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Constraints and Prospects of Financing via Municipal Bonds in India

An Analysis with Case Studies

Sanjay Banerji
Krishna Gangopadhyay
Ashok Thampy
Zilong Wong

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1. Executive Summary

In order to meet challenges created by growing urbanization, Municipal Corporations in India need to incur huge expenditure to support urban infrastructure in the coming decades. In this study we conduct case studies with two major municipal corporations, Kolkata Municipal Corporation (KMC) and Bruhat Bangalore Mahanagar Palike (BBMP) to draw lessons for other municipal Corporations for both efficient implementation of infrastructure projects and means to finance such activities via multitude of platforms including placement of municipal bonds.

Our study reveals that in spite of recent revenue augmenting or cost saving reforms (like e-governance or Accrual based accounting for ward level), constraints on municipal financing in both places emerge due to poor debt capacity resulting from incomplete devolution of power, inadequate collection of revenues and presence of multitude of decision making bodies that often lead to project delays and cost over runs.

The establishment expenditure of KMC is relatively higher but its per capita indebtedness is lower compared to BBMP due to smaller capital expenditure on infrastructure. The Bangalore had better records in devolution of power and has a higher frequency of going to capital markets than Kolkata and relatively higher per capita indebtedness due to greater frequency of outside financing for its infrastructure.

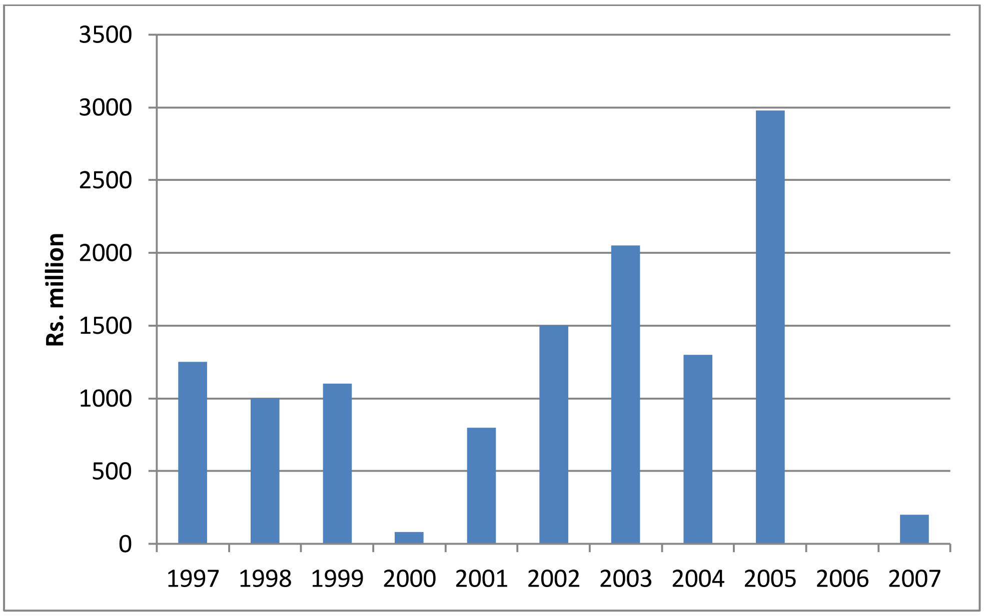
Based on comparative studies, we suggest further reforms based on incentive schemes, appropriate of uses of technology and charging of fees based on bundling of municipal services in specific areas like property taxes and parking fees. These reforms augment revenues with unchanged status quo and hence are politically feasible as well. Finally, based on Bangalore's experience, we suggest creation of an augmented version of Special Purpose Vehicle that can act as a facilitator between projects and co-co-ordinate both operations (replacing multitude of bodies) and issue external financial claims via proper credit enhancements by ring fencing projects in priority areas of infrastructure.

2. Introduction

Municipal bond market in India, though had a promising start in its initial phase, came almost to a screeching halt in the middle of the last decade. The market reached its peak in 2005-6 when the municipalities raised Rs. 3000 million (compared to Rs.750 million in 2001) and then fell sharply afterwards. In 2007, the total turnover in the market was a paltry sum of Rs. 300 million.

The Figures 1.1 and 1.2 summarize the basic trend in this market for both aggregate volume and composition of issuers respectively and clearly reveal this declining trend. Only large Urban Local Bodies (ULBs) such as Ahmedabad, Indore, Pune, Kolkata, Hyderabad etc. had been able to utilize this platform along with a few smaller ULBs which resorted to 'pooled financing' (like in Chennai and Bangalore). Furthermore, not only new issues are having difficulties but municipalities with earlier successful track records also find it harder to raise funds via placement of bonds.[1]

Figure 1.1 The amount of municipal bonds placements in India (1997 – 2007)



Source: World Bank studies on Municipal Financing Framework, vol. 1

[1] Recently evidence shows that this market is even less favourable to municipalities which had a successful track record of raising funds earlier. The Nagpur Municipality in 2007 had planned to raise Rs. 1,28 billion but had been able to procure only Rs. 210 million. Similarly, Indore received commitments only for RS. 37.2 million where they had planned to raise Rs. 500 million in 2002-2003. See World Bank Report on Municipal Financing Framework, Vol.1.

Figure 1.2: Details of Bonds Issued by Municipal Corporations

City	Amount(Rs million)	Interest %	Escrow Arrangement	Purpose	Credit Rating
Ahmedabad	1000	14	Octroi from 10 Octroi collection points	Water supply & sewerage project	AA-(SO)
Bangalore	1250	13	State Government grants and property tax	City roads/street drains	A-(SO)
Ludhiana	100	13.5 to 14	Water and sewerage taxes and charges	Water supply & sewerage project	LAA-(SO)
Nagpur	500	13	Property tax and water charges	Water supply & sewerage project	LAA-(SO)
Nashik	1000	14.75	Octori from 4 Octroi collcetion points	Water supply & sewerage project	AA-(SO)
Indore	100		NA	Improvement of city roads	A(SO)
Madurai	300	12.25	Toll tax xollection	City road project	LA+(SO)
Ahmedabad (Tax Free)	1000	9	Property taxes of 2 zones	Water supply & sewerage project	AA(SO)
Hyderabad (Tax Free)	825	8.5	Non-residential property tax. Advertisement. Tax, professional tax. etc	Road construction and widening	LAA+(SO) AA+(SO)
Tamil Nadu (Pooled Financing)	110	9.2	Montly Payments equal to one-nith of their annual payments	Water supply & sewerage project om 14 MCs	LAA(SO)
Kolkata	300			Various amenities	A+

Source: Mathur and Thakur (2004)

Another notable feature of this market is that even for the successful issues like Ahmadabad, the composition of the subscribers had moved from retail towards institutional investors in secondary placements. See Vaidya and Johnson (2001). This indicates not only changes in the aggregate overall supplies of these bonds but also underscores changes in the composition of investors subscribing the issues.

In the setting of declining volume, number of issues and amount of sum raised from municipal bond market, this paper deal with the following basic questions: (a) why the source of funding from this market had dried up? (b) What are the constraints and prospects for future municipal financing in India (c) what can be done to rejuvenate this market?

The successful placements of bonds depend on three basic ingredients. (a) Assurance of payments to investors at regularly specified intervals by the issuers which in turn depends on consistency and stability of the issuer's cash flow/ earnings or any standard measures that capture the revenue generating potential,[2] as certified by the rating agencies. (b) Liquidity of the market of this financial asset which primarily determines ease at which such bonds are bought and sold in the secondary market and (c) macro-economic factors like inflation, interest rates as well as the return of assets belonging to the similar risk class.

The last two features, namely, the state of bond market infrastructure and macro-economic risk factors are important but their relevance goes beyond municipal bond market because they affect placement of all types of bonds, issued by both private and public organizations. On the other hand, issuer's capacity[3] to generate revenue in the future and its ability to lock them for promised payments to bondholders determine in the first place whether the seller is creditworthy or not.

It is thus imperative that a local body, intending to raise its finance from outside sources in order to fund investment projects, must achieve its earning potential to the maximum by achieving both allocative efficiency between current and capital expenditure and productive efficiency whereby it delivers the local public goods at minimum cost without compromising quality. Attaining both goals would not only maximize the net revenue earning potential but

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[2] Since bondholders (or debt holders in general), are paid before the equity holders and the issuer has a legal commitment for making payment to them, it is of utmost importance that they have sufficient funds for repayments. The rating attached to a bond thus conveys information about the volatility of its cash flow and determines its quality as well as price at which the issuer can sell it to the market.

[3] Any standard measure of earning capacity or cash flow for a local body captures the inflow of funds, the duration of fund investment (short term operating expense vs. long term capital expense), type of project or services delivered, revenue earned from the services net of other project costs.

also boost up ‘’debt capacity’’ (via credit enhancement) and thus would ease the constraints on financing projects involving capital expenditure.[4]

This in turn, depends on (a) power and ability of the Municipal corporations to carry out the designated functions with substantial degree of independence (b) organizational architecture for production, planning and implementation of municipal services and (c) structure of both explicit and implicit (winning elections, staying in power etc.) incentives. Thus, in this study, we emphasize the core issues related to constraints at the organizational level of ULBs that impede operational efficiency in all spheres of its activities and ultimately result in lower revenue generation affecting its capacity to borrow from outside and make it vulnerable to outside shocks.

More often than not, inadequate devolution of power to the ULBs from upper levels of Government and co-ordination problems between various bodies pose such obstacles. This can be best illustrated with experience of the Ahmedabad Municipal Corporation (AMC) which is one among the examples of successful bond placements. The AMC issued Rs. 1000 crores of bonds in 1997 in order to partially finance investment for Water and Sewerage projects which required a funding of Rs. 4393 crores. Prior to raising funds from the financial markets, the AMC undertook a series of reforms including computerization of transaction record, double entry book keeping system and hired skilled employees and also modernized its administrative system that immediately resulted in the rise of revenues collected from various sources. However, its major source of revenue was from the collection of Octroi taxes which were later abolished by the State Government without any compensating source of funds. Similar decisions taken by the state governments in Maharashtra and UP affected the regular inflow of cash to ULBs in the state which directly impact the allocation of expenditure between operating and capital expenditure. This is an example where lack of devolution of power to collect taxes (Octoroi) on their own creates uncertainties in both current and future expected own sources revenues (OSR) and thereby

[4] Hence, our approach will be similar to studies done by a credit rating agency when it evaluates the debt capacity of a potential issuer of bonds by analysing efficiency of the process of generation of the latter’s cash flows.

imposes further constraints on borrowing from the market for financing investment projects.[5]

The absence of a clear mechanism in the process of decision making also create delays and pushed up the burden of interest payments and strains the balance sheet as much of cash flow generated from assets is spent on servicing debt. As a concrete example, lack of proper co-ordination between AMC and other parastatal bodies delayed the water project by one and half years after issuing of municipal bonds and in the meantime, the municipality started paying interests to bond holders immediately after issuance. In 2000, the AMC had also been able to spend Rs. 915 million of the total proceeds from the placement of bonds. The Nashik Municipal Corporation raised an amount of Rs. 1000 million but due to lack of planning and co-ordination between the bodies representing both state and ULBs delayed the project where the bond issued carried a coupon payment of 14.75% beginning from issuance of bonds.

This study argues that these are not isolated events and features in all types of ULBs in India where lack of devolution of power and host of bodies responsible for planning and implementations of projects are not only curbing the independence of local bodies but also crippling municipal finances.

The rest of the paper is organized as follows: The section 3 makes a concise survey on the state of municipal finance in India and makes a brief remark on reforms mandated by the constitution and argues why this study is concerned with municipal finance of large cities. The section 4 introduces our conceptual framework that links operation and finances of municipal corporations and discusses extensively the case for Bengaluru and Kolkata and compares their operating and financial performances. The section 5 makes recommendations. The Appendix A reviews briefly the role of SPV in pooled finance in Karnataka and appendix B presents some useful indicators of financial prudence practiced in London local bodies which could be useful in the Indian context.

[5] See Chattopadhyay (2006) on this issue.

3. State of Municipal Finances in India

According to the study of the Twelfth Finance Commission report, there are 3,723 urban local bodies (ULBs), of which 109 are Municipal Corporations, 1,432 are Municipalities and 2,182 of them are Nagar Panchayats. However, the data for overall municipal finances at the both individual and aggregate level is almost non-existent and is at best sketchy. However, a number of studies focusing on different aspects of the state of municipal finances reveal the deteriorating state of finances in general. They all point out falling revenues together with declining capital expenditure as a percentage of total revenue.

The own revenue of the ULBs in 2011-12 is less than half of its own resources and overall it constitutes 1.05% of the GDP. The share of its own revenue as a percentage of total revenue has declined from 63% in 2002-03 to 53 % in 2007-08 and during the same period, its own tax revenue as a percentage of total revenue fell from 32% to 30%. See Mohanty (2007), Ahluwalia (2011).

Such a gap reflects inefficiencies in the collection of its revenues from the sources typically related to most of the ULBs. Even in the largest cities where earning potentials of the ULBs are relatively much larger due to increasing land values, and real estate properties, collections on property taxes are quite weak. The property tax collections are in between 0.16 to 0.24 per cent of the GDP. Some of the studies show in cities, only 37% of the overall property is assessed with an assessment rate of 56%. (Ahluwalia 2011).

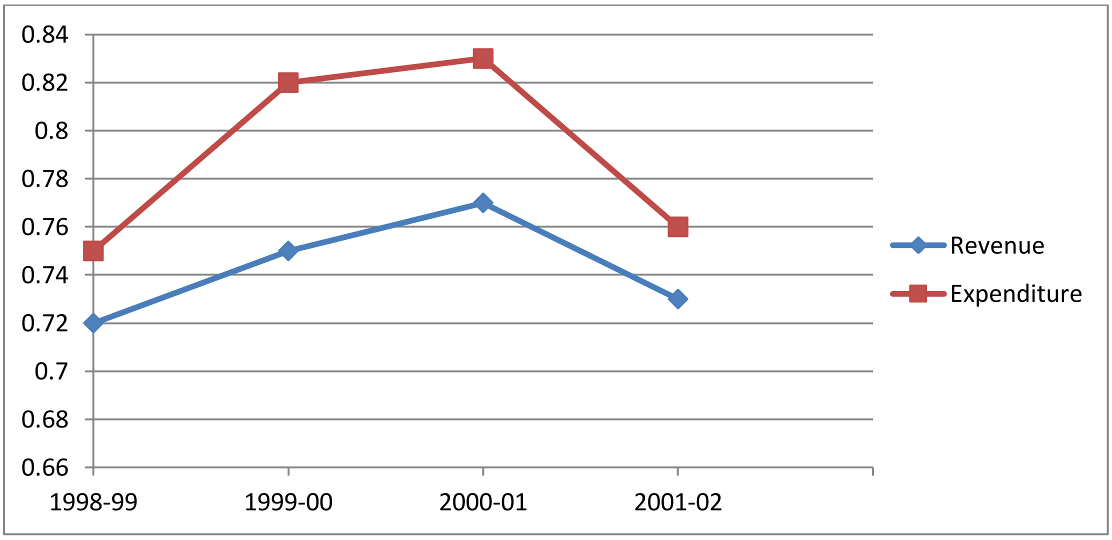
As a natural consequence of the low level revenues, expenditure on amenities and vital services have declined (Mohanty 2007), resulting in poorer quality of basic infrastructure and higher level of dependence on the state Governments. A recent World Bank study indicates that the total expenditures of all ULBs in India exceeded the total revenue by Rs. 24.59 billion and out of which the total borrowing had been estimated to be Rs. 23 billion during the period of 2002-2008. However, the study also points out a falling level of capital expenditure which would result in deteriorations in both volume and quality of durable physical asset and thus would further decrease revenue generating capacity.

Several studies have made the link between state and municipal finances and the figure 3.1 to 3.3 represent the state of overall financing of the ULBs up to the early part of the last decade. First, they show that both the overall expenditure and revenue as a percentage of state GDP is extremely volatile over the decade (Fig. 3.1). Moreover, although that municipal finances (revenue and expenditure) as a percentage of State revenues has increased slightly but certainly has declined as a fraction of the revenues of the central and state Government revenues taken together.

Mathur (2006) also finds that combined expenditure of all types of Government declined from 6.4 % to 5.1% in 2002-03 and the growth rate of the tax revenues in most of the states are either negative or declining over time. In addition, fraction allotted by the State Government to local bodies is also on the decline as a percentage of the state domestic product.

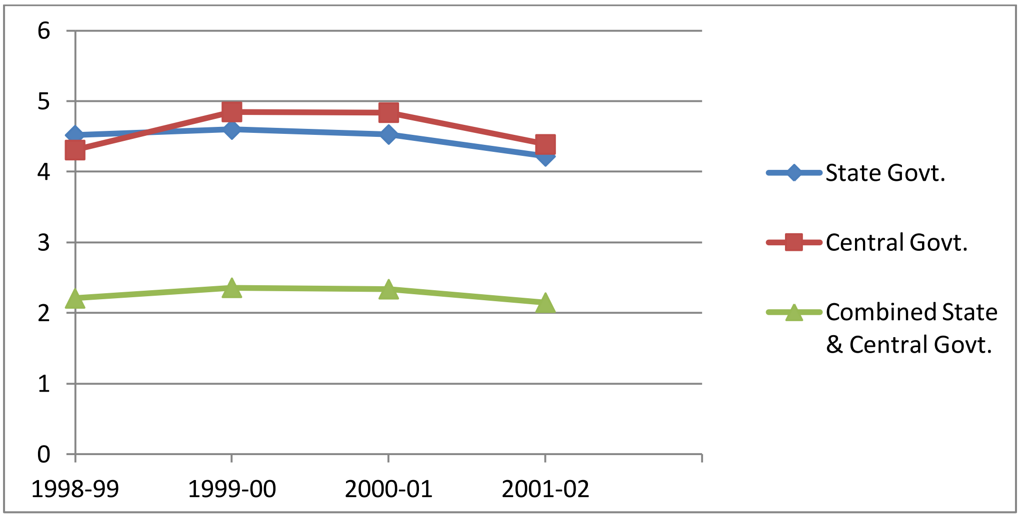
Mathur (2006) also shows that spending levels of municipalities are approximately 130% lower compared with standard norms and benchmark expenditure of ULBs of the comparable countries. The own revenues of many ULBs are even inadequate to cover expenditure on revenue accounts and this revenue – expenditure gap in particular is pronounced for states like Madhya Pradesh, Rajasthan, UP and West Bengal.

Figure 3.1 Municipal Revenue/Expenditure as Percentage of GDP at Factor Cost



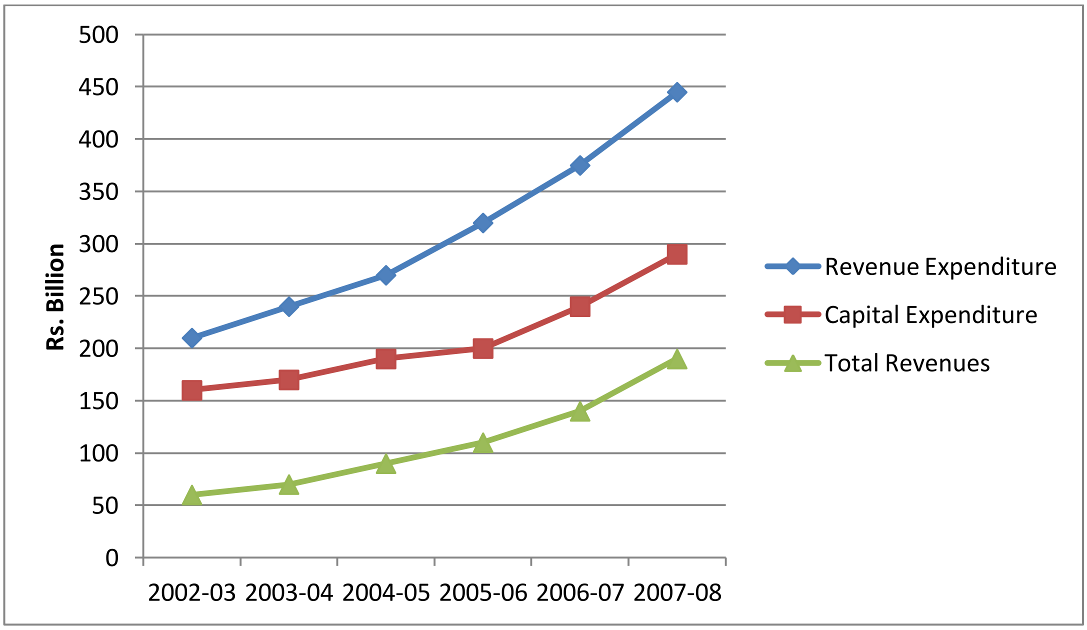
Source : (i) Reports of Eleventh and Twelfth Finance Commission, (ii) Economic Survey, GoI 2004-05, (iii) Handbook of Statistics on Indian Economy, RBI 2005-06

Figure 3.2 Municipal Income as Percentage of Total Revenue



Source : (i) Reports of Eleventh and Twelfth Finance Commission, (ii) Economic Survey, GoI 2004-05.

Figure 3.3 Expenditure patterns of ULBs in India



Source: World Bank Studies on Municipal Regulatory Bodies in India

Thus to sum up the findings on the state of overall finances of the ULBs, one may conclude that three problems, namely, declining municipal revenue and expenditure as a percentage of state GDP, fall in its own source of revenue / income (OSR) and insufficient capital expenditure relative to total revenues, are the most pressing problems of ULBs and municipalities in general and together they create huge roadblock to raising external finances.[6]

The overall macroeconomic factors affecting the central and state government budget have certainly contributed to the state of declining finances of the ULBs due to their excessive dependence on the transfers of the state Government. **However, the question still remains is: why the ULBs own sources of revenue tend to be relatively smaller than in comparison (given a fixed amount) to outside sources of funding such as Revenue grants/transfers from the upper level Governments**? Or what had prevented the ULBs to raise finance on their own relying on cash flow based on their own assets?

In what follows, via case studies, we will try to grasp some of the issues constraining raising of external finances by shedding lights on the inner organizational problems that impede the generation of its own source revenues (OSR) that often act as pledgible collateral for outside financing.

Municipal Reforms:

Recognizing that the current state of structure and the state of Municipal finances need an overhaul in organization, functions and finances, the landmark 74th constitutional amendment had explicitly given direct mandate for transforming the existing two-tier governmental structure to a three tier organization. Under the new provisions, the ULBs (as well as other local bodies such as Panchayets) is supposed to form the local government via election supervised by the State Election Commission. Parallel to the state and the central Government, the ULBs would discharge a broad range of functions.[7]

In addition, the amendment also stipulates financing arrangements including levying of taxes, raising finances from financial institutions and markets with minimum state interventions and has called for a direct transfer of funds from the central level to local bodies to ease constraints in financing.

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[6] Several studies also discuss the constraints on financing and the current state of municipalities. See Bagchi, (2001), Bagchi and Kundu (2003), Ghodke (2004), Mathur and Ray (2003, Mohanty et.al (2007) among others.

[7] The amendment is explicit in stating the domain of some specific areas like urban planning, land use, provision of drinking water as well as poverty alleviation etc. is also vague in assigning other responsibilities such as promoting aesthetics,). In total, the amendment had called for the transfer of eighteen functions upon the ULBs. See Bagchi and Chattopadhyay (2004), Mathur and Thakur (2004) and Vaidya (2007).

The idea behind the principle of this core amendment in the structure of ULBs (actually all LBs) is twofold: First, to make the structure of local bodies all throughout the country uniform and standardized by assigning similar tasks and granting enough autonomy so that they have the power to carry out assigned responsibilities and raise finance on their own to accomplish assigned tasks. Secondly, to subject these bodies to evaluations by independent bodies like Audit committee etc. and also by verdict of the electorates in regularly held elections.

Hence, the amendment called for more financial autonomy (in the form of levying taxes, user fees and raising finances from the financial institutions and market) that would allow the ULBs to perform specified tasks with fewer constraints. **The process of effective reforms thus ought to design the State Fiscal framework in a way that would encourage proper development of an institutional framework that would ensure delivery of services and their funding and also stipulate broad guidelines and mechanism for preserving a properly defined financial prudence.**

However, one of the fundamental constraints for transforming the ULBs from the current form into homogenous entities in terms of functions, responsibilities and financial architecture is their extreme heterogeneous structure in multiple dimensions. Much of it has roots in current organizational form, their past histories and their complex interactions with political economy with the state level Governments.

The analysis of the issues related to financing in overall ULBs financing in general are thus too complex and beyond the scope of the paper. Hence, we have decided to focus exclusively on the financing and operations of Municipal Corporations in India due to following reasons: First, the small and fragmented ULBs are very unlikely to undertake large scale projects on their own. Hence, they do not have to secure finance from the market. Second, the increased urbanization of India in the past decade and its possible continuation in the future will not only make the large corporations grow in size but many medium scale ULBs will be transformed into corporations. These entities would thus undertake projects for building urban infrastructure and incur capital expenditure that require outside financing.[8] Hence, the municipal financing, including issuing of bonds will be primarily in the domain of large municipal corporations which our study intends to focus on.

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[8] Though exact projections vary in different studies, it is estimated that India needs an investment in of Rs 39.2 lakh crore (2009-10 prices) in the next two decades for upholding its urban infrastructure. The urban roads will take a share of 44% (Rs.17.3 lakh crore) while the services like Solid Waste Management, sewerage and supplies of water is expected to grab (Rs. 8 lakh Crore) 20 % of shares. See Ahluwalia et. Al (2012). Such a

4. Attaining viability in Municipal Finances and Service Delivery

A Municipal Corporation, like any other organization, has to decide upon planning, operations, service delivery of local public goods as well as means to finance them. This section highlights their interconnectedness and discusses how the organizational issues in planning and operations spill over the finances and vice-versa and ultimately influence the viabilities of projects.

4.1. Framework for viability assessment

The local governments are in the best position to improve delivery of multitude of services as they have the information and expertise to ensure -

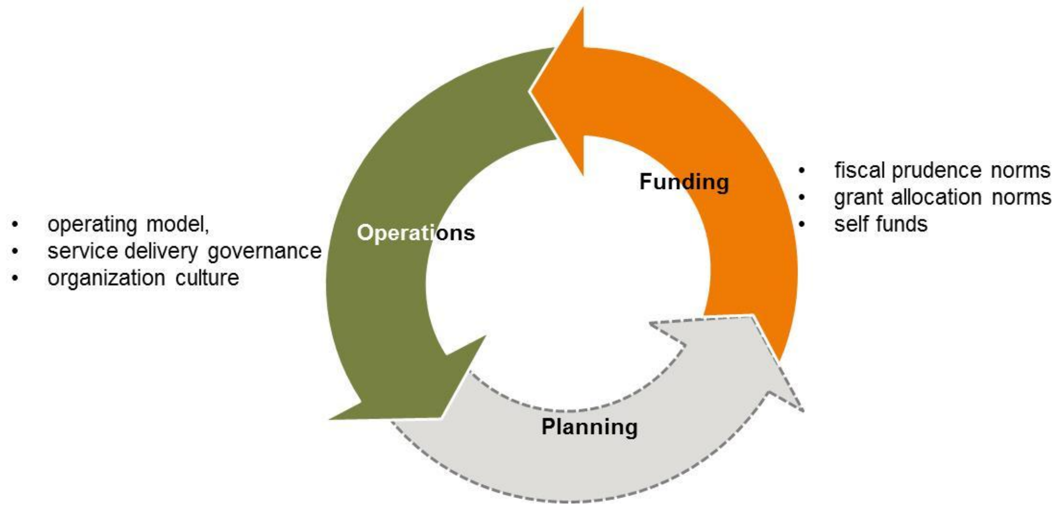
(i) allocative efficiency through better matching of public services to local preferences and

(ii) productive efficiency as the local representatives have better knowledge about the local costs and lesser number of bureaucratic structures.

However, given limited resources for performing and delivering multitude of services, these bodies need to balance various activities that determine the local body's overall performance viz. – planning, funding and operations.

In this paper, we have analysed the performance of select urban local bodies (municipal corporations), using a conceptual performance assessment framework illustrated below.

Figure 4.1: Conceptual Performance Assessment framework



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massive expenditure will not be feasible without development of the broad range of financing arrangements, including municipal bond market. See Mathur and Ray (2003) for earlier discussion on this subject.

The framework defines the key dimensions that matter to the different stakeholders viz. local body, state government and general public when assessing any Local Body's performance. As depicted in figure 4.1, the dimensions of this framework – operations, funding and planning are self-reinforcing and are a continuous process. For example, to initiate a project, the local body must make both operational and financial planning for their execution and once the project starts operating, it would lead to further process of planning (on allocating maintenance of current projects versus undertaking new projects) as the cash flow from the project starts coming in. For the purpose of this paper, we would assess select municipal corporations on case study basis on two of the three dimensions i.e. – operations and funding.

Operations: Operations i.e. the services delivered by the Local Body is a function of three factors –

1. **Operating model:** The operating model for a particular project determines whether a project should be initiated or not and if initiated, then it also decides on the scale of operations. Primarily, the major concern here is on the productivity and quality of the project, cost effectiveness of service delivery and preferences of the community for the project.
2. **Service delivery governance:** Service delivery as an activity is the last mile. Ensuring effective service delivery requires effective governance comprising of planning, co-ordination across all affected / impacted departments, monitoring and quality management.
3. **Organizational culture:** The organizational culture should encourage differentiation of entitlement vs performance driven behavior. In a democracy, where elected representatives are expected to drive the agenda and priorities of the Local Body, performance measurement then becomes an imperative, either proactive (as part of service delivery governance) or reactive (as offered by public during the electoral process, albeit with a time lag).

Putting together these elements determine the process via which local bodies arrive at decisions on the allocation of resources between various activities (both atemporal and inter-temporal) which ultimately result in planning, production and delivery of services of local goods.

Funding: The overall funding structure as well as allocation between capital and operating expenses determine viability of the Local Body and for an ULB, the following sources supply them funds to carry out these operations.

1. **Self-funding:** While this in itself implies viability of service delivery, the extent of self-funding has to be balanced judiciously to prevent it from resulting in low level equilibrium for the Local Body.
2. **Grant allocation norms:** As intergovernmental fiscal transfers are one of the main sources of Local Body revenue, it is of utmost importance for the success of the overall decentralization process for a number of reasons. First, such transfers often based on observed criteria can be targeted to achieve desired objectives such as transfers to the poor for their skill formation activities. Second, it can be designed to provide the right incentives for the ULBs to deliver services to their customers. Finally, it also helps the ULBs to build up reserves for putting in escrow fund which would ease constraints on external financing. Hence, the design of the transfer systems impacts the success of the overall system of Local Body finance.
3. **Lending/Borrowing: They** can help bridge the funding gap between long term facility augmentation needs and disposable amount available for investment. The cost of borrowing should be assessed beyond the conventional investment cost. This cost could be in multiple forms – debt from banks, debt from public (i.e. bonds) or even equity infusion by partner in case of PPP projects where the fee charged by the private partner is the opportunity cost of revenue foregone.[9]

Fiscal prudence norms: The choice of funding options and the norms to balance them for different category of expenses viz. operational expenses and capex, determine the viability of a Local Body.

For the purposes of this paper, we would assess Local Body's service delivery effectiveness and viability on the first two parameters – operations and funding. Assessment of Local Body planning needs to be holistic in the overall schema of planning i.e. district, state and central level and is beyond the scope of this paper.

[9] In this sense, issuing municipal bonds is just one avenue and depends heavily on the other components, including planning of projects, delivery of services and efficient utilization of other sources of funds.

4.2. Local Body Operations

To assess Local Body operations, one needs to probe the operating model and governance structure of local public goods and service delivery and the involvement of the Local Body (i.e. Municipal Corporations) in it.

In major Indian cities, the large municipal corporations, for legacy reasons, mostly continue to serve the old city limits with some augmentation of wards from extended city limits. However, such augmentation has not kept pace with the stretching geographical contours of the city. For the citizen, this demarcation of service areas between Local Bodies (segmentation of services between a larger municipal corporation and smaller municipalities) creates cumbersome bureaucracy with multiple jurisdictions and also enhances costs as scale economies are sacrificed due to unnecessary fragmentations of the local bodies.

A deeper look into the institutional structures that are involved in delivery of local public good in the larger metropolitan cities reveal a labyrinth of institutions, many of which are parastatal bodies, responsible for service delivery. Currently, any interface between the municipal corporation (elected body) and the metropolitan development authority, (a parastatal organization) is established through the common platform of same ministerial portfolio. As institutions, they lack any organized interface between themselves for service delivery at an operational level, at planning level as well as at regulatory level. Lack of this interface results in increased transaction cost for the common citizen in terms of stretched timelines, duplication of efforts across wards and boroughs due to lack of co-ordinated planning or insufficient effort resulting in increased cost of service delivery.

The Classical argument of economies of scale and informational advantages regarding local issues suggest that responsibility to deliver local public good should rest at a lower level. They should have their performance evaluated both by the electorates as well as by competent authorities (such as Audit firms) or any other state organizations that disburse funds to them. Yet, we see from examples of two large metropolitan areas of the country, Bangalore and Kolkata, that parastatal bodies (not subservient to the municipal corporation) are involved with delivery of local public services for smaller jurisdiction, the scale of which is more appropriate for a municipal corporation to serve. As depicted in illustration 4.2 and

4.3 below, water and sanitation services are being offered by parastatal bodies like KMDA and PHC for select jurisdiction and smaller scale. Similar is the case for other local public goods.

Figure 4.2: Service delivery of local public good in Kolkata Metropolitan Area

	Responsibilities of Main Urban Service Providers in Kolkata Metropolitan Area					
	Service delivery		Policy-making		Regulation	
	Local Body	Non-LB (Parastatal)	Local Body	Non-LB (Parastatal)	Local Body	Non-LB (Parastatal)
Water and sanitation	KMC	KMDA,PHC	KMC	KMDA	KMC	KMDA
Solid waste management	KMC	Municipality	KMC	Municipality	KMC	Municipality
Road Infrastructure	KMC	KMDA, PWD, HRBC	KMC	KMDA, PWD, HRBC	KMC	KMDA, PWD, HRBC
Public transportation and Traffic		CTC, CSTC		Transport Dept. Govt of WB		Transport Dept. Govt of WB
Housing, town planning	KMC	KMDA		KMDA		KMDA

presence in Kolkata Metropolitan Area

Source: Compiled from multiple documents and interviews with Kolkata Municipal Corporation

Similar is the case with Karnataka. A major problem in the state is the dominance of Bangalore in the urban landscape – the second largest urban agglomeration in Karanataka which is the Hubli-Dharwad region has 1/6th the population of Bangalore. Bangalore accounts for 80% of sales tax and 75% of corporate tax collected in Karnataka.

Migration from rural to urban areas has resulted in incidence of urban poverty being higher than rural poverty in Karnataka. Urban bodies face a challenge of providing urban infrastructure such as water supply and sewerage services, particularly to the urban poor, in a financially sustainable manner. The growth in urban infrastructure has lagged behind the growth in urban population, thus leading to a widening infrastructure deficit in urban areas, leading to inadequacy in the availability and quality of urban infrastructure such as in roads, drinking water supply, sewage treatment systems, solid waste management, and other services. The recent problems with solid waste management in Bangalore, leading to the pile up of waste in the city, have shown the inadequacy in urban infrastructure management. The Urban Development Policy Report reports that a little more than 20% of urban households do not have access to tap water, or have bathrooms and latrine inside the house. 73% of urban households in Karnataka have access to basic facilities such as water, electricity and toilets which mean that there are about 9 million households without access to these facilities.

The devolution of authority and responsibility to urban local bodies has not been adequate – partly due to resistance to sharing political power with the urban local bodies. Further in urban areas, similar to Kolkata and other parts in India, there is a host of parastatal and departmental agencies, dealing with urban services. The following figures show how planning and service delivery have been convoluted by assigning power to multiple bodies involved in similar tasks.

The Karnataka Urban Development Policy draft document of 2009 discusses several issues with regard to urban development in Karnataka including the issue of lack of coordination among different agencies in providing water supply. [10]

Figure 4.3: Service delivery of local public good in Bangalore Metropolitan Area

	Responsibilities of Main Urban Service Providers in Bangalore		
	Service delivery	**Policy-making**	**Regulation**
Water and sanitation	BWSSB, BMP, Municipalities	BWSSB, BMP,BBMP	BWSSB
Solid waste management	BMP, Municipalities	BMP, Municipalities	BBMP, Municipalities
Road Infrastructure	BDA, BMP, Municipalities, R&B departments	BDA, BMP, Municipalities	BDA, BMP, Municipalities
Public transportation and Traffic	BMTC, Traffic police	BMTC, Traffic police	BMTC, Traffic police
Housing, town planning	BDA, Karnataka Housing Board, BMRDA	BDA, BMRDA	BDA, BMRDA, BMP, Municipalities

Source: Water and Sanitation Programme: South Asia (2005) and multiple interviews with Officials.

As depicted in tables 4.2 and 4.3, the multitude of planning and regulatory organisations involved in both planning as well delivery, results in inefficiencies and sub-optimal solution for the metropolitan area as a whole.

For example, the wastewater from parts of Kolkata is collected and led into two channels – DWF and SWF – to Bantala. KMC operates the pumping stations and the trunk sewers while the canal system leading to the Kulti river is maintained by the Irrigation and Waterways department. This separation of responsibility for different sections of the drainage system leads to problems - incoherent planning, misaligned upgradation work and technology and

[10] Karnataka Urban Development Policy (draft) document, 2009, page 47: "------ number of water supply projects have been taken up to augment water supply but deficiencies continue in the form of inability to provide water as per the prescribed norms, inefficiency in distribution systems, serious water losses, commercially non-viable water supply systems and lack of coordination between different agencies."

subsequently higher expenses in terms of rework, transaction cost and delay in service, which ultimately results in escalation of costs and reduced quality of services.

Thus lack of proper co-ordination and assignment of tasks in most efficient manner leads to excessive costs in provision of many important services and water leakages is one of them. In India, most of the places, municipalities have issued bonds and resort to outside financing for funding the water related projects. Proper co-ordination of the various bodies in operation, planning and delivery stage could improve service delivery and optimize fund requirement.

A simple mechanism which confers the Municipal corporations (or organizations subservient to them) responsibilities to deliver local public goods will resolve this co-ordination problem and would enhance efficiency because of their expertise in the knowledge of local preferences as well as costs. On the contrary, the role of planning needs to be elevated beyond the local body in order to render a degree of cohesiveness in service delivery across jurisdiction of multiple municipalities. For example, the role of KMDA needs to be elevated to an apex planning body across municipalities while its daily operations should be carved out and transferred to the Kolkata Municipal Corporation.

In this manner, the parastatal bodies would primarily play the role of technical consultants and specialized planners at the state level, while the District Planning committee (DPC) will be an integrator across departments and should serve as a monitoring authority on planning delivery. That is, a reshuffle in the organizational structure, which is also politically least resistant, would lead to better services, higher fees and makes the process of delivery a smooth and continuous process and relax constraints on funding.

4.3. Local Body funding

To assess state of Local Body finance, one has to consider –

1. Own source of funds. 2. State government transfers – especially untied transfers and 3. Fiscal prudence principles practiced in municipal finance

Each of these is to be assessed for their strength and consistency of inflow over time and its end use.

- Strength is determined by composition of revenue i.e. own source of revenue vs grant component
- Consistency is determined by steadiness of revenue income / collection and its improvement over time.

- On the other hand, end-use should not be driven by just immediate requirement but also deployment of funds to enhance future income / facilities / social welfare i.e. balance of capex vs opex.

In this section, we take the case of Kolkata Municipal Corporation and Bangalore Municipal Corporation as a case in point to compare and contrast state of municipal finance vis-à-vis service delivery issues highlighted in the previous section.

4.3.1. Kolkata Municipal Corporation: A Case Study on Finance

Own source of funds

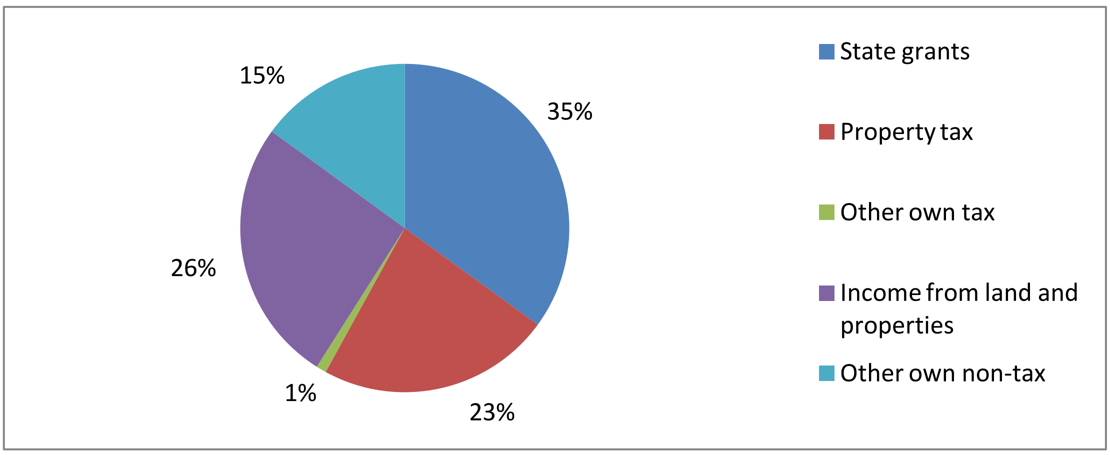
The Kolkata Municipal Corporation maintains a fund called the Municipal Fund. The Municipal fund is maintained in the following six accounts viz. –

i. the water supply, sewerage and drainage account
ii. the road development and maintenance account
iii. the bustee service account
iv. the commercial project account
v. the solid waste account
vi. the general account – which relates to all money received by or on behalf of the corporation other than those specified in (i) – (v) above

(ref: the Kolkata municipal corporation act, 1980)

Finances to these funds are from multiple sources viz. percentage of property tax realized, percentage of income realized from water supply and drainage & sewerage services, percentage of untied funds received from the state government. Of these, although the contribution of Own Source Revenue (OSR) is maximum, the dependence on state government funds is above 40% on an average.

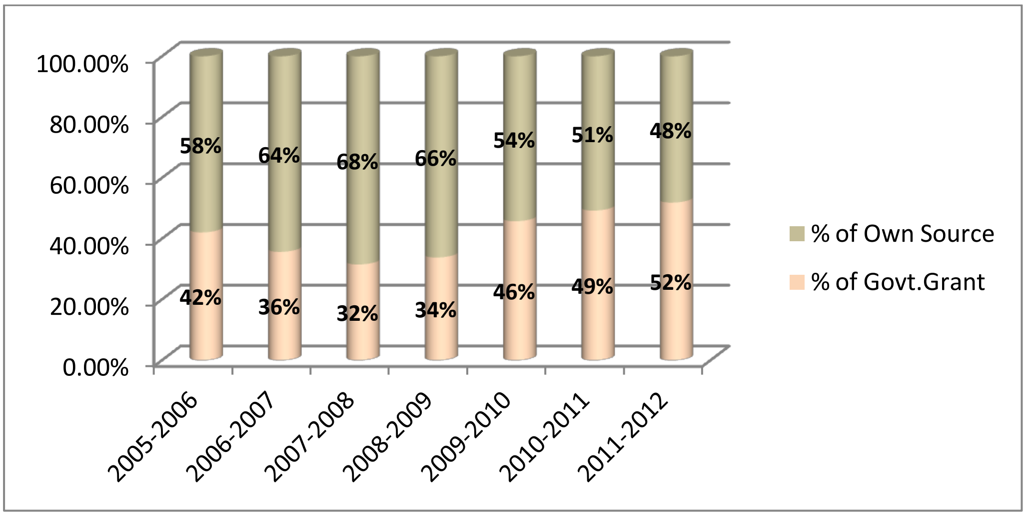
Figure 4.4 Composition of the different sources of income for Kolkata Municipal Corporation for 2010-11



Source: KMC Budget statement 2010-11

Own Source of Revenue (OSR) have been consistently declining for KMC while government grant increasingly comprise a higher share of overall income for the municipal corporation.

Figure 4.5: Composition of KMC's revenue receipts - Own Source Revenue vs. Govt Grant



Source: KMC Budget statement 2010-11

Further, an assessment of Own Source of Revenue (OSR) for KMC suggests that the share of tax revenue has been consistently reducing while the share of non-tax revenues has been rising.

Figure 4.6: Tax – Revenue receipts as percentage of total revenue receipts

	Unit	2002 - 03	2003-04	2004-05	2005-06	2006-07
Own tax revenue	%	39	32	45	31	24
- Property Tax	%	35	30	44	29	23
Own non-tax revenues	%	24	35	24	29	41
Revenue grants	%	37	33	31	40	35

Source: Final Report on Corporate Credit rating of KMC, May 2008

Composition of total revenue receipts and OSR thereof, clearly highlights reductions in own financial strength for KMC. Further it also highlights lack of consistent performance by KMC in revenue collection. This is also evident from the fact, while the no. of assesses for property tax has increased year on year, property tax receipt has not increased in a commensurate manner highlighting inherent system weaknesses that need to be addressed to translate earning potential to income for the coffers.

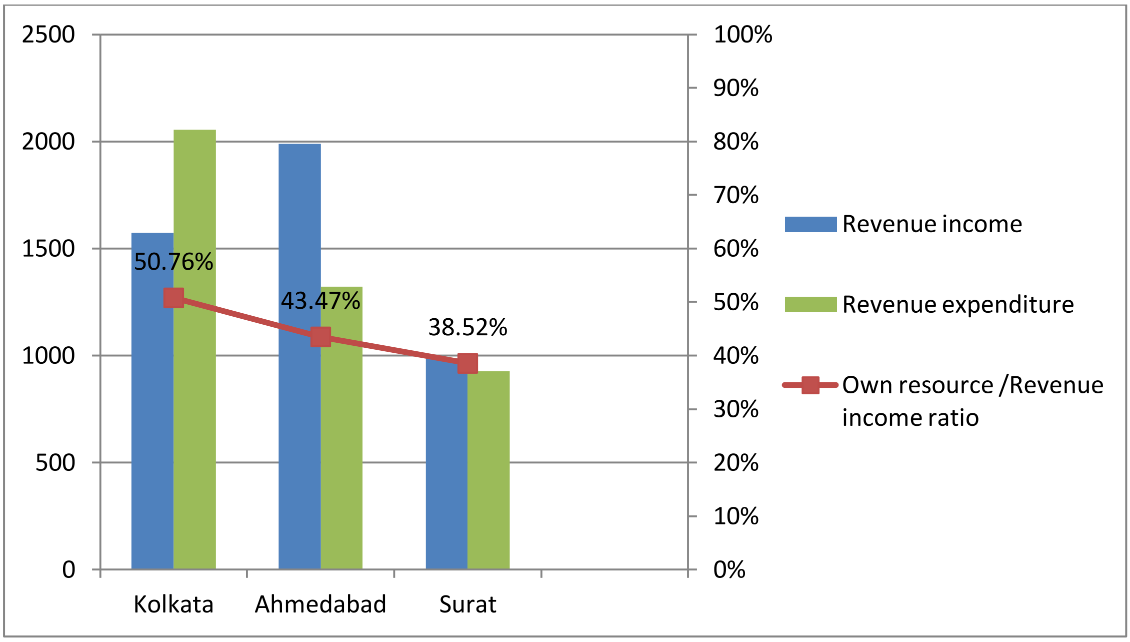
Figure 4.7: Property Tax receipts vs no. of Assessees

Actual as on March 31st	Unit	2007	2006	2005	2004	2003
Revenue Receipts	Rs. Cr.	1227	862	865	786	658
Property tax collection	%	0.23	0.29	0.44	0.3	0.35
Property tax (excluding one-time receipt of Rs. 135 Cr. in 2005)	Rs. Cr.	282	250	246	236	230
Y-o-Y growth in property tax	%	13%	2%	4%	2%	
No. of Assessees	Lakhs	4.96	4.79	4.52	4.33	4.16
Y-o-Y growth in property tax assessees	%	4%	6%	4%	4%	

Source: Final Report on Corporate Credit rating of KMC, CRISIL, May 2008

Figures 4.8 below compare Kolkata with Ahmedabad and Surat municipalities and find that Kolkata has highest ratio of OSR to Revenue grants but its operating expenditures far exceed the other two which also imply that less is spent on the capital expenditure and more on maintenance of current assets.

Figure 4.8 Comparison of Income and expenditure performance of select Municipal corporations



Source: From respective municipality website

State government transfers

State Government transfers to urban local bodies are function of and degree of backwardness of each Urban Local Body. The combined index for transfer to Urban Local Body for the state of West Bengal is –

Mi = 0.538M1i + 0.120 M2i + 0.120 M3i + 0.040 M4i + 0.040 M5i + 0.040 M6i + 0.102 M7i where i=1,2,…. To n (number of ULBs), and the weights are as follows:

Figure 4.9 – West Bengal State Finance Commission index of state government grant transfer to Urban Local Bodies

Undifferentiated Population	0.500
Backward population Segments	0.038
Female Non Literates (M_{2i})	**0.120**
Incidence of poverty (M_{3i})	**0.120**
Proportion of un-surfaced roads (M_{4i})	**0.040**
Weakness in service provision (M_{5i})	**0.040**
Sparseness of Population [inverse of population density] (M_{6i})	**0.040**
Incentive Support for ULBs (M_{7i})	**0.102**
Weighted Population (M_{1i})	**0.538**

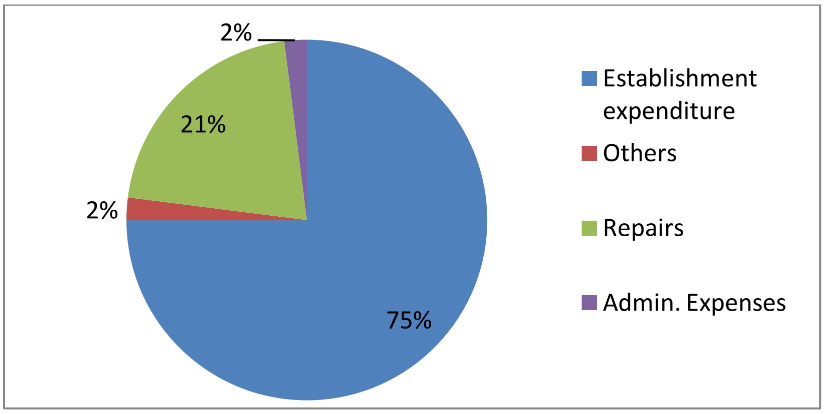
Source: Report of the 3rd State Finance Commission, West Bengal

As is evident from the transfer criteria, it ensures that funds are distributed in an equitable and inclusive manner. However in the effort of equitable distribution, it does not offer funds that can enable a municipality to leap frog into heavy capital investment to improve facilities for enhancing future income.

Fiscal prudence principles practiced in municipal finance

The Kolkata Municipal Corporation has the power to raise loan on the security of its own tax, surcharge, cess and fees income or on the guarantee of the state government any sum of money for purposes of different type of capital expenditures ranging from construction of works to acquisition of land or buildings if it serves the purpose of delivering services of local public good to the communities. However, notwithstanding anything, the power of the corporation to raise loan is limited to 15% of the annual value of land and buildings for KMC.

Figure 4.10: Composition of expenditure profile 2006-07 for KMC



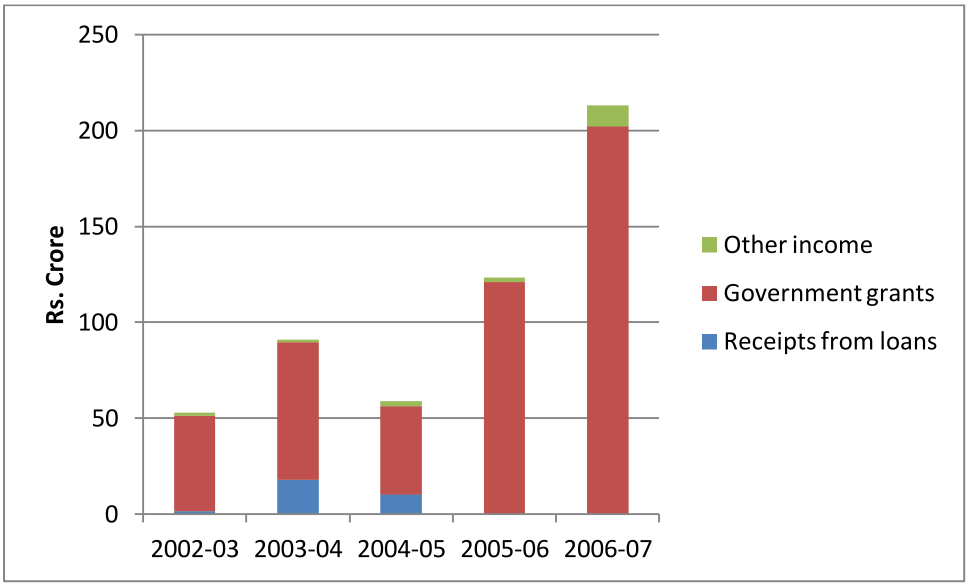
Source: Final Report on Corporate Credit rating of KMC, CRISIL, May 2008

Figure 4.11: Composition of capital receipt for KMC

	2002-03	2003-04	2004-05	2005-06	2006-07
Receipts from loans	1.5	17.8	10.3	0	0
Government grants	49.6	71.8	46	121	202
Other income	1.7	1.3	2.5	2.2	11
Total capital receipt	52.8	90.9	58.8	123.2	213
Capital expenditure	52.9	162.6	218.3	236.8	341
Capital surplus/deficit	(0.2)	(71.7)	(159.5)	(113.7)	(128.0)

Source: Final Report on Corporate Credit rating of KMC, CRISIL, May 2008

Figure 4.12: Capital receipt and capital expenditure



Source: Final Report on Corporate Credit rating of KMC, CRISIL, May 2008

The figures 4.10 to 4.12 reveal both high fraction of establishment expenditure and low volume of capital expenditure and even lower amount of capital receipts. Such patterns indicate that the prospect of financing large scale investment expenditure via municipal bond is very remote due to limited flexibilities in the allocation of fund between current (establishment) and future uses. This is due to the fact that salaries, wages, pensions etc. are fixed costs and it is politically infeasible to cut them for releasing funds for productive investment and enhancing borrowing capacity.

It is evident from the current project financing norms and funding pattern, the service delivery of the local public goods is very poor. This is driven by multiple factors viz. –

1. with state government transfers tied to degree of backwardness of a locality, very little remains to be gained by larger municipal corporations like Kolkata which on a relative scale is less backward but have much higher pressing needs to cater to
2. Poor realization of own source of revenue (OSR) because of lack of enforcement and procedural inconvenience of payment deterring tax payers
3. With municipalities not able to reap benefits of scale owing to lack of co-ordination between authorities, the solutions adopted are often sub-optimal in the grand scheme of things and leads to further drain on limited resources.

We can summarize the current state of operation and funding of KMC, as follows: Although the municipality has introduced a series of reform measures under JNNURM which has augmented its capacity to collect more fees and incur less expenditure (such as a new accounting process which will give the detailed account of expenditure in every ward, e-governance in property tax collections) , **its establishment expenditure is extremely high, capital expenditure is relatively low, the collection of property taxes are one of the lowest**

in metropolis in spite of the rising land and property values and relatively low level of net indebtedness in comparison to other metropolis. Moreover, the capital expenditure, although lower in absolute amount, it is relatively higher than its capital receipts.

4.3.2. Bruhat Bangalore Mahanagara Palike (BBMP) - Case Study on finance

For the state of Karnataka, a major problem in the state is the dominance of Bangalore in the urban landscape – the second largest urban agglomeration in Karanataka which is the Hubli-Dharwad region has 1/6th the population of Bangalore. Bangalore accounts for 80% of sales tax and 75% of corporate tax collected in Karnataka.

BBMP's use financial resources to provide municipal services, invest in infrastructure, operate and maintain assets, to pay salaries and to service debt is summarised as announced in the BBMP Budget for 2010-11 and 2011-12 in Figure 4.13. In 2010-11, of a total expenditure of Rs. 8,488 crores, 58% of it was for capital expenditure. The proportion of funds invested in capital expenditure went up in 2011-12 to Rs. 6069 crores, which was 66% of the total expenditure of Rs. 9196 crores. Including the JNNURM funded capital projects, the total allocation to capital projects was Rs. 6,345 crores.

Figure 4.13: Classification of BBMP Revenue Receipts of 2010-11 and 2011-12 (Rs. Crores)

	2010-11		**2011-12**	
Classification	Amount	Percentage	Amount	Percentage
Tax Revenue	1601	20	1640	18
Non-Tax Revenue	1678	21	3189	35
Grants from State Govt.	1866	24	2187	24
JNNURM Grants	195	2	182	2
Loans	1890	23	1093	12
Other Receipts (Cesses, Statutory Deductions etc)	844	10	820	9
Total	**8074**	**100**	**9112**	**100**

Source: BBMP Budget for 2010-11 and 2011-12

Figure 4.14: Classification of BBMP Payments of 2010-11 and 2011-12 (Rs. Crores)

	2010-11		2011-12	
Classification	Amount	Percentage	Amount	Percentage
Salaries & Pension	333	4	368	4
Administrative Expenses	162	2	92	1
Health and Education	439	4	184	2
Debt Servicing	592	7	644	7
Welfare	604	7	552	7
Maintenance Works	526	6	460	5
Capital Works – JNNURM	337	4	276	3
Capital Works – Others	4878	58	6069	66
Current Assets & Liabilities	617	7	431	5
TOTAL	8488	100	9196	100

Source: BBMP Budget for 2010-11 and 2011-12

Analysis of revenue sources of ULBs carried out by The Third Karnataka State Finance Commission shows that over 60 percent of their revenues comes from government grants, the dependency ratio of City Corporations and City Municipal Councils is less than 50% compared to Town Municipal Councils and Town Panchayats where it is more than 50%. In the case of Bangalore however, government grants constitute only 26% of total revenues.

While Bangalore's BBMP has had fairly matched receipts and payments, the Karnataka SFC has observed that in most cases ULBs are unable to spend their entire revenue. In fact, the gap between per capita revenue and expenditure has been increasing – from less than Rs.100 during 2002-03 to over Rs.200 during 2005-06. For the year 2006-07, there is a huge difference of Rs.701/- between per capita revenue of Rs.1141 and per capita expenditure of Rs.440.

The state's devolution of revenue grants suggested by the SFCs demarcated the amount of state resources to be made available to the local governments and applied a percentage share on that amount for devolution to rural and urban local bodies. The Government has taken a decision to start with 6.0% of NLNORR (Non-Loan Net Own Revenue Receipts) in 2005-06 and enhancing this rate by 0.5% every year so as to reach the devolution level to

8.0% of NLNORR by 2009-10. Accordingly, the total amount of annual devolution are obtained and the expected amount of funds to be devolved to local bodies in Karnataka between 2005-06 and 2009-10 is given in Table 5.3.

Figure 4.15: Devolution of funds from Karnataka state to Local Bodies (2005-2010)

Year	% on NLNORR	Devolution Amount (Rs. in Crores)
2005-06	6.0%	1160.00
2006-07	6.5%	1530.18
2007-08	7.0%	1904.39
2008-09	7.3%	2025.27
2009-10	7.5%	2419.68 (Estimates)

Source: Third Karnataka State Finance Commission

Following problems have been observed in the devolution process:

1. Delays in the implementation of the recommendations of SFC lead to accumulation of un-devolved amounts to ULBs. For example, un-devolved amount for 2007-08 stood at Rs.525 crores.
2. The State's policy of intervention to protect the interests of ULBs by payment of municipal dues through SFC devolutions may be well intentioned but it could act as a disincentive to improving their own revenues.

It is important to develop an Urban Finance Framework to ensure consistent support in the form of grants and at the same time link it to the performance of ULBs.

Formula for allocation of SFC untied grant among ULBs is based on the following weights:

1. Population - 40%. 2. Area - 15%. 3. Road length - 15%. 4. Illiteracy - 10%

5. Demand of per capita Tax - Maintenance Charges - 20%

Overtime, the weights on own revenue generation should be increased to incentivize ULBs to improve their revenue generation capacity.

Tax Revenue

Municipalities are empowered to levy taxes on:

1. Buildings or lands or both (property tax), 2. Advertisements, 3. Motor vehicles,
4. Water rate on water supplied by the Municipalities.

Property tax is the major source of tax revenue for ULBs, contributing an average of 53% of own revenues. At the end of March 2009, arrears to the tune of Rs.160 crores of property tax was outstanding, (excluding Bangalore) the average collection percentage being 52%. However, efforts are underway to improve the efficiency of property tax collection in Bangalore and elsewhere.

Funding Capital Expenditure

Capital expenditure is usually met through budget provision and institutional finance. Institutions such as HUDCO and multilateral agencies like ADB and World Bank have been extending financial assistance to ULBs and other urban development authorities to build infrastructure and housing.

The Urban Development Policy Report (2009) developed by the Urban Development Department of the Government of Karnataka suggests the development of alternative sources of financing that can be tapped through:

1) Betterment levies, impact charges, development charges etc;

2) Transfer of Development Rights (TDR). In Bangalore, TDR has been used to acquire land for the purpose of road widening;

3) Parking fee can be a very good source of revenue in cities where the number of vehicles on the streets is increasing.

d) Levy of a fee on tapping of ground water.

Multilateral institutions like the World Bank, ADB and JBIC provide long term debt with comfortable terms of repayment. Karnataka has been availing funds from this source during the last 10-12 years. An important mechanism in improving the credit worthiness of ULBs is providing a mechanism for the smooth functioning of the devolution of funds from the state through the SFC grants framework. However, some of the restrictions placed by the Reserve Bank of India in terms of banks' lending against resources coming in the form of grants should be re-examined as grants form a significant part of ULB revenues. As a significant part of the SFC grants are linked to population parameters which would be fairly stable and the increase in tax revenues with the growing economy, a smooth and well-functioning grants framework should significantly improve the credit rating of ULBs.

Role of Infrastructure Development Corporation:

In Karnataka, the Karnataka Urban Infrastructure Development Finance Corporation (KUIFDC) has been playing an important role in helping ULBs to raise resources from the capital markets and from financial institutions. The ULBs lack skills required to raise resources from the market and intermediaries. Also, for most ULBs, smallness of the size of projects makes it uneconomical to raise funds for individual projects. Typically, ULBs are piggy backing on state governments. But with the 74nd amendment, in which LBs become the third tier of governance, there is increased responsibility bestowed upon them. However, with limited financial resources and difficulty in raising resources without government guarantee, the ability of ULBs to deliver the expected quality level of infrastructure and service has been compromised. It is in this context that KUIDFC has been set up, to act as a financial intermediary, to connect the ULBs and the financial markets and institutions.

SFC transfers to ULBs in the form of untied grants is a secure funding source of ULBs and to the extent that this can be used to secure the interest of investors in municipal bonds, it would increase the borrowing capacity of ULBs significantly, particularly in those states that have put in place a framework of devolvement of funds through the SFC framework. An example of leveraging the SFC untied grants to raise resources of ULBs had been implemented by KUIDFC.

In 2009, KUIDFC assisted several ULBs in Karnataka to mobilize Rs. 300 crores through the pooled fund mechanism to support investments under the Chief Ministers Small and Medium Town Development Programme. This was funded through a term loan from Axis Bank for Rs. 300 crores and it will be repaid through the securitization of future SFC devolutions to ULBs. In the BBMP budget for 2011-12, of a total of Rs. 428 crores of SFC grants, Rs. 187 crores (44%) is untied grants. This SFC devolution from the state government to the ULB is fairly safe and therefore cash flows from the SFC grants that are untied could be used to support the borrowings of ULBs, thereby decreasing the risk to investors which in turn would provide opportunity to raise funds at lower borrowing rate for ULBs.

Below we give some of the challenges to issuing municipal bonds and some of the possible solutions:

1. Challenge of issuing bonds:
    a. A strong revenue platform is required for bond issue. In case of some projects that do not have a significant cash generation capacity, then using SFC untied transfers that may be assigned to the project to provide revenue and cash flow visibility to the project.
    b. RBI guidelines – cannot fund/finance that which is a substitute for budgetary allocation
    c. Lack of clarity on State Finance Commission (SFC) transfers – whether these are budgetary allocations.

- SFC transfers to ULBs are based on population and other development indicators. However, the SFC transfers are fixed proportion of government revenues and it is allocated to different ULBs based on population in the last census and other development indicators. However, attributes of Municipal corporations and ULBs are different due to different sizes, organizational structure and demographics. Hence, uniform criteria of transfers for each may not be the best mechanism for transfer.
- SFC transfers – are fairly stable (and objectively determined) based on the revenue sharing model between centre, state and LBs as determined by the different finance commissions.
- SFC transfers - particularly assignment of taxes and devolution– if these are considered as revenue of the ULB, then it would enhance the borrowing capacity of the ULBs significantly as the SFC transfers are transfers from the central and state governments, the risk of bonds backed by SFC transfers will be high – thus enabling SFCs to raise resources by issue of bonds that are backed by SFC transfers.

4.4. Comparisons between Kolkata and Bangalore

Our case studies for both Kolkata and Bangalore suggest that main obstacles to raising of outside financing lies in lower fraction of OSR which result from (a) incomplete devolution of funds, power and functions from upper bodies to Municipal Corporations (b) utter dependence on upper bodies for formula based transfers and (c) co-ordination problems due to the presence of host of bodies involved in the various phases of planning and delivery of services. In addition, inadequate collection of taxes (like property taxes in spite of the rise in both property and land values) and inabilities to charge user fees for services together with poor management in operations and service deliveries (leading to project delays and cost over runs) have worsened the state of service delivery in both metropolis. These have also impaired the ability to raise outside finance for both corporations due to low magnitude of OSR as well as their variability. On the other hand, both municipal corporations have instituted a series of reforms in recent times that rely on updated and modern technologies that have resulted in increased tax collections and also saved costs.

However, there are contrasts as well. The KMC has a relatively lower fraction of OSR, relatively higher establishment expenditure and lower magnitude of capital expenditure. In addition, it did not resort to municipal bond markets in a while except for 2005 when it issued municipal bond to finance various ‘’amenities’’. That is, the issued bond was not even used for financing a specific project.

Bangalore, (BBMP) on the other hand, has relatively higher percentage of OSR and though incomplete but compared to KMC, it has a better process of devolution of funds from the State Government and has much higher percentage of borrowing for financing many of its durable projects. In fact, the growing deficit in the Municipal budgets in recent years reflect their willingness to resort to financing from outside sources (banks, municipal bond markets, multi-lateral agencies) for the purpose of funding infrastructure projects. In the state Karnataka even smaller municipalities had got together and secured funds via pooled finance in order to fund capital expenditure, which is not to be found in West Bengal.

Moreover, creation of intermediary like KUIDFC for making arrangement of outside finance is also unique to Bangalore and not practiced in KMC at all. The organization mediates and facilitates financing arrangement between outside investor and the ULBs in the latter’s effort to build up projects for infrastructure. They have also played key role in devising pooled finance arrangements.[11]

5. Recommendations:

The ability of Municipal corporations to raise finance ultimately depends on their creditworthiness as certified by the rating agencies which in turn depends on both future **expected** cash flow, its **variance** and **ability to pledge** the amount of fund to outside financiers via appropriate forms of credit enhancements. Based on our case

[11] See the appendix A on pooled finance experience for Karnataka.

studies on both metropolis, we can suggest a two pronged approach towards municipal financing relevant to large municipal corporations in other parts of India. The first one calls for adopting a more imaginative approach in reforms that would enhance OSR efficiently and make it stable and the second one calls for designing an institution that would oversee both operations and finance of projects administered by Municipal corporations. Below is our suggested recommendations for both.

1. Reforms based on technology, incentives and bundling of services:

- Introduction of both technology and incentive based reforms which would enhance the efficiency in collection of taxes and fees. This would augment the expected revenues and reduce volatility in key revenue generating areas. Such reforms are least politically resistant and feasible as demonstrated by the recent institution of e-governance in both states and introduction of new methods of detailed accounting by the KMC which collects information about expenditure in every ward. The officials in both metropolis mentioned during interviews that specific measures stated above have directly led to improvement in revenues (an increase in the collection of property taxes in both KMC and BBMP) and savings in costs (detailed accounting procedure based on information technology) and have reduced delays in projects, cost over- runs and cost padding and duplication of services (same road used to be funded before for repairing in consecutive years) by outside contractors.
- The current borrowing limit (e.g., 15% of annual value of land and buildings for Kolkata) should not be fixed at an arbitrary level but could be made contingent on verifiable and observed parameters of financial performance and prudence.[12] For example, the upper limit of borrowing could be made contingent on the absolute magnitude of its OSR as well as on capital spending.
- Credit enhancement via adoption of appropriate contractual structure that would incentivize collectors of revenues and fees, especially when they are outsourced. As concrete examples, target revenues could be set on the basis of comparisons of the total collections of similar revenues (Like the average tax collections from property) across neighboring municipalities similar in nature (e.g., Kolkata and Salt Lake). This will prevent false reporting of revenues by collectors. Combining this scheme (payments to collectors based on the average collections of neighboring LBs) with sudden checks by

[12] The appendix B discusses norms of prudence followed in London Borough and relevant for Indian ULBs.

ULBs in the event of large differences in revenues would maximize the incentives for those in charge of collection of parking fees or property taxes.

- Use of Technology in operations where it is most appropriate: Introduction of new technology can both cut costs as it reduces information asymmetry or directly augments the generation of revenues.[13] For example, MC can also introduce ''smart cards'' for payments of parking fee that would reduce the dependence on the third party which may have private information about the collection but may not have incentive to return the required amount to the ULBs. One can mention its recent drive for instituting computerized accounting system that can collect information about expenditure at the ward level which has reduced its costs of service delivery as it had narrowed he information asymmetry between KMC and outside contractors and other providers of service.
- Use of zoning of areas and designing property taxes based upon this geographical differentiation. Such a move would be equitable and expected to increase the cash flow on a regular basis. Moreover, by partitioning areas for the purpose of levying property taxes would make collection of cash flow more informative (average per capita collection in rich areas ought to be more than the same in poorer areas) about efforts of the employees engaged in the collection of such taxes in specific zones. If incorporated in the remuneration scheme, it would certainly reduce the deadweight costs of corruption and augment the revenue base as well.
- Use of private public partnership on mutual convenience. Like waste disposal and recycled products for private partner can be an example in this area.

2. **Creation of special purpose vehicle (SPV):**

   The state can create SPV for the MCs that will serve as both facilitators in both project management and financing of projects in multiple dimensions. Basically, creation and appropriate design of such body can resolve the co-ordination

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[13] As a concrete illustration, the MCs can take advantage of rising number of different types of vehicles in urban areas by offering a smart card for the pre-payment of parking fees at the time of registration (at a discount) which can refilled after the exhaustion of credit. This will immediately lead to a cash inflow and would save agency problems associated with manual collection of parking fees by contractors. Given the huge increase in the vehicles in urban areas, the sum thus collected could be significant as well. That is, the idea is that the MCs can take advantage of raising revenues from new outlets available in cities in efficient ways.

problems that had been referred to all throughout our case studies. These bodies, comprising technical personnel in management, operation and finance can replace a host of parastatal bodies that block efficiencies in operations and financing. Specifically, such SPVs can combine the untied grants that are disbursed to ULBs by the SFC together[14] with a part of OSR and reserve the future cash flows in escrow account or in sinking funds and commit them to investors for projects either selected or assisted directly by them. They can conduct auctions to sell a part of fund to institutional investors at a lowest rate (or design a non linear pricing scheme for both volume of loan for sale and its price), liaison with underwriters, maintain the sinking fund and in addition can offer technical expertise and monitor the ongoing projects. Creation of such SPVs thus can ring fence a big infrastructure projects from operations of the other parts and ensure smooth operations. In this way, such SPVs can contribute to the project management and procuring outside finance for a number of specific instances including:

- Big infrastructure projects initiated by large Municipal Corporations in a state.
- Similar type projects across the adjacent MCs and ULBs (like waste disposal or water management) that would preserve the economies of scale and resolve the problems of fragmentation of ULBs via financial integration where such SPVs can co-ordinate both technical aspects and elements of its financing of projects carried among neighboring ULBs.
- Design capital structure (percentage of debt and equity by each entity) for the projects.
- Pooled financing whereby they can assist smaller ULBs for having an access to both technical expertise and outside finance.

Basically, the first approach would augment revenues through a set of reforms which are also politically feasible. On the other hand, ***augmented version of SPV***,

[14] This SFC devolution from the state government to the ULB is fairly safe and therefore cash flows from the SFC grants that are untied could be used to support the borrowings of ULBs, thereby decreasing the risk to investors which in term would provide opportunity to raise funds at lower borrowing rate for ULBs.

drawn from Bangalore experience (KUIDFC)[15] would thus bridge between intricate process of operations and finance of infrastructure projects and would immediately serve as credit enhancements and would ease constraints to access to finance for Urban developments.

To conclude, it is true that the Municipal Bond market currently is in its lowest phase but thanks to JNNURM, many large ULBs have introduced reforms and carrying out projects. To rejuvenate the market, the next key idea would be to select revenue enhancing and politically least resistant reforms and successfully lock a part of the fund for the credit enhancement of the infrastructure projects via efficient institution specialized in infrastructure finance.

[15] The difference between KUIDC and our proposed SPV (which we call an augmented version) is that the latter would be responsible for operations, building up, contractual arrangements with suppliers and financial institutions as opposed to only procuring finance normally done by KUIDFC.

6. Appendix A: Pooled Financing Development Bonds for ULBs

Financing of projects for improving urban infrastructure has been a challenge with the limited resources available with Urban Local Bodies and the pressure of growth in urban centres in India. The ability of small and medium ULBs to access capital markets is constrained by their size and limited capacity in terms of professionals who are knowledgeable about financial markets. In order to enhance the access of ULBs to capital markets, the Government of India approved the Pooled Finance Development Fund Scheme in 2006. The broad objectives of the scheme are:

i. Facilitate ULBs to access the capital and financial markets for investment in essential municipal infrastructure.

ii. Facilitate development of bankable urban infrastructure projects.

iii. Reduce the cost of borrowing to local bodies with appropriate credit enhancement measures and through restructuring of existing costlier debt.

iv. Facilitate development of India's municipal bond market.

The Ministry of Urban Development provides the enabling policy environment, tax free provisions and the credit enhancement fund, the operationalizing of the PFDF rests with the individual states, by setting up the State Level Pooled Finance Entity (SPFE) which is explained in Figure 1 which provides the institutional framework for pooled finance. Several states such as Andhra Pradesh, Karnataka, Nagaland, Orissa, Rajasthan, Tamil Nadu, Kerala and Assam have set up SPFE to implement the pooled financing scheme. In Tamil Nadu, the state government has notified the Tamil Nadu Urban Development Fund (TNUDF) as the designated State Pooled Finance Entity. In Karnataka, the nodal agency notified for pooled financing is the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC). The "Pooled Fund" raised by the SPFE will be lent to specific projects undertaken by one or more ULBs. The flow of funds between investors and the projects financed through the PFDS is explained in Figure 2. The borrowing is done through a Special Purpose Vehicle (SPV) that is set up by the SPFE. Investors in the pooled fund benefit from credit enhancements such as escrow account, debt reserve and third party guarantees.

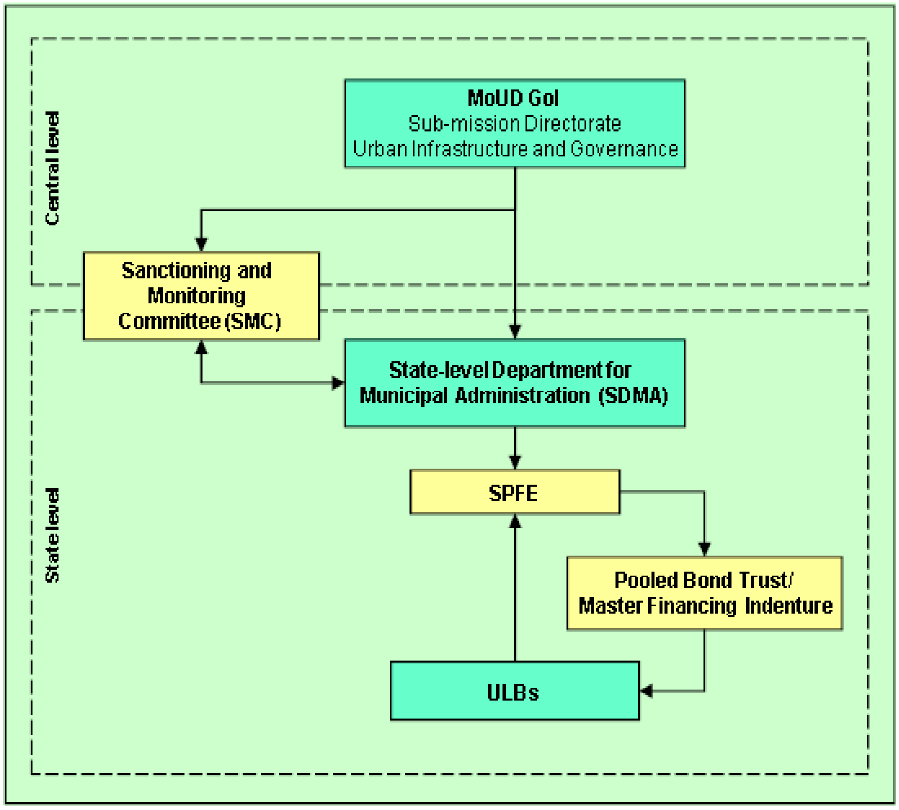
The Government of India, as part of the enabling framework provided a budgetary provision of Rs. 400 crores in the 10th Five Year Plan for the Pooled Finance Development Fund (PFDF).

Pooled finance bond issues could apply to the PFDF for grants to the extent of 50% of the credit rating enhancement fund or 10% of the bond issue, whichever is less. Further, upto 75% of the cost of project development would be reimbursed by the PFDF as a grant to the ULBs of approved bond issues. However, state governments and ULBs are required to undertake the reform process outlined in the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), thereby incentivizing state governments and ULBs urban governance reform, besides improvements on accounting and financial reporting by ULBs. In case of projects where the ULB plans to follow the Public-Private-Partnership (PPP) mode, the pooled bond can be used to fund the capital contribution required by the ULB in such projects. The funds raised from Tax Free Pooled Finance Development Bonds shall be used only for capital investments in urban infrastructure with preference for water and sanitation projects.

Karnataka has used the pooled fund framework starting with a bond issue in 2005. The Karnataka Water and Sanitation Pooled Fund, managed by KUIDFC, issued Rs. 100 crores of tax free pooled bonds in 2005 at a coupon rate of 5.95% for a 15 year tenor with 3 year moratorium. The bonds were guaranteed to the extent of 50% by USAID. The funds were lent by the pooled fund to Bangalore Water Supply and Sewarage Board (BWSSB) at 6.5% which compares favourably with lending rates offered by banks in 2005. Thus the tax free pooled bonds were able to raise funds at lower cost thus bringing down the cost of developing infrastructure projects. In 2009, Rs. 300 crores were raised by the pooled fund to support investments under the Chief Ministers Small and Medium Town Development Programme. This was funded through a term loan from Axis Bank for Rs. 300 crores and it will be repaid through the securitization of future SFC devolutions to ULBs.

During 2010-11, one issue of Tax-Free Bonds worth Rs. 83.19 crore as second tranche under Pooled Finance Development Fund (PFDF) Scheme was done by Water and Sanitation Pooled Fund, Tamil Nadu for six Under Ground Sewerage Schemes(UGSS) and one water supply project under implementation in seven Urban Local Bodies. In the 2011-12 budget provision of ` 0.01 crore had been made for the scheme. However, no expenditure could be made as no proposal was received during 2011-12. An outlay of Rs. 2500 crore has been proposed for Twelfth Plan. However, the lack of interest on the part of the states and ULBs in using the pooled financing framework shows that there are serious problems with the scheme and its intended objectives in providing pooled bond financing, particularly to the smaller urban bodies have not materialized.[16]

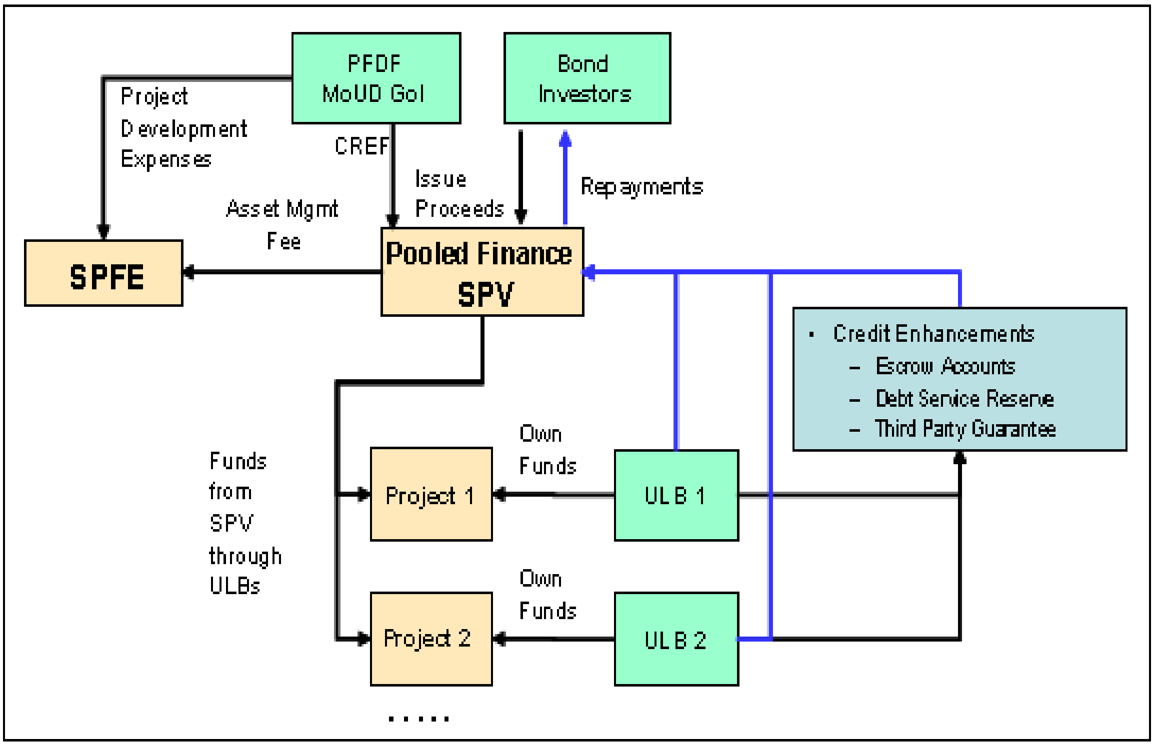
Figure A1: Institutional Framework for Pooled Finance



Source: Ministry of Urban Development, "Pooled Finance Development Scheme-Toolkits", 2008

[16] 2010-11 and 211-12 Annual report of the Ministry of Urban Development, Government of India.

Figure A2: Flow of funds in the Pooled Finance Development Scheme



Source: Ministry of Urban Development, “Pooled Finance Development Scheme-Toolkits”, 2008

7. Appendix B: Greater London Authority

Fiscal prudence adopted by Greater London Authority (GLA) and the Municipalities

Local authority spending can be divided into revenue expenditure and capital expenditure. On the whole, revenue expenditure is financed through a balance of central government grant including redistributed non-domestic rates and the locally raised council tax. Capital expenditure is principally financed through central government grant, borrowing and capital receipts. Capital expenditure is incurred when a local authority spends money either to buy fixed assets or to add to the value of an existing fixed asset with a useful life that extends beyond the financial year in which the investment was made.

The prudential system (Part 1 of the Local Government Act 2003) allows local authorities to raise finance for capital expenditure - without government consent - where they can afford to service the debt without extra government support. Authorities are required to make prudent provision for debt redemption, but decisions about debt management are for authorities. There is a requirement under the Local Government Act 2003 for local authorities to have regard to CIPFA's Prudential Code for Capital Finance in Local Authorities (the "CIPFA Prudential Code") when setting and reviewing their Prudential Indicators. The act requires the authority to set Prudential Indicators for the next three years, ensuring that the Authority's capital investment plans are affordable, prudent and sustainable.

Affordability indicator

- **Ratio of financing costs to net revenue stream** - highlights the revenue implications of existing and proposed capital expenditure by identifying the proportion of the revenue budget required to meet borrowing costs.
- **Incremental impact of revised capital investment decisions on Council Tax**

Prudence and Capital Expenditure Indicator

- **Estimates of Capital Expenditure** - This indicator is set to ensure that the level of proposed capital expenditure remains within sustainable limits.
- **Capital Financing Requirement** - measures the Council's underlying need to borrow for a capital purpose.This indicates the net long term debt outstanding for the Authority, after accounting for the availability of any temporary invested sums, in the previous, current and next three financial years.

Treasury Management Indicators

- **Upper Limit on fixed interest rate exposures - net outstanding principal**
- **Upper Limit on variable interest Rate exposures - net outstanding principal**
- **Upper Limit on fixed interest rate exposures - gross outstanding borrowing**
- **Upper Limit on variable interest rate exposures - gross outstanding borrowing**
- **Upper Limit on fixed interest rate exposures - gross outstanding investment**
- **Upper Limit on variable interest rate exposures - gross outstanding investment**

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