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### Case study report on restrictions, and hindrance in public private partnership projects

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**Abstract**— Public-Private Partnership is the most important sector in order to the world of economic development and growth across the country. The government has started a number of schemes with private sectors in order to give national economy an impulse and thus enhancing the pace of economic growth. PPPs aim is to combine the knowledge's, ideas, experience and expertise of both the public and private sectors. This leads to provide a higher standard of services to the nation. In PPP, some challenges like transparency, time concern objects, lack of new technology and machinery, project appraisal committee, choice of best private firms and institutions, strategy formulation, capital investment and management, absence of skilled man power etc. This paper aims to find out the possibilities of PPP projects success in India and highlight various constraints and obstacles through some case studies which create difficulties to promote PPP.

**Keywords:** Report, Public Private Partnership, Infrastructure, Case Study, Key Learning's, Observations, Obstacles, Issues and Challenges.

#### I. INTRODUCTION

##### 1.1 PPP

A public private partnership (PPP) is an arrangement between the government on one side and private sector on the other side, for the purpose of provisioning of public assets and/or public services or infrastructure, through investments being made being carried out by the private sector entity, for a specified period of time. Allocation of risk between the private sector and the public entity is well defined. With a common objective in place, both entities come together sharing their own experiences and strengths which results in the accomplishment of a common vision.

##### 1.2 OBJECTIVE

The objective of this paper is to identify the main factors influencing the issues and challenges faced by the Public Private Partnership Projects in India based on case studies. The main objective of this research is to

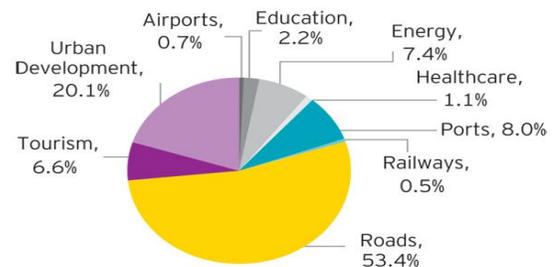
- To investigate issues and challenges faced by the Public Private Partnership Projects in India.
- To examine domestic and foreign players participation in

PPP in India.

#### 1.3 CURRENT STATUS OF PPPs IN INDIA

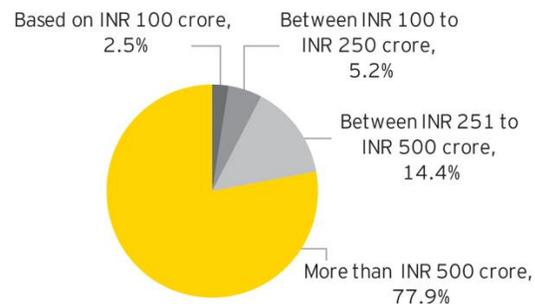
The graphs shown in FIG 1.1 and FIG 1.2 depict the status of the PPP Projects in

**PPP projects in India by sector  
(Total number of projects: 758)\***



India.

**PPP projects by value of contracts  
(Total value of contracts: INR3,833 billion)\***



Source: PPP in India website

#### II. LITERATURE REVIEW

This literature survey is based on factors influencing the issues and challenges faced by the public private partnership projects which can be helpful in preparing the key learning's and observations from the case studies.

**Sudhansu et al (2015)** found out that Public-Private Partnership is the most recent addition in the world of economic development and growth across the country. Public Private Partnership has become the demand of developing India. The government has started a number of schemes in joint collaboration with private sectors in order to give national economy an impulse and thus enhancing the pace of economic growth.

**Vandana et al (2015)** had identifies some generic issues such as inadequate transparency of procedures, inappropriate risk allocation, improper project appraisal, cost and time overruns, overlapping of regulatory independence, dearth of good governance, etc., which need attention to attract private investors to participate in the public infrastructure building.

**Neeraj et al (2015)** found out the possibilities of success of PPP in India and highlights various challenges which create difficulties to promote private public partnership (PPP). Challenges like transparency, time concern objects, lack of latest technology and machinery, project costing, use of materials, choice of best private firms and institutions, strategy formulation, capital management, absence of skilled man power etc. These factors sometime make PPP projects more difficult in sense of quality measurement. Sometimes PPP projects fail due to lack of collaboration and cooperation between government and private units.

**Tilak et al (2014)** reveals about that the projects in physical infrastructure sectors covered under this model include airports, education, healthcare, ports, power, railways, road tourism, urban development, culvert and bridges telecommunication. An attempt has also been made to focus on the constraints that are revealed in course of the study over the implementation of PPP projects.

**Sundaram et al (2013)** evaluated about the relevance of the PPP projects implemented in India, their progress and future prospects and also secondary information published by the Department of Economic Affairs, Ministry of Finance, and Government of India. The study highlights the regional disparity in the PPP Projects across Indian states.

**Rajkumar et al (2013)** researched a common understanding of the principles underlying PPP structures and the key issues from the standpoints of the private as well as the public sectors. He given a key motivation for governments considering PPP is the possibility of bringing in new sources of financing for funding public infrastructure and service needs.

**Ananda et al (2012)** studied about PPP model in India has achieved an intermediary success in certain specific sectors like real estate, construction, roads etc. he researched about the infrastructure development is the key aspect for sustaining and expanding India's economic growth and gave a conceptual frame work to sustainable PPP model adopted in India and its application to infrastructure development.

**Sathana et al (2011)** concludes that the foreign players are investing with domestic player in PPP projects. With their observation both foreign and domestic players join together and developing good relationship among the world with the help of PPP project.

### III. METHODOLOGY

The research will be a case study based one. I'll take multiple case studies depending on the availability of data and

their relevance to the topic. The lessons from the case studies will be presented at the end.

It is often difficult to connect data to the principles discussed. This is the nature of field data, which are often messy because of the many factors affecting performance. The nature of this research is such that case study based analysis will give us better results rather than a questionnaire based one. This is because the field is very vast and to cover all the aspects we might have to prepare a very lengthy questionnaire. Therefore we would like to collect primary data of limited projects and analyze the same to reach to a conclusion.

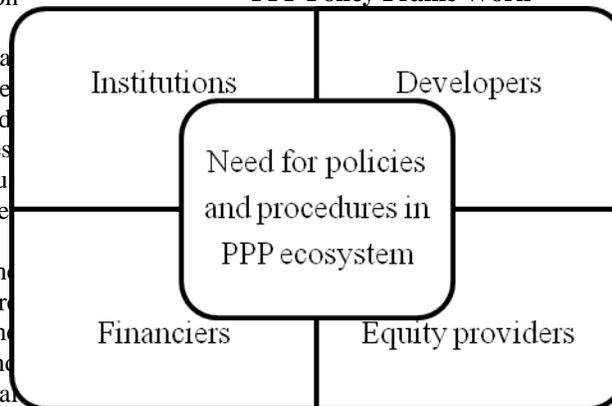
## IV. PUBLIC PRIVATE PARTNERSHIP

### 4.1 PPP POLICY FRAMEWORK

Major policy and institutional initiatives taken:

- Formation of PPP Appraisal Committee to streamline appraisal and approval of projects.
- Preparation of PPP Toolkit to improve PPP decision making process.
- Establishment of transparent and competitive bidding processes through model bidding documents.
- Extending financial support through development funds, VGF, user charge reforms, etc.

### PPP Policy Frame Work



### 4.2 PROMINENT QUALITIES OF PPP POLICY

- The GOI plan to sanctify PPPs as favoured accomplishment models depending upon the existence of strong track record for those models. It has built strong reliable processes to acquire a PPP project.
- To encourage transparency in PPP, it will issue different compulsory revelations and just applications, set up dedicated dispute resolution mechanism, develop new market-based products (e.g., pre-bid rating), and explore possibilities of setting up web-based PPP market place.
- The GOI is expected to set up MIS for nonstop supervision of the performance of PPP projects.

### 4.3 ENGAGEMENT MODELS

No single PPP engagement model is there that can satisfy all conditions concerning a project's location setting, its technical, financial features, risk allocation, transparency of procedures, project appraisal, cost and time parameters, governance and regulatory independence, etc. This has led to innovation in the engagement models.

- BOT (Build Operate Transfer)
- BOOT (Build Operate Own Transfer)
- Joint Venture (JV)

- Management Contract (MC)
- BOT (Build Operate Transfer)
- DBFOT (Design Build Finance Operate Transfer)
- BOO (Build Own Operate)
- BOOST (Build Operate Own Share Transfer)

#### V. CASE STUDY

##### 5.1. CASE 1: ALANDUR SEWERAGE PROJECT

The Alandur Sewerage Project was initiated in the year 1996 by the Chairman of the Alandur Municipality. AM, located adjacent to Chennai, forms a part of the Chennai Metropolitan Area. With a population of around 165,000, the municipality is a residential suburb of Chennai with predominantly residential and commercial activities. Approximately one-fourth of its population lives in slums.

#### DESCRIPTION

The ASP was designed with the following objectives:

- To improve the standard of living of the residents of Alandur (on par with that of Chennai);
- To provide the most essential basic facility to all the residents of the town;
- To eradicate the mosquito menace;
- To avoid the recurring expenditure on septic tank cleaning; and
- To avoid ground water contamination.

The project components included:

- A sewerage network consisting of the main sewer line, branch sewer line and manholes;
- Construction of a sewage pumping station;
- A sewage treatment plant; and
- Low cost sanitation.

#### KEY LEARNING AND OBSERVATIONS

**a) Beneficiary participatory approach:** People's participation in the project, including the fact that almost 29% of the project cost was garnered from public contributions, was the most outstanding aspect and learning from the ASP. The success of the project from the outset depended highly on effective collection of connection charges and monthly sewer fees as also public acceptance of engaging a private BOT participant.

**b) Stakeholder involvement and interdepartmental coordination:** Continued involvement of stakeholders throughout the project ensured timely completion of the project and addressing of issues even as they arise. The ASP established that close involvement of all stakeholders/departments at the key decision-making stages of the project, as also for review and monitoring, is critical to ensuring that the project stays on-track.

**c) Political will and strong decision making, especially at the grass-root level:** The ASP demonstrated that 'political will and quick decisions make projects happen'. While strong support for the sewerage system within Alandur existed, political will was essential to convince the customers and citizens to pay a significant share of the cost and accept the entry of the private sector. Throughout the project decision making stages, the members of the municipality maintained full support for the project.

**d) Acceptance of fiscal discipline:** The term lenders, TNUIFSL and TUFIDCO, placed strict lending conditions on the municipality, requiring the municipality to accept and

implement strong fiscal discipline measures. TNUIFSL required the municipality to establish a separate sewer account distinct from the general budget of the municipality, forcing discipline and transparency on the officials managing the system. Thus, the loan as well as contractual obligations ensured strong fiscal discipline by the municipal body, by making it take difficult decisions on capital priorities, closely oversee the sewer system management, and ensure budgeting of sufficient funds to meet payment schedules.

**e) Assurances on payment to the Private Sector Participant:** The municipality agreed to provide the BOT operator a minimum level of income by accepting the 'take or pay' condition in the Agreement. Thus, the municipality assumed the risk of minimum payment to the operator while the private partner assumed all other responsibilities and risks of financing, constructing and operating the STP for a period of 14 years.

**f) Technical and financial assistance:** The expertise needed to plan and manage the technical and financial aspects of the project far exceeded the capacity of the municipality. Assistance from the other government bodies in the state, the Chennai Corporation, and sources, such as the USAID's FIRE project, was critical. TNUIFSL and FIRE played a substantial role in structuring the project, managing the feasibility studies, and preparing the bid and contract documents crucial to project success.

**g) Transparency in bidding and contracting procedures:** The transparent approach to the project, right from inception to selection of contractor/operator and implementation, was critical to providing the necessary assurance to the private sector bidders on the professional approach of the municipality. Public participation in the deliberations of the management committee overseeing the tendering process execution was also important.

##### 5.2 CASE 2: GANGAVARAM PORT

Located on the East Coast of India in the State of Andhra Pradesh (district of Visakhapatnam around Latitude 17° 37' N and Longitude 83° 14' E, about 15 kms south of Visakhapatnam Port), Gangavaram Port has been developed as all weather, multipurpose, deep water port with a depth of up to 21 meters, capable of handling Super Cape size vessels of up to 200,000 DWT.

#### DESCRIPTION

The master plan has a provision for 29 berths with a capacity of 200 MTPA to be developed in three phases over 15-20 years. In Phase I, five berths have been constructed with an estimated handling capacity of 35 MTPA. One berth is dedicated to iron ore, the second berth is for handling coal and there are three multi-purpose berths to handle containers and other cargo.

#### KEY LEARNING AND OBSERVATIONS:

**a) Robust project preparation by government sponsors prior to tender is critical:** As was experienced in the first round of tendering, realistic traffic projections were not prepared thus leading to unfounded optimism from both the government and the bidders' side.

**b) Bid evaluation criteria need to be simple but robust.** The first round of tendering had several evaluation parameters that were working at cross purposes and encouraged speculative

bidding.

**c) Addressing fundamental project related and contractual issues, prior to the tender, is important.** The second round of tendering experienced a long drawn contract finalization period. This was largely due to the fact that some of the fundamental issues, such as, contractual issues, land acquisition and rehabilitation issues had not been adequately addressed prior to tender. It can be seen that once these issues were resolved, the project was financially attractive and bankable. Today the project is a success story.

**d) Recommended.** It is recommended that where firm commitments are made they should be definitive or within a decision making framework that can be managed by both parties failing which the government sponsors may find themselves in a serious predicament.

**e) Land transfer back on normal termination of the project is a concern area.** The contract specifies that the government shall acquire the said land and transfer the ownership to the port SPV and that on normal termination of the project due to efflux of time, the land along with the essential assets will revert back to the government on a formula-based valuation. Hence, return back of land for a fully functional port is a major risk that the government has taken upon itself under the concession agreement.

**f) Waiver of concession fee in years of no profits was a progressive policy stand.** An interesting feature of this contract is that the government is paid a gross revenue share by the SPV only in the years of profits. This stance had a historical perspective. The government had decided upon this more flexible approach. While effective contract management is vital it has been underplayed by government sponsors in the past and this places more pressure on the government to undertake active contract management and supervision.

## VI. ISSUES AND CHALLENGES

### 6.1 GENERIC ISSUES AND OPTIONS

Though there are improvements in infrastructure development in the nation during the recent years but there exists a significant gap between demand and supply of significant infrastructure facilities and services, which has become a limitation on the rapid pace of economic development. Infrastructure gap exists in almost all the sectors. The following generic issues, therefore, need the attention to make the PPP model as a success storey in the infrastructure growth and development in the country as in the case of some of the developed and developing economies.

- Transparency
- Risk Allocation
- Project Appraisal
- Cost and Time Overruns
- Government Guarantee
- Centre-State Disagreement
- Regulatory Independence
- Corporate Governance

### 6.2 CHALLENGES IN PPP IN INDIA

**a) Regulatory environment** - There is no independent PPP regulator as of now. In order to attract more domestic and international private funding of the infrastructure, a more

robust regulatory environment, with an independent regulator is essential.

**b) Lack of information** - The PPP program lacks a comprehensive database regarding the projects/studies to be awarded under PPP. An online data base, consisting of all the project documents including feasibility reports, concession agreements and status of various clearances and land acquisitions will be helpful to all bidders.

**c) Project development** - The project development activities such as, detailed feasibility study, land acquisition, environmental/forest clearances etc., are not given adequate importance by the concessioning authorities. The absence of adequate project development by authorities leads to reduced interest by the private sector, mispricing and many times delays at the time of execution.

**d) Lack of institutional capacity** - The limited institutional capacity to undertake large and complex projects at various Central ministries and especially at state and local bodies' level hinder the translation of targets into projects.

**e) Financing availability** - The private sector is dependent upon commercial banks to raise debt for the PPP projects. With commercial banks reaching the sector exposure limits, and large Indian Infrastructure companies being highly leveraged, funding the PPP projects is getting difficult.

While most of the above issues are being analyzed and solved by the GOI, the inadequacy of sources of funding is the worst hindrance for the success of the PPP model.

## VII. CONCLUSION

In developing economy nation like India, there exists an infrastructure gaps in all most all the sectors, posing a serious threat to the growth momentum. Some patterns have emerged from the study that forms the basis suggestions for improving PPP implementation.

- First, the independent regulator played an important role in protecting lenders interest by scrutinizing the capital expenditure of terminals for the purpose of tariff setting. Such an authority is necessary for regulating PPP projects.
- Second, we can suggest the realistic forecasts as a means of preventing projects from ending in failures due to a unrealistic traffic projections.
- Third, concessionaires could not achieve the required financial closure within agreement due to poor project preparation at the pre-bid stage. We therefore suggest sufficient time to pre-project planning as a means of ensuring success in early project closure.
- And the fourth commonality shows that three cases have successfully demonstrated the ability to deliver value for money in terms of time efficiency, cost overrun anticipation, traffic performance, attractive interest rates and tenor of debt.
- Thus the study also shows that Indian government has successfully developed a PPP toolkit and also Government should also take necessary steps to implement the PPP project in other states also in order to develop the infrastructure in the country.

**REFERENCE**

- [1] Ananda S, (2012), 'Effective Public Private Partnership for Infrastructure Development: an Indian Experience', *Business Spectrum*, Vol. 2, No. 2, pp204-218.
- [2] Anil Kumar Gupta, Trivedi M K and Kansal R, (2013), 'Risk Variation Assessment of Indian Road PPP Projects', *International Journal of Science, Environment And Technology*, Vol.2, No. 5, pp. 1017 –1026.
- [3] Haldea And Gajendra, (2006), 'Public Private Partnerships in Infrastructure: A Paradigm Shift', *Journal of Construction in Developing Countries*, Vol.3, No. 2, pp. 242-246.
- [4] Ruchi Sharma, (2015), 'PPP In Road Sector: A Study about India', *International Journal of Science Technology and Management*, Vol. 4, No. 1, pp. 250-256.
- [5] Samer Ezeldin A and Yosr Badran, (2013), 'Risk Decision Support System for Public Private Partnership Projects in Egypt', *International Journal of Engineering and Innovative Technology*, Vol.3, No. 2, pp. 479-486.
- [6] Sathana, Megha Singewar and Deshmukh S S, (2016), 'Application of Public Private Partnership in Real Estate', *Imperial Journal of Interdisciplinary Research*, Vol-2, No. 7, pp. 1434-1433.
- [7] Sudhansu Sekhar Nanda, (2015), 'Infrastructure Development in India: The Role Of Public-Private Partnership', *International Journal of Core Engineering and Management*, Vol.2, No.6, pp. 60-70.
- [8] Suresh M and Sundhararam R, (2013), 'Public Private Partnership in India : Relevance, Progress and Prospects', *Indian Journal of Applied Research*, Vol. 3, No. 9, pp. 80-82.
- [9] Vandana, (2015), 'Issues and Prospects of Public Private Partnership in India', *Global Journal for Research Analysis*, Vol.4, No.12, pp. 134-151.