Land-based Resource Mobilisation for Urban Development
Some Options for and Experiences of ULBs in India[1]

Ramakrishna Nallathiga[2]

1. Introduction

India has been experiencing a rapid growth of urban population since 1980s and increasingly becoming urbanized, *albeit* at a steady pace. In terms of percentage of total urban population, according to the Census 2001, around 28 out of every 100 persons in the country reside in cities and towns, as compared to only 11 per cent people living in urban areas in 1901. Table 1 provides the number of urban agglomerations/towns, total population, urban population and urban population as a percentage of total population in India for various census years from 1901 to 2001. It clearly shows that there is a steady growth in number of urban areas and the share of urban population to total population.

Table 1: Number and Population of Urban Agglomerations and Towns in India

Census Year	Number of UAs/Towns	Total Population	Urban Population	Urban Population as % of Total Population
1901	1,830	238,396,327	25,851,873	10.8
1911	1,815	252,093,390	25,941,633	10.3
1921	1,944	251,321,213	28,086,167	11.2
1931	2,066	278,977,238	33,455,989	12.0
1941	2,253	318,660,580	44,153,297	13.9
1951	2,822	361,088,090	62,443,934	17.3
1961	2,334	439,234,771	78,936,603	18.0
1971	2,567	548,159,652	109,113,977	19.9
1981	3,347	683,329,097	159,462,547	23.3
1991	3,769	846,387,888	217,551,812	25.7
2001	4,378	1,028,610,328	286,119,689	27.8

Source: Census of India 2001

[1] **This paper is a little revised version of background paper prepared for the national workshop on "Utilizing Land as a Resource" organised by the CGG with the funding support of Ministry of Housing and Urban Poverty Alleviation, Government of India on December 20-21, 2010.**

[2] *Knowledge Manager, Centre for Good Governance, Road No. 25, Jubilee Hills, Hyderabad – 500033(AP)*

Table 2 also implies that that India has been growing very rapidly after attaining independence, and it is characterized by rapid urbanization during the two decades of 1961-91. Table 2 also shows that the annual growth rates of India's total population as well as urban and rural population during this period were historically larger. The growth rate of urbanization during the latter half of the century almost doubled as compared to the first half of the century.

Table 2: Growth in Population of Urban Agglomerations/Towns: 1901-2001

Census Decade	Average Annual Exponential Growth in Population of UAs/Towns		
	Total	Rural	Urban
1901-11	0.6	0.6	0.0
1911-21	0.0	-0.1	0.8
1921-31	1.0	1.0	1.7
1931-41	1.3	1.1	2.8
1941-51	1.2	0.8	3.5
1951-61	2.0	1.9	2.3
1961-71	2.2	2.0	3.2
1971-81	2.2	1.8	3.8
1981-91	2.1	1.8	3.1
1991-2001	1.9	1.7	2.7

Source: Census of India 2001

The rising urban population and growth of urban areas raise question of how to provide and maintain the urban infrastructure for increasing number of people. The levels of income and expenditure of ULBs are often abysmally low to take care of responsibilities. The revenue base and expenditure levels of municipal corporations in India are far less when compared to that of State and Central government[i]. The revenue of municipal corporations accounts for less than 1% of the country's GDP (Other countries could contribute to 5% of the GDP) and the expenditure incurred by them is far less than the norms of service delivery[ii].

An important reason for low level of spending on urban development infrastructure is the low importance given to it in the three-tiered system of government, which also affects its fiscal base and performance to a good extent. The 74th amendment to constitution was aimed at giving a boost to the importance of urban sector, but it contributed to the rise in mismatch of revenue resources and

expenditure, as it specified only functional base (expanded the list) but remained silent on the fiscal resources to meet the same.

Along the increasing levels of urbanisation and rising urban population growth, the economic importance of Indian cities is also increasing in an era of globalisation; the development of urban infrastructure has to take place at a greater pace so as to absorb these pressures. In the absence of the same, a large number of people are forced to live in slums and squatter settlements, without adequate basic amenities and shelter. Yet, few municipal corporations in India have budgeted adequate fiscal resources for the urban infrastructure in general, and that for the benefit of urban poor in particular. This, in turn, brings forth the need for the cities to mobilise adequate resources to deal with the issues arising from urban poverty, which is increasing at a greater pace.

This paper is a curtain raiser on the need to look for revenue sources of the Urban Local Bodies (ULBs) beyond the conventional resources for undertaking urban infrastructure development. The conventional resources of the ULBs form the base of municipal finances. Other suitable options for resource mobilisation include both conventional and non-conventional methods, particularly land based resource. The experience of undertaking some of the reforms for improving resources/special efforts of resource mobilisation presented shall act as reference points which can be pursued and implemented in other ULBs.

2. Resource requirements of Urban Development

The investment requirements of urban infrastructure development in India are colossal. Estimates of fund requirements for urban infrastructure are available from several sources. The India Infrastructure Report 2001[iii] had estimated the total investment requirements of urban infrastructure in the range of Rs.79,300 crores to Rs.94,000 crores for the period 1996-2001. The fund requirements for water supply and toilet facilities in urban areas was estimated at Rs.21,000 crores for 2001-2011 and Rs 22,800 crores for 2011-2021. The Report had also assessed that the total

annual investment needs of water supply, sanitation and road sectors in urban areas at Rs.28,036 crores per year for the period 1996-2006.

Water supply and sanitation are important basic needs that affect the quality of life and productive efficiency of the people. Provision of these basic services continues to be among the core activities of the ULBs. About 89 per cent of urban population has access to water supply and 63 per cent of urban population has access to sewerage and sanitation facilities (Economic Survey, Government of India, 2004-05). These data, however, only relate to access, which is different from quantity of water and quality of service. The quantity as well as quality of water and the services provided often fall short of the relevant norms.

The Central Public Health Engineering Organisation (CPHEO) estimated the requirement of funds for 100 per cent coverage of urban population with safe water supply and sanitation services by 2021 at Rs 1,72,905 crores. Estimates by Rail India Technical and Economic Services (RITES) indicate that the amount required for urban transport infrastructure investment in cities with a population of 1,00,000 or more in next 20 years would be of the order of Rs 2,07,000 crores.

The Tenth Five Year Plan also emphasized upon the provision of these important urban infrastructure facilities with the norms of 100 per cent coverage of urban population with water supply facilities, and 75 per cent of urban population with sewerage and sanitation by the end of Plan period. There is a vast difference between the funds required and the likely availability of funds from different sources to the tune of 33.4 per cent (Table 3).

Table 3: Funds Requirement/Availability for Water Supply, Sanitation and Solid Waste Management in the Tenth Plan (Rupees Crores)

Estimates of Requirements of Funds		Likely Availability from Different Sources	
Water Supply	28,240	Central Government	2,500
Sanitation	23,157	State Governments	20,000
Solid Waste Management	2,322	HUDCO	6,800
Total:-	53,719	LIC	2,500

Other PFs & External Funding Agencies	4,000
Total	35,800

Source: Economic Survey, 2004-05, Government of India.

Obviously, the resources of these magnitudes cannot be easily mobilised from within the budgetary resources of Central, State and Local Governments. The Central Government, having realized the seriousness of urbanization pressures and having understood the importance of urban areas in promoting economic growth, started an attempt to provide investment support to the tune of Rs 4,000 crores in the annual budget of year 2004 through National Urban Renewal Mission (NURM), which is re-christened as Jawaharlal Nehru National Urban Renewal Mission (JNNURM) with the pledging of support to an extent of Rs 50,000 crores over 7 years time period. However, the budgets of State governments do not pledge such large commitment as they have a number of other development priorities on which a large amount is spent by them.

3. Revenue Sources of ULBs

Apart from fund flows from upper tiers of government in the form of grant or development funds, the ULBs would require adequate funds from their own sources to meet the objectives of facilitating urban development. Table 4 shows category-wise sources of revenue of ULBs in India. Most of the ULBs use tax sources and grants to finance their activities, while the other sources of revenue are often ignored or not tapped to the potential that exists. For example, public debt available from market – both institutional and individual/retail investors – is rarely accessed to finance the creation of new urban development infrastructure.

Table 4: Municipal Revenue Sources in India

Revenue Head/ Category	*Sources of revenue*
Tax revenue	Property Tax, Octroi, Advertisement Tax, Tax on Animals, Vacant Land Tax, Taxes on Carriages and Carts
Non-Tax revenue	User Charges, Municipal Fees, Sale & Hire Charges, Lease amounts
Other receipts	Sundry receipts, Law charges costs recovered, Lapsed deposits, Fees, Fines & Forfeitures, Rent on Tools & Plants, Miscellaneous Sales etc.
Assigned (Shared) revenue	Entertainment Tax, Surcharge on Stamp duty, Profession Tax, Motor Vehicles Tax
Grants-in-aid	(i) Plan Grants made available through planned transfers from upper tier of Government under various projects, programmes and schemes (ii)Non-Plan Grants made available to compensate against the loss of income and some specific transfers
Loans	Loans borrowed by the local authorities for capital works etc. – HUDCO, LIC, State and Central Governments, Banks and Municipal Bonds

Source:
Mohanty, P. K. (2003), 'Financing Urban Infrastructure: Some Innovative Practices of Resource Mobilisation', *CGG Working Paper*, June 2003.

The RBI-DRG Study (2008)[iv] pointed to several inadequacies in raising resources by the Urban Local Bodies (ULBs). The finances of ULBs clearly reflect a sorry state of affairs – the revenue receipts grow at a slow pace with a declining contribution of own sources, whereas the total expenditure grows at the rate equal or more than revenue. Much of the expenditure (almost 50-60% of total) goes towards staff salaries and O&M expenses[v]. Several ULBs do not have any revenue account surplus to transfer to capital account. This situation needs to be corrected through augmentation of resources at ULB level. It is imperative that the ULBs themselves make special efforts to mobilize the available resources within their jurisdiction and channel them effectively towards laying down the urban infrastructure services and their maintenance.

RBI – DRG Study (2008)[vi] also pointed that tax and non-tax resources have not been tapped upto their potential by several ULBs in India, for which reform initiatives need to be undertaken. Property tax is an important tax resource wherein

some cities have undertaken reforms to improve the base, but these innovations were limited. User charges are yet to be risen to such levels that they contribute adequately to the resource base of the municipal corporations. The intergovernmental transfers/grants should be used to help them in providing better infrastructure service delivery, particularly with respect to the urban poor.

While raising resources for urban development and for infrastructure service delivery, the golden rules of Bahl and Linn (1992) shall be referred:

- *Where benefits and beneficiaries are identifiable, levy user charges*
- *Where benefits are identifiable and beneficiaries are not identifiable, levy benefit taxes*
- *Where neither benefits nor beneficiaries are identifiable, levy general taxes*
- *Where administration and other expenses are involved, levy fees & charges*
- *Where long gestation capital works are undertaken, use bonds/ debt*

4. Resource Mobilization at Local level: Some Options

Municipal Resource mobilization needs not only strengthening the existing revenue sources but also using other sources of revenue. Therefore, both conventional and non-conventional sources need to be tapped to the extent possible within the City. The ULBs may benchmark their levy and utilization with reference to the better performing peers within the State as well as outside it. The ULBs may use the general principles of users pay, beneficiaries pay and polluters pay to the justification such that the citizens are well aware of the need for their contribution towards larger societal cause. Table 5 shows conventional and non-conventional resources that can be tapped by the ULBs.

Table 5 Conventional and Non-conventional revenue sources

S. No.	*Service Revenue Source*	*Conventional Source*	*Non-Conventional Source*
1	Property related	Composite Property Tax	Vacant Land Tax, Service Taxes, Surcharge on Land Registration Duty
2	Water Supply	Water Charges	Water Supply Donations, Water

	Related		Supply Connection Charges, Water Benefit Tax, Water Betterment Charges
3	Sewerage Related	Sewerage Charges	Sewerage Donations, Sewerage Connection Charges, Sewerage Benefit Tax, Sewerage Betterment Charges
4	Solid Waste Management Related	Conservancy Charges	Bulk Garbage Collection Charges
5	Town Planning Related	Building Permit Fee, Development Charges	Betterment Charges; External Betterment Charges; Open Space Contribution; Impact fee; Transferable Development Right; Premium FSI, Sub-division charges; Planning Permission Betterment
6	Engineering Related	No Sources	Road Cutting Charges, Street Tax, Frontage Tax, Cess on Infrastructure, Motor Vehicle Tax/Surcharge on Tax on Petrol and Diesel
7	Trade Licensing Related	Trade Licensing Fee	Business License Fee
8	Advertisement Related	Advertisement Tax	Hoarding Charges, Advertisement Placement Fees, Cable TV Fee, TV Advertisement Charges
9	Shops and Establishment Related	Shop Room Rent	Royalty on Auctions

Source:
Mohanty, P. K. (2003), 'Financing Urban Infrastructure: Some Innovative Practices of Resource Mobilisation', *CGG Working Paper*, June 2003.

The ULBs need to exploit various land based revenues, which have greater implication to urban growth and development and concomitant problems like slum formation, redevelopment, rehabilitation and resettlement. The funds realized from land based revenue sources can be effectively deployed for the improvement of urban poor people living in the slum areas. Several of these sources may already exist in the ULBs but the potential of the same may not have been exploited to fullest extent. Also, there are several other forms of revenues (or, variants of revenues) that need to be tapped and exploited. Table 6 lists out the various land related revenue sources that can be exploited by the ULBs for mobilizing resources.

Table 3: Exploiting Land-related Revenues in ULBs

Tax Variant	*Base of Source*
Site Value Tax	Current land rental or capital value of land
Land Gains Tax	Land capital gains – accruals in land Values
Betterments or Special Assessments	Increment in land values due to specific public expenditures including infrastructure
Development Gains Tax/Conversion Tax	Change of "Lower" to "Higher" land use (Once–and–for-all levy)
Purchasable Development Right	Purchase of development right
Auctionable Development Right	Purchase of development right in open auction – Land with FSI in auction in centres
Development in Kind/ Incentive Zoning	Obligation on Developers to install infrastructure or make certain land/facility available for community purpose e.g. Free land assignment
Land Transfer Tax	Stamp Duty connected with change of 'ownership' rather than change of `use'
Vacant Land Tax	Capital value of land not used for any purpose
Property Tax	Rental value or capital value of property – Self-Assessment

Source:
Mohanty, P. K. (2003), 'Financing Urban Infrastructure: Some Innovative Practices of Resource Mobilisation', *CGG Working Paper*, June 2003.

5. Resource Mobilisation of ULBs: Experience of Some Indian States

Utilising innovative instruments, particularly that are tied to urban land are limited but began to emerge across a host of Indian States, especially after the emergence of JNNURM. The following is a brief summary of it.

There are few municipal corporations in India that have managed to turn around their financial position and positioned themselves as successful cases that are emulation worthy. Ahmedabad and Indore are two such cities, which came out with some innovative methods of improving resource mobilisation[vii]:

- Ahmedabad Municipal Corporation was the first ULB in India to raise resources to the tune of Rs 100 crores through a general obligation bond. It has streamlined its octroi operations and reformed property tax levy in order to back up the debt service obligations of the bond. Though the resources raised from bond remained idle for two years due to procedural bottlenecks, the work tenders have shown a 10-15% decline in the costs quoted that resulted in some savings.
- Indore Municipal Corporation has prepared a city development strategy and undertaken a series of reform measures to raise revenues, particularly the property tax revenue, which helped it to turn around from a losing municipal corporation. The reform initiatives of Indore Municipal Corporation were largely kept simple but doable so that the time and ground do not get lost. Also, it focused on the management innovations, such as better decisions based on information systems.

The states of Tamil Nadu and Karnataka have come out with different institutional set-ups that leveraged the strengths of a pooled finance mechanism in order to raise resources through the issuance of bonds that helped them in successfully undertaking the water supply and sanitation projects and in meeting with the stipulated terms of the bond issuance.

The Gujarat experience has shown that (a) land being a scarce but important resource needs to be mobilised, such as through the awarding of development rights, town planning schemes (TPS), plot/layout readjustment and additional FSI/FAR, and (b) it needs to be used efficiently by the way of levy of various taxes, fees and charges for financing the development. Under the TPS of the Gujarat state, more than 250 schemes were implemented and 265 are being undertaken, in which land acquisition is made on awarding compensatory value of land – either land or development rights or money.

Andhra Pradesh state has also used land based instruments for resource mobilisation to a good level to finance the urban development projects. A new but

simplified system of property tax, based on 5 major parameters, was adopted. The public was informed about the rental value arrived from the simplified formula and objections were called for before property tax assessment returns filed by them. Vacant land tax, development charges, impact fee and goodwill auctions were also used widely to generate additional resources for the urban local bodies. HUDA has been using land auctions to mobilise resources.

Mumbai has a long experience of using Transferable Development Rights (TDR) as the means of resources for financing community infrastructure like parks, play grounds, DP reservations, slum area redevelopment etc. It also proposed the use of Incentive FSI as a means of financing large infrastructure projects and slum redevelopment projects. It is experimenting with a new capital-based property tax system that is proposed in a simplified form so that some of the inequity in the system could be overcome. Ahmedabad has also simplified its property tax system which is now based on certain basic parameters and it has been delinked from the Rent control act. An important step is also that the tax collection system has been improved by allowing payment through 16 city civic centres and 13 bank branches.

Maharashtra has shown a wide range of experience with respect to the mobilisation of resources for financing urban development. Land banking model was developed by the Magarpatta city with the active participation of the citizens, under which they would surrender land in lieu of an equal share of the development company[viii]. The development company would develop and sell land for the various uses and utilises the proceeds for further development of infrastructure. Pune has used transferable development rights (TDR) for acquiring land for development, which is modelled on the already successful experience of using TDR in Mumbai for wide range of purposes like road/ reservation/ slum development.

6. Leveraging Land for Resource Mobilisation: International Experiences

Leveraging of land for mobilisation of resources to finance the development of urban infrastructure has been a model that the West has followed at some or other

point in time. Large cities like New York, London and Paris were built, re-built and renovated using their own resources, including the land held by them for either direct financing of capital required for the infrastructure development projects or by securing/ raising debt using it as a mortgage or security; some blended financial instruments began to emerge later.

Land-based financing is fast becoming an important element of urban infrastructure finance in developing countries, especially in locations where cities are growing rapidly. Under the scope of this method, there are several approaches[ix]: sale of publicly held land to private sector through land auctions, levy of betterment charges and charging of impact fees. The basic underlying principle is that "the benefits of infrastructure projects are capitalised into land values", which works so long that the land markets are not subject to distortions and are well-functioning in terms of efficiency, equity and accountability.

Colombia has long used the contributions of *valorizations*, a form of *betterment levy*, to finance public works. It was the major contributor to municipal finance until 1980s and 1990s, after which its importance began to decline as it began to encounter difficulties of assessment and reforms in its design were not forthcoming. Bogota, on the other land, simplified the approach to *betterment levy* and converted it into an infrastructure tax tied to land value gains and therefore became successful. In both the cases, the attempt is to capture the increase in land value through the instruments.

Cairo, the capital of Egypt, has used *public-private partnership* (or, *joint development*) for infrastructure development to achieve some major investment into new town development on its periphery in the developable desert land. It also used *land auctions* for financing the costs of major highway connecting new city to the Cairo Ring Road.

Transfer of development rights – both development of rural land into urban as well as more intensive development – can also be used to help the financing of

infrastructure development. Sao Paulo, the capital of Brazil, took the approach of selling additional construction rights to help finance public investment surrounding designated growth-poles within the city.

Developer exactions require provision of internal infrastructure needed to meet development standards or else pay for its provision by the public authorities. These have been exercised by the cities in the USA to get the costs of these installations internalised into the site/building cost. The United States has also a long experience of using *impact fees* to finance part of infrastructure development cost in the cities. Models like 'pay-as-you-go' have long been existent in these cities, where tax-increment finance vehicles are used to defray development costs.

The Cities having their balance sheets heavy with urban land and property assets can exchange urban land with infrastructure development through selling or leasing of publicly owned land and using the proceeds to finance infrastructure development. This way they increase infrastructure assets at the cost of land assets. *Land asset management* of this kind can generate substantial revenue and followed by the cities of New York, Cape Town and Metro Manila. In the recent past, Mumbai has also used it to generate public infrastructure.

Value capture via project-related land sale can also be used by the cities for the financing of specific infrastructure development projects that further kick-start development. China has financed a large part of its urban infrastructure developed using special purpose vehicles that leverage land for mortgage loan and then pay off it through sales of developed land.

7. Way Forward

Resource Mobilisation is important for meeting the challenges of growing urban population and their needs of municipal services. In the absence of supply of such urban development infrastructure, more number of people are forced to live

with poor services and quality of life that hampers economic and human development. Municipal services are critical for urban poor in particular.

The conventional means of resource mobilisation i.e., revenue resources, themselves offer some potential for improvement. The successful experience of Indian cities points to improvement potential in property tax revenue in terms of :

(a) rationalising property taxation,

(b) reforming the levy and assessment methods,

(c) periodic revision and

(d) correcting inequities (as in Mumbai).

The non-conventional means like land based resource mobilisation are becoming more important when conventional resources are becoming limited. The ULBs need to utilise potential of land based instruments like land banking, land readjustment, transferable development rights, joint development/ PPP, impact fees and betterment levy are some of the means by which financial resources on land acquisition can be mobilised.

---

[i] Mathur, O. P. and S. Thakur (2004), *India's Municipal Sector*, A Study for the Twelfth Finance Commission, National Institute of Public Finance and Policy, New Delhi.

[ii] RBI-DRG (2008): "Municipal Finance in India: An assessment", Development Research Group, Reserve Bank of India, Mumbai.

[iii] Rakeshmohan Committee Report (1996): *Report of Expert Committee on Resource Requirements of Infrastructure*, Government of India, New Delhi.

[iv] RBI-DRG (2008), *Municipal Finance in India- An Assessment*, Development Research Group, Reserve Bank of India, Delhi.

[v] This was revealed in the RBI-DRG (2008) study.

[vi] RBI-DRG (2008), *Municipal Finance in India- An Assessment*, Development Research Group, Reserve Bank of India, Delhi.

[vii] Chetan Vaidya (2008) 'Innovative Resource Mobilisation in India', Paper presented at the National Workshop on "Resource Mobilisation in India" held at the Centre for Good Governance on June 28, 2008.

[viii] 'The amazing story of Magar Patta', Rediff Money, January 11, 2007 (http://www.rediff.com/money/2007/jan/11bspec.htm)

[ix] George E Peterson (2010), 'Unlocking Land Values to Finance Urban Infrastructure', *Trends and Policy Options No. 7*, The World Bank/ PPIAF