Institutional innovations for urban infrastructural development: the Indian scenario

Amitabh Kundu

The processes of structural adjustment and decentralised governance in India are expected to generate rapid industrial and infrastructural development. Although the negative impacts of this policy package, launched in the early 1990s, are noticeable in the slowing of public investment and in reduced access to basic amenities for large sections of the population, its proponents believe that these are transitory. They believe that efficient and accountable governance will be the driving force behind the provision of more and better economic infrastructure and basic amenities. The public sector organisations that failed to provide these services in a cost-effective manner have instead blocked enormous capital resources of the state without yielding adequate returns. These, along with other parastatal agencies such as the Development Authorities, were created in the post-Independence period. They had taken over many of the functions of local bodies, and must, therefore, be dismantled.

The government and the Reserve Bank of India have already imposed a degree of 'financial discipline' on these agencies, forcing them to generate resources internally, borrow at high interest rates from development-cum-banking institutions, or raise funds in the capital markets. This has restricted the scope, if not the volume, of their activities. At the same time, financial sector reforms that loosen the directed credit system have brought about a decline in mandatory investments in social infrastructure by financial institutions. Further, many of the infrastructural services are gradually being transferred to private agencies or managed on commercial lines. A more complete remedial package is being urged on India by the World Bank. It includes reducing public sector intervention, ensuring appropriate prices for infrastructure and urban amenities by eliminating or reducing subsidies, developing capital markets for resource mobilisation, facilitating private and joint sector projects, simplifying legislative

processes to promote optimal land use and location of economic activities, and so on (World Bank 1995, 1998; Expert Group on Commercialisation of Infrastructure 1996). Solutions are also being found in terms of transparent management of urban projects and innovative institutional arrangements.

With the passage of the 74th Amendment to the Indian Constitution (Ministry of Urban Development 1992) and corresponding legislation, amendments, ordinances, etc. at the state level, decentralisation has become the keyword in governance. People at municipal, district, and metropolitan region level should now be able to formulate programmes and schemes for meeting their own developmental and infrastructural needs, something that is impossible in a centralised regime. This, along with opening up of the capital markets, is expected to promote economic activity and better provision of basic services in urban centres.

The basis for this optimism, however, has not been examined empirically. This paper seeks to analyse initiatives that substantially affect the functioning of urban local bodies. It will first examine the efficacy and implications of the new system of maintaining municipal budgets in the context of devolving funds from state-level agencies.[1] This is followed by a discussion of the problems and possibilities of rating credit-worthiness of local bodies so that they may tap resources for investment in infrastructure, and by an examination of the implications of the Amendment Act for enabling the municipal bodies to undertake responsibility for development planning. The following section discusses the recent initiatives by these bodies to assign contracts to private agencies for the provision of basic services. An explanation for the limited success of the much-heralded slum networking projects is followed by an analysis of innovative systems adopted at the local level for mobilising resources from capital markets and institutional sources as well as the conditionalities imposed by lending agencies and financial intermediaries. The key question throughout is whether the proposed modifications will help to de-bureaucratise the local bodies, inject efficiency into their functioning, and improve accessibility of poor people to infrastructure and basic amenities. The final section summarises the results and conclusions, and reviews the validity of the development perspective behind the proposed solutions.

The new system of maintaining municipal budgets and devolution of state funds based on performance

Until recently, state governments supported local bodies in their budgetary expenditures through a gap-filling approach. This has been criticised for making the local bodies lax in resource mobilisation, tax collection, and efficiency, and in the era of globalisation, this policy is being discarded. The new approach is to promote infrastructural and industrial investment in cities and towns that can cover its own costs. The task for the national government is to create an institutional and legal structure that enables the 'most deserving cities' to access resources. Methodologies have been developed to determine worthiness based on 'objective measures' of local government performance, not merely when local bodies are seeking resources in terms of loans from national and international organisations or from bond offerings but also via transfers from the State Finance Commissions.

Unfortunately, there are serious conceptual and operational problems in establishing performance indicators using the budgetary data of municipal bodies and other local agencies. Most local bodies use a cash-flow-based single-entry accounting system. They are neither required to adhere to agreed accounting standards nor to be externally audited.[2] Further, as the concepts and categories used in the budgets and their coverage vary widely, identical ratios obtained for different organisations do not imply the same situation. Comparison of the indicators between municipalities would not, therefore, make much sense unless these concepts were standardised.

This lack of comparability can be found across several of the most important categories of municipal accounts, including capital earnings and expenditures (Narayanan 2000), current earnings and expenditures (NIPFP 1995), and earnings from assets. The Municipal Corporation of Delhi admits for 1996 that 'since compilation of arrears of property tax is a time-consuming process, exact figures can not be indicated' (MCD 1997).

What is urgently required, therefore, is that the definitions and coverage of the concepts be standardised, and that unambiguous indicators be established for the purpose of temporal and cross-sectoral comparison. However, the only clear-cut prescription to local bodies to assist them in garnering support from a large number of financial agencies has been to segregate the earnings and expenditure for different sectors and maintain separate accounts. This is often put

forward as a prerequisite for cities wanting to mobilise funds from international sources or capital markets (domestic or international). The Indo-US Financial Institutions Reform and Expansion (FIRE) Project in India, for example, proposes that the Pune Municipal Corporation establish separate accounts not merely for capital and current expenditures but also for different sets of sectors (Mehta and Satyanarayana 1996). With accounts segregated this way, selected sectors may be pooled to create 'cost centres'. Proponents of such measures would then impose or enhance user charges and restrict intersectoral transfers, thus making certain economically viable sectors independent of the general municipal budget. It is argued that this would go a long way towards attracting capital investments.

The Mumbai Municipal Corporation agreed to such an arrangement as a precondition for obtaining a World Bank loan to improve its water supply and sewerage facilities. It now maintains accounts for these sectors on an accrual basis while its other budgets are maintained separately. There are cases where receiving a small loan from an international or national agency has constrained city governments from cross-subsidising 'economically unattractive' sectors or areas.

Credit rating of local bodies for market borrowing: the need for a development perspective

One significant development in the context of investment in infrastructure and amenities in India is the emergence of credit-rating institutions. As the financial markets become global and competitive and the borrowers' base more diversified, investors and regulators increasingly turn to credit-rating institutions when making their decisions. The rating of the debt instruments of corporate bodies and municipal enterprises is currently being carried out by institutions like the Information and Credit Rating Agency of India (ICRA), Credit Analysis and Research (CARE), and Credit Rating Information Services of India Limited (CRISIL). By the end of 1999, 20 cities and urban authorities had already been rated by these agencies and the cases of another 15 were being processed.

CRISIL, which has received technical support from USAID under the Indo-US FIRE (D) project for the development of methodology for credit rating, first assesses the feasibility of the proposed project(s). It then rates the debt instruments on the basis of historical trends and projections of the borrower's (a) current earnings and expenditures, (b) debts and savings profile, and (c) economic and social profile of

the area governed by the entity.

Unfortunately, the indicators selected for these three dimensions and the weights assigned to them have neither been precisely defined nor made adequately transparent Indeed, difficulties arise in applying indicators to these dimensions, as they are subject to manipulation in budget or other policy documents by urban local bodies (ULBs) aspiring to raise resources from the capital market. Even the quantitative indicators considered by CRISIL when rating the urban local bodies– e.g. tax and non-tax receipts as percentages of total revenue, grants from state governments as percentage of revenues, total revenue deficit and overall deficit, debt-service coverage ratio, expenditure on core services and on wages and salaries as a percentage of total expenditure – have elements of subjectivity because budgetary information is compiled differently by different municipalities (Kundu *et al*. 1999).

More important than the data problem is the choice of development perspective. Any rating agency would have problems in deciding whether to go by financial performance indicators like total revenue or tax revenue (in per capita terms) or to build appropriate indicators to reflect medium- or long-term efficiency of management *and the economic strength of the service area*. One can possibly justify the former on the grounds that to service debts, what is needed is high income, irrespective of its source or managerial efficiency. However, if the agency wants to support projects that may have debt repayment problems in the short run but are likely to succeed over time, it would consider the level of managerial efficiency, structure of governance, or the long-term economic base. In such cases, the agency would use a different set of indicators. These might pertain to provisions in state legislation regarding decentralisation, stability of the government in the city and the state, per capita income of the population, level of industrial and commercial activity etc., all of which have a direct bearing on the prospect of increasing tax and non-tax earnings of the municipal body in the long run.

A review of the analyses done by CRISIL (e.g. CRISIL 1996) suggests that it has indeed not based its rating on a few quantitative indicators alone but on a host of other factors, including those pertaining to policy perspectives at the city and state level that are not easily measurable. The only problem here is that it has not specified all the factors or the procedures by which these qualitative dimensions enter the credit-rating framework and are aggregated with the quantitative dimensions.

Besides providing initial bond rating, the rating agencies also monitor the capacity of the issuer to make timely payments of principal and interest, throughout the term of the bond, and may upgrade or downgrade the rating on this basis. The continued monitoring of ULBs by a rating agency, which has been considered crucial for the 'effective operation of the secondary bond market', besides being a financial burden, may impose restrictions on the ULBs' functioning, particularly in undertaking activities to meet social obligations that do not have immediate financial return.[3]

Assigning planning responsibilities to local bodies

The 74th Constitutional Amendment has been hailed in India as a landmark in transferring powers to and creating an enabling environment for local bodies *to undertake planning and development responsibility*. The problem is that the local bodies are simply *not* yet equipped to take up such responsibilities, especially for capital projects (Joshi 1996). Indeed, considerable expertise is required to identify the infrastructural and industrial projects appropriate for the growth of a city or town, assess their environmental implications, and mobilise resources for them. Given their difficult financial situation, it is unlikely that these bodies will be able to strengthen their planning departments by recruiting technical and professional personnel in the immediate future. State government departments face similar constraints and are unlikely to be able to provide the technical assistance needed.

Instead, local bodies are resorting to the financial intermediaries and credit-rating agencies that have recently emerged with assistance from certain international organisations, as mentioned above. The principal concerns of these agencies and also of the companies likely to provide the finance are reflected in the preparation of the project. These include commitments by the borrowing agency to ensure cost recovery, legal and administrative restructuring for attracting private participation, etc.. Understandably, the 'investments which are clearly linked to enhanced revenues, are preferred' (Indo-US FIRE Project 1998a). The criteria proposed by the agencies thus impose financial perspectives and discipline on the local bodies that may not promote integrated development of the city or regional economy.

Assigning the responsibility of planning to local bodies does not automatically enable them to prepare projects based on a development perspective for the town or region. Preparing a long-term integrated

plan to answer the needs and aspirations of local people in different social and income brackets and then breaking it down to a set of meaningful projects, is a different exercise from that of identifying projects with high credit rating that would attract corporate investment. In an era when obtaining funds for investment from the private sector or capital markets has become the critical factor, it is not surprising that the exercise of preparing master plans has been thoroughly discredited (Joshi 1996).

Given this emerging scenario, the option of going for project preparation in formal or informal consultation with interested companies or the 'stakeholders', and with the financial institutions acting as intermediaries, seems to be an easy way out. Indeed, local governments in large cities have found this hard to resist.

Management contracts for services to be provided by private agencies

Deficiencies in infrastructure and basic amenities in India have reached alarming proportions with the decline in investment and financial support from the central and state governments to local bodies and the limited capacity of the latter to replace them with resources of their own (see Chakrabarti in this volume). This is forcing ULBs to work out alternative institutional arrangements to bridge the gap. Private sector participation in management of municipal services is one such arrangement. Different forms of participation have been designed with varying levels of responsibility and cost sharing between private and public agencies. The most common form is contracting out management of one or a set of services by the municipal bodies to private companies. This is expected to reduce substantially the costs incurred by local authorities and, at the same time, open up business opportunities for the private sector. A crucial concern for government is then to ensure that subcontracting does not lead to the dilution of social responsibility and exclusion of poor people and vulnerable sections from the formal delivery system.

This requires new regulatory and supervisory arrangements for monitoring and enforcing agreements with private or joint-sector companies. Establishing and effectively implementing these is no small challenge, as it is well known that, under the old system of state control, public agencies failed to meet a broad range of social objectives, including catering to the needs of poor people. Many of the same state agencies are now being called upon to design and implement

regulatory controls in a liberalised régime in which resources and responsibilities are more widely dispersed and less subject to direct control than before. Along with many other developing countries, India is receiving assistance from international agencies to lay a foundation for participatory management practices, including, for example, drawing up terms and conditions of contracts, increasing community participation in management, facilitating contacts with prospective enterprise partners and, often, negotiating contracts on behalf of local bodies.

Tables 1 and 2 list some of the cities that have entered into management contracts for provision of basic services. While not exhaustive, these illustrate the different sectors and management forms involving the private agencies that have gained currency in the past decade. The relatively recent nature of this phenomenon prevents systematic assessment of the costs and benefits of this form of privatisation. Reliable data on revenue and expenditure of local bodies before and after the subcontracting arrangement are not yet available. The same applies to the number of companies engaged in the provision of services and their profit levels. Even if such data were available, the ability of local bodies to reduce their financial burden through privatisation of services is in itself no indication of success of the arrangement. Such a judgement is possible only after the quality of the services and, more importantly, the extent to which these reach the urban poor, are known. No systematic data are available yet which cover these aspects at national, state, or local level. These would have to be obtained through field surveys at the micro level, and it gives cause for concern that such studies have yet to be conducted.

Existing studies on contractual agreements, progress reports, and other official documents reveal that there have been problems even at the level of the working arrangements and norms for day-to-day functioning. This is understandable because India does not have much experience in public–private partnerships at the municipal and sub-municipal levels. Many arrangements fell into serious difficulties after the formal launch of the projects. In Vadodara, for example, the arrangement with a private company to make fuel pellets from waste turned out to be uneconomic for the company because the waste it purchased from the municipal corporation had to be collected from sites that were too geographically dispersed. When the two parties could not agree on an alternative collection scheme, the company closed the operation. Similar difficulties have been encountered elsewhere.

Table 1: Management contracts for services in Indian cities in 1993	
Services/tasks	**Cities**
Sanitation and public health:	
• Conservancy; drain cleaning; sanitation; maintenance of sewage treatment plant	Guwahati, Banglore, Jodhpur, Navi Mumbai, Ludhiana
• Construction and maintenance of toilets	Faridabad, Delhi, Hubli-Dharwad, Aurangabad, Kalyan, Jaipur, Cochi
Solid waste management:	
• Garbage collection and disposal; street cleaning	Guwahati, Ahmedabad, Rajkot, Baroda, Banglore, Cochi, Mumbai, Pune, Jalandhar, Amtritsar, Ludhiana, Jaipur
• Compost plant; solid waste conversion	Vadodara, Kalyan
Roads and streets:	
• Road construction	Ahmedabad, Cochi
• Road maintenance	Banglore, Cochi, Jaipur
• Street lighting	Ranchi, Rajkot, Faridabad, Jodhpur, Navi Mumbai
Water supply:	
• Maintenance of water supply system	Navi Mumbai
Tax collection etc.:	
• Collection of entry tax; other local taxes and charges	Guwahati, Navi Mumbai
• Parking lots and collection of charges	Guwahati, Pune
Gardens and parks etc.:	
• Development and maintenance of garden parks, playgrounds, sports centres, swimming pools, planetaria, traffic islands	Rajkot, Baroda, Bombay, Faridabad, Hubli-Dharwad, Banglore, Cochin, Ranchi, Aurangabad, Navi Mumbai, Kalyan, Pune, Amritsar, Ludhiana, Jalandhar, Jaipur
Social forestry, tree planting:	Baroda, Rajkot
Other:	
• Bus stations and shelters	Ranchi, Cochi
• Ward security	Ahmedabad, Rajkot
• Market development	Ahmedabad, Kalyan
• Maintenance of vehicles	Rajkot
• Land development	Faridabad
• Provision of libraries etc.	Faridabad
• Milk market	Hubli-Dharwad

Source: Meera Mehta (1993)

Table 2: Partnership in urban services and infrastructure: selected examples		
City	**Service/facility**	**Form of partnership**
Nasik	*Octroi* post	Auction
Panvel	By-pass	Turnkey
Pune	Solid waste (resource recovery)	BOT (Build-Operate-Transfer)
Jaisingpur	By-pass	Franchise
Baroda	Solid waste	BOT (co-operative society)
Chennai	Solid waste	NGO industry (Exnora)
Chennai	Waste water recycling	Private company
Tiruppur	Water supply	Private company
Hyderabad	Light rail transit system	Joint stock company
Vishakhapatnam	Water supply	Large private financing
Indore (Rau)	Link road (Rau Pittampura)	BOT
Delhi-Noida	Link bridge transport	BOT (privatisation of routes)

Source: NIUA (1997)

Solid waste management is one service where local bodies have shown great interest in involving the private sector. The method of collection often involves participation of citizens' groups and NGOs. Indeed, success stories from a number of cities suggest that many urban residents are willing to invest time and money in an improved system of garbage disposal. Evidence to date does not indicate, however, that the provision of basic amenities to poor areas or households increases after a private company assumes the responsibility. And, indeed, institutional and legal structures obliging companies to maintain the same level of commitment to poor people as that offered by municipal bodies have yet to be proposed or established.

Evidence from several states suggests that the progressive transfer of responsibility from state governments to the unprepared ULBs for infrastructure development and other capital projects such as for sewerage and garbage disposal, is being passed on quickly to enterprises through contractual agreements. Even in cities where innovative projects have been developed in these areas (for example

the Slum Networking Project in Indore, described below), solid waste disposal coverage is less than 50 per cent. In situations such as these, excluded groups are unable to raise their voices or complain to the municipal body, as the latter tell them to take their complaints directly to the service provider. This has led to the fragmentation of responsibility and of the service-delivery system, with marginalised areas and people remaining under-serviced or unserviced. As a consequence, the risk of periodic epidemics touches the entire urban community.

It is difficult to assess the improvement or deterioration in the quality of the services in cities where subcontracting arrangements are in force. Nonetheless, the declining numbers of sanitation workers employed by the contracted agency should cast doubt on claims to improve services. Pre-subcontracting levels were already below the norms recommended by the Committee on Solid Waste. A survey conducted by National Institute of Urban Affairs (NIUA 1997) estimates the shortfall to be as high as 50 per cent. Yet, in most cases, after the subcontracting arrangement was launched levels fell still further. In a few cities, such as Pune, the number of sanitation workers is at 25 per cent of the recommended level. Even if residents assume some of this burden, it is clear that assessing and controlling the standards of services provided by these agencies would be extremely difficult unless the local community is actively engaged in the implementation process and unless strict norms of functioning evolve over time.

Involving community in infrastructure development and provision of services

Community participation gained currency as a component of development strategies in the 1980s as a consequence of the failure of public agencies to reverse worsening trends in the provision of basic amenities. It was argued that the community could help not only in social mobilisation but also in raising the financial resources that the local authorities needed badly. In many cases, it became possible to reduce project costs substantially if the prospective beneficiaries provided their labour free or at below market wage rates. Further, the pressure of peer groups under participatory arrangements resulted in better monitoring, more productive engagement of the beneficiaries in the project, and better recovery of development loans to individuals.

Today, community participation in urban development projects can be seen at different levels and in different forms. One of the most innovative forms of participation is occurring in the neighbourhood and slum improvement schemes launched by local bodies. These are being carried out by networks of community groups, enterprises, and city agencies with little financial support from the state or central government. Residents in the project area have been involved in all stages of the project, including monitoring and maintaining the services.

The Slum Networking Project (SNP) of Indore (1990–1997) is the most celebrated of these.[4] It involves provision of individual water taps and toilets connected to a sewage network, an integrated drainage and sanitation system, soft landscaping, and mobilisation of the community for monitoring the project. The underlying model recognises that participation does not mean leaving poor people to design and implement the project by themselves or simply to involve them in some mechanism of access to credit and loan recovery. The basic objective in a networking project is to make high-quality techno-engineering expertise available to the people, within the framework of community participation, so that slums are upgraded in a manner that integrates both the residents and their community 'into the fabric of city life' (Municipal Corporation of Ahmedabad 1998).

Although SNP Indore involved high-level engineering innovations, it was a low-cost solution: the sewer lines used the natural drainage system, the roads were designed for draining storm water, and both the sewer lines and roads were built at ground level. This substantially reduced the capital expenditure. More importantly, linking the slum sub-system with the city network promised to improve the quality of water around the city.

The SNPs in Indian cities have earned unprecedented acclaim nationally and are often internationally cited as examples of best practice. Yet, like many highly publicised cases of 'best practice', the reality on the ground is not always what it seems. Claims to 'dramatic transformation of the slums' through SNP remain to be demonstrated empirically. Moreover, the projects have yet to prove replicable on a large scale and therefore cannot be presented as an alternative to existing slum improvement strategies in the country.

Many of the assumptions of the model have not been met on the ground, thus limiting the project's achievements. The most important premise for the success of the underground sewerage system – that all

households would take individual connections for water supply and sewage disposal – is far from reality. The 1997 Impact Assessment Survey found that only about 34 per cent of the households had taken toilet connections, while for water connections the figure was as low as 16 per cent. Many could not afford the connection, as they had neither the resources nor any access to credit and banks would not extend loans to households not possessing legal title to 'their land'. Further, the quality of water was poor, with one third of households with tap connections reporting contamination, and two thirds reporting the pressure of the water supply to be inadequate.

In the absence of sewer connections, a large number of households discharged sullage on to the roads. Indeed, roads were supposed to act as drains, but only for storm water. Open disposal of sullage thus created extremely unhygienic conditions, posing health hazards to the entire community. Also, the premise that the city had sufficient water supplies to operate a city-wide underground sewerage system turned out to be false (Verma 2000). Techno-economic surveys revealed that the sewerage system in the city became choked for lack of water. Understandably, no improvement could come through the water quality of local rivers and lakes.

The strongest criticism of the Indore project is the neglect of community development (CD) activities (Verma 2000). No serious effort was made to create community-level organisations and involve them in the preparation of the plan and its implementation. Towards the end of the project, the CD staff had lost their credibility as the drainage system became choked and they could offer no solution. Instead, preoccupied with their own job security and post-project postings following the termination of the project, they ignored people's grievances.

Another celebrated case of SNP, Parivartan (Change Project), is underway in Ahmedabad. It comprises similar objectives and tools of intervention to that of Indore's SNP, but has been designed to avoid the major problems encountered there. Perhaps the most innovative aspect of the project is its intended reliance entirely on local financing, i.e. from residents, NGOs, Ahmedabad municipal corporation (AMC), and the private sector. To keep down costs and ensure proper functioning of the sewer, water and toilet connections have been made obligatory. Community development activities receive high priority, with NGO partners being involved right from the beginning. To ensure maintenance of the sewerage system, a revolving fund has been established with a

contribution of 100 rupees from each household. The difficulty of obtaining credit for slum households has been largely solved by the involvement of the SEWA (Self Employed Women's Association) Bank as a project partner (Dutta 2000).

The most disturbing aspect of the Indore SNP was that many of the slum residents were evicted within a few years of the upgrading. To allay such concerns, AMC gave assurance to slum-dwellers right from the outset that they would not be evicted for at least ten years. Similar assurances have come from private owners of the plots and slum areas that are to be improved in the second phase. The plot-owners, in turn, have been assured that their land ownership rights would not be prejudiced as a consequence of the programme.

Despite all the safeguards, Parivartan is encountering serious difficulties. Differences of opinion among the partners emerged even in the pilot phase. Of the original four slums scheduled for upgrading, three have not gone ahead because of the reluctance of their communities to raise or contribute the required resources. Conflicts developed between the engineering wing of AMC and Arvind Mills, the private company involved in the construction component of the project, arising from differences in work culture and decision-making procedures.[5] This led to Arvind Mills withdrawing from the project after the pilot phase. More disturbing, no other private company has come forward subsequently to participate in the project and provide financial support.

Today the project is being implemented in a selective and less ambitious manner by the corporation, a few community groups, and NGOs. Consequently, the concept of integrating all the slums into the basic fabric of city life is now something of a pipe dream. AMC is hard-pressed for resources and is trying to raise funds from several central and state government schemes. If successful, AMC may be able to carry the work forward, but at the cost of going against the fundamentals of the SNP project: to make urban development self-financing.

Arrangements for raising resources from capital market and financial institutions

The ongoing process of globalisation has serious implications for most local bodies and urban development authorities making major investments in infrastructure in India. By virtue of a host of domestic factors – the weak economic position of these bodies, uncertainties in the preparation and supervision of municipal budgets, and the lack of

interest by the private corporate sector in partnership financing – urban local bodies are compelled to seek innovative financing methods for their projects. More and more, the kind of financing that is available comes from international lenders or domestic institutions whose first responsibility is to assure prompt repayment at adequate rates of return. The pursuit of such goals is bringing about a sea change in modalities of financing by forcing the conditions for securing loans. It is, in fact, altering the content and objectives of the projects themselves.

In the USA and Europe, revenue bonds have been the main source of capital financing for ULBs. Under this system, funds for repayment are generated through the projects themselves, which are launched using the debt amount. This option is not available in India since urban development projects generally do not yield the required rate of return. Other forms of borrowing, such as general obligation bonds that commit the total budget of the local bodies, would not be of much help as many of these have significant budgetary deficits. Structured debt obligations (SDOs), through which bonds are issued on the condition that the borrowing agency pledges or escrows (places in trust as a deposit or security) certain buoyant sources of revenue like *octroi* (a duty levied on certain goods entering the city), property tax, etc. for debt servicing, could be more feasible. By such means, the repayment obligations are given priority and kept independent of the overall financial position of the borrowing agency. SDOs are designed in such a manner that loans are repaid through the committed revenue sources, irrespective of the overall budget, which may be in deficit. Unfortunately, the level of financing needed to fill the enormous deficit in infrastructure exceeds the escrow capacity of most local bodies to meet the debt-service obligations. As a consequence, they are often required to pledge other sources of revenue and grants as well, which is done in the case of general obligation bonds. Thus, the bondholders enjoy the security of certain dedicated revenue streams and, in addition, are given the faith and credit pledge of the city, thereby making the issue an SDO as well as a general obligation bond, as noted in the case of Ahmedabad discussed above.

Issuing authorities are often required to adhere to certain additional conditionalities, such as maintaining an average debt-service to credit ratio, pledging municipal assets with a certain asset coverage ratio, creating a sinking fund, etc., particularly if they are seeking a high credit rating. In case of possible changes in macro policies that may affect the budgetary position of the concerned authority (such as the

abolition of *octroi*), assurances of compensatory payment by state or central government have been stipulated. These are all precautionary measures to protect the interests of the investors.

This has not, however, discouraged a large number of ULBs from attempting to improve their credit rating, for the purpose of raising funds from the capital market. Achieving a budget surplus by cutting down, among other things, 'unremunerative social expenditures' is one of the preferred paths to this objective. However, as a consequence of stiff competition among the ULBs on one hand, and political and civil pressure to restore the level of social expenditure on the other, many ULBs are defaulting.

Organisations that mobilise resources by offering bonds or securities for sale to the public are also required to file a draft prospectus with the Securities and Exchange Board of India (SEBI). As many more ULBs seek to mobilise funds through public placement of the securities, SEBI approval will become common in the future. Such approval often involves additional conditionalities as well as modifications to the project structure and financing system.

Indeed, the general trend for protecting investors (purchasers of securities or bonds issued by ULBs and urban authorities) is in the direction of Europe and North America. Loans taken by subsidiary enterprises (of the ULBs) are to be clearly recorded, reported publicly, reduced to a minimum, or avoided altogether so that the contingent liability does not go beyond the repayment capacity. The role of trustees, whose responsibility it is to monitor ULBs' debt servicing and ensure that the borrowing agency does not have access to the pledged resources (both for the funds raised by it or by its subsidiary enterprises, until the loan is repaid), is to be reformed as well. This is to make trustees personally accountable to the bondholders, to reduce their wide discretionary powers 'to act in the larger social or community interest', and to insulate the trustees, as much as possible, from political influence. It is further proposed that the ULBs should rank their debt instruments in terms of priority so that the general public knows which obligation will have priority in repayment, in case of exigencies. All these arrangements would impose constraints in various ways on the normal functioning of ULBs.

Finally, attempts are being made to design a 'comprehensive debt limitation policy' at the state level. This would ensure compliance of ULBs to certain norms and set a ceiling on their borrowing capacity, based on their economic strength and repayment capacity. This system

would speed approvals by removing the requirement to seek approval from the state government in every case. Market borrowing on the part of local authorities can, thus, be made 'independent of the state government'. It is proposed that a market-linked agency like SEBI can take up the regulatory role instead.

International agencies operating in the urban sector have stressed the need to keep the issuance of bonds outside the regulatory framework of government and have pleaded for the development of an independent capital market. The Indian experience in this regard, however, has not been very encouraging. The few cities that were able to float bonds had to depend ultimately either on the guarantee from the state government or on its approval.

A major impact of making the capital market for the development of urban infrastructure independent of government would be the accentuation of inequality across regions as well as in relation to the size of urban centres. Understandably, under the new policy, a few large cities with a growing economy and buoyant revenue sources, would be able to access the market, by-passing the bureaucratic hassle of going through the government. With the discontinuance of the practice of state guarantee, smaller towns, however, would be in no position to mobilise resources. Consequently, the greater dependence on capital markets in future would increase disparity between cities and towns in terms of per capita expenditure and, consequently, the level of amenities (Kundu *et al.* 1999).

Provisions under the Income Tax Act that exempt the income received from bonds issued to finance infrastructure from tax liability may further enhance these disparities. Similarly, under section 88 of the Act, a certain percentage of investment on 'qualified infrastructure' does not come under income tax. These and other exemptions for infrastructure may give a boost to investment in municipal facilities like water-supply and sanitation systems. But better-off states and cities are likely to benefit most from such concessions. Given the bias towards investment in a select group of large cities, small towns in disadvantaged areas are unlikely to receive investment unless certain special concessions are designed for them.

The overview provided here suggests that recent developments in the capital market would, while liberating local agencies from the control of central and state government, place the former under more stringent conditionalities of trustees, commercial banks, and the SEBI, etc. that are in turn controlled largely by pure market considerations.[6]

Financial power would shift from the state governments to financial institutions, international donors, and credit-rating agencies that, through various innovative and complicated arrangements, would control expenditure patterns.[7] They would also be in a position to determine the types of projects to be undertaken and in certain cases the management system of the municipalities. It would, therefore, be extremely important to monitor the problems faced by cities in handling their budgetary earnings and expenditures after accepting such terms and conditions for raising resources from capital markets.

The processes discussed above for evaluating and approving development projects funded through SDOs, i.e. review by SEBI, concerned credit-rating agencies, and trustees, give the impression that projects are rigorously formulated and monitored when capital market finance is involved. The fact that there have been considerable delays in many cities in launching the identified projects and utilising the bond proceeds – obtained at high interest rates – must therefore be taken seriously. In a recent case, also in Ahmedabad, 'the bond proceeds were not used in the first year since project designs and tenders were not ready' (Indo-US FIRE Project 2000). This happened despite extensive technical support to the AMC from USAID in preparing the proposal, CRISIL's awarding the highest possible rating to the proposal after a thorough examination, and the AMC's acquiescence following SEBI's review of the bond prospectus 'to appoint private project management consultants to facilitate the process of project design, approval, tendering, construction supervision, quality control, and payments'. Taken together, these factors suggest that procedural formalities were completed more for administrative or bureaucratic purposes than in order to examine the economic feasibility of the project and its implementation.

Were it not for an impending water crisis, AMC's use of the bond proceeds may have been delayed even further. Indeed, the AMC successfully implemented an emergency bulk water supply scheme – the Raska project – in a record time of five months (Indo-US FIRE Project 2000). Had the officials not been able to obtain clearance from a large number of organisations at the central, state, and local levels so quickly, the negative arbitrage implications (paying a higher rate of interest of 14 per cent to bondholders than the interest it was receiving on bond proceeds) would have been far more serious. The claims of AMC that it could get highly competitive tenders from private contractors, as it had huge cash flow due to delays in other projects, can,

at best, be accepted as a hypothesis. As Ahmedabad is the state capital, and home to most of the state's economic and political élites, the likelihood that the project would be approved by the state government may be a better explanation of why competitive tenders were received than that the corporation had a large cash flow because of having been unable to undertake capital expenditure on schedule, after years of careful planning.

Conclusions and generalisations

This overview of the innovative methods of financing infrastructure development in urban India reveals that, given the resource crisis in the economy, projects have come to depend on capital market borrowing, privatisation, partnership arrangements, and community participation. These seem to be the only options available for providing infrastructure and basic amenities. Planners and policy makers have, in recent years, made a strong case to make parastatal agencies as well as local governments depend increasingly on their internal resources and institutional finance, in order to '[bring] in efficiency and accountability in their functioning'. Our analyses suggest that this changed perspective and the consequent decline in public investment are likely to accentuate disparity in the levels of amenities across the states and size class of urban settlements.

Furthermore, poor people are likely to be priced out of the various schemes that are being launched within the private and joint sector or through subcontracting arrangements. The companies participating in the schemes will ensure a change of perspective and force social objectives to be diluted. As a consequence, better-off colonies will tend to get more attention and a larger share of investable resources due to their higher disposable incomes and political patronage. The public sector schemes that have increasingly been made to depend on institutional loans and the capital market reflect similar tendencies. All these accentuate the gaps in the levels of basic amenities enjoyed in rich and poor areas of the city.

Efforts are underway to develop the capital market so that a few of the more efficient parastatal and local-level agencies can mobilise resources by issuing SDOs and other credit instruments. An analysis of the arrangements, worked out by financial intermediaries including the credit-rating institutions, for accessing the capital market, reveals that these can severely restrict the functioning of these ULBs and impede them from fulfilling their normal obligations. In several cases,

local bodies have been forced to pledge their regular earnings from *octroi*, grants from the state, etc., as a guarantee for debt servicing.

Importantly, the projects that are likely to be financed through the credit market would, by their very logic, be commercially viable and ensure profitability to the investors and other stakeholders. However, if the projects fail to generate the desired rate of profit, a local body may be left with no funds even for general administration since much of its revenue earnings will be diverted to pay investors or to complete the project. It thus appears that the policy of liberating the local governments from the regulatory and legislative controls of the state would place them under the direct control of financial institutions. This may be desirable from the viewpoint of developing a few global cities, providing space for businesses, office complexes, and residences for the executive and entrepreneurial class, but it may not answer the need for basic amenities for the majority of urban poor.

Unfortunately, much of the subsidised infrastructure and amenities provided through governmental programmes during the 1960s, 1970s, and early 1980s went to a few large cities and benefited mostly the high- and middle-income neighbourhoods. Since the beginning of structural adjustment in the early 1990s, the scope for this form of subsidy has been drastically reduced. Ever more urban infrastructure projects are relying on combinations of locally generated resources, including cost-recovery pricing, subcontracting arrangements, borrowings from capital markets, and various forms of community participation. However, evidence is beginning to accumulate that this régime of service provision accentuates inequality across regions and between different sizes or class of urban settlements. It may also increase intra-urban disparity and lead to segmentation, particularly in India's metropolis and other large cities. This would have serious consequences for micro-environments, local health, and law and order, and possibly discourage foreign and private investment in and around these cities. The whole process of liberalisation and efforts to create a few global cities in India may then fall into jeopardy. Welfare arguments apart, even the validity of efficiency arguments behind the institutional innovations can be disputed by taking a slightly longer-term perspective on urban development.

Notes

1 Hereafter, 'state' refers to the second tier of government in India, i.e. that which functions directly below the federal or central government.

2 Only recently have several cities and one state taken initiatives to improve accounting and auditing systems in urban centres (Indo-US FIRE Project 1998a and 1998b).

3 'Regardless of the purpose, once a rating has been issued, continued surveillance by the rating agency is important to identify changing conditions and trends in performance.' (Indo-US FIRE Project 1999)

4 Capital expenditures for this pilot project were funded with a grant from the UK's Overseas Development Administration (now the Department for International Development).

5 'The delay and friction was caused by lack of a clearly defined role of the AMC functionaries ... the AMC engineer began to play a proactive supervisory role, despite the fact that SHARDA trust had employed the contractor and was supervising him. There was tremendous confusion on site.' (Chauhan and Lal 1999)

6 The agencies active in the capital market admit that 'such stringent requirements may place some burden on the development of a municipal bond system' (Indo-US FIRE Project 1998b).

7 Madhaya Pradesh government, for example, has admitted its ability to provide escrow cover to only a few of the proposed power projects, although a large number of applications are lying with them (*Economic Times* August 1998).

References

Chauhan, Uttara and Niraj Lal (1999) 'Public–private partnerships for urban poor in Ahmedabad: a slum project', *Economic and Political Weekly* 6–13 March

Credit Rating Information Services of India Limited (CRISIL) (1996) 'Credit Rating of Municipal Bonds', rating report on Ahmedabad Municipal Corporation, New Delhi: CRISIL

Dutta, Shyam S. (2000) 'Partnerships in urban development: a review of Ahmedabad's experience', *Environment and Urbanization* 11(2): 13–26.

Expert Group on Commercialisation of Infrastructure (1996) 'Infrastructure Report: Policy Imperatives for Growth and Welfare', Ministry of Finance, New Delhi: Government of India

Indo-US Financial Institutions Reform and Expansion Project (1998a) 'The Pune Water Supply and Sewerage Project: focus on private sector participation', *Project Notes* 9

Indo-US Financial Institutions Reform and Expansion Project (1998b) 'Emerging issues in India's municipal bond system: the need for regulatory control', *Project Notes* 10

Indo-US Financial Institutions Reform and Expansion Project (1999) 'Developing a municipal credit-rating system in India', *Project Notes* 20

Indo-US Financial Institutions Reform and Expansion Project (2000) *Lessons Learned: Ahmedabad Municipal Bond and Water Supply and Sewerage Project*, New Delhi: USAID

Joshi, R. (1996) 'Financial management in municipalities', *Urban India* 16(2)

Kundu, A., S. Bagchi, and D. Kundu (1999) 'Regional distribution of infrastructure and basic amenities in urban India: issues concerning empowerment of local bodies', *Economic and Political Weekly* 34 (28)

Mehta, M. and V. Satyanarayana (1996) *Pricing and Cost Recovery for Urban Services*, New Delhi: Community Consulting International

Ministry of Urban Development (1992) *The Constitution Seventy-fourth Amendment Act 1992 on Municipalities*, New Delhi: Government of India

Municipal Corporation of Ahmedabad (1998) *Slum Networking Project*, Ahmedabad: AMC

Municipal Corporation of Delhi (MCD) (1997) *Budget 1995–96*, revised estimates, New Delhi: MCD

Narayanan, E. (2000) 'Municipal debt financing for urban infrastructure development', in K. Singh and B. Tai (eds) *Financing and Pricing of Urban Infrastructure* New Delhi: New Age International

National Institute of Public Finance and Policy (NIPFP) (1995) 'Redefining State–Municipal Fiscal Relations', Volume I (mimeo.), New Delhi: NIPFP

National Institute of Urban Affairs (NIUA) (1997) *Scope and Practice of Privatisation of Urban Services in India*, Study Series No. 60, New Delhi: NIUA

Suresh, V. (1999) 'Options for urban infrastructure development in India', in *Papers of the International Seminar on Financing and Pricing of Urban Infrastructure*, New Delhi: Human Settlement Management Institute

Verma, Gita Dewan (2000) 'Indore's Habitat Improvement Project: success or failure?', *Habitat International* 24: 91–117

World Bank (1995) *India Transport Sector: Long-term Issues*, Report No. 13192-IN, Washington, DC: World Bank

World Bank (1998) *Reducing Poverty in India: Options for More Effective Public Services*, Washington, DC: World Bank