

Project Notes

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Constraints to Developing Commercially Viable Urban Environmental Infrastructure Projects

Despite recent efforts in project development, success in developing and implementing commercially viable projects has eluded the urban environmental infrastructure sector more often than not. A review of experiences in project development reveals a number of constraints. Chief among them are weaknesses in process management, private sector capacity and risk management and a lack of clarity in sub-sector priorities. This Project Note describes these and other constraints and approaches to addressing them.

Despite recent efforts in project development, success in developing and implementing commercially viable projects has eluded the urban environmental infrastructure sector more often than not. Even when project development has appeared to be adequate, process management and political commitment have wavered.

This, of course, has been true of other sectors such as the power sector, where new governments have resorted to renegotiations and even cancellations of contracts which were signed by previous governments. Even in a few cases where projects appear to be heading for technical and financial closure, project development and negotiations have generally taken a long time and considerable resources. It is, therefore, necessary to identify the main constraints which inhibit the process so that these may be addressed.

Weaknesses in Process Management

The entire notion of developing and implementing projects in a commercial format is a relatively new trend

In India. In the case of most urban sector projects, initial sponsorship must come from public sector agencies. However, unlike conventional projects, these projects require considerable efforts in evolving project documentation, developing institutional arrangements for project structures, securing approvals and clearances from stakeholders, financial structuring, selecting a contractor, operator or concessionaire and ensuring overall financial closure.

A wide range of actors have to be involved in all these processes, and consistent coordination is necessary. In addition, there is a constant need for the sponsor to pursue project related activities to mitigate and minimize risks. Both capacity and legitimacy are required to perform these roles.

Typically, however, most public sector agencies do not have the necessary human resources to carry out these tasks, and projects fail to take off because process management support has been missing. It is in recognition of this critical role that state governments have begun to set up project development facilities and funds to manage development of projects in commercial formats.

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Illustrative Priorities for Selected Sub-Sectors of Urban Infrastructure	
<i>Sector</i>	<i>Appropriate focus and priorities</i>
Water Supply and Sanitation	<ul style="list-style-type: none"> • Long term concessions performance-based management contracts for entire distribution systems • Commercialized water utility with corporatization or profit centre basis, with management contracts (with private sector or community groups) for different tasks such as reduction of physical leakages, improved consumer services, billing and collection of water charges, etc. • Community contracts for provision of services in low income neighborhoods
Solid Waste Management	<ul style="list-style-type: none"> • Primary collection through contracts with community organizations and NGOs • Secondary collection through performance-based management contracts with private contractors • Management contracts for collection and disposal of special wastes such as from hospitals and markets • Safe disposal of solid waste through BOOT contracts
Roads and Public Transportation	<ul style="list-style-type: none"> • BOOT arrangements for by-passes and bridges • Needs to combine land development with mass transportation related projects on a BOT basis • Possibility of corporatization or profit centre basis of public transportation agencies

Appropriate institutional arrangements and clarity for stakeholder consultations is also important, however there are no fora through which to provide for these effectively. Consultations are likely to be ad-hoc in nature, and while urban planning legislation generally requires dialogue, the processes usually followed are not very effective.

Lack of Clarity in Sub-Sector Priorities

There is a lack of clarity in appropriate models and approaches in urban infrastructure sub-sectors such as water, sanitation, solid waste, roads and public transportation, area development and management improvements. Commercial structuring will require different approaches in each area, and there is need for debate at the national level and guidelines for each sub-sector. While suggestions in this regard have begun to emerge, these need to be reflected in a clear policy statement first at the national level, which could then be adapted by state governments to suit the local contexts. For example, based on recent reports, the table above highlights possible priorities in selected sub-sectors.

Risk Management

In view of the lack of any strong regulatory frameworks, the burden of risk management largely falls on contract documents. While contractual documents could handle the risks during construction and operations period, there are considerable risks at the project development stage itself. This is evident from the number of projects which have been abandoned, due to either inadequate project preparation or political exigencies. These development stage risks will need to be handled through better project preparation and process management.

Other risks can be handled through development of regulatory frameworks and greater attention to contract development. Both deserve critical and urgent attention. An important aspect in risk management relates to the need to identify the party best able to handle the risks and develop cost-effective risk mitigation strategies. The Ministry of Urban Affairs and Employment (MOUAE), along with some state governments, could support these developers through the proposed national policy reform group and the project support facility.

Detailed risk assessment and mitigation measures will need to form part of the project development process. Water supply and sewerage projects with PSP will require a risk management plan for the entire project period, from development and construction to operations.

One of the key areas in this regard is to develop alternatives to the blanket state government guarantees which have been routinely used for financing urban infrastructure projects. Alternatives such as escrow arrangements along with the necessary reserve funds and performance guarantees, such as for raw water quantity and quality from a state government under a water concession, need to be explored further.

The Tiruppur Project, for example, has provided for such a facility. The Government of Tamil Nadu has committed to establish a water shortage period fund through a non-lien account with an initial corpus equivalent to six months revenues. In addition, the risks of receivables to Tiruppur Municipality for the charges for bulk water supply are mitigated through the escrow account charged to the New Tiruppur Area Development Corporation Limited (the Special Purpose Vehicle created for the project); a revolving security deposit equivalent to one month receivables; and an irrevocable letter of credit from the municipality of the same amount. The bulk of revenues for the project come from industrial users, who will also provide a revolving security deposit equivalent to three months' receivables.

Private Sector Capacity and the Procurement Process

Commercial project structuring will, in most cases, require some form of private sector participation, at least in the implementation arrangements. The entire idea of PSP rests on the assumption that there exist domestic (or even international) private sector firms with interest and capacity to work in this sector. A systematic assessment of private sector capacity and the effort needed to develop it—for different sectors and for different forms of private sector participation—is necessary.

Based on a more casual analysis, it appears that while there may be local firms capable of taking on construction activities, there are only a few who can take on large scale integrated turnkey contracts. Most domestic firms, however, have very limited, if any, experience on the operations side of water and sewerage systems. This is mainly because there has never been a demand for such services. Only a few international firms have opened offices in India and possess or are ready to take on operations-related contracts in India. Strengthening the capacity of Indian firms through appropriate joint ventures, in addition to training support, is necessary.

The role of the private sector in services such as water supply and sewerage also needs to be reviewed. More participatory arrangements with involvement of user groups in the planning, design and implementation process need to be evolved. This necessitates that traditional construction or even operator firms take a far more developmental approach with greater efforts toward community participation.

There is also a lack of clarity in procurement process. No clear benchmarks and guidelines exist and, therefore, the process has varied significantly in terms of the bidding process, extent of preparedness of sponsor agencies and bid evaluation criteria and process. Often, despite the competitive process, many bidders have expressed doubts about the authenticity of selection. Inadequate preparation, especially for PSP type projects, increases bid preparation costs, and risks due to inadequate information tend to inflate bid prices.

An emerging trend in concession type arrangements for water and sewerage services is to work through a memorandum of understanding (MOU). This route has been adopted in Karnataka and in Andhra Pradesh. It must be understood that if a proper regulatory framework is in place for water tariffs and service standards, and adequate disclosure norms can be applied to the concessionaire, it will be possible to adopt this route meaningfully. This would be similar to the licensee system under the Central Electricity Act. It must be recognized, however, that without such a framework, it will not be possible to evolve a meaningful system.

This framework would also require a provision for competitive bidding for any procurement of major construction activities. In such cases, initial selection of the MOU partner may be done through a preferred bidder route. This is often referred to as a "beauty parade" as the initial selection is based on technical and financial capacity, as well as operational experience based on a business judgement. It is likely that such processes, if carefully supported through state governments, will provide useful local demonstration cases.

The Need for a "Champion"

The inability of some infrastructure projects to take off is due to the lack of a "champion" to guide the process through. It is common among public agencies to find that officers in charge of project development are transferred half way through the process. This increases project development risks to a great extent. The champion for a particular project may come from any of a number of different stakeholder groups. For example, a public agency sponsor may be an elected representative or an administrative officer. In other cases, the champion

may be a local consumer group which seeks to improve its access to services, (as in the case of the Tiruppur Area Development Project) or a financial institution which also takes on the project development role.

Inadequate Institutional Arrangements

The lack of commercial orientation among authorities charged with service provision also constrains project development. For example, under the 74th Constitutional Amendment, in most states provision of water supply and sanitation services vests with the local or municipal authorities, and a municipal department is usually charged with this activity. However, there is no clear link among investments, costs and revenues from the service. Further, there is a lack of clarity of objectives, and efficiency in service provision is hampered by political interventions in day-to-day functioning. Tariff policies are often skewed in the name of reaching the poor, who receive hardly any municipal services. A review of institutional arrangements, especially for services such as water, sanitation and public transportation.

The change in this regime will require a move towards agencies which, under a contract to the municipality, can operate as a business entity. Such activities may begin by developing separate departments which operate on a profit centre basis. In the future, corporatization of such agencies may then be explored. This will, however, also require that strong and well thought-out regulatory arrangements be developed.

In most states, there will also need to be some reform of the state water and sewerage boards. Chennai Metro Water Supply and Sewerage Board, for example, has decided to explore the possibility of corporatization, along with the necessary regulatory framework. While the MOUAE needs to develop alternative models, some of the more reform-minded state governments will need to explore development and implementation of such institutional reforms.

This *Project Note* is based on a FIRE(D) Project technical report *Commercial Viability in Urban Infrastructure Development in India : From Projects to Institutional Reforms* by Meera Mehta and V. Satyanarayana, paper presented at International Seminar on Financing and Pricing of Urban Infrastructure, February 8-10, 1999, New Delhi, organized by the Institute for Housing and Urban Development Studies (IHS) and the Housing and Urban Development Corporation (HUDCO).

Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component FIRE(D)

The mission of the Indo-US FIRE(D) Project is to institutionalize the delivery of commercially viable urban environmental infrastructure and services at the local, state and national levels. Since 1994, the Project has been working to support the development of demonstration projects and of a sustainable urban infrastructure finance system. Now, the Project is also pursuing this mission through:

- Expansion of the roles of the private sector, NGOs and CBOs in the development, delivery, operation and maintenance of urban environmental infrastructure;
- Increased efficiency in the operation and maintenance of existing water supply and sewerage systems;
- Strengthened financial management systems at the local level;
- Development of legal and regulatory frameworks at the state level;
- Continued implementation of the 74th Constitutional Amendment; and
- Capacity-building through the development of an Urban Management Training Network.

The FIRE(D) Project Office

E 3/4 Vasant Vihar
New Delhi 110 054, India
Tel: (91-11) 614-3551 or 614-9836
Fax: (91-11) 614-1420 or 614-4480

Regional Urban Development Office

USAID/New Delhi
American Embassy
Shantipath, Chanakypuri
New Delhi 110 021, India

TCG International, LLC

1012 N Street, NW
Washington, DC 20001-4297, USA

PADCO, Inc.

1025 Thomas Jefferson Street, NW, #170
Washington, DC 20007, USA

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