

## Nagarlok Vol. XLI No. 3 July - September 2009

## Public Private Partnership in Urban Infrastructure Management

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## INTRODUCTION

## INDIA'S URBANISATION

INDIA, THE second largest urban system in the world has reached a stage where urban economy is playing a critical role in the national economic development. The urban population of India has rapidly increased in recent years, contributing more than 50 per cent of the country's GDP. Table 1 gives the urbanization trends witnessed in India over the past five decades. In 1961 about 79 million persons lived in urban areas of the country, by 2001, their number had gone up to over 285 million, an increase of over 350 per cent in the last four decades, which will increase to over 400 million by the year 2011 and 533 million by the year 2021. During the past five decades, growth rates of urban population have been significant. It was 26.4 per cent during 1951-61, 38.2 per cent in the decade 1961-71 and 46.1 per cent in the next decade 1971-81. A drop in the rate to 36.4 per cent in the next decade (1981-91) prompted some observers to suggest that the urbanization was slowing down.

TABLE 1: URBANISATION TRENDS IN INDIA OVER LAST FIVE DECADES

Census	Total Population (In Million)	Urban Population (In Million)	% of Urban To Total Population (In Million)	Decadal Urban Growth Rate (In Per cent)
1951	361.08	62.44	17.29	-
1961	439.23	78.93	17.97	26.41
1971	548.15	109.11	19.91	38.24
1981	683.22	159.46	23.34	46.15
1991	846.30	217.61	25.71	36.47
2001	1027.01	285.00	27.78	36.47

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The number of towns has also increased about two and half times since 1901. In 1951, the number of towns was 1843, 3768 in 1991 and more than 4500 in 2001. While there was only one million plus city (Kolkata) in 1901 in India, it became 23 in 1991 and currently 35 according to 2001 census. According to a recent estimate, the number of metropolitan cities will be 51 by 2011 and 75 by 2021 AD with at least three mega cities having a population of 20 million each. About one-third of the urban population in 1991 resided in 23 metropolitan cities whereas in 2001 about 38 per cent of the total urban population is residing in 35 metro cities. The urbanization pattern and projections for the next 20 years is indicative of the fact that bulk of the urban population will be living in urban areas. To facilitate and sustain this growth, cities have to provide high quality of life as well as sufficient infrastructure to its citizens.

## PRESSURE ON INFRASTRUCTURE

Unfortunately despite growing importance of cities in the overall development of the economy, Indian cities woefully lack in infrastructure facilities. The provision of infrastructure facilities and services has lagged far behind the pace of urbanization. About 21 per cent of the urban population is living in squatter settlements, where access to basic services is extremely poor. Although 89 per cent of the urban population is reported to have access to safe drinking water but there are severe deficiencies with regard to equitable distribution of water. Nearly 46 per cent of urban households have water toilets, but only 36 per cent of the urban households are connected to the public sewerage system. Average per capita generation of waste is estimated at 0.4 kg per capita per day in cities ranging from one lakh to 50 lakh population and the garbage collection efficiency ranges between 50 to 90 per cent of the solid waste generated.

The gap between demand and supply of essential urban services and infrastructure deteriorates the physical environment and quality of life in the urban areas. The increased awareness towards environment and a sustainable society coupled with a need to make our cities worth living, demand side interference, i.e. managing the existing demand and monitoring the ever-increasing demand in the provision and management of urban infrastructure is being advocated.

Today our local and state authorities are aware that their existing infrastructure facilities and services are unable to serve the rapidly expanding urban population. It is very clear that governments acting alone cannot meet the continuously growing demand for services because of their limited financial resources. With this background it becomes necessary to think of alternate sources of finance, technical excellence and support, which calls for a paradigm shift in the way cities and their infrastructure are organized, managed and

Written by Administrator

Thursday, 10 December 2009 00:00 - Last Updated Thursday, 23 September 2010 09:33

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financed. One of the most viable options is to involve the private sector in the state monopoly of delivering urban services.

## **PUBLIC-PRIVATE PARTNERSHIP**

The term "Public-Private Partnership" (PPP) describes a range of possible relationships between public and private actors that ranges from contracting out services to simply private operators to full privatization for the cooperative provision of infrastructure services. The only essential ingredient is some degree of private participation in the delivery of facilities and services. Private actors may include private businesses, as well as nongovernmental organizations (NGOs) and community-based organizations (CBOs). In order to enhance the efficiency and effectiveness of the system, the local and state authorities are experimenting with various options of making public-private partnership. This is done through associations with private sector on a project-to-project basis, termed as PSP—Private Sector Participation, PPP—Public Private Partnership, PFI—Private Finance initiatives etc. These usages have slight differences in their specific definitions and operational frameworks but for the general understanding it conveys the meaning of involvement of private sector in public services.

The popularity of Public-Private Partnership is on a high in recent years because of the following reasons:

- Encourages innovation
- Better access to finance
- Latest knowledge of technologies
- Better managerial efficiency and entrepreneurial spirit
- Improved operation of infrastructure services
- Rationalized or cost based tariffs for services
- More responsiveness to consumer needs and satisfaction.

In spite of all these advantages mentioned above, there are a number of hurdles because of which privatization has not yet materialized on a scale as required in the sector. Some of the factors responsible for this situation are:

- Lack of clarity in scope and framework for PPP;
- Lack of rigorous project and contract development, including risk management and lack of adequate concern for financial viability;
- Lack of policy support and appropriate regulatory framework at higher levels of government;

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- Lack of participation of stakeholders; and
- Lack of continuity of the projects.

It is evident that private sector participation is necessary and can bring definite advantages into the system, it is however, important to bear in mind that private involvement is not an automatic solution to urban infrastructure problems. The critical factors which need to be taken care for successful running of PPP are highlighted below:

- Clear government commitment;
- Legal and regulatory capacity;
- Stakeholder involvement;
- Intelligent transaction design;
- Cost-recovery tariffs; and
- A right option with systematic approach

On the basis of parameters like ownership, operations accountability, investment, commercial risk bearing and period of contracts, a general matrix could be drawn for various options of PPP as shown in Table 2.

These options could also be compared by mapping the objectives for which private participation is sought as shown in Table 3. The table highlights the necessity of identifying the objectives clearly before venturing into an option.

The importance and priority of the factors to develop and sustain a successful PPP as against the various options is as shown in Table 4.

To make PPP a success, it should be well thought out and should be ventured into with adequate preparation and homework. There is a definite process to be followed for private sector participation in infrastructure development that can be put into four phases as

- Project preparation
- Selecting an appropriate PPP option
- Seeking PPP participation
- Establishing a durable partnership

### **Project Preparation**

It is a process that involves conceiving the idea, demand assessment,

TABLE 2: MATRIX OF VARIOUS PPP OPTIONS AND PARAMETERS INVOLVED

Option	Asset ownership	Operation & maintenance	Capital investment	Commercial risk	Duration
Management Contract	Public	Private	Public	Public	3-5 years
Lease	Public	Private	Public	Shared	8-15 years
Concession/Built Operate Transfer (BOT)	Public	Private	Private	Private	25-30 years
Built Own Operate Transfer (BOOT)/Built Own Operate (BOO)	Public/Private	Public	Private	Private	20-30 years

TABLE 3: MATRIX OF VARIOUS PPP OPTIONS AND OBJECTIVES TO BE FULFILLED

Objective Option	Technical Expertise	Managing Expertise	Operating Efficiency	Investment in Bulk	Investment in Distribution
Service Contract	Yes	No	No	No	No
Management Contract	Yes	Yes	Some	No	No
Lease	Yes	Yes	Some	No	No
Concession/Built Operate Transfer (BOT)	Yes	Some	Some	Yes	No
Built Own Operate Transfer (BOOT)/Built Own Operate (BOO)	Yes	Yes	Yes	Yes	Yes

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TABLE 4: MATRIX OF VARIOUS PPP OPTIONS AND FACTORS FOR MAKING PPP A SUCCESS

Objective Option	Technical Expertise	Managing Expertise	Operating Efficiency	Investment in Bulk	Investment in Distribution
Service Contract	Yes	No	No	No	No
Management Contract	Yes	Yes	Some	No	No
Lease	Yes	Yes	Some	No	No
Concession/Built Operate Transfer (BOT)	Yes	Some	Some	Yes	No
Built Own Operate Transfer (BOOT) / Built Own Operate (BOO)	Yes	Yes	Yes	Yes	Yes

identifying the potentiality of the project and finding out the financial and economical feasibility of the same.

#### Selecting an Appropriate PPP Option

This phase involves structuring the project for private participation, setting the necessary changes/ framework for the project, defining the terms of bidding and preparation of documents. This all depends on the project/problem in hand which is to be addressed i.e., importance of the project, economics of the project, social and environmental backdrop, political and public interest, private sectors interest in terms of investment attractiveness.

#### Seeking Private Sector Participation

This involves the process of inviting private sector to participate in the project and the subsequent steps in identifying the most appropriate partner in terms of technical and financial parameters.

#### Establishing a durable partnership

The post bid scenario where the relationship of 10-20 years is maintained in lines with the spirit of the contract, award of the contract, up-keeping of the contractual obligations and considerate views on unforeseen events (mutually).

#### REFORMS IN URBAN SECTOR IN INDIA

Central Government and many state governments have made different urban infrastructure related efforts from time-to-time at various levels for

Written by Administrator

Thursday, 10 December 2009 00:00 - Last Updated Thursday, 23 September 2010 09:33

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meeting the infrastructural requirements of urban areas. The Minimum Needs Programme, Integrated Development of Small and Medium Towns (IDSMT), Integrated Urban Development Programme (IUDP), Urban Basic Services (UBS), Sites and Services Scheme, Environmental Improvement of Urban Slums (EIUS), Low Cost Sanitation, Mega City Scheme, Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and the Urban Infrastructure Development Scheme for Small and Medium Towns for Non-JNNURM Towns are few worth-mentioning efforts, so far initiated. The urban infrastructure scenario though changed and improved a bit but still depicts a sad picture of various actions initiated for strengthening the urban infrastructure base. The anticipated improvement and strengthening of urban infrastructure has therefore remained a distant vision in majority of the towns and cities for many different but obvious reasons. It therefore becomes essential to look into the basic issues of concern for purposes of bringing improvement in the provision and management of urban infrastructure.

The mid-1990s saw the introduction of many initiatives in the urban sector. These reforms broadly involve restructuring and redefining the role of Urban Local Bodies, such as:

- Democratic Decentralization Of Urban Local Bodies—The Constitution (74th) Amendment Act, 1992
- Introduction of alternate mechanisms for financing urban infrastructure projects. These include new tools such as Urban Reform Incentive Fund, City Challenge Fund, Pooled Finance Development Fund, Tax Free Municipal Bonds etc for developing the capacities of urban local bodies etc.
- Initiating Public Private Partnerships to facilitate private sector participation in the urban sector.

#### Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

The Prime Minister launched JNNURM on December 3, 2005 to encourage cities to initiate steps to bring about improvement in the existing service levels in a financially sustainable manner with a Central assistance of Rs.50, 000 crore for a period of seven years beginning from 2005-06. The objectives of the mission include planned development of identified cities including semi-urban areas, outgrowths and urban corridors and improved provision of basic services to the urban poor. The mission has considered the following on-going schemes of the Ministry: Infrastructure Development in Mega Cities, Integrated Development of Small and Medium Towns and Accelerated Urban Water Supply Programme. Cities/Urban Agglomerations are required to prepare detailed project reports for undertaking projects under

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identified areas including urban renewal, water supply (including de-salination plants) and sanitation, sewerage and solid waste management, urban transport, development of heritage areas, preservation of water bodies etc. Funds for the identified cities are released to the designated State Nodal Agency, which in turn leverage, to the extent feasible, additional resources from the financial institutions, private sector or capital market. Private sector participation in development, management and financing of urban infrastructure would be clearly delineated. On completion of the mission period of seven years, it is expected that ULBs/ parastatals will achieve the following outcomes:

- (a) Modern and transparent budgeting, accounting, and financial management systems designed and adopted for all urban services and governance functions;
- (b) City-wide framework for planning and governance will be established and become operational;
- (c) All urban residents will be able to obtain access to a basic level of urban services;
- (d) Financially self-sustaining agencies for urban governance and service delivery will be established, through reforms to major revenue instruments;
- (e) Local services and governance will be conducted in a manner that is transparent and accountable to citizens; and
- (f) E-Governance applications will be introduced in core functions of ULBs resulting in reduced cost and time of service delivery processes.

#### CONCLUSION

It is to be clearly understood that sustainable growth of urban areas cannot be attained without providing adequate infrastructure and services at an affordable price. Therefore, the challenge that is gazing at planners, administrators and agencies involved in planning, development and management of urban areas is of providing appropriate level of infrastructure in urban growth centers. The capacity to meet these challenges would ultimately determine the future of urban India. In order not to face the dreadful consequences otherwise, therefore, it becomes really important to meet the needs of fast changing society with bold strategies and approaches. To sum up one would add that the success of the project would depend finally on getting the different stakeholders rallying for it, which requires a high level of awareness and a genuine effort for a consensus. The emphasis on this point is because PPP is for long term wherein it is possible that governments change,

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Thursday, 10 December 2009 00:00 - Last Updated Thursday, 23 September 2010 09:33

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ideologies change and market dynamics may change but the long-term policies should remain and the commitment given to private and public sector should be honoured.

#### REFERENCES

Chiplunkar Dr. Anand, Urban Infrastructure Reforms Effectiveness and Experiences, Global Convention on Agenda for Urban Infrastructure Reforms, October 2002

Kumar Dr. Sasi, Prasad C. Jayasankar, Public-Private Partnerships in Urban Infrastructure, Kerala Calling, February 2004

Padiyar Vijayanti, Shankar Tarun, Cost Recovery Principle for Infrastructure Development, IL&FS Infrastructure Development Corporation Ltd.

Singh J.P, Jena S.N, The Pressure on Urban Infrastructure - Need to Revamp the Planning Philosophy, Vision RI Vision Links, Research Papers, December 2005

Srikumar Sujatha, Urban Infrastructure Development in India, IL&FS Infrastructure Development Corporation Ltd.

Tools for Developing Commercially Viable Urban Infrastructure Projects, Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component FIRE(D), Note No. 1, January 1998

#### Website

<http://indiabudget.nic.in> , Economic Survey 2005-2006