Introduction to PPP
Understanding PPP Concepts and Principles

By
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Objectives of the Training Module

*To introduce the basic concepts and rationale for PPPs*

<table>
<thead>
<tr>
<th>Concept</th>
<th>Key Concepts</th>
</tr>
</thead>
</table>
| **Basic concepts of PPPs (What is PPP?)** | • Definition of PPPs  
• Common characteristics  
• PPPs in comparison with traditional public procurement  
• Common myths and concerns related to PPPs |
| **Rationale for PPPs (Why PPP?)**      | • Potential advantages of PPPs  
• Possible concerns of PPPs |
| **How to do PPP?**                  | • Common PPP models  
• Critical success factors across PPP Life cycle  
• Common pitfalls to avoid |

**Pedagogical Tools**

• Case examples explaining different PPP modal variants
Introducing PPP
Structure of the Training

What is PPP?
Understanding the Characteristics of PPPs, common myths & concerns

Effective and Efficient Delivery of Public Services

How to do PPP?
Understanding the Common PPP models and Critical Success Factors

Why PPP?
Understanding the Rationale for PPPs
Introducing PPP
### Infrastructure scenario: India snapshot

**existing infrastructure under tremendous pressure**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Infrastructure deficit at the beginning of 11(^{th}) FYP</th>
</tr>
</thead>
</table>
| **Roads/Highways** | • 65,590 km of NH comprise only 2% of network and carry 40% of traffic  
• Single-laned: 38%  
• 2-laned: 50%  
• 4-laned: only 12% |
| **Power** | • 13.8% peaking deficit;  
• 9.6% energy shortage;  
• 40% transmission and distribution losses |
| **Railways** | • Old technology  
• Saturated routes  
• Slow speeds (freight: 22kmph; passengers: 50kmph)  
• Low payload to tare ratio (2.5) |
| **Airports** | • Inadequate runways, aircraft handling capacity, parking space and terminal buildings |
| **Ports** | • Inadequate berths and rail/road connectivity |

Source: Eleventh Five Year Plan, Planning Commission, Government of India
Infrastructure scenario: India snapshot

existing infrastructure under tremendous pressure

Water supply quantity
(Litres per capita per day)

- Current: 105
- Basic service standard: 150
- Best in class: 220

Solid waste collected
(%age of total waste generated)

- Current: 72%
- Basic service standard: 100%
- Best in class: 100%

Education
(Student-to-teacher ratio in primary schools)

- Current: 48
- Basic service standard: 30
- Best in class: 16

Sewage treated
(%age of sewage generated)

- Current: 30%
- Basic service standard: 100%
- Best in class: 100%

Health care
(Hospital beds per 1,000)

- Current: 2
- Basic service standard: 4
- Best in class: 7

Parks and open space
(square meters per capita)

- Current: 2.7
- Basic service standard: 9.0
- Best in class: 16.0

Source: India’s urban awakening, April 2010, McKinsey Global Institute

Inadequate infrastructure affecting Indian cities
Infrastructure scenario: India snapshot

**Infrastructure needs**

- India is the second fastest growing economy.

- Inadequate infrastructure:
  - significant constraint on India's growth potential
  - retards GDP growth rate by 1-2 % p.a. (estimates)
  - acts as a major barrier to Foreign Direct Investment
  - hinders the objective of Inclusive development

- Eleventh Five Year Plan recognizes that adequate, cost-effective and quality infrastructure is a pre-requisite for sustaining the growth momentum. This is reaffirmed in the approach documents to the 12 FYP

*The expert group on commercialization of Infrastructure estimated the loss due to poor roads and congestion at around Rs 200 billion per annum. This is just one sector…*
Infrastructure scenario: India snapshot

Infrastructure needs

Accelerating economic growth

GDP growth rate targets

<table>
<thead>
<tr>
<th>Plan Period</th>
<th>GDP Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>07 - 08</td>
<td>9.0%</td>
</tr>
<tr>
<td>08 - 09</td>
<td>6.7%</td>
</tr>
<tr>
<td>09 - 10</td>
<td>7.2%</td>
</tr>
<tr>
<td>10 - 11</td>
<td>8.5%</td>
</tr>
<tr>
<td>11 - 12</td>
<td>9.0%</td>
</tr>
<tr>
<td>12 - 17</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

Requires increasing infrastructure investments

Required infrastructure investment in % of GDP

<table>
<thead>
<tr>
<th>Plan Period</th>
<th>Investment % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th Five Year Plan 2002-2007</td>
<td>5%</td>
</tr>
<tr>
<td>11th Five Year Plan 2007-2010</td>
<td>7.55%</td>
</tr>
<tr>
<td>12th Five Year Plan 2012-2017</td>
<td>9.95%</td>
</tr>
</tbody>
</table>

..and increasing infrastructure finance needs

Amount of infrastructure investments in USD billion

<table>
<thead>
<tr>
<th>Plan Period</th>
<th>Infrastructure Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th Five Year Plan 2002-2007</td>
<td>218 USD billion</td>
</tr>
<tr>
<td>11th Five Year Plan 2007-2010</td>
<td>514 USD billion</td>
</tr>
<tr>
<td>12th Five Year Plan 2012-2017</td>
<td>1072 USD billion</td>
</tr>
</tbody>
</table>

...and increasing need for private finance

Private finance as % of total finance need

<table>
<thead>
<tr>
<th>Plan Period</th>
<th>Private Finance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th Five Year Plan 2002-2007</td>
<td>25.0%</td>
</tr>
<tr>
<td>11th Five Year Plan 2007-2010</td>
<td>36.0%</td>
</tr>
<tr>
<td>12th Five Year Plan 2012-2017</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Investment in Infrastructure March 2010

"The infrastructure gap in the country was holding back economic growth by 1.5-2 per cent every year."

Mr P. Chidambaram, Former Minister of Finance
## Projected Investment in Infrastructure

<table>
<thead>
<tr>
<th>Sectors</th>
<th>X Plan US $ billion</th>
<th>Share (%)</th>
<th>XI Plan US $ billion</th>
<th>Share (%)</th>
<th>XII Plan US $ billion</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity (incl. NCE)</td>
<td>72.96</td>
<td>33.49</td>
<td>166.63</td>
<td>32.42</td>
<td>350.1</td>
<td>32.7</td>
</tr>
<tr>
<td>Roads and Bridges</td>
<td>36.22</td>
<td>16.63</td>
<td>78.54</td>
<td>15.28</td>
<td>175.9</td>
<td>16.4</td>
</tr>
<tr>
<td>Telecommunication</td>
<td>25.84</td>
<td>11.86</td>
<td>64.61</td>
<td>12.57</td>
<td>181.5</td>
<td>16.9</td>
</tr>
<tr>
<td>Railways (incl. MRTS)</td>
<td>29.91</td>
<td>13.73</td>
<td>65.45</td>
<td>12.73</td>
<td>123.7</td>
<td>11.5</td>
</tr>
<tr>
<td>Irrigation (incl. Watershed)</td>
<td>27.88</td>
<td>12.80</td>
<td>63.33</td>
<td>12.32</td>
<td>97.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Water Supply and Sanitation</td>
<td>16.20</td>
<td>7.44</td>
<td>35.93</td>
<td>6.99</td>
<td>49.1</td>
<td>4.6</td>
</tr>
<tr>
<td>Ports</td>
<td>3.52</td>
<td>1.61</td>
<td>22.00</td>
<td>4.28</td>
<td>38.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Airports</td>
<td>1.69</td>
<td>0.78</td>
<td>7.74</td>
<td>1.51</td>
<td>16.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Storage</td>
<td>1.20</td>
<td>0.55</td>
<td>5.59</td>
<td>1.09</td>
<td>28.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Gas</td>
<td>2.43</td>
<td>1.11</td>
<td>4.21</td>
<td>0.82</td>
<td>11.2</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>US $ billion</strong></td>
<td></td>
<td><strong>514.04</strong></td>
<td></td>
<td><strong>1072.1</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rs. crore</strong></td>
<td>871,445</td>
<td></td>
<td>2,060,193</td>
<td></td>
<td>5,574,663</td>
<td></td>
</tr>
</tbody>
</table>
Projected Twelfth Plan Sector Share (%)

- Electricity: 32.7%
- Roads: 16.4%
- Telecom: 16.9%
- Railways: 11.5%
- Irrigation: 9.0%
- Water and Sanitation: 4.6%
- Storage: 2.7%
- Gas: 1.0%
- Ports: 3.5%
- Airports: 1.6%
Infrastructure scenario: India snapshot

*Infrastructure needs: bridging the gap*

**“Investment gap”**
- Gap between existing and required infrastructure
- Improving the availability of infrastructure by *increased investment* in the infrastructure assets
- As per the 11th Five year plan, the gross capital formation (GCF) in infrastructure should rise as a share of GDP from 5% in 2006-07 to 9% by the end of the plan period (2011-12)

**“Efficiency gap”**
- Need to enhance quality of service, minimum acceptable standards of service

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**Options to bridge the gap**

- Traditional public procurement
- Public Private Partnerships (PPPs)
- Privatisation

*PPPs are an option to supplement scarce public resources and improving efficiencies without necessarily transferring ownership to the private sector*
What is PPP?

**Basic concepts of PPPs (What is PPP?)**

<table>
<thead>
<tr>
<th>Key Concepts</th>
<th>Definition of PPPs</th>
<th>Common characteristics</th>
<th>PPPs in comparison with traditional public procurement</th>
<th>Common myths and concerns related to PPPs</th>
</tr>
</thead>
</table>
What is PPP?

Defining PPPs

Department of Economic Affairs, Govt. of India defines Public Private Partnerships (PPPs) as:

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

The above are Essential Conditions in the definition. In addition there are several desirable features or good practices that can be adopted.
What is a Public Private Partnership?

7 essential conditions that define PPPs

1. **Arrangement**
   - Between public & private

2. **Provision**
   - Of services for public benefit by private partner

3. **Investments**
   - In and/or management of public assets by private partner

4. **Time Period**
   - For a specified time

5. **Risk Sharing**
   - Optimally between contracting parties

6. **Standards**
   - Focus on quality of service / performance

7. **Payments**
   - Linked to performance

---

The final responsibility for service delivery continues to remain with the public sector agency.

**BOT-Toll Road Project**

- **GRANTING AGENCY**

- **FINANCIERS**
  - Equity Investors, Lenders, Guarantors, Insurers

- **SPV**

- **Design Consultant**
- **Construction Contractor**
- **O&M Contractor**

- **Operational Risks**
  - Traffic/Revenue & O&M

- **Service**
- **Tolls**

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The diagram illustrates the components of a BOT-Toll Road Project, including the roles of the granting agency, financiers, SPV, design consultant, construction contractor, O&M contractor, and the allocation of operational risks. The final responsibility for service delivery is highlighted as remaining with the public sector agency.
What a PPP is & what it is not

1. PPP is not privatisation or disinvestment

2. PPP is not about borrowing money from the private sector

3. PPP is more about creating a structure
   ... in which greater value for money is achieved for services
   ... through private sector innovation and management skills
   ... delivering significant improvement in service efficiency levels

4. This means that the public sector
   ... no longer builds roads, it purchases kilometres of maintained highway
   ... no longer builds prisons, it buys custodial services
   ... no longer operates ports but provides port services through world class operators
   ... No longer builds power plants but purchases power
What is PPP?

An alternative procurement option

- PPP is only *one of the several options* available for procuring infrastructure.

- PPPs should not be seen as a replacement of the traditional public procurement.

- PPP should be applied only where it can provide better value for money for the public at large.

- PPPs recognize that both the public sector and the private sector have their own strengths.

- PPPs attempt to balance the strengths of both parties, to create a *win-win combination*.

PPP is not a panacea to all our infrastructure requirements. It is a tool that should be considered along with other options of procurement.
What is PPP?

**Traditional public procurement: Role of private sector**

- Public authority is vested with the responsibility of developing the infrastructure.

- **Responsibility of Public Authority:**
  - Design, Build, Finance individual projects
  - Operate and Maintain once the project is completed

- **Involvement of Private sector:**
  - Public authority utilizes the services of the private sector for Design and Construction, with award of individual contracts.
  - Government generally uses *lowest price tender method*.

**Role of public sector:** Provider of infrastructure and services
## What is PPP?

**Comparison: Traditional public procurement and PPP**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Traditional public procurement</th>
<th>PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus</strong></td>
<td>Procuring Assets</td>
<td>Procuring Services</td>
</tr>
<tr>
<td><strong>Project management</strong></td>
<td>Public sector is responsible for all project management roles</td>
<td>Private sector manages overall project - design, construction, operations and maintenance. Focus on project life cycle expected to bring efficiency.</td>
</tr>
<tr>
<td><strong>Service Delivery</strong></td>
<td>Public sector directly responsible for service delivery to users</td>
<td>Private sector directly responsible for service delivery to users</td>
</tr>
<tr>
<td><strong>Financing</strong></td>
<td>Public sector responsible for financing the project. Thus financing impacted by budgetary allocations and then actual disbursements</td>
<td>Private sector may contribute finance through debt and equity issuances</td>
</tr>
<tr>
<td><strong>Risk Sharing</strong></td>
<td>Public sector bears all project risks. Risk sharing limited to the extent of warranties.</td>
<td>Risks allocated to parties which can manage them most efficiently</td>
</tr>
<tr>
<td><strong>Contractual Arrangement</strong></td>
<td>Short term, generally segregated contracts for asset creation (BOQ based) and maintenance.</td>
<td>Long term contracts- Public sector/users pay for services linked to performance.</td>
</tr>
</tbody>
</table>

**PPP**: The public sector procures a service, not an asset, from the private sector.
What is PPP?

Characteristics of PPP

- Long-term contractual arrangement
- Optimal Risk Allocation
- Focus on Output specifications
- Performance linked payments
- Whole life costing
- Financing

Role of public sector: Facilitator and enabler
# PPPs: Common Myths/Concerns

<table>
<thead>
<tr>
<th>Myth/Concern</th>
<th>Clarification</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Profit motive of private sector is incompatible with the service motive of public sector</td>
<td><strong>No.</strong> The key is to harness private sector’s profit motive, by incentivizing them to provide better quality service and earn <em>reasonable return</em>.</td>
</tr>
<tr>
<td>• PPPs increase user tariffs</td>
<td><strong>Not Necessarily.</strong> When appropriate safeguards like effective regulation and/or adequate competition are in place. However in sectors where existing tariffs are inadequate to cover costs of specified level of service tariffs may initially require some upward adjustment. Over time efficiency gains expected to rationalize tariffs.</td>
</tr>
<tr>
<td>• Money for PPPs comes from private sector “pockets”</td>
<td><strong>Initially, YES.</strong> But private sector would make those investments provided they can recover those investments either from users or the government with reasonable return.</td>
</tr>
<tr>
<td>• Once a private sector partner is brought in, there is little or no role for the public sector</td>
<td><strong>No.</strong> Public sector’s role changes from direct involvement in construction and service provision, to ensuring that the PPP delivers value for money for the government and better services for users.</td>
</tr>
</tbody>
</table>
Why PPP?

Rationale for PPPs (Why PPP?)

| Key Concepts          | • Potential advantages of PPPs  
|                       | • Possible concerns of PPPs     |
| Pedagogical Tools     | • Reading Material: Common benefits and objections to PPPs: Extract from Closing the Infrastructure Gap: The role of Public Private Partnerships (A Deloitte Research Study 2006) |
Why PPP?

**Availability of Private sector finance (most commonly cited reason):**
Through PPPs governments can leverage private sector finances to meet the infrastructure needs.

**Achieving greater Value for Money through Efficiency gains:**
In principle, PPPs can improve VfM by:

- Incentivising On-Time and Within-Budget delivery
- Optimising the Life cycle costs
- Providing an opportunity to innovate
- Optimizing the risk allocation

Value for money achieved by PPPs is often debated
Expectations of government & private sector

**Government**

- Harness private sector efficiencies (on-time, on-budget delivery; access to latest technology etc.)
- Augment government resources
- Provide better value for money
- Facilitate improved access and service delivery

**Private sector**

- Viable business opportunity
- Fair distribution of risk & responsibility
- Transparency in procurement
- Consistency in legal and regulatory framework
- Stable political and economic environment
Why PPP?

Potential advantages & Possible concerns

**Potential Advantages**
- Access to private sector finance
- Higher Efficiency
- Increased transparency in the use of funds

**Possible Concerns**
- Difficulty in demonstrating VFM in advance
- Higher Transaction Costs
- Risk of Contract renegotiation
- Enforcement and Monitoring
# How to do PPP?

- **Key Concepts**
  - Common PPP models
  - Critical success factors across PPP Life cycle
  - Common pitfalls to avoid

- **Pedagogical Tools**
  - Case examples explaining different PPP modal variants
How to do PPP?
*The essence is partnership*

**Purpose of Partnership**
To deliver a project or a service traditionally provided by the public sector.

**Principle of Partnership**
To allow each party to do what they do best so as to provide greater value for money for the public at large.

**Role in Partnership**
The public sector role is redefined as one of **facilitator and enabler**, rather than being involved in direct management or delivery of services.

**Type of Partnership**
The type of partnership or the choice of PPP Structures is **limitless** and depends on the *extent of risk and responsibility transfer* to the private party.

**The key is to structure a win-win arrangement**
How to do PPP?

**Understanding the common PPP Models**

- Even under Traditional Procurement Private sector has been involved in developing the infrastructure.

- **PPP** provides another *procurement option* by increasing the *involvement of the Private sector* by transferring more *responsibility and risk*.

- Choice of partnership structure (PPP Models) is limitless and depends on the *extent of risk and responsibility transfer*.

- There is *no one generic* or best PPP model.

- PPP Structure *is tailored* to meet the specific requirements of the project.

PPPs come in various shapes and sizes...
PPPs come in many shapes and sizes

Across many infrastructure sectors...

Private Sector can participate through....

In several ways/forms...

• Performance/management contracts
• Leases
• Concessions (BOT, BOOT, BOO, DBFO, etc.)

• Designing
• Building
• Financing
• Own
• Operation
• Maintenance
• Transfer
Key Aspects defining the PPP Mode

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

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

• Who will take ownership of the assets?

• What will be the duration of the PPP contract?

• How are the various project risks allocated between the private and public partners?

• 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 (e.g., annuity)?

• Is demand for the infrastructure service expected to be stable over the period of the contract?
## Distinguishing features of the forms of PPPs

<table>
<thead>
<tr>
<th>Key parameter</th>
<th>Different Types of PPPs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contracts</td>
</tr>
<tr>
<td></td>
<td>Management</td>
</tr>
<tr>
<td>Asset Ownership</td>
<td>Public</td>
</tr>
<tr>
<td>Incremental Capex</td>
<td>Public</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Private</td>
</tr>
<tr>
<td>Construction</td>
<td>NA</td>
</tr>
<tr>
<td>Finance</td>
<td>NA</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Private</td>
</tr>
<tr>
<td>Demand</td>
<td>Public</td>
</tr>
<tr>
<td><strong>Case study/ E.g.</strong></td>
<td>Latur Water Supply</td>
</tr>
</tbody>
</table>
PPP Options

Works & Services Contracts
Management & Maintenance Contracts
Operation & Maintenance Concessions
Build Operate Transfer Concessions
Full Privatization

Extent of private sector participation

Which of these are PPPs?
## PPP Options

<table>
<thead>
<tr>
<th>Not PPP</th>
<th>PPP options</th>
<th>Not PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works &amp; Services Contracts</td>
<td>Management &amp; Maintenance Contracts</td>
<td>Operation Concessions</td>
</tr>
<tr>
<td>Asset Ownership</td>
<td>Public</td>
<td>Public</td>
</tr>
<tr>
<td>Commercial Risk</td>
<td>Public</td>
<td>Public</td>
</tr>
<tr>
<td>Typical Duration</td>
<td>1-2 years</td>
<td>3-5 years</td>
</tr>
</tbody>
</table>
PPP Options

FOR EXISTING ASSETS
_Usually with refurbishment obligations_

1. Lease of assets
2. Concessions (licenses)
3. Management contracts of whole or significant parts of the undertaking

FOR NEW ASSETS

1. Operate-Maintain-Transfer (OMT) Concessions of assets newly built by the public sector
2. Sale of a government-owned SPV after project implementation
3. Design, Build, Operate, Transfer Concessions – commonest form used in India
Concession Terminologies

**BOT** - Build Operate Transfer

**BOOT** - Build Own Operate Transfer

**BOO** - Build Own Operate

**BOOST** - Build Own Operate Share Transfer

**BOLT** - Build Own Lease Transfer

**DBFO** - Design Build Finance Operate Transfer

**OMT** - Operate Maintain Transfer
Contractual Framework

1. All intentions are set out in a contract

2. Concession Agreement - bundle of rights & obligations and consequences in case of non-fulfillment

3. Usually the only tangible security available


5. Other parties – state government, lenders, suppliers of services

6. A concession is a license – rights enjoyed for obligations performed
Choice of PPP Models

*Developing Infrastructure: Components & responsibilities*

Various delivery models are possible based on the mix of public and private participation.
Choice of PPP Models: O&M focus

For existing assets, usually with refurbishment obligations

PPP Models can also be used for existing assets and facilities in addition to creating new ones.
Choice of PPP Models

For creating new assets

Many PPP practitioners do not classify **Design-Build** as PPP
Choice of PPP Models

For creating new assets

Public Sector
- Design
- Build
- Finance
- Own

Private Partner
- Design
- Build
- O & M

PPP Models
- DBO
- DBM

Models aim to optimize life cycle cost while government remains responsible for financing
Choice of PPP Models

For creating new assets

Public Sector

Private Partner

Design

Build

Finance

O & M

PPP Models

BOT / DBFO

BOT (Annuity)

O&M Concession (Area concession)

BOT (Annuity): Demand risk is not transferred to the private party
Choice of PPP Models

*for creating new assets*

**Public Sector**

**Private Partner**
- Design
- Build
- Finance
- Operate & maintain
- Own

**PPP Models**
- BOO*
- BOOT

*Some practitioners state that BOO should not be considered as a PPP model since it is similar to privatization*
Management Contract. Latur water supply project

- **Objective:** To improve water supply in Latur

- **Project Structure:** Ten year Management Contract with LWMC (SPV) in June 2008 for operation, maintenance and repairs of all assets and resources

- **Ownership of asset:** Ownership continued to rest with public agency

<table>
<thead>
<tr>
<th>O&amp;M</th>
<th>Responsibility of concessionaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction / Finance:</td>
<td>Management contract only – operation of existing assets only. The concessionaire did not have any ownership on the assets</td>
</tr>
<tr>
<td>Commercial arrangement</td>
<td>All operation &amp; maintenance responsibilities with the concessionaire. Under the provisions of the contract LWMC (the SPV) collected water tariffs from users, and in turn paid a fixed monthly fee to MJP</td>
</tr>
</tbody>
</table>
# BOT, Interstate Bus Terminal, Dehradun

**Objective:** To develop a modern Inter State Bus Terminal

<table>
<thead>
<tr>
<th>Project Structure:</th>
<th>First BOT ISBT in India, Phase 1- ISBT Complex, Phase 2- entertainment &amp; comm. complex; 20 year concession period, extendable by 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of asset:</td>
<td>Land owned by authority</td>
</tr>
<tr>
<td>O&amp;M:</td>
<td>Responsibility of concessionaire</td>
</tr>
<tr>
<td>Construction / Finance:</td>
<td>Construction and finance by concessionaire. All related risks borne by concessionaire.</td>
</tr>
</tbody>
</table>
| Commercial arrangement: | -All construction cost by concessionaire  
- Revenue: Services fees from scheduled 750 buses/day & lease rental from commercial complex; Guaranteed annual revenue of INR 8.1 million/annum |
Objective: To augment the scarce water supply by establishing a 100 MLD (Million Liters Per Day) seawater desalination plant

- Project Structure: CMWSSB entered into a Bulk Water Purchase Agreement with a Special Purpose Vehicle for 25 years
- Ownership of asset: Ownership of concessionaire during concession period
- O&M: Responsibility of concessionaire
- Design/Construction/Finance: Design, construction and finance by concessionaire. All related risks borne by concessionaire.
- Commercial arrangement: Long term bulk water purchase agreement between concessionaire and CMWSSB
- Other arrangements: -Uninterrupted power supply ensured to concessionaire
  -Supply of raw water for treatment responsibility of CMWSSB
**lease contract – state hospital in Columbia**

- Country: United States
- Public Partner: State of Oklahoma & Columbia
- Private Partner: Columbia/HCA Healthcare Corporation

### Objective:
To improve the efficiency of operations in the state hospitals

### Key Features and Benefits

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Structure:</strong></td>
<td>Operations of state hospital transferred to private player under a 50 year lease. Key objective – to improve the efficiency of operations</td>
</tr>
<tr>
<td><strong>Ownership of asset:</strong></td>
<td>No transfer of ownership</td>
</tr>
<tr>
<td><strong>O&amp;M Responsibility:</strong></td>
<td>O&amp;M responsibility transferred to private operator</td>
</tr>
<tr>
<td><strong>Commercial arrangement:</strong></td>
<td>Lease fee: state received up-front payment (USD40 million), annual rent (USD9 million); Profit sharing: between private operator and state for the entire lease period</td>
</tr>
<tr>
<td><strong>Other - Performance monitoring:</strong></td>
<td>Operator to appoint governing committee to monitor functioning; provisions to replace management in case of non performance</td>
</tr>
</tbody>
</table>
### (Area) concession, water supply in Macau

- **Country:** China
- **Public Partner:** Civic and Municipal Affairs Bureau, Office for Infrastructure Development
- **Private Partner:** Sino-French Holdings

### Objective:
To improve the coverage and efficacy of water supply in Macau by involving international companies and using better technology

### Key Features and Benefits

<table>
<thead>
<tr>
<th>Project Structure:</th>
<th>Concession contract for 25 years granted to pvt. operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of asset:</td>
<td>No transfer of ownership</td>
</tr>
<tr>
<td>O&amp;M Responsibility:</td>
<td>O&amp;M responsibility transferred to private operator</td>
</tr>
<tr>
<td>Construction / Finance:</td>
<td>Works undertaken by pvt. Operator - Private player invested in upgrading water treatment plants, replacing faulty meters, replacing major pipelines and introduce control systems</td>
</tr>
<tr>
<td>Commercial arrangement:</td>
<td>Source of income for operator was water user’s fee. Annual revision of the tariff was done based on the total costs incurred but due to efficiencies and economies of scale, a lower tariff was charged to consumers.</td>
</tr>
</tbody>
</table>
Choice of PPP Models

Typical Structure for BOT/ DBFO Concession

Contracting Authority

Investors

Banks

PPP Company (SPV)

Contractor

Service Provider

Users

Tendering and awarding the right to deliver public infrastructure and or public services

Providing funds for investments

Designing and constructing the infrastructure asset

If major investments are required

Maintaining and operating the infrastructure asset

Paying a fee for the service provided

REVENUES
Choice of PPP Models

*Typical Structure for BOT (Annuity) Concession*

- **Contracting Authority**
  - Tendering and awarding the right to deliver public infrastructure and or public services
  - Paying a fee for the service provided

- **PPP Company (SPV)**
  - Providing funds for investments
  - Designing and constructing the infrastructure asset
  - Maintaining and operating the infrastructure asset

- **Investors**
  - Providing funds for investments

- **Banks**
  - Providing funds for investments

- **Contractor**
  - If major investments are required

- **Service Provider**
Choice of PPP Models

Annuity can be supported by user charges

- Contracting Authority
  - Paying a fee for the service provided
  - Tendering and awarding the right to deliver public infrastructure and or public services

- PPP Company (SPV)
  - Providing funds for investments
  - Designing and constructing the infrastructure asset
  - Maintaining and operating the infrastructure asset

- Users

- Investors

- Banks

- Contractor
  - If major investments are required

- Service Provider
Choice of PPP Models: 
**Summing up**

- Key is to structure the relationship between the parties
- PPP model should allow each party to do what they do best so as to ensure that public services and infrastructure are provided in the most efficient manner
- The nomenclature used to describe the PPP Models is **not standardized**
- Familiarization with the concept is more important than understanding the terms
How to do PPP?

Critical success factors

1) Careful planning of PPP project
2) Solid revenue and cost estimations
3) User willingness to pay and communication plan
4) Extensive feasibility study with use of PPP experts
5) Compliance with contractual agreement
6) Strong Legal and Regulatory Framework
7) Strong Institutions with appropriate resources
8) Competitive and transparent procurement
9) Mitigation and flexibility in managing macro-risks

Source: Vickram Cuttaree, The World Bank, Key success factors for PPP based on International Experience
How to do PPP?

*Common pitfalls to avoid*

- Poor Setup
- Lack of Clarity on Project Objectives
- Too much focus on the Transaction
- Inadequate planning
- Inappropriate PPP model applied to project
- Lack of Internal Capacity
- Failure to Realize Value for Money

Source: Building Flexibility, New delivery models for public infrastructure projects, Deloitte
Thank You