them to any person upon payment of copying charges on a 'no profit no loss' basis.
- **45.2. Disclosure of Documents relating to safety:** The Concessionaire shall make available for inspection by any person copies of all documents and data relating to safety of the project highway, free of charge, during normal business hours on all working days, at the Concessionaire's Registered Office. The Concessionaire shall make copies of these available to any person upon payment of copying charges on a 'no profit no loss'

basis.

- **45.3. Notwithstanding the provisions of Clauses 45.1 and 45.2**, the Government shall be entitled to direct the Concessionaire, from time to time, to withhold the disclosure of protected documents (as defined herein below) to any person in pursuance of the aforesaid clauses.

Explanation: The expression 'protected documents' shall mean such of the specified documents or documents referred to in Clauses 45.1 and 45.2, or portions thereof, the disclosure of which the Government is entitled to withhold under the provisions of the Right to Information Act, 2005.

There is, however, a growing appreciation for the need to disclose critical information to enable an effective project structure. For instance, the Andhra Pradesh Infrastructure Development Enabling Act 2001 provides for disclosure of generic risks.

Andhra Pradesh Infrastructure Development Enabling Act 2001

– Section On Disclosure

28. Generic Risks Disclosure and its Allocation and Treatment:

The Government agency or the local Authority will as far as possible disclose generic risks involved in a project and a list of such generic risks along with allocation and treatment of such generic risks may be provided in the Concession Agreement or other contract to be entered into between the Government agency or the local Authority and the developer. The Government agency or the local Authority will make optimum disclosure of the generic risks, however if any risk is not disclosed due to inadvertence or due to circumstances beyond the control of the Government agency or the local Authority, then this shall not be a ground for any claim, demand or dispute by the developer.

Usually, the following information will need to be disclosed during the project lifecycle:

- information which is reasonably required for the exercise or performance by either party of its rights or obligations under the agreement;
- information required pursuant to any relevant statutory or regulatory requirements or duties or any relevant terms of the applicable laws or in the public interest; information which is already in the public domain, other than as a result of breach of any terms and conditions of the agreement by the party seeking to make such disclosure;
- list of all generic risks involved in a project along with allocation and treatment of such generic risks;
- project related risks along with their allocation and treatment;
- in-principle approval available for the projects;
- pre-feasibility study report, if it has been prepared;
- feasibility study report, if it has been prepared;
- all bid documents and minutes of pre-bid meetings;
- a summary note on the tender proceedings, the selection process, and the basis for qualification and selection of the private partner;

- major milestones to be achieved, time lines and their status;
- performance of the project and deviations from envisaged parameters if any;
- concession agreement, along with all annexure and schedules;
- other project agreements that have been signed by the preferred bidder and a Government entity in relation to the PPP project, as applicable, such as the State support agreement, substitution agreement, any agreement related to operations, maintenance and development agreement, technical operations agreement (if applicable), land lease agreement, power purchase agreement in case of a power project etc;
- documents related to selection of independent engineers and/or auditors, and any agreement for the appointment of independent engineers and/or auditors;
- reports of the contract management team related to the progress of the project;
- inspection reports and quality reports submitted by the independent engineers;
- documents relating to outside quality inspectors, if appointed;
- records relating to commercial and land developments;
- audited annual report of the project company;
- results of any surveys related to service delivery and user satisfaction, if any;
- termination of the project with reasons/causes for termination;
- method of valuation of residual assets;
- the nature and extent (quantity, time period or amount as appropriate) of :
 - rights to use specified assets;
 - obligations to deliver or rights to receive specified assets at the end of the concession period;
 - renewal and termination options
- Disclosure of certain information may be exempted in certain circumstances. However, the public entity must ensure that information which could harm the country is protected. To this end, the public entity may withhold information in the following situations:
 - Where disclosure would be reasonably likely to cause serious harm to national security, international relations, the national economy;
 - Where disclosure would be reasonably likely to cause serious prejudice to the effective formulation, development or delivery of Government policy;
 - Where disclosure would be reasonably likely to cause serious prejudice to the investigation or prosecution of a crime or the ability to conduct a fair trial, would constitute a contempt of court, is forbidden to be published by a court or tribunal or would facilitate an escape from legal custody;
 - Where disclosure would constitute a breach of legal professional privilege or any other fiduciary relationship recognized by the statute;
 - Where disclosure would endanger the health or safety of any natural person;
 - Where disclosure would seriously prejudice the legitimate commercial or competitive position of the organization or a third party or cause unfair gain or loss to any person or if the information was obtained in confidence from a third party and it contains a trade secret protected by law;

- Where disclosure would constitute an unreasonable invasion of privacy of a person who is not a Government official or where the information is about a Government official but has no relation whatsoever to their official position or duties.

3. When to Disclose?

Disclosure should be determined by project-specific considerations and with the goal of transparency in mind. Disclosure plays a vital role in the partnership management and ensures that everyone is accountable. It is necessary that disclosure is made inter parties and to the stakeholders involved (wherever applicable) at all stages of the project development process and during the post award contract management stage. For instance:

- Disclosure of economic analysis during project preparation stages;
- Disclosure of preliminary value for proposition analysis before going ahead with development of the project through PPP framework;
- Disclosure of the preferred bidder is recommended but the timing of this disclosure needs to be done in such a way that the public entity's negotiating position will not be harmed. Disclosure of a preferred bidder may be best at a stage when evaluation and decision making are sufficiently advanced, so that the information reflects the likely outcome of the procurement process.

4. Cost of Disclosure

Adopting a comprehensive mechanism to make information available to the stakeholders concerned in an appropriate and timely manner entails certain operational costs. In addition, the governing capacity of the entities also needs to be upgraded to manage such a flow of information. In large infrastructure project PPPs, it is generally acknowledged that such direct costs are not very significant (e.g. Leuz, 2007).

Another argument against increased disclosure is the possible competitive harm to the private partner that may occur when information about a project (and indirectly about the private partner) makes it vulnerable to competitors who would then be privy to competitive information. Setting out a disclosure mechanism would need to address such concerns, and require the project to disclose only that information which is useful for decision making.

Corporate Sector Disclosures

Stringent disclosure norms have been set in place for corporate governance after a series of high profile organization lapses (Enron, Worldcom etc.). The "Cadbury Report" identified lack of disclosures in executive compensation contracts as one of the major contributors to corporate governance failure. The financial sector, the world over, is witnessing an increasing requirement to disclose information to stakeholders, including regulators and the general public, as well as voluntary codes, in order to bring efficiency into operations and transparency of growth and profitability.

It is seen in some cases that non-binding best practice disclosure (voluntary) is not strictly followed, and hence may not be very effective on a stand-alone basis.

The primary concern is the characteristic of such information; whether it should be labelled as "Confidential" or put into the public domain, which may not be in the "strategic" or "competitive" interests. However, when such information is required, especially during the conceptualization of the projects, it may be useful to set out the boundary conditions under which disclosures would be made. It is essential that disclosures be made in a format that is acceptable to all concerned and within a time frame that allows decision making. Moreover, disclosures should be amenable to independent verification.

Disclosure Requirements under Statutory Framework

There are many statutes and regulations that require the public entity and the private partner to disclose certain information. There are many disclosures mandated by the Companies Act, 1956 pertaining to project companies set up by the private partner. There are other disclosures that have to be made under the Chief Vigilance Commission and Right to Information Act. These disclosures may be made to stakeholders either by the private partner or by the public entity.

Annexure 15 – Procedure for Termination

A PPP arrangement would ideally need to include detailed provisions dealing with its termination. The main issues to be addressed in termination are the circumstances in which the agreement may be terminated by a party ahead of its scheduled expiry; the payment (if any) that must be made by the public entity to the private partner upon termination (depending on the circumstances); and the condition of the assets when they are “handed over” to the public entity following termination. In addition to the above, the procedure involved in termination of the agreements also is usually set out in the agreement. It is to be noted that Part V, Article 34 of MCA for development of National Highways sets out conditions pertaining to ‘Force Majeure and Termination’.

The typical grounds for termination include expiry of the PPP arrangement, default by the private partner, default by the public entity, a voluntary decision by the public entity and termination in the event of prolonged force majeure. The agreement must state in detail the circumstances that allow a party to terminate the agreement, in particular where the other party has defaulted on its obligations.

For it to lead to termination, a breach of agreement has to be fundamental in nature and should (where possible) be subject to “cure periods”. For instance, the public entity would normally be entitled to terminate the PPP agreement in the event of insolvency or bankruptcy of the private partner or of a serious deficiency in the service provision (e.g. where health or safety is jeopardised) that is not promptly remedied. A detailed list of all the breaches that entitle termination should be set out in the PPP agreement.

1. Process for Termination

The process pertaining to termination may be initiated by either party to the agreement; the private partner or by the public entity. When an event that is grounds for termination occurs during the agreement period, the affected party would need to serve the other party with a show cause notice. The show cause notice would include the following contents:

- a. The affected party would intend to know from the other party as to the reasons that led to the event, which is grounds for termination
- b. In light of the event which is ground for termination; why should the agreement between the parties not be terminated
- c. The notice would need to provide the time period within which the other party must respond/ show cause.

The other party would then respond to the show cause notice issued by the affected party within the stipulated time period failing which the affected party could issue a termination notice to the other party.

In the event the other party responds to the show cause notice within the specified time period then; such a response would include:

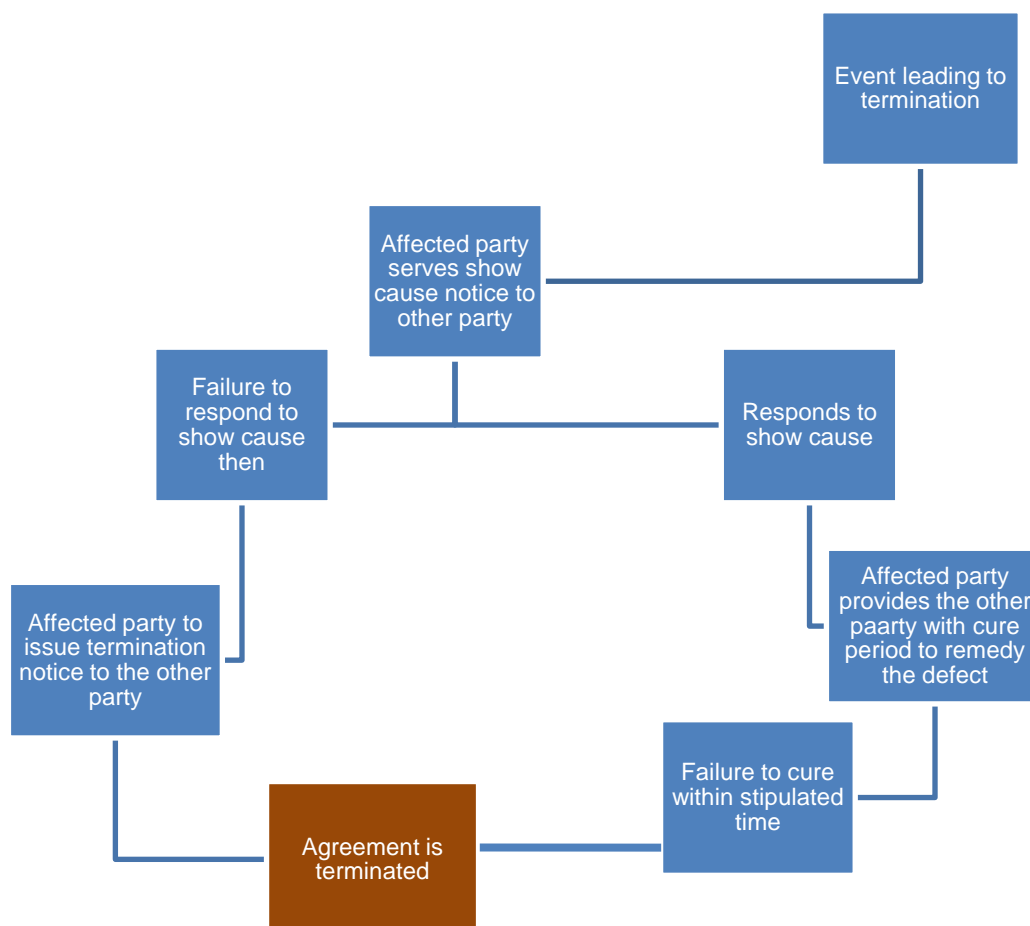
- a. Reasons that led to non-performance of obligations or events that are ground for termination
- b. Willingness to rectify/ cure the defect/ event/ damage
- c. Time period required to cure/ remedy the damage
- d. Support/ assistance required for the cure/ remedy

The affected party must in the meantime, serve notice to lenders’ of the project communicating their intention to terminate the agreement with the other party. Lenders are communicated as the Lenders would need to initiate the process pertaining to their right of

substitution in accordance with the Substitution Agreement; in the event of private partner's default. Moreover, the Lenders also have an interest in the project, in the event of public entity's event of default.

The affected party on the basis of the response received from the other party may either choose to issue a termination notice, or choose to provide the other party with time period to cure/ remedy the defect/ damage. The matter may be also referred for a dispute resolution system/ set up such as mediation, arbitration, etc.

The diagram given below sets out a typical process involved in termination of agreements:



2. Upon Termination

The agreement usually stands terminated upon expiry of the time period stipulated in the termination notice. Termination payments are to be made upon termination of the agreement. It is also observed that the quantum of termination payments to be made parties inter se, are also subjects for arbitration. The performance security which is available with the public entity is usually forfeited in the event of termination owing to the default committed by the private partner.

For instance when determining payments on termination, the agreement would need to address many issues including the following:

1. treatment of contractors' costs and profits forgone as a result of termination - who is responsible for such payments?
2. treatment of mezzanine or other subordinated debt - whether these be dealt with as senior debt or equity?
3. treatment of cash balances in reserve accounts;

4. treatment of insurance proceeds; and
5. choice of a discount rate for the present value calculation - whether nominal or real rate, pre-tax or post-tax or should it be weighted average cost of capital?

Upon termination owing to an event of default of the private partner, the public entity would need to have taken possession of the underlying asset, take possession and control of all materials, stores, equipment, etc.; be entitled to restrain the private partner and any person claiming through/ under the private partner from entering on the project site and require the private partner to comply with the divestment requirements.

3. Divestment Rights and Interests

Upon termination, the private partner would usually need to conform with the following divestment requirements:

1. Pass on all relevant information about the project to the public entity
2. Deliver actual or constructive possession of the project asset free and clear of all encumbrances to the public entity
3. Transfer and deliver all applicable permits under applicable laws
4. Transfer all relevant records, reports, intellectual property and other licenses pertaining to the project

The agreement must contain provisions to ensure that the assets are “handed back” to the public entity in good condition (where the legal ownership of the assets stays with the public sector throughout the life of the project, only the rights to use the assets are handed back).

For example, the agreement could include:

- indicators of the condition the assets must be in at agreement expiry (e.g. expected useful life left for each type of asset, ability to meet certain performance tests);
- a third party assessment of the condition of the assets and of the works to be completed to meet the required standards (such assessment should be carried out by an independent expert sufficiently in advance of the expiry date);
- retentions made from the service fee over a defined period prior to expiry (the proceeds being held as a guarantee in a reserve account); and
- verification by an independent expert that the works required to meet the hand-back conditions have been completed satisfactorily (this could also trigger the release of the retention sums to the SPV/project Company).

It is always ensured that an inspection of the project facility/ site is conducted upon termination; the inspection could be carried out jointly by representatives of both parties to the agreement or by the independent engineer appointed for the project. The inspection report must specify the compliance of the project to the construction and maintenance requirements and recommend for cure of defects/ deficiencies as against the construction/ maintenance requirements.

Defects Liability Period

It is prudent to have the provisions pertaining to defect liability period after termination of the agreement. Usually, the private partner is assumed to be liable for the defects and deficiencies arising out of the project for a specified period of time after termination. The private partner would need to carry out the cure/ remedy of such defect/ deficiency by itself at its own cost. Sometimes,

the public entity would carry out such cure/ remedy and the same would be appropriated from the escrow account or as against the performance security.

Annexure 15A – Conditions Precedent

(Excerpt of Clause 4.1. pertaining to 'Conditions Precedent' from the Model Concession Agreement for development of National Highways, is set out below)

4.1. Conditions Precedent

4.1.1. Save and except as expressly provided in Articles 4, 9, 10, 24, 34, 44 and 47, or unless the context otherwise requires, the respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Clause 4.1 (the "Conditions Precedent").

4.1.2. The Concessionaire may, upon providing the Performance Security to the Government in accordance with Article 9, at any time after [90 (ninety)] days from the date of this Agreement or on an earlier day acceptable to the Government, by notice require the Government to satisfy any or all of the Conditions Precedent set forth in this Clause 4.1.2 within a period of 30 (thirty) days of the notice, or such longer period not exceeding 60 (sixty) days as may be specified therein, and the conditions precedent required to be satisfied by the Government shall be deemed to have been fulfilled when the Government shall have:

- a) procured for the Concessionaire the Right of Way to the Site in accordance with the provisions of Clause 10.3.1;
- b) issued the Fee Notification
- c) [procured for the Concessionaire the Right of Way to ****;]¹
- d) [procured approval of the Railway Authorities in the form of a general arrangement drawing that would enable the Concessionaire to construct road over bridges/ under bridges at level crossings on the project Highway in accordance with the Specifications and Standards and subject to the terms and conditions specified in such approval; and]
- e) [procured all Applicable Permits relating to environmental protection and conservation of the Site];²

[Provided that the Government may from time to time by notice extend, for up to an aggregate of 6 (six) months, the period for procuring the approval set forth in Sub-clause (c) and/or Sub-clause (d) above and in that event the land to be covered by over bridges or the affected sections of the project Highway, as the case may be, shall be included in the Appendix referred to in Clause 10.3 and dealt with in accordance with the provisions thereof; and provided further that upon procurement of such approval, the Concessionaire shall be entitled to a period of 12 (twelve) months there from for completion of the over bridges. For the avoidance of doubt, the approval specified in Sub-clauses (c) and (d) above shall cease to be a Condition Precedent upon the extension of time under this Proviso.]

4.1.3. The Conditions Precedent required to be satisfied by the Concessionaire prior to the Appointed Date shall be deemed to have been fulfilled when the Concessionaire shall have:

- a) provided Performance Security to the Government;
- b) executed and procured execution of the Escrow Agreement;
- c) executed and procured execution of the Substitution Agreement;

¹ If completion of construction on any part of the Site is considered critical for issue of Provisional/ Completion Certificate, such part shall be specified in this Sub-clause so that it does not form part of the Appendix referred to in Clause 10.3.1, on or after the Appointed Date

²In projects where environmental clearance is restricted to small portions of the Site or to the felling of trees, this Condition Precedent may be deleted and such portions may be included, as necessary, in the Appendix specified in Clause 10.3.1. The guiding principle should be that the obligations of the Concessionaire should be predictable and not beyond its control

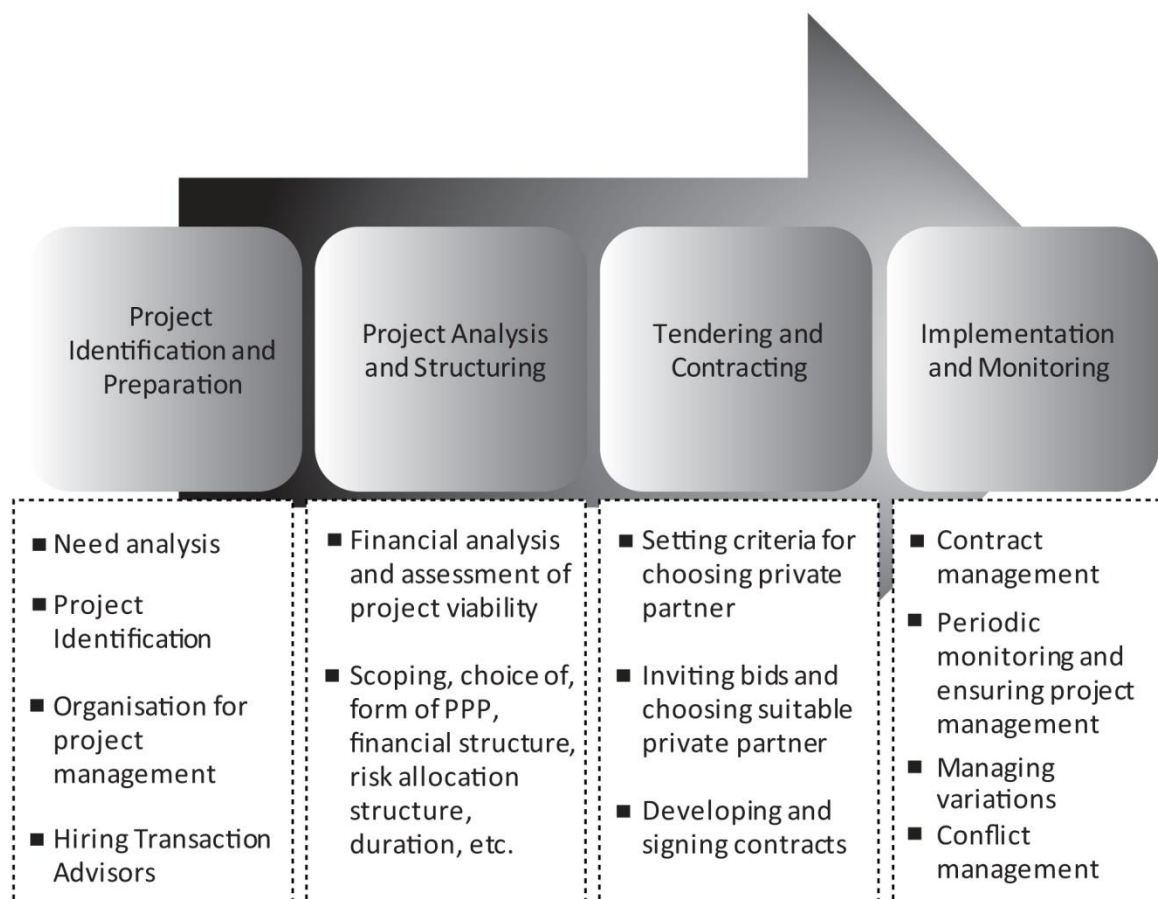
- d) procured all the Applicable Permits specified in Schedule-E unconditionally or if subject to conditions then all such conditions required to be fulfilled by the date specified therein shall have been satisfied in full and such Applicable Permits are in full force and effect;
- e) executed the Financing Agreements and delivered to the Government 3 (three) true copies thereof, duly attested by a Director of the Concessionaire;
- f) delivered to the Government 3 (three) true copies of the Financial Package and the Financial Model, duly attested by a Director of the Concessionaire, along with 3 (three) soft copies of the Financial Model in MS Excel version or any substitute thereof, which is acceptable to the Senior Lenders;
- g) delivered to the Government from {the Consortium Members, their respective} confirmation, in original, of the correctness of their representations and warranties set forth in Sub-clauses (k), (1) and (m) of clause 7.1 of this Agreement; and
- h) delivered to the Government a legal opinion from the legal counsel of the Concessionaire with respect to the Authority of the Concessionaire to enter into this Agreement and the enforceability of the provisions thereof:

Provided that upon request in writing by the Concessionaire, the Government may, in its discretion, waive any of the Conditions Precedent set forth in this Clause 4.1.3. For the avoidance of doubt, the Government may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

- 4.1.4. Each Party shall make all reasonable endeavours to satisfy the Conditions Precedent within the time stipulated and shall provide the other Party with such reasonable cooperation as may be required to assist that Party in satisfying the Conditions Precedent for which that Party is responsible.
- 4.1.5. The Parties shall notify each other in writing at least once a month on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied.

Annexure 17 – Course Outline of Training of Trainer Curriculum

The course content developed for the Training of Trainers (ToT) curriculum is on the basis of the project development lifecycle. This has formed the basis of the development of specific modules and the sequencing of lesson plans. The diagram given below sets out the sequence in which the course contents are prepared:



The curriculum structure includes references to select sectors, dwells upon various case studies, and includes reading material of which the introductory parts attempt to burst certain myths about PPPs commonly assumed by people at large.

There are five types of courses that are offered as part of this programme so as to make it meaningful to a wide spectrum of audiences. The table below sets out the course type and target audience for capacity building:

Course Type	Duration	Target Audience
Awareness Course	1 day	Elected representatives, representatives of Civil Society, NGOs and Media
Sensitization Course	2 days	Officials with little or no prior experience of PPPs and who have time constraints
Basic Course	4-5 days	Officials with little or no prior experience of PPPs and who can spare more time for the courses
Advanced Course	6-9 days	Open to all officials involved with or likely to engage intensively with PPPs. Officials with prior experience or those who have attended the basic course would be preferred
Course For Senior Decision Makers	2 days	Senior Level Government Officers

Annexure 17A - Checklist for Capacity Building Programme

Prior to organizing a Capacity Building Programme, the following aspects could be ensured by the entity undertaking such programmes:

Sl.No	Particulars	Response
1.	Name of the Government Agency / Statutory Authority / Department:	
2.	What are the objectives of the Capacity Building programme?	[Provide a brief in about 100 words]
3.	What are the intended problems that may be addressed by the Capacity Building programme?	[Provide a brief in about 100 words]
4.	Who are the target participants?	
5.	Have consultations been done with the participants to understand their needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.	Is the Capacity Building programme included in the annual budget	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.	If not what is the budget for the Capacity Building programme and the source for the same	

Sl.No	Particulars	Response
8.	Location where the Capacity Building programme is intended to be conducted	<i>Indicate location</i>
9.	Are the resource personnel available in-house	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.	Has the agenda for the Capacity Building programme been finalised?	<input type="checkbox"/> Yes <input type="checkbox"/> No
11.	Is a feedback form prepared for the programme?	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.	What is the follow up action on the feedback from the previous Capacity Building programme if any?	

Credits

The PPP Guide for Practitioners was developed for the Infrastructure Division, PPP Cell, Department of Economic Affairs (DEA), Ministry of Finance, Government of India.

The PPP Guide for Practitioners was developed under the Technical Assistance programme of the Asian Development Bank (ADB), viz. Mainstreaming PPPs in India.

Core team members for the DEA

Ms. Sharmila Chavaly, Joint Secretary (Infrastructure), DEA

Ms. Abhilasha Mahapatra, Director (PPP), DEA

Mr. Achin Biyani, PPP Consultant, DEA

PPP Guide Development Credits



Infrastructure Development Corporation (Karnataka) Limited (iDeCK), in association with Indian Infrastructure Publishing Private Limited, Infrastructure Development Finance Company Limited and Jalakam Solutions Private Limited was engaged by Asian Development Bank (ABD) to develop the PPP Guide for Practitioners.