

Land as a Municipal Financing Option: A Pilot Study from India

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LAND AS A MUNICIPAL FINANCING OPTION: A PILOT STUDY FROM INDIA

ABSTRACT

In this study, we have made an attempt to assess the potential of land as a municipal financing tool in cities using a sample of four Indian cities. We have studied the institutional arrangements for land use between the urban development authorities and municipal corporations in the cities and have found that the responsibilities are often fragmented and sometimes unclear. The urban development authorities, being state government entities, are much better endowed with resources than municipal corporations. We find that if revenues from land leasing and sales by the urban development authorities were to accrue to municipal corporations, there is no clustering around any measure of central tendency and there is a huge range in the addition to municipality revenues that could result. Specifically, we find that there could be an increase in municipality's total revenues to the extent of 33 percent, own source revenues to the extent of 90 percent, and property tax revenues to the extent of nearly 930 percent, should revenues from land leasing and sales by the urban development authorities accrue to municipal corporations. In all cities, revenues from land leasing and sales are put to productive use given a majority is spent on capital projects. There is also enough local control over resources to be spent. Public private partnerships relating to land are more common with urban development authorities than they are with municipal corporations. While our empirical findings are uncertain with respect to the impact of land lease or sales upon revenues, a general observation is that outright sale of land is more conducive for revenue potential than leasing. Finally, an incidental finding is that urban development authorities allocate small portions of their land than is required, for affordable housing for the urban poor.

JEL Classification: H27, H71, H72, H82

Key words: Land, Municipal revenues, Municipal finances, Land lease, Land sales, Cities—India

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CHAPTER 1: INTRODUCTION AND GAPS IN THE LITERATURE

Introduction

In this introductory chapter, we first lay out some definitional issues focusing on urban areas, urban local bodies and their criteria. Then we dwell on city finances, provided as background for why we look at land as a financing option for cities. Following this, some distinctions are made within urban areas and the ideal and relevant unit of analysis for the study is described. Then we discuss the gaps in the literature and highlight why this study makes a contribution to the literature. Finally we focus on some big ticket land transactions that have been taking place in the country to motivate the study.

Definitional Issues

In India, the 74th Constitutional Amendment Act (CAA) (1992) recognized urban local bodies (ULBs) as the third tier of government. The 74th Amendment classified urban local bodies into three tiers: municipal corporation for a relatively large urban area, municipal council for a smaller urban area, and *nagar panchayat* for an area in transition from rural to urban. Unfortunately no quantitative criteria such as population, revenues or expenditures, are specified for distinguishing between *larger* and *smaller* urban areas. However, five criteria are listed by the 74th Amendment for classifying an area as an ULB: population, population density, revenue generated, percentage of employment in non-agricultural activities and economic importance. Given there is considerable amount of discretion in interpreting the criteria above, there is significant variation in the number of ULBs across various population groups (listed in Table 1.1). The growth in ULBs is the same as the growth of UAs in the country (at 2.4 percent during 1991-2001), which implies that Indian urban growth is neither intensive nor extensive.¹

It should be mentioned that there are many different kinds of urban bodies in the country. World wide, countries define urban areas typically by the number of residents,

¹ Extensive urban growth refers to more growth in the *number of cities*, whereas intensive urban growth refers to more growth in *existing* cities.

population density, proportion of people not dependent upon agriculture, or the provision of public utilities and services such as electricity and education. Another common criteria found in many commonwealth countries is the “continuous build up area.” There are no universal standards, and different countries define them differently. The Census of India defines settlements having the following characteristics as urban areas:

- (a) a population of five thousand or more;
- (b) a minimum density of 1,000 people per square mile or 400 persons per square kilometer; and
- (c) at least seventy five percent of work force outside agriculture.

Table 1.1: Urban Local Bodies and Their Populations, 1991 and 2001

Population	1991		2001		Average annual growth rate	
	Number of ULBs	Urban population (million)	Number of ULBs	Urban population (million)	1981-91	1991-2001
100,000 and above	322	122.29	423	172.04	3.87	3.41
50,000-100,000	421	28.76	498	34.43	2.66	1.80
20,000-50,000	1,161	35.27	1,386	41.97	2.72	1.74
10,000-20,000	1,451	21.08	1,560	22.60	1.76	0.70
5,000-10,000	971	7.39	1,057	7.98	0.64	0.77
Less than 5,000	289	0.97	227	0.80	-1.52	-1.93
Urban agglomerations >1,000,000	23*	70.99	35*	107.82	5.22	4.18
Total	4,615	215.76	5,151	279.82	3.14	2.60

Source: Mathur (2006).

* This is the number of UAs with more than million plus population, which consist of more than one ULB, as described later. They do not refer to the number of ULBs as the column heading specifies rightly for the other rows.

In India, a city is a more specific term referring to a town with a population of 100,000 or more. In general, urban agglomerations are areas of 1 million population or more, an UA, according to the Census of India, is one with the following characteristics:

- a. A city or town with continuous outgrowth(s), the outgrowth being outside the statutory limits, but located within the boundaries of the adjoining village or villages;² or
- b. Two or more adjoining towns with their outgrowth(s); or
- c. A city with one or more adjoining towns with their outgrowths all of which form a continuous spread.

Defined in this way, there are more than 350 UAs in the country. Usually, economic and other activity having fiscal implications, comprising of residence, work commutes and shopping trips are frequently spread across the UA. For instance, it is common for a person to live in the suburb, commute to the central city for work. In this manner, he consumes public services of the areas of his residence as well as work. Therefore fiscal arrangements have to reflect this. Hence the UA would be the appropriate unit of analysis in most instances.

Importance of Land as a Source of Revenue

While there is substantial amount of variability in the revenue capacity of India's cities, in this pilot study, we explore the potential of land as a revenue raising tool for municipalities.

The sphere of municipal taxation was in India sometime ago enlarged to include land tax and tax on land values, however, with the exception of a few local bodies, little progress has been reported regarding the levy/enhancement of land taxes by local bodies.³ A high tax rate on land encourages improvements on land and provides a

² An outgrowth refers to a conglomeration of houses outside the formal limits of a town (not constituting a settlement/village on their own), having a high degree of interdependence with the town.

³ With the twin object of securing revenue in respect of urban lands put to non agricultural uses and acting as a disincentive to concentration of urban lands in the hands of a few rich persons, the levy of urban land tax was introduced in Madras for the first time in 1963 by Tamil Nadu Urban Land Tax Act, 1963. The Tamil Nadu Urban Land Tax Act, 1966 was introduced in Chennai City from July 1, 1963, to levy tax on urban lands except the lands which are under agricultural operations. Under this Act all the urban lands were assessed to urban land tax, at a flat rate of 0.4 per cent on the market value of each urban land. The market value of each urban land was determined, with reference to the sales statistics of the lands in and around the area where the urban land under reference is located. Ever since this act was enacted, it has been extended to many municipalities in Tamil Nadu (http://www.tn.gov.in/rti/proactive/revenue/handbook_ULC_ULT.pdf, retrieved September 2, 2008).

disincentive for large speculative landholdings. A high land value tax would decrease the market value of land and provide a stimulus to develop all land to its full potential. Japan and New Zealand are countries where property tax is levied on land only (OECD, 1983). Jamaica and the state of Hawaii of the United States are examples of entities where there are many landowners with large landholdings and where they have shifted their tax bases and increased the tax on land.⁴ However, as Peterson (2007) points out, local governments frequently have more flexibility in *managing* their assets than they do in adjusting tax rates, or introducing new taxes which require higher-level governmental approval (as in China) or be prohibited entirely by the fiscal framework.

One of the means by which local governments increase revenues in the absence of an effective taxation system is through public land leasing (Ding (2005)). One option that has been given much less attention in municipal finances is their land assets. In fact, many cities and municipal governments have access to substantial land assets such as public buildings, housing, and municipally owned enterprises. Most often, their expenditures are also land related, such as those incurred on housing for public officials. In fact, a draft study completed by NIPFP (2007) finds that in the Kolkata metropolitan area, expenditures on housing for municipal officials constituted the single largest component of their expenditure.

In many instances, asset sales are attractive as a way to mobilize investment resources as Peterson (2007) points out. This is not an example without precedent. In fact, as Peterson (2007) points out, the city of Bratislava, Slovakia, financed about 15 percent of its annual capital budget from privatization proceeds.

While such examples can only be a temporary arrangement, there is no doubt that land is the most valuable asset on municipal balance sheets. It is also easy to understand that since local governments make infrastructure investments on their land such as water supply networks, roads, and schools, which are likely to be capitalized in the land value. Further, urbanization and economic growth drive up land prices. In fact, Sridhar (2004) summarizes the disparity in real estate prices between the central business district and the suburbs of some of India's metropolitan areas. Hence, municipal governments have every

⁴ http://www.unescap.org/huset/m_land/chapter9.htm. Municipal Land Management in Asia: A Comparative Study, UNESCAP:Bangkok, 1995.

right to capture the outcome of economic growth which manifests itself in increased land prices, and also their own investment through sale (see Peterson, 2007).⁵

Unit of Analysis

While the UA is the appropriate unit of analysis in most instances, as described earlier, we study only the primary city in the case of all the chosen sample cities in this pilot study, since most of the big ticket land transactions are likely to take place in the primary central cities of UAs. Further, the data are also more likely to be available only from the central city than from the other, smaller local governments.

In any case, the diversity across UAs in the country is worth noting. While some UAs such as Kolkata have 41 urban local governments (including Kolkata, Howrah and Chandan Nagore Municipal Corporations), a municipal council, and other smaller local bodies, Chennai UA has 38 urban local governments, (both as of the 2001 Census), there are several UAs that have only one or two local governments. Moreover, there are a large number of UAs that are in the process of consolidating their governance by merging local governments. For instance, the Hyderabad UA until recently had 11 local governments, but now has merged all these into one Greater Hyderabad Municipal Corporation. Similarly, the Bangalore Mahanagara Palike's erstwhile 7 local governments have now merged into one Bruhath Bangalore Mahanagara Palike, in the interests of metropolitan governance, and one umbrella body overseeing service delivery in the entire metropolitan area as a whole.

Despite all these changes in urban and metropolitan governance, the central city is still likely to be the most important component of the UA (see Voith (1992)). So it is important to understand if there are alternative sources of revenue for cities, and if yes, how they are spending it. In this study, we explore the potential of land as a financing tool for municipalities.

⁵ In India, a number of state government agencies such as the Karnataka Industrial Areas Development Board (KIADB) also acquire and dispose land. For instance, as of July 2008 (Times of India, July 24, 2008), the KIADB has acquired 869 acres of farmland for a proposed hardware park, in addition to the over 50,000 acres of surplus land waiting to be disposed through a specially formed realty corporation. There have been reports that over 1,00,000 acres of land was lying with the state government of Karnataka in 2007 of which some 28,000 acres were encroached upon by politicians, builders, government servants, and many landless poor (some of them being former owners who lost their land during acquisition). A committee (Venkatswamy Committee) was set up to investigate these encroachment cases, but little was known of its report or recommendations (Times of India, July 24, 2008).

Gaps in the Literature

Land leasing and sales have been time tested in other similar countries. This has been documented in the literature. In fact in the aftermath of Proposition 13, which froze property tax assessments in the state of California, USA, California's localities turned to land assets as a means of financing infrastructure. Such a phenomenon is not restricted to developed countries alone.

Deng (2005) points out that in China, it was only in 1988 that the Constitution was amended and in 1990 was the ground lease system formally approved by the central government, and nation-wide adoption of public land leasing started in 1992. The paper finds that without public land leasing, local public goods are completely capitalized in wages. Deng finds that public land leasing is Pareto improving because it eliminates free riding on the consumption of local public goods and establishes the link of rent capitalization. It also helps to shift local government's role from a production manager to public goods provider.

Peterson (2007) presents evidence that many cities in China have financed more than half of their urban infrastructure investment from land leasing, while borrowing against the value of land on their balance sheets to finance much of the remainder. As Chan (1997) points out, most of land leasing revenues were assigned to municipal governments (in the ratio 5:95 (5 percent to central government and 95 percent to local government) as part of the 1994 fiscal reforms. Chreod (2005) points out that several municipalities studied in the World Bank's City Development Strategies had freed up land for resale in the urban centre by moving their city hall and other related municipal buildings to a new location outside the urban center and auctioned the vacated land to developers. Hong (1996) found that the Hong Kong Government captured about 39 percent of the land-value increments occurring between 1970 and 1991 from land leased in the 1970s. More important, the captured value financed 55 percent of the average annual infrastructure investment between 1970 and 1991.

Peterson (2007) also presents evidence regarding Ethiopia which recently introduced land leasing as a financing device for cities. Except for water tariffs, which some regions allow municipalities to adjust in light of service costs, land leasing is the

only source of revenue over which municipalities have policy control. Ethiopian policy, by specifying that a municipality shall earmark 90 percent of all land-leasing proceeds for infrastructure investment, ties revenues from land leasing directly to municipal infrastructure investment.

Peterson (2007) also presents evidence from India, focusing on land sales and auctions by the Mumbai Metropolitan Regional Development Authority (MMRDA). The startling finding is that sales from MMRDA land auctions in just one complex (Bandra-Kurla complex) in January 2006 was a staggering Rs.23.0 billion, which was two times more than the total infrastructure investment made by the Mumbai Municipal Corporation, during 2004-05 (which was only Rs.10.4 billion) and four times more than MMRDA's own infrastructure investment in 2004-05 which was a mere Rs.5.4 billion. Indeed, *Vision Mumbai* by Bombay First and McKinsey (2003) identifies land sales as one of the most important components in the public sector's contribution to infrastructure financing.

In this study, we have tried to answer the question as to whether land is a good source of revenue. One may also ask how land can be made a part of overall financing. Here some international comparison of institutional structures where land financing is used extensively could help. Table 1.2 presents several such examples from around the world where land leases/leases are a significant mode of financing urban infrastructure. Peterson (2009) points out that land-based financing of infrastructure can be divided into three categories: developer exactions, value capture, and land asset management.

Developer exactions require developers to go beyond installing infrastructure facilities at their own site. They oblige a developer to finance part or all of the costs of external infrastructure needed to deliver public services to the site. Thus developers are required to build subdivision roads and also help pay for major access highways to the area. They may be required to help pay for the trunk lines that deliver water and for wastewater removal and treatment systems. In some cases investment responsibilities are assigned through formal public-private partnerships.

Value capture builds on the principle that the benefits of urban infrastructure investment are capitalized into land values. Because public investment creates the increase in land values, many land economists argue that government should share in the

capital gain to help pay for its investment. Public authorities have used a variety of instruments to capture the gains in land value created by infrastructure investment. Betterment levies, which impose a one-time tax on gains in land value, are one such instrument. Most countries in the world have experimented with betterment levies at some point, typically taxing away 30–60 percent of the gain in land value attributable to infrastructure projects.

Table 1.2: Selected Cases of Land-based Financing in Developing Countries

Location and activity	Amount and use of proceeds	Comparative magnitude
Cairo, Arab Republic of Egypt: Auction of desert land for New Cities (May 2007, 2,100 hectares)	\$3.12 billion, to be used to reimburse costs of internal infrastructure and build highway connecting to Cairo Ring Road	117 times total urban property tax collections in country; equal to 10% of national government revenue
Cairo, Arab Republic of Egypt: Private installation of “public” infrastructure in return for developable land (2005–present)	\$1.45 billion of private infrastructure investment, plus 7% of serviced land turned over to government for moderate-income housing	Will provide infrastructure for a range of basic services covering more than 3,300 hectares of newly developed land, without financial cost to government
Mumbai, India: Auction of financial center land (Jan. 2006, Nov. 2007, 13 hectares) by Mumbai Metropolitan Regional Development Authority (MMRDA)	\$1.2 billion, to be used primarily to finance projects in Mumbai’s metropolitan transportation plan	10 times MMRDA’s total capital spending in fiscal 2005; 3.5 times total value of municipal bonds issued by all urban local bodies and local utilities in India since 1995
Bangalore, India: Planned sale of excess land to finance access highway to new airport built under public-private partnership	\$500+ million. On hold; land will be used instead for ministry buildings and government-built industrial space	Minimum sale proceeds were projected to considerably exceed costs of highway construction and acquisition of right-of-way
Istanbul, Turkey: Sale of old municipal bus station and former administrative site (Mar. and Apr. 2007)	\$1.5 billion in auction proceeds, to be dedicated to capital investment budgets	Total municipal capital spending in fiscal 2005 was \$994 million. Municipal borrowing for infrastructure investment in 2005 was \$97 million
Cape Town, South Africa: Sale of Victoria & Albert Waterfront property by Transnet, the national transportation authority (Nov. 2006).	\$1.0 billion, to be used to recapitalize Transnet and support nationwide investment in core transport infrastructure.	Sale proceeds exceeded Transnet’s total capital spending in fiscal 2006; equal to 17% of 5-year transport investment plan prepared in 2006
Bogotá, Colombia: Betterment levy.	\$1.0 billion collected in 1997–2007, and \$1.1 billion planned for 2008–15, for financing city street and bridge improvement program	Betterment fees finance 50% of street and bridge improvements. Other planned sources of financing: \$50 million International Finance Corporation loan; \$300 million international, peso-linked bond issue

Source: Peterson (2009)

Land asset management recognizes that the balance sheets of many public entities already are top-heavy with urban land and property assets. At the same time the cities in which the property is located suffer acute infrastructure shortages. Under these conditions it makes sense for public authorities to exchange land assets for infrastructure assets. They do this by selling or leasing publicly owned land and using the proceeds to finance infrastructure investment. Several of the transactions summarized in Table 1.2 are of this type.

The startling evidence presented in Table 1.2 indeed shows that land is not an asset in any city that can be overlooked or ignored for its potential as a financing tool. What is missing indeed is the fact that no systematic studies have been conducted to evaluate the collective potential of land in India's cities. Specifically, no studies have looked at the potential of land as a revenue generating source in India's municipalities. No attention has been paid to the importance of land assets in municipal balance sheets or the revenue stream from land, and how they could contribute to financing municipal infrastructure. In this study, we study the revenue stream from land in a sample of four large Indian cities over a ten-year period to assess its contribution to municipal finances.

Land Transactions

There is plenty of anecdotal evidence that big ticket land sales have been taking place across the country. For instance, the government of Karnataka acquired land for the new international airport (at *Devanahalli*) from farmers and village/town inhabitants. It handed over 1,600 acres to the Bangalore International Airport Ltd. and retained 408 acres. In March, 2007 the government announced it would auction off the retained land in parcels of 25 acres, for an estimated Rs.2,000 crore. However, in late June 2007 the chief minister announced that this decision was being re-considered and that the land might be leased instead.

There is another example of the land phenomenon from Bangalore. Bangalore has a Prevention of Unauthorised Construct Cell in the Bangalore Urban Deputy Commissioner's Office. It is clearing land of unauthorized construction, and either selling the cleared land at auction or allocating it to the Bangalore Development

Authority (BDA) for low-income housing (there was some indication that some land may be allocated to Karnataka Housing Board and Karnataka Slum Clearance Board as well). In all, authorities found that 18,447 acres had been illegally encroached upon in the outskirts of Bangalore.⁶ As of mid-July 2007, 8,000 acres had been recovered. Of this, 4,000 acres were to be auctioned off and 4,000 to be allocated, mostly for low-income housing. The auctioned land was sold for up to Rs.1-2 crore per acre. On June 27, 2007, 18 acres in various parcels were auctioned for 9.55 crore. On June 28, 2007, 28.18 acres were auctioned for 19.12 crore (based on news items from the Hindu and Deccan Herald, June and July 2007). Thus the auctioned land was sold respectively for Rs.0.53 crore and Rs.0.68 crore per acre.

Similarly, the Hyderabad Urban Development Authority auctioned off 69 acres in 15 plots at *Kopatet*, 20 km. from the city. This is land next to the outer ring road that is being built. Land was acquired as part of acquisition for road construction. The 69 acres were auctioned on July 20, 2006, for Rs.703 crore. The minimum price per acre for auction purposes was set at 4.5 crore per acre. However, average actual price exceeded 10 crore. The highest priced parcel went for Rs.14.45 crore per acre.

Several such examples abound from other cities in the country. Between December 2006 and March 2007, the Haryana Urban Development Authority auctioned off land for 740 crore, including one 2,700 sq meter site for Rs.73.4 crores. Some of this land was proposed for public private partnership (PPP) models of development. A 5 acre site was auctioned February 4, 2007 in Gurgaon for Rs.255.2 crores (which turns out to be more than Rs.50 crores per acre, or US\$12 million per acre), targeted for 5-star hotel development. The NOIDA Authority auctioned land in November, 2006 for Rs.8 crores 31 lakhs, at a price of 6.11 lakh per square meter.

There are significant variations in the price of land across cities based on the above examples. It is not quite clear if these variations are due to the quality of the disposal process or the nature of land contracts.

In any case, it is clear that big ticket land transactions are taking place in cities across the country. However, there has been no collective attempt to assess the

⁶ Apart from illegal land encroachments, there are stories of land grabs in Bangalore which are described in the forthcoming chapters.

quantitative relevance of such land deals on the fiscal health of urban local bodies. The literature shows this conclusively. The objective of this study is to fill this gap in the literature.

This report is organized as follows. The next chapter spells out the objectives of the research precisely and outlines the methodology of the work based on primary data. Chapter three describes the institutional arrangements for land use in the selected cities. Following this, Chapter four focuses on the potential of land as a revenue source both for UDAs and municipal corporations in the four cities. Chapter five summarizes the findings by presenting a synthesis, draws policy implications and presents concluding remarks.

CHAPTER 2: OBJECTIVES AND METHODOLOGY

Land in urban areas is a scarce resource which needs to be optimally utilized if the objective of affordable housing is to be attained and in order to halve global poverty by 2015, as set out in the Millennium Development Goals (MDGs).

In India, certain laws were enacted to regulate and control the use of land especially in urban areas. The Land Acquisition Act of 1894 was enacted for building up of an adequate stock of urban land for public interest purposes such as for low-income housing, road widening, development of open spaces such as parks and other amenities. Such land is typically acquired by the government through payment of compensation to landowners as per market value. However, the payment and adequacy of compensation are always contentious with large tracts of land being acquired by the government at low prices for purposes of industrial development. It is not clear that the urban poor have benefited from the provisions of this Act (Sridhar (2008)).

The Urban Land Ceiling and Regulation Act (ULCRA) of 1976 was enacted to exercise social control over urban land so that it is equitably distributed and optimally utilized. This act specifies that no individual or enterprise can hold beyond a certain limit of *vacant land* above which they need to declare it to the government and sell it for a price considered low by market standards. Given ULCRA's socialist objectives, many social groups continue to ask for its continuation. However no empirical assessment has been done of ULCRA's relevance, functioning or utility. Most of the states have repealed it due to its adverse impacts on restricting the supply of urban land by reserving too much for "public purposes". It was also evident that ULCRA was a charter for corruption since it became a tool to enable large scale land holding by the government which directed it to whatever purpose it considered fit. There was also no evidence that the land so acquired was used for the urban poor including housing for them, hence has long outlived its utility. In any case, the above laws enabled the government to possess large amounts of land at its disposal.

It should be mentioned that another of ULCRA's objectives was meant to curb speculation in urban land transactions. Hence it is natural to expect that following the repeal of ULCRA in most states, speculation continues to plague urban land markets in India. For instance, investors buy a piece of land in peripheral areas of cities for a low

price. Following this, suppose that the government announces a Special Economic Zone or a technology park in that area and creates all the infrastructure including roads and other municipal services (such as water and sewer networks), telecommunications, power, schools, and hospitals, resulting in the doubling or trebling of land values. While the original investor has contributed nothing to this increase in land value, he continues to hold it until such time that it appreciates significantly in value, then sell it off and make huge capital gains. The investor has every incentive to then sell a part of his land and go to a different part of the city and buy land to use for further speculation. Such speculation results in a general rise in the price of land. It must be readily clear that the cost of the land is the big chunk in the cost of housing, when compared with the cost of construction, hence it is easy to imagine that speculation with land causes huge increases in the price of housing as well.

In 2008, the government started to consider proposals from several sick public sector units (PSUs) to sell over 1,300 acres of land in the various states worth several thousand crores of rupees and use the proceeds for revival of business (Economic Times, August 4, 2008).⁷ Land from PSUs such as National Textile Corporation (NTC) mill lands were sold in many states, most prominently in Mumbai. In addition, land of many state PSUs have been sold in states like Andhra Pradesh and West Bengal. There is no uniform policy on the sale of land by PSUs, but is left to the discretion of the concerned PSU and the government. Surplus land identified by some companies are on lease while most of it is provided free of cost by the centre or state governments. Considering the huge amount of land that the government owns and has accumulated in various ways, and the expected speculation and capitalization that have been taking place, it must be the case that state and local governments must be using land as an effective financing tool.

Objectives

The objective of this research here is to gather systematic evidence regarding the actual potential of municipal land as a revenue generating source. In India, a large

⁷ The companies which wanted to encash their surplus land included Heavy Engineering Corporation (HEC) of Ranchi with 894 acres of surplus land, Hindustan Photo Films (over 150 acres in Tamil Nadu), National Textiles Corporation (over 130 acres, of which 93 acres is in Mumbai), Hindustan Machine Tools (HMT) (which has over 30 acres of surplus land in Bangalore), and Indian Telephone Industries (ITI) with land in several states.

amount of urban land is held by urban development authorities (UDAs) and it is possible to use the revenues from their sales as an infrastructure financing strategy. However, there is very little systematic research thus far that throws light on the important role played by land held by the UDAs, in municipal financing.

In this research, we intend to answer the following questions:

- a. What is the potential of land as a revenue generating source in India's cities, when we compare to the total revenues, own source revenues and property tax revenues being generated by cities?
- b. How are the proceeds from land leasing and sales realized, given that land is held by agencies different from the municipal authorities in many cases? Answers to this question are quite important since it means that infrastructure financing can become a much simpler process once the value of land is realized.
- c. Is the land being disposed off by sale/auction by the Urban Development Authorities/Municipal Corporation being given on freehold or leasehold? How does the nature of this transaction affect land prices and revenues of the local body?
- d. Has land been used as a resource to encourage investments in developing urban areas through public private participation (PPP)? For e.g., development of flyovers with access to shops underneath the flyover or development of business centres or even housing estates with land as an input from the local body.

As Peterson (2007) points, urban development authorities (UDAs) in India's cities hold substantial amounts of land as part of urban development projects. In new areas, these UDAs acquire land under public purpose regulation (which has come under a lot of public scrutiny recently because of special economic zones), develop them with infrastructure networks, and then sell to developers and end-users. Once the capital costs of the projects are recovered, the UDAs typically hand over the developed parcels to the municipal government for their operation and maintenance. This is notwithstanding the several institutional overlaps that exist with respect to land use in India's cities (see Sridhar (2006) for one such example taking the case of Ludhiana, India).

Methodology

Given the sparse research in this emerging area, we gather primary data from selected million-plus cities in the country regarding the revenues UDAs and municipal corporations have realized from land leasing and sales. Once these data are gathered, we compare them with revenues from the property tax, their total revenues, own source revenues and actual expenditures on various infrastructure projects.

We start from Urban Local Bodies' (ULBs') revenues and suggest to this an increment that could result from the potential of land sales and leases by UDAs, as an addition to existing municipal revenues. We examine all revenues and expenditures in nominal terms.

Currently, some land is held by municipal corporations, revenues from the sale or lease of which accrue to them (and is classified under their 'non-tax' revenues). However, as described earlier, a substantial amount of land is held by UDAs in cities and their revenues do not accrue to the ULBs, and hence is not accounted for in the ULB revenues reported by the various finance commissions. Thus this work has implications for merging functions of the UDAs and the ULBs, as also indicated by Rajaraman, Mathur and Majumdar (2005) and Mathur and Peterson (2006). It is useful to note that since the Jawaharlal Nehru National Urban Renewal Mission (JnNURM) specifies municipalities to prepare a Master Development Plan and other statutory plans, a review of the role of UDAs vis-a-vis municipalities will be required to be done by all cities.

Sample of Cities

For purposes of this work, we chose four million-plus cities in the country – Bangalore, Jaipur, Ahmedabad and Kolkata -- that are representative of a variety of characteristics.

This sample of cities is geographically far flung enough to be representative of several regions in the country. They are also from a variety of states experiencing different stages of economic growth. Bangalore and Ahmedabad are located in fast growing states, whereas Jaipur and Kolkata are in the relatively slower growing regions of the country.

We discussed with Bangalore (with Bangalore Development Authority (BDA) and Bruhat Bangalore Mahanagara Palike (BBMP)), Ahmedabad (Ahmedabad Municipal Corporation and Ahmedabad Urban Development Authority), Jaipur (Jaipur Municipal Corporation and Jaipur Development Authority) and Kolkata (with Kolkata Municipal Corporation and Kolkata Metropolitan Development Authority) to confirm that data from sale, leases and auctions of land and their revenues did exist for a number of years. Given the specialized nature of these data and its availability in these cities, these are the cities we choose for an examination of the questions above.

The size of these cities is also diverse enough to be representative of a wide variety across the country. While Bangalore and Kolkata are metropolitan (with their population being greater than five million) where big ticket land transactions have been taking place (see Chapter 1 for examples), Ahmedabad and Jaipur are million-plus cities which are medium-sized cities with moderate public land transactions, when compared with the others. Moreover, Jaipur is in Rajasthan where municipalities, particularly the smaller ones, derive a large proportion of their revenues from land leasing and sales.

This sample also represents a variety of fiscal arrangements in cities used by them for financing their expenditures. Ahmedabad in Gujarat continues to have the octroi, whereas the other cities are in states that have long since abolished the octroi.

Finally, this sample also represents a variety of institutional arrangements for provision of important public services such as water supply. In Rajasthan, a para-statal agency such the state's Public Health Engineering Department is entrusted with the responsibility of providing water supply. In Bangalore, the provision of water supply is the responsibility of the Bangalore Water Supply and Sewerage Board (BWSSB) whereas in the other cities, the municipal corporation is entrusted with this responsibility.

While the cities identified for purposes of this work are UAs consisting of the primary central city along with other or smaller local bodies, the work proposed above is performed at the level of the municipal corporations of the identified cities.⁸

⁸ In the case of Bangalore, the Bruhath Bangalore Mahanagara Palike now represents one UA in place of the earlier Bangalore Mahanagara Palike (BMP), seven city municipal councils, and one town municipal council. The Ahmedabad UA consisted of 13 ULBs, and the Kolkata UA, 41 ULBs as of Census 2001. Jaipur was not an UA as of 2001, in the way in which the Census defines it.

This is for because, while sale of lands is an important source of non-tax income for municipalities in states such as Rajasthan (see Rajaraman, Mathur and Majumdar (2005)), particularly for the smaller municipalities,⁹ it is unlikely that smaller ULBs maintain systematic data either regarding revenues from land sales, expenditures met out of them for infrastructure services, even for a single year, let alone a time series. Hence all data are gathered and analyses conducted in primary cities rather than in UAs.

The next chapter discusses the institutional arrangements for land use in place in the sample cities of study. It also describes instances of public private partnerships relating to land use in the selected cities.

⁹ Rajaraman, Mathur and Majumdar (2005) refer to the report of the First State Finance Commission for the state which reported sale of lands accounting for 8–9 percent of the total income of municipalities, and as high as 15–16 percent of the income of smaller municipalities.

CHAPTER 3: INSTITUTIONAL ARRANGEMENTS FOR LAND USE IN THE SELECTED CITIES

In this chapter, the institutional arrangements for land use in the selected cities are described and compared. In all cities, there is an urban development authority (UDA) that has additional control over land resources in the city, in addition to the municipality. Hence the arrangement between the UDA and the municipality is described in the case of all selected cities. In general, few cities allow freehold of public land by private parties. In most cases we examined, it was only leasehold of land that was common. This is to presumably ensure some accountability over the ownership of public land and its use.

This chapter is organized as follows. For every city, there is a description of its socio-demographic characteristics followed by a description of the institutional arrangements for land use. Socio-demographic and economic characteristics such as income, literacy rate and workforce participation rates are important for the study as they impact the economic base, revenue capacity, and the cost of providing public services in the city. There is also a description of private participation in the government's land development projects in the form of public-private partnerships (PPPs), and whether land was used as collateral for obtaining loans. There are several models of PPPs. In the context of the private developer assuming responsibilities of a local body, government guidelines suggest that townships should assemble land for peripheral services such as police stations and milk booths to be handed over free of cost to the government/local authority. The developer will retain the lands for community services such as schools, shopping complex, community centres and hospitals to be developed by himself and made operational before the houses are occupied. After developing these facilities, the developer has to make it available to the local authorities free of cost. The PPPs in this chapter make distinction between proposed projects, those under implementation, and implemented projects.

The next sections in this chapter talk about the background, the institutional arrangements for land use, and PPPs in each of the cities. When discussing the PPPs in each of the cities, we make a distinction whether the PPP is proposed, under implementation or have already been implemented.

Ahmedabad: Background

Ahmedabad is the biggest city of Gujarat which lies on 23° 1' North Latitude and 72° 37' East Longitude on the banks of river Sabarmati. It is the seventh largest city of the country with an area of 281.08 kms and a population of 4.5 million according to 2001 Census. After the bifurcation of ex-bilingual Bombay state in May 1960, Ahmedabad was the capital of Gujarat, till it was shifted to Gandhinagar; a newly constructed capital town at a distance of 24 kms in 1970. Ahmedabad is now a district headquarters and many state-level and district-level offices are located in the city. The city is agglomerated with the surrounding towns of Dani Limda, Naroda, Odhav, Ranip, Sahijpur Bogha and Sardarnagar.

Basic Socio-economic Characteristics

Ahmedabad, which accounted for 8 percent of the total and 23 percent of the urban population of Gujarat, was estimated to have generated 17 percent of the state's income in 1995. Ahmedabad, in 1976-77, with 7 percent of the total population, had generated 14 percent of the total state's income. The per capita income in the city was found to be almost double than that of the state's average (NIUA, 2001). It is clear that, to sustain high rates of economic growth in the state, cities have to be competitive and sustain the state's economy.

As of 2001 census, the total population of the Ahmedabad Urban Agglomeration (UA) is 4,525,013. The central city, Ahmedabad Municipal Corporation (AMC), accounts for a substantial portion of the UA's population and households. The population of AMC area, being 3,520,085 as per Census 2001, and 2,876,710 as per 1991 census, accounted for 77.79 per cent of the UA's population in 2001 and 86.85 per cent in 1991. With 552,164 households in 1991 which increased to 692,257 in 2001, AMC households accounted for 76.75 per cent of the UA's households in 2001 and 86.02 per cent in 1991. Thus while constituting a substantial part, the significance of the AMC has been declining over time and that of other, smaller local governments, which have been merged into the UA, increasing.

The literacy rate in Ahmedabad UA increased from 79.59 per cent in 1991 to 83.06 per cent in 2001. The central city's literacy rate is on par with that of the UA.

AMC's literacy rate increased from 78.75 per cent in 1991 to 82.91 per cent in 2001. While the UA's workforce participation rate increased from 34.06 per cent in 1991 to 36.54 per cent in 2001, AMC's work force participation rate increased from 34.04 per cent in 1991 to 36.52 per cent in 2001, closely mirroring that of the UA. The percentage of AMC's marginal workers (out of total workers) was only 1.22 percent in 1991, but increased to 4.76 per cent in 2001, which shows increasing incidence of unemployment.

According to the 1991 census, the classification of workers in different categories shows that 35.68 per cent of the UA's workers were engaged in manufacturing (non household industries), 25.14 per cent engaged in trade and commerce, 9.18 per cent in transport and communications, 4.71 per cent were construction workers, only one per cent was cultivators and agriculture labourers, with the remaining being engaged in other services.

According to 1991 census, the classification of workers in different categories shows that a higher proportion than in the UA, 37.07 per cent of AMC were engaged in manufacturing (non household) industries, 25.50 per cent engaged in trade and commerce, 9.07 per cent engaged in transport and communications, 4.59 per cent were construction workers, only 0.55 per cent were cultivators and agriculture labourers and the remaining were engaged in other services, quite close with that of the UA, except in the case of manufacturing in which the AMC is more specialized.

Thus the profile of Ahmedabad is one of an educated labor force, of high income relative to that of other states, with a substantial proportion of workers in manufacturing and services, especially so in the central city, AMC. Hence while the city's high income which is its tax base, indicates its relatively higher revenue capacity, it certainly makes sense to also evaluate the potential of land as a financing tool for the AMC.

Ahmedabad Municipal Corporation

Ahmedabad is administered by the Ahmedabad Municipal Corporation (AMC). Some of the regions surrounding the city are administered by the Ahmedabad Urban Development Authority (AUDA). The AMC was established in July 1950 under the *Bombay Provincial Corporation Act, 1949*. For administrative purposes the city is divided into 5 zones - central, east, west, north and south. In 2006 a new zone 'new west

zone' was formed. The area covered in this zone was formerly governed by AUDA. It is further divided into 55 wards. Overall, three corporators are elected from each ward, who in turn elect a mayor.

Institutional arrangements for land use between AMC and AUDA

The Ahmedabad Municipal Corporation (AMC) and Ahmedabad Urban Development Authority (AUDA) are the two relevant agencies which are concerned with land use in the city. While the city government, Ahmedabad Municipal Corporation (AMC) was established in July 1950, the Ahmedabad Urban Development Authority (AUDA) was constituted under the Gujarat Town Planning and Urban Development Act of 1976, in 1978 to regulate and monitor the development in the periphery of the corporation limits and the adjoining 300 villages and 9 municipalities. The AUDA was established to prevent the city's haphazard growth.

An area of 190 square kilometres is under the jurisdiction of Ahmedabad Municipal Corporation (AMC); 150 villages and 9 municipalities in the periphery of the city covering an area of 1,104 square kilometers are under the jurisdiction of AUDA. The area within the AMC limits consists of:

1. The traditional city center within the fort walls with relatively high-density development, large concentration of commercial activities and narrow streets;
2. The eastern sector accommodating large and small industries and low income residential areas, and
3. A well planned western sector with wide roads accommodating major institutions and high-income residential areas.

About 1,294 square kilometers of land in the Ahmedabad Urban Agglomeration (UA) belongs to AUDA's jurisdiction, as far planned development and provision of infrastructure is concerned, of which 190 square kilometers belong to AMC as far as provision of public services is concerned. It is not uncommon for AUDA to build infrastructure in AMC areas as well. Recently several local governments within the

Ahmedabad UA were merged into the AMC, increasing the burden of delivering public services.¹⁰

The major function of AUDA is to undertake the preparation of the development plan, town planning schemes, regulate the development and collect development charges in the area of its jurisdiction. According to the Gujarat Town Planning and Development Act (originally of 1976, and amended in 1995 and 1999), the functions of AUDA are to undertake the preparation and execution of development plans or town planning schemes, to carry out surveys for the same, to guide, direct and assist the local authority in planning, development and use of urban land, to control development activities in accordance with the development plan, to levy and collect fees for scrutiny of documents submitted to the authority for permission for development, to execute works in connection with supply of water, disposal of sewerage and provision of services and other amenities, to levy and collect fees for the execution of such works, to acquire, hold, manage and dispose of property, to enter into contracts with any local authority which is necessary for its functioning, carry out any development works in the area or other supplemental functions assigned to it by the state government. Among others, specific relevant provisions of the Gujarat TP Act of 1976 include:

1. Acquisition of land by AUDA upon payment of suitable compensation, in the event that no infrastructural facilities are to be made available to landowners;
2. Payment by AMC to AUDA (which has not yet been made) so AUDA may discharge its functions effectively;
3. Permission to sell land.

Thus the original Gujarat Town Planning Act of 1976 does not prevent AMC and AUDA from selling land, as is clear from the above. Even with this, most land transactions by AMC are in the nature of leases which are usually long term in nature. The leases are made for long periods such as 50 or 99 years such that they are almost in the nature of sale with restrictions on ownership and use. The TP Act interestingly makes mandatory payment by the AMC to AUDA so that AUDA may discharge its functions effectively. However, what is needed is a reverse flow of funds from the AUDA to the

¹⁰ Given AUDA is a state government entity, the decision to merge these areas into the AMC is a decision of the state government.

AMC, given AMC's burden of merging additional ULBs and its increasing burden of public services.

AUDA gets no grant from the government nor does it provide services such as sanitation, water supply or solid waste management like local bodies. Currently the way in which AUDA gains land for its infrastructure development is as follows: A land pooling system is followed whereby AUDA gets 40% of land in every land parcel in its jurisdiction, out of which some is allocated for housing, roads, parks, and some reserved for housing for the Economically Weaker Sections (EWS).¹¹ The remaining 60 percent of the land remains with the owners. AUDA provides land owners with roads, drainage, sewers and storm water drainage in lieu of the land acquired. AUDA's development control regulations specifically those relating to the floor area ratio, apply to the AMC area, and overrule any existing AMC town planning rules which may be applicable and which are in conflict (p.48, AUDA General Development Control Regulations).

Spatial arrangements of land uses determine the population distribution and infrastructure demand patterns in the city. As discussed, AUDA is responsible for land use planning within its jurisdictional limits. As stated above, the area under AUDA may be seen as various subunits depending on the administrative jurisdictional limits and extent of development. Of this, the area consisting of AMC, outgrowth adjoining AMC and areas likely to develop in the ten years has been designated as Ahmedabad Urban Complex.

Table 3.1 lists existing and proposed land use of the AMC area. As per 1997 land use, more than one third (35 percent) of the total AMC city area was under residential use (projected to increase to 44 percent by 2011), followed by 15 percent of the area under industries. Large tracts of land (23.44 percent) were lying vacant, mostly in the newly acquired area of the AMC. Only 9.5 percent of the total area was under transportation network as of 1997, as against the norm of 15-18 per cent (Ahmedabad CDP). Even by

¹¹ The Gujarat Town Planning and Urban Development Act specifies reservation to the extent of 10 percent of land for providing housing to the socially and economically weaker sections, 15 percent for roads, 5 percent for parks, playgrounds and open space, 5 percent for social infrastructure such as schools, dispensaries, fire brigade, and 15 percent for sale by the authority for residential, commercial or industrial use depending on the nature of development. In reality, out of the 40 percent of land obtained from every plot, 20 percent is used by AUDA for road networking. Five to seven percent of the land is used for gardens and lakes, and 5 percent of land is used for the EWS. The remaining 8-10 percent land is sold or leased by AUDA.

2011, it is proposed that roads and railways will constitute only 11 percent of the total area, clearly inadequate when compared against norms and the increasing traffic demand.

Of the total AUDA area of 1,294.65 sq. km, nearly 50 percent is built up. Water bodies and wastelands cover 12 percent and 17 percent of area respectively. Industries cover 9 percent of the area.

As per the state government policy, no major industrial development within 24 kms of AMC limit is permitted in AUDA area. Considering existing development conditions a certain area for industrial use is designated for light industry as well as for general industry, along with existing industries at Vatwa, Naroda and Odhav (all lying within AMC), which forms nearly 10.38 percent.

Table 3.1: Existing and Proposed Land Use, AMC

Existing Land Use (1997)		Proposed Land Use (2011)	
Land use	Area in hectares (% of total area)	Land use	Area (% of total area)
Residential	6664.44 (35%)	Residential	8340.22 (44%)
Commercial	472.64 (3%)	Walled city and village sites/ <i>Gamtal</i>	645.56 (3%)
Industrial	2932.78 (15%)	General industrial	2006.51 (11%)
Open/Vacant land	4473.36 (23%)	Special industrial	786.72 (4%)
Village site/ <i>Gamtal</i>	895.59 (5%)	Commercial	263.06 (1%)
Education	344.19 (2%)	Agricultural/Recreational/Open Space/Gardens	1643.60 (9%)
AMC Plots	467.18 (3%)	Education	387.30 (2%)
Hospitals	98.36 (1%)	Area under reservations now designated as special development area	1955.37 (10%)
Burial ground/Grave yard	86.54(0.5%)	Roads and railways	2117.67 (11%)
Water bodies	850.55 (5%)	Water bodies (including rivers)	937.97 (5%)
Roads	1426.65 (8%)		
Railway land	372 (2%)		
Total	19,084 (100%)	Total area	19,084 (100%)

Source: Ahmedabad City Development Plan

Land is being given to developers by AUDA as by AMC on leasehold for a long period of time such as 50 or 99 years, under some terms and conditions (stated below). There are instances of conversion of leasehold into freehold tenure from other parts of the country. As early as 1992, the Delhi Development Authority had a policy of converting leasehold land up to 500 metres of plot area into free hold. The owners had to pay a conversion fee to the Authority at rates which varied according to the size and whether the plot was individually owned or by a group/society (Ansari 1994).

Terms and Conditions of Lease, AMC and AUDA

In general, the following terms and conditions of lease are applicable to land (only relevant and important ones are stated below) leased by the AMC:¹²

1. The applicant (trust/organization/association/sub lessee) shall not demand change in future use of the said plot;
2. If there is a discrepancy between the value of the plot as evaluated by the AMC (AUDA) and that by the state government's evaluation department, the premium for the plot shall be deposited based on the highest evaluated plot value.
3. It is the possessor's responsibility to regularly pay the government local taxes arising from time to time.
4. Expenses such as stamp duty, registration charge/fee lawyer fee and other associated expenses for the registered rent deeds shall be borne by the applicant/sub-lessee.
5. The sub-lessee of the rented plot shall have to pay the annual rent to the AMC (AUDA) at the rate of Rs.50 per square metre.
6. After the registered rent deed is done, the applicant shall seek at his own expenses, government permission or NOC (no objection certificate) for development of the land and submit to AMC (AUDA).
7. The lessee is responsible for getting connections for water, drainage, electricity and other connections at his own expense.
8. The lessee/trust without the permission of the AMC (AUDA) cannot change the ownership of the said land.

In the event that any of the above conditions are violated, AMC (AUDA) has the power to cancel the lease and take back possession of the land. The lease is made for 99 years, but if at any point, the land is required by the AMC (AUDA) for personal or public use, then the possession of the land can be taken back before 99 years.

¹² These terms and conditions of lease are similar to those specified by AUDA which we were unable to obtain/use because they were in the local language.

Public-Private Partnerships

Land has been used by AUDA to develop the city under its jurisdiction through public private partnerships (PPPs). In the case of Ahmedabad, we discuss below an *implemented* project. For instance, the two-lane ring road in Ahmedabad has been upgraded by AUDA into a four-lane one at the cost of Rs.200 crores through a PPP model. The ring road has been constructed and maintained by a private party which collects toll from users. The party was selected through competitive bidding and was awarded to the highest bidder through a tender. Since January 2007, through this model, AUDA has been able to recover Rs.12,77,77,778 until January 2008. This is a continually accruing collection to the AUDA, with the revenues from toll collection going to the private party.

The Sabarmati River Front Development project is essentially a public amenities and land development project undertaken with a prime objective of environmental improvement and provision of housing for the poor who are living in life threatening conditions along the river bed. The project includes embankment and reclamation works, construction of major level-one roads, installation of infrastructure (water, sewer, storm drainage) networks, resettlement and rehabilitation works, the construction of relatively sophisticated promenades and gardens, maintenance of public spaces during the life of the project, development of urban design guidelines, strategic planning, reconciliation of property rights, management of unclear legal issues and promotion and marketing a portion of the reclaimed land. The project has been planned as a self-financing one. The revenues would be generated from the sale of proclaimed land.

Land has been used as a collateral for obtaining loans by AUDA. An instance is that for a bulk loan AUDA recently obtained from various banks and financial institutions for houses for the EWS (defined as those households with annual income of less than Rs.20,000) and under the VAMBAY (Valmiki Ambedkar Awaz Yojana) programs, land was pledged as collateral. The value of the land pledged as collateral was much higher than the value of the loan itself.¹³ AUDA in fact has created a land-bank worth Rs. 500

¹³ It is possible to look at the role played by land in the asset portfolio of these cities which would be contained in the *balance sheets* (consisting of assets and liabilities) as opposed to *budgets*.

crores from 24 town planning schemes, which may be used as collateral for raising funds for infrastructure development (City Development Plan, Ahmedabad). Plans for redevelopment of unused /vacant textile mill land are underway.

Overall, the problems with the institutional arrangements broadly are that though the Gujarat Municipalities Act and the (Bombay Provincial Municipal Corporation) BPMC Act have been amended in line with the provisions of 74th Constitutional Amendment Act, the actual devolution of functions like regulation of land-use, town planning with development authorities, and other aspects have not been done to the municipal body completely and the state government exercises control over such functions. We have more to say regarding this when we review the potential of land as a revenue source, in the next chapter.

Jaipur

Jaipur is the first planned city of India, located in the desert lands of Rajasthan and is its capital. The Jaipur Region (as it is commonly known) comprises two distinct constituents (Table 3.2) -- the Jaipur Municipal Corporation (JMC) area; and the rest of Jaipur Region.

Socio-Economic Characteristics

Jaipur was not an UA in 2001, hence all socio-economic data are of the JMC. Literacy in the JMC area has grown from 58.5 percent in 1991 to 66.2% in 2001 which is above the national average of 65.4%. It is also higher than the corresponding state level literacy which in 1991 was only 38.5% and 49% in 2001.

JMC's workforce participation rate increased from 28.4% in 1991 to 30.6% in 2001. The percentage of JMC's marginal workers (out of total workers) was only 0.71% in 1991, but increased to 7.3% in 2001, which shows increasing incidence of

Once the contribution of land to their asset portfolio becomes clear, it will enable cities to tap capital markets and use them as collateral in raising loans. We had access to Kolkata Municipal Corporation's (KMC's) balance sheets and found that land assets, building and structure, and the plant & equipment, net of depreciation, accounted for nearly 55 percent of all of KMC's fixed assets in 2007. While we did not have the other cities' (municipal corporations') balance sheets, based on our discussions with them, we found them not to be using their land assets for pledging or as collateral for obtaining loans, with the exception of Ahmedabad Urban Development Authority (AUDA).

unemployment. The classification of workers in different categories shows that the share of the cultivators in the total workers increased from 0.94% in 1991 to 2.62% in 2001. Agriculture labourers increased from 0.38% in 1991 to 0.48% in 2001. The share of household industry workers in total workers also increased from 3.83% in 1991 to 5.09% in 2001.

Thus, similar to Ahmedabad, Jaipur presents the picture of an educated labor force with a majority of them being in non-household manufacturing, trade and commerce and other services. No information is available regarding Jaipur's income. Even district domestic product estimates are not yet available for Rajasthan's districts. However, given we know that sale of lands is an important source for municipalities in Rajasthan, we explore its potential here systematically.

Institutional Arrangements for Land Use

In Jaipur, the institutional arrangement for development and use of land is fragmented between the Jaipur Development Authority (JDA) and the Jaipur Municipal Corporation (JMC). Table 3.2 describes the constituents of Jaipur including the JMC and JDA areas. Jaipur Development Authority (JDA) is responsible for planning of the Jaipur region. The entire JDA area comprises Jaipur city (JMC) and the neighbouring satellite towns namely, Chomu, Bagru, Bassi, Sheodaspura, Achrol and Jamwaramgarh. It covers a total area of 1,464 sq.km, out of which, the municipal area of Jaipur covers 288 sq.km. The JMC area is further divided into the walled city and the rest of JMC area. Clearly, the JMC area accounts for a substantial part of the JDA area's population, and is increasing. Within the JMC area, it is the rest of JMC (apart from the walled city) that has been increasing in relative importance.

Table 3.2: Constituents of Jaipur Region

Area	Total Area		Total Population (millions)		% to Total JDA Population	
	1991	2001	1991	2001	1991	2001
JMC	218.3	288.4	1.52	2.32	81.4	86.8
Walled city	6.7	6.7	0.5	0.4	26.4	15
Rest of JMC	192.3	281.7	1.02	1.92	54.7	71.8
Rest of JDA	1,220	1,149.9	0.35	36	18.6	13.2
Total JDA	1,464	1,464	1.87	2.68	100	100

Source: Jaipur CDP, Chapter 3, Table 3-1.

Note: The walled city and rest of JMC together form the JMC.

Jaipur was under the municipal administration well before Rajasthan enacted the Rajasthan Municipalities Act in 1959. Jaipur got the status of Municipal Council under this act. The line departments played an important role in the delivery of services and infrastructure till 1982. This is when Jaipur Development Authority act was enacted creating JDA, with which all the powers of line departments were vested.

The main functions of the JDA are urban planning (including the preparation of master plans), carrying out surveys for the purpose, formulation of plans for development of the Jaipur region and participation with any other authority regarding this, execution of projects, undertaking housing activity in Jaipur region, to acquire, hold, manage and dispose off property, and to perform functions relating to urban renewal, environment and ecology, transport and communication, water energy resource management, and regulating the erection of buildings, among others. JDA is the authority for planning and implementation of the city development plans and infrastructure for the notified JDA area, which includes the Jaipur Municipal Corporation (JMC) area. JMC is responsible for planning, operation and maintenance of selected infrastructure. Although the JMC area extends far beyond the walled city, its operations are limited to the walled city and its immediate periphery. The JDA notified area has both rural and urban characteristics and therefore, involves both urban and rural development agencies.

Summarizing, as far as land use, master plan and building bye-laws are concerned, the JDA is responsible for planning, with both the JDA and JMC being responsible for implementation, operations and maintenance. For roads, bridges, flyovers, railway over-bridges and multi-level parking, the JDA, JMC, Rajasthan Housing Board, the Public Works Department, Rajasthan Urban Infrastructure Development Project, and National Highways Authority of India (NHAI) are collectively responsible for planning, implementation and maintenance.

While a change in land use is inevitable over time, a study of changes in land use enables us to understand the city as envisaged in the past and the direction of its future growth and development. It reflects the needs and demands of the residents of the city. Jaipur's CDP compares the land use in 1971 with the existing land use in 1991.¹⁴ In 1971,

¹⁴ The latest land use data for the city was not available and hence the assessment is confined up till the year 1991.

the percentage of land under residential land use was 51% which increased to 62% in 1991. The area under industrial land use witnessed a rise from 7% to 10% in 1991. The area under commercial use also witnessed an increase of 1%. The area under semi public use decreased from 17% in 1971 to 8% in 1991. The proportion of area under recreational use was already quite low, which further decreased by 1% between 1971 and 1991.

Table 3.3 summarizes the land use across various constituents of the Jaipur region. The largest proportion of all the developed land uses is concentrated in the JMC area. There are few parks and institutional areas within the walled city. This is despite the fact that the walled city originally had open spaces for recreation. A large proportion of the undeveloped land is in the rest of JDA area, as one would expect.

Table 3.3: Land Use, JDA Constituents (%), 1996

Landuse Type	Walled City	Rest of JMC	Rest of JDA
Residential	67.3	26.6	10
Commercial – Private services	4.2	2.6	0.3
Institutional	1.5	9.2	0.2
Industry	1	3.1	0.9
Parks & Gardens	1.1	2.7	0.3
Vacant (streets etc.)	25	15.6	6
Not developed (incl. Agri.)	0.4	0.2	82.3
Total	100	100	100

Source: Jaipur CDP

As it relates to the acquisition and disposal of land, the state government (of Rajasthan) can acquire land under the Land Acquisition Act of 1894 and pass such land to the JDA to enable it to perform its duties and functions. There are committees formed under the provisions of JDA Amendment Act 2001, namely, Urban Land Disposal Committee, Project Committee, No objection and Land use Conversion Committee and Building Committees (1 and 2). The JDA on its part, is authorized by the JDA Act to dispose off the land either through allotment, regularization or auction. Section 54C of the JDA Act specifies that the transfer of land shall be either on free hold or on lease hold basis. Any land sold, allotted, regularized or otherwise transferred on leasehold basis may be converted to free hold basis subject to certain terms and conditions. Also, if the land is required at any time by the JMC for carrying out its functions, or is required by the state

government, the state government may place such land at the disposal of the JMC or any department of the state government, subject to suitable terms and conditions.

The JDA has the task of preparing master plan for the city. The arrangement is that JDA develops new lands with all requisite infrastructure such as water supply, sewerage, and roads, and when the capital costs have been recovered, transfers these areas to the JMC for their operation and maintenance. The thumb rule for transfer of colonies/projects to the JMC by the JDA is when 70 percent of the colony is occupied by habitants (by which time capital costs presumably would have been recovered). However this is only a very rough rule and is still being considered. JDA has over 50,000 hectares of land in its land bank (Jaipur CDP). The proposed land uses for these parcels of land will be of great significance in generating activity nodes in the future.

The JDA is proposing to transfer about 80-100 sq.km of land along with its assets and liabilities to the JMC, which is under the consideration of the state government. In the JMC area, cooperative housing societies were mainly responsible for the development of the outer area of the city. Since both the erstwhile Urban Improvement Trust (UIT) and Rajasthan Housing Board (RHB) could not meet the housing demand, private developers in the garb of housing societies bought land and developed it. Since these private developers do not adhere to infrastructure standards, infrastructure is generally poor in these areas.

It is a point to be noted that whenever lands/projects/housing colonies are transferred to the municipality, it imposes on them the extra burden of having to incur operations and maintenance expenditures on them. The JDA submits 20 percent of its gross revenues from land lease and sale to the state government, and of the remaining, 15 percent is transferred to the JMC to enable it to carry out its functions. Both these are required by state government orders.

JMC requires approval from Directorate of Local Bodies (which is a state government entity) on a number of aspects, including the levy of taxes. JMC does not have powers to levy any tax or charges prior to the approval of state government. Although the Rajasthan Municipal Act provides for power to levy taxes, in actual terms they have not been delegated to JMC. At present, JMC follows the tax rules and guidelines of the state government, and is highly dependent on it, which is basically

against the spirit of the 74th CAA. JMC functions under an act that is applicable to municipal councils and falls short of meeting the challenges of urban development and municipal management. Further, there is overlapping of functions; JDA exercises a number of functions assigned to JMC. There is no transfer of infrastructure assets / services created by line department/JDA or private developers.

Given its lack of financial and taxation powers and because the law does not permit borrowing from market, the JMC uses land effectively as a revenue generating source. It makes a distinction between sale, lease and auction of land. However all the land it has is either transferred to it by the JDA or stray and small blocks of land (less than 1,000 square yards) in its jurisdiction. It may be noted that all land within the ‘walled city’ area of Jaipur belongs to the JMC. Some land is given on freehold by the JMC to developers. However, if there is a change in ownership or land use, then freehold becomes leasehold with lease rentals being fixed at 2.5 percent of the residential reserve price, which is arrived at based on the area of the land and its market value. The lease price is fixed at 5 percent of the reserve price, in case of commercial property.

Private developers for housing development are buying land in rural areas. The villagers too, for a better price and a faster transaction compared to government agencies, sell their land to these developers. This is resulting in speculation by creating a false escalation in demand and price of land. Further, a large part of land in the JDA area has been procured from the agricultural land owners under the land bank scheme. This land is auctioned by JDA at competitive prices as a profit venture. Land availability options for other public agencies have become restricted.

Public-Private Partnerships

Private sector participation is much required in infrastructure projects, and JMC and JDA have recognized their importance. With the result there are several projects in the pipeline. In the case of Jaipur, we discuss a *proposed* PPP project, as opposed to the case in Ahmedabad, where we dealt with an *implemented* PPP project. A recent example of such a kind initiated by the JDA is the ring road project in which 25 percent of developed land is given back to land owners and 50 percent of the land so acquired is auctioned and the proceeds are used for ring road construction. The proposed ring road is about 145 km

long, around the city of Jaipur connecting Jaipur- Ajmer Road (NH8), Jaipur-Tonk Road (NH12), Jaipur-Agra Road (NH11), Jaipur-Delhi Road (NH8) and Jaipur-Sikar Road (NH11). A land ribbon 360 m wide is proposed for this development.¹⁵

An example of a PPP initiated by the JMC involves solid waste management. Under this arrangement, the private party has been provided with minimum required undeveloped land by the JMC at Rs.1/sq.m/year on lease for 30 years. JMC supplies un-segregated garbage minimum of 250 MT at the plant site free of cost, regularly with a maximum overall gap of 15 days in a calendar year after mutual negotiations. The entrepreneur is not required to pay any toll tax or land/building tax on the proposed plant. All products and any by-product after processing of garbage is the property of the entrepreneur which he is allowed to dispose per his choice. The entrepreneur is entitled to receive incentives provided by the Government of India without imposing any financial burden on the local authority or the state government.

The expectation is that arrangements regarding roads, water, and electricity on the allotted land are at the entrepreneur's expense. Only the approach road to the plant is constructed by the JMC for transportation of municipal solid waste. Further, the allotted land shall not be allowed to be used for other purposes and not be mortgaged or sold for any financial compulsion.

One problem with the institutional arrangements is that the laws enable JDA to exercise various functions within the municipal area, which is against the spirit of 74th CAA. There is also no consideration for social-environmental aspects while developing land. The land pricing policy does not have any consideration for EWS.¹⁶ While we find the above to be problems with the institutional arrangements, Jaipur's CDP cites the following as the institutional issues associated with land development and physical planning:

¹⁵ Reliance Energy Limited (REL) the original proponent of proposed Ring Road Development Corridor has commissioned Halcrow as a design consultant to prepare the business plan, concept plan and detailed project report to establish the technical, environmental, social, economic and financial viability of the project on a Swiss Challenge basis to establish the technical, environmental, social, economic and financial viability of the project. Retrieved from http://www.halcrow.com/html/our_projects/projects/India_jaipur_ring_road.htm, November 17, 2008.

¹⁶ See the final chapter for a discussion of this issue in detail.

- Excess land pooling for generation of resources. JDA is functioning as the government's real estate agency.
- High potential for malpractices.

While we compare and discuss these issues in detail in the final chapter, in the next section, we present a profile of Kolkata and its institutional arrangements as it relates to land use.

Kolkata

Kolkata is the seventh largest city in the world in population and second in India, only after Mumbai.

The Kolkata Metropolitan Area (KMA), comprising of Kolkata and 40 other urban local bodies (ULBs), spread on both banks of river Hooghly, is a giant metropolis of about 15 million people. While the Kolkata Municipal Corporation (KMC) is one of the oldest municipal bodies of the country, there are two additional municipal corporations in the KMA (Howrah and Chandannagar Municipal Corporations). The three municipal corporations account for only 29 percent of KMA's total land area, but nearly 46 percent of its total population. KMC with a land area of 185 square kilometers, and a 2001 population of 4.6 million, contributes to one-fifth of the total KMA area, but accounts for 37 percent of its population. Given the significance of the KMC, we confine our focus in this study to KMC.

Socio-Economic Characteristics

Table 3.4 describes basic socio-economic data for the KMA first by including the KMC, and then without it. The KMC is the largest of the ULBs in the KMA with a 2001 population of 4.5 million.¹⁷ It may be readily seen that the land area and population of the KMA ULBs, with or without the KMC, have increased during 1991-2001, demonstrating the need for increasing levels of various services. Further, the literacy rate in all the

¹⁷ While KMC and Howrah Municipal Corporations have population densities higher than the average for all ULBs in the KMA, they are not the ones with the highest 2001 population density. In fact, Chandannagar Municipal Corporation's 2001 population density is less than the average for all ULBs in the KMA. The highest population density of 38,215 persons per square kilometer is surprisingly not of a municipal corporation.

ULBs with or without the KMC, has increased continuously during this period. It is remarkable that the minimum literacy rate among the KMA ULBs has gone up from 49 percent in 1991 to nearly 70 percent in 2001.

Table 3.4: Basic Data, KMA ULBs (with and without KMC)

	Area (Sq. Km.) 1991	Area (Sq. Km.) 2001	Total Population 1991	Total Population 2001	Literacy Rate 1991 (Percent)	Literacy Rate 2001 (Percent)	Total Workers participation rate (Percent) 2001	Main Workers participation rate (Percent) 2001	Marginal worker participation rate (Percent) 2001
With KMC									
Average	16.94	21.90	249032.79	302178.37	76.97	83.60	36.50	33.28	3.22
Maximum	185.39	187.50	4399819	4580544	87.96	94.37	42.07	40.05	11.33
Minimum	1.68	3.25	7831	33863	48.61	69.82	30.95	26.62	1.67
Std. Dev	29.27	29.33	698485.64	704488.34	8.66	5.36	2.48	3.10	1.82
Number of observations	39	41	39	41	39	40	40	40	40
Without KMC									
Average	12.50	17.76	139801.58	195219.23	76.96	83.67	36.38	33.14	3.24
Maximum	51.74	55.00	950435	1008704	87.96	94.37	42.07	40.05	11.33
Minimum	1.68	3.25	7831	33863	48.61	69.82	30.95	26.62	1.67
Std.Dev	9.64	12.72	152200.21	167188.69	8.77	5.41	2.40	3.01	1.84
Number of observations*	38	40	38	40	38	39	39	39	39

Source: Computed from Census of India 2001 Primary Census Abstract (PCA).

* In 2001 we have no data for Baruiapur about literacy rate, total, main and marginal work participation rate. In 1991 we have no information about Rajarhat Gopalpur and Rajpur Sonarpur.

Overall, within the KMA, there are no significant differences in the literacy rate or in the economic base between KMC and other ULBs (Table 3.4). Overall, more than eighty percent of KMA population is literate, with more than one-third of the metropolitan area population actively engaged in the workforce. As of the 1991 (Census 2001 census data not yet released for employment by sector), both in the ULBs with and without the KMC, more than 40 percent of the labor force was in manufacturing, mining and construction, and roughly 45 percent of workers were in services. At the maximum, only about 15 percent of workers were in agricultural occupations. Of course there may have been a change in the economic base more recently, but these data are not yet available from the 2001 Census.

Institutional Arrangements for Land Use

In the Kolkata metropolitan area, the relevant agency which deals with land in the KMC area with which we are concerned is the Kolkata Metropolitan Development Authority (KMDA). The KMDA is a parastatal authority functioning under the administrative control of the Urban Development Department, Government of West Bengal. There are also other agencies such as the West Bengal Housing Board (WBHB) and the West Bengal Housing Infrastructure Development Corporation (WBHIDCO). The objective of the WBHB is to build houses for various income groups. Joint ventures such as Bengal Ambuja (now Ambuja Realty Group) have a role here. In the early 90's Bengal Ambuja Housing Development Limited (BAHDL) was set up as a joint initiative between West Bengal Housing Board and Gujarat Ambuja Cements Limited. BAHDL now is a joint venture between West Bengal Housing Board and Ambuja Housing and Urban Infrastructure Company Limited consequent upon the divestment of Gujarat Ambuja Cements Ltd's stake. WBHIDCO is a special purpose vehicle created for development of the Rajarhat township. The West Bengal Industrial Development Corporation (WBIDC) which is an arm of the Industries and Commerce department, Government of West Bengal, deals with industrial parks. Land assembly in these industrial parks is the WBIDC's responsibility. Based on our discussions with KMDA officials, while it is difficult to assess the magnitude, KMDA is responsible for most of the land transactions in the Kolkata metropolitan area.

KMDA's functional domains broadly extend over three areas, namely, regulatory functions, planning for development and project implementation. The institutional arrangement for land use is that KMDA deals with the planning functions especially as it relates to cross-jurisdictional boundaries (between municipalities) whereas the KMC deals with land just in its jurisdiction. Another difference is that KMDA deals with the planning functions such as development of land use plans (the relevant Act designates KMDA for this) whose enforcement is delegated to ULBs which the respective local governments and their planning departments implement. KMC deals with the more short-term municipal functions of providing services such as water supply, sewerage, sanitation, solid waste management, street lights and municipal roads.

The KMDA acquires land not directly through land owners, but through district collectors by paying compensation, develops them with infrastructure and transfers them to KMC for operations and maintenance. For instance, the KMDA acquired nearly 100 acres of land 30 years ago for various purposes which was not used, hence that is being used for various projects now and are being leased. The sources of funds for the KMDA are state government grants for projects which are used to meet expenditures. The KMDA, as the prime development agent in the KMA, receives both plan and non-plan budgetary support from the government. In this sense, the KMDA as a state government entity has access to a lot more resources than the KMC. The KMDA is supposed to pay property tax to the KMC for the properties being used by it (equaling about Rs.500 crores). The KMC also has to pay the KMDA since KMDA supplies water to KMC. But both parties have not paid their dues to each other thus far. More details regarding the sources of revenue and expenditure for the KMDA and the KMC are in Chapter 4.

The KMDA is really the authority which decides on the disposal of the assembled land (assembled through district collectors). In so far as the district collectors are entities of the state government, there is state government role here. In the specific case of the Dankuni project, the KMDA has acquired land and handed over to the developer (DLF). All non-financial risks of the deal are borne by the KMDA. The state government's approval becomes necessary when conversion of land use is involved. When the land to be disposed off is greater than 100 acres, then also the deal has to go through the state.

As far as land use is concerned, KMDA is the appropriate planning and development authority in the Kolkata Metropolitan Area (KMA). The individual local bodies are the implementers of the land use. Outside of the KMA, the state government decides the agency for land use and transactions—sometimes it is the UDA, and other times might be the district collector.

With regard to the flow of funds and how much remains within the city, and how much flows to the state government, nearly all of KMDA's funds obtained through leasing and sale of lands are escrowed into a special purpose development authority and are channeled to individual ULBs (such as the KMC, Howrah MC and Chandan Nagore MC) for their infrastructure projects. The use of funds is decided upon by a committee consisting of representatives of the local government, Board members of the KMDA, and

representatives of the state government. Hence the use of funds is not a bureaucratic decision, but is arrived at a consensus by the committee.

Public Private Partnerships (PPPs)

Given the inadequate resources in the public sector, and the rising need for infrastructure, alternative sources of financing infrastructure are needed. Enlisting private sector participation is under the active consideration of the KMDA recently.

Since 2002-03, PPPs are being used to develop and lease land by the KMDA in various ULBs. The state government (of West Bengal) has developed a comprehensive policy regarding PPPs in infrastructure development with a view to ensuring uniformity across PPPs by different public sector agencies. Under this policy, infrastructure sectors such as power, telecommunication, waterways, ports, airports and surface infrastructure such as roads, bridges, flyovers, water supply, sanitation, township, area development, housing and commercial development can be considered for PPPs.

There are many ways in which the involvement of private investors/developers can be secured according to the state government policy. One of the ways in which private participation can be enabled is through Build, Operate and Transfer (BOT) with variants such as BOO (Build, Own, Operate), BOOT (Build, Own, Operate and Transfer) or BOLT (Build, Own, Lease, Transfer). The state government policy allows for private sector participation through leasing and annuity payment wherever necessary. Private partners are selected through a transparent process in which technical and financial bids are invited for each project. The policy on PPPs by the state government recognizes that since infrastructure development projects are not attractive to private investors because of potentially low or even negative returns on investment, some incentives have to be provided to private parties to invest, which can be decided only after a techno-economic feasibility is undertaken. The assumption being that the invitation of offer around such concessions would bring about competitiveness among private sector enterprises and a selection on that basis would ensure transparency.

In the case of Kolkata, the PPP project we discuss below relates to a *project which is under implementation*, in contrast to Jaipur where the PPP ring road -project was

proposed, and to that in Ahmedabad, where the PPP ring road project was already *implemented*.

The most successful example of a PPP by the KMDA is the Dankuni township project in which the KMDA provides raw land to the developer outside of the ULBs in the panchayat area. The off-site infrastructure consisting of power connections, water supply, sewerage and roads are provided by the KMDA, and the developer is given the right to develop on-site infrastructure, for which he makes a payment to the KMDA. The successful bidder for the Dankuni project was the DLF whose bid of Rs.2,713 crores was selected by the KMDA with the provision of 4,840 acres of land to the DLF. Thus far the DLF, according to the agreement has paid 10 percent of this amount. Land is scheduled to be provided in 5 instalments after a determination by the KMDA at every stage as to where the land should be located. The DLF gets 4,840 acres of land, off-site infrastructure including power connections,¹⁸ sewer lines, storm canal from the Dankuni canal, all at the periphery, and development rights. Obviously with development rights, it is imminent that the developer will reap capital gains with increases in the value of property. The bid of Rs.2,713 crores made by the DLF takes into account the capitalization it expects to occur with development of the land in the township. The net revenues which accrue to the KMDA from this project are escrowed for basic infrastructure development in the KMDA area.

Another example of a PPP in the Kolkata Metropolitan Area is the development of a five-star hotel on a piece of land for commercial use. In this model, the developer pays a premium to KMDA.

Since the KMDA undertakes PPPs in all ULBs of the Kolkata Metropolitan area (including KMC, Howrah, Chandan Nagore and other municipalities), and we are interested in only the primary central city, the Kolkata Municipal Corporation (KMC), we apportion the revenues of the KMDA accruing only to the KMC, in our assessment of the incremental revenues to the municipal body accruing due to lease of land by the KMDA. We plan to accomplish this as follows. We have obtained information on projects in which the KMDA has obtained revenues from land leasing. We have identified those

¹⁸ Power connection is provided by the West Bengal State Electricity Board (WBSEB), but paid for by the KMDA.

projects which belong to KMC and then consider revenues only from those for purposes of our computations. Unfortunately, we did not have any information on whether or not aided programs such as the Kolkata Services for the Urban Poor (KUSP) or the Kolkata Environmental Improvement Project (KEIP) had any impact on financing infrastructure.¹⁹ For one thing, Kolkata Municipal Corporation is not one of the ULBs covered by KUSP (<http://www.changekolkata.org/ulbkusp.html>).

Bangalore

Bangalore, the capital of Karnataka, is the fifth largest metropolitan city in the country. Located on the Deccan Plateau in the south-eastern part of Karnataka, Bangalore is India's third most populous city and fifth-most populous urban agglomeration. The general elevation of the city varies from 840 to 940 meters above the sea level. This is important since such topographical characteristics have the effect of increasing the cost of providing public services such as water supply (see Sridhar, Mathur and Nandy (2006)).

Socio-Economic Characteristics

The Bangalore UA comprises the Bangalore Mahanagara Palike (BMP) with an area of 226 sq.km, nine city municipal councils (CMCs) covering an area of 300.9 sq. km, and peripheral villages.²⁰ The total area of Bangalore Urban Agglomeration (UA) increased from 445.9 sq. km. in 1991 to 531 sq. km. in 2001, while the BMP area

¹⁹ Kolkata Environmental Improvement Project (KEIP) is a multi-agency endeavour to arrest environmental degradation and improve the quality of life in Kolkata. Its work is mainly in the outer areas of the city where the sewerage and drainage infrastructure is grossly inadequate and the drainage canals are choked by silt. KEIP's objectives are to reduce pollution by providing affordable access to basic urban services in slums, revamp and upgrade the sewerage and drainage system, make solid waste management system efficient, restore the city's drainage canals, and improve outdoor recreation facilities in parks and water bodies. It also has a capacity building component to raise the standards of KMC's delivery of municipal services.

²⁰ The nine elected ULBs are:

- i. BMP (City Corporation)
- ii. Bommanahalli (CMC)
- iii. Byatarayanapura (CMC)
- iv. Dasarahalli (CMC)
- v. KR Puram (CMC)
- vi. Mahedevapura (CMC)
- vii. RR Nagar (CMC)
- viii. Yelahanka (CMC)
- ix. Kengeri (TMC).

increased in land area from 159.1 sq. km. in 1991 to 226.2 sq. km. in 2001. During 1991-2001, the population of Bangalore UA increased from 41.30 lakhs to 57.01 lakhs and BMP's population increased from 33.02 lakhs to 43.13 lakhs. While the BMP is the biggest constituent of the UA, its share of population in the UA declined from 79.95% in 1991 to 75.65% in 2001. Thus the relative importance of the smaller local governments in the UA has been increasing.

As per 1991 census, the literacy rate of Bangalore UA was 68.3% and it increased to 74.9% in 2001, while the BMP's literacy rate increased from 69.5% in 1991 to 75.9% in 2001 which is above the national average of 65.4%. It is also higher than the corresponding state level literacy which in 1991 was only 56% and 66.6% in 2001.

The workforce participation rate in Bangalore UA increased from 33.2% in 1991 to 38.5% in 2001 and it increased from 33.1% in 1991 to 37.7% in 2001 in the case of BMP area. In 1991, nearly 100% of the workers were main workers. However, the proportion of marginal workers has increased in 2001 indicating the incidence of unemployment. The proportion of marginal workforce to the total workforce increased to nearly 6% in Bangalore UA and 5% in BMP area in 2001. The share of cultivators and agriculture labourers in the total main workers was less than one percent in 1991 and it further decreased in 2001 in both the UA and the BMP area, consistent with the definition of urban areas. The share of household industry work force increased from 1.33% in 1991 to 2.24% in 2001 in the Bangalore UA and from 1.42% in 1991 to 2.11% in 2001 in the BMP area. Similar to what we find in the other cities of study, a majority of workers are in non-household manufacturing, trade and commerce and 'other' services as of 1991. This is applicable to the BMP as well as the UA.

While the nine elected smaller local bodies were merged in 2007 into the Bruhath Bangalore Mahanagara Palike, this study will focus on the erstwhile BMP since much of the time period that we are concerned with here (1998-99 to 2007-08) belongs to regime of the BMP.²¹

²¹ The merging of these ULBs with the BMP in 2007 has increased the BBMP's service responsibilities greatly, but has done nothing to increase its revenues, as revenue collections in the CMCs had not been streamlined.

Land Use in Bangalore

According to the city's CDP, while the ULBs surrounding BMP share about 60 per cent of Greater Bangalore's area of 560 sq. km, their share of total population is only about 22 percent. The five-fold density levels of BMP (19,016 persons/sq.km) compared to surrounding ULBs (3600 persons/sq.km) is indicative of the concentration of population and activity in BMP. This justifies confining our focus of study to the BMP. However, all the other smaller surrounding ULBs have shown a significant population growth (many have more than doubled in size) in the last decade.

Bangalore's City Development Plan (CDP) notes that Bangalore has developed spatially in a concentric manner (the actual area is 561 sq. km.). However, economic development has occurred in a different manner in different sectors of the city. The current urban structure results from the interlocking of these two developments. The city's CDP distinguishes five major zones in the existing land occupation.

1st Zone - The core area consists of the traditional business areas, the administrative centre, and the Central Business District. Basic infrastructure (acceptable road system and water conveyance), in the core areas is reasonably good – particularly in the south and west part of the city, from the industrial zone of Peenya to Koramangala. This space also has a large distribution of mixed housing/commercial activities.

2nd Zone – The peri-central area has older, planned residential areas, surrounding the core area. This area also has reasonably good infrastructure, though its development is more uneven than the core area.

3rd Zone – The recent extensions of the city (past 3-5 years) flanking both sides of the outer ring road, portions of which are lacking infrastructure facilities, and is termed as a shadow area.

4th Zone – The new layouts that have developed in the peripheries of the city, with some vacant lots and agricultural lands. During the past few years of rapid growth, legal and illegal layouts have come up in the periphery of the city, particularly developed in the south and west. These areas are not systematically developed, though there are some opulent and up-market enclaves that have come up along Hosur Road, Whitefield, and Yelahanka. The rural world that surrounds these agglomerations is in a state of transition

and speculation. This is also revealed by the “extensive building of houses/layouts” in the green belt. Both BDA and BMRDA are planning to release large lots of systematically developed land, with appropriate infrastructure, to address the need for developed urban spaces.

5th Zone – The green belt and agricultural area in the city’s outskirts including small villages. This area is also seeing creeping urbanization.

While the core area has been the seat of traditional business and economy (markets and trading), the peri-central area has been the area of the PSU. The new technology industry is concentrated in the east & southeast. These patterns are obviously not rigid – especially with reference to the new technology industry and services that are light and mobile, and interspersed through the city, including the residential areas.

Table 3.5 summarizes the land use pattern of the BDA area. As may be seen from the Table, more than half of the land use in the BDA area is agricultural, which is consistent with its objectives of developing green areas of the city.

Table 3.5: Land Use Pattern, BDA Area

Land Use	Area in hectares (%)
Residential	16,042 (14.95)
Commercial	1,708 (1.59)
Industrial	5,746 (5.36)
Park and open spaces	1,635 (1.52)
Public semi-public	4,641 (4.33)
Transportation	9,014 (8.40)
Public utility	192 (0.18)
Water sheet	4,066 (3.79)
Agricultural	64,243 (59.88)
Total	107,287 (100)

Source: Bangalore CDP

The final arbiter of decisions as it relates to land use is the BDA. The BDA is the primary planning authority for land use. The function of the BBMP is to sanction plans (by the public), collect revenues and provide civic amenities. As far as town planning functions including the Floor Area Ratio are concerned, the BDA makes the rules.

Institutional Arrangements Between BMP and BDA

The Bangalore UA occupies an area of approximately 800 square kilometers, with clearly well defined areas between the BDA and the BBMP. It is useful to note that since 1945, the then existent City Improvement Trust Board started acquiring land and has developed most of Bangalore.²² The BDA was created in 1976. Ever since then the BDA has been acquiring land. The BDA is responsible for initially acquiring land with payment of compensation, developing infrastructure such as roads, electricity, water supply, sewerage, and parks, then after capital costs are recovered,²³ transfers them to the BBMP for their operations and maintenance. The period of development of land is said to take approximately 10 years before the BDA transfers to BBMP. An objective of the BDA is to make housing affordable for the residents of Bangalore.²⁴

There are other agencies which deal with land development for various purposes in Bangalore – the Karnataka Industrial Areas Development Board (KIADB) and the Karnataka Housing Board (KHB). Consistent with its objective of promoting rapid and orderly development of industries in the state, the functions of KIADB (set up in 1966) are to acquire land and form industrial areas (throughout the state, not just in Bangalore), provide all infrastructure to such industrial areas, acquire land for single unit complexes (individual industrial units) and land for government agencies for their schemes and infrastructure projects (<http://kiadb.kar.nic.in/advantage/abtkiadb.htm>). Thus far, KIADB has acquired land for nearly 290 industrial units throughout the state ensuring balanced industrial development.²⁵ Hence KIADB has the mandate of acquiring land primarily as it relates to industrial purposes.

²² As an aside, the “City Improvement Trust (CIT)” was historically a special purpose vehicle (SPV) of the local body, formed for the specific purpose of developing a particular area under the jurisdiction of the local body. Since historically, the cost of infrastructure was more than what could be recovered from land sales, payments were made from the local body to the CIT. The local body expected to recoup these payments from future taxes paid by residents of the new area developed by the CIT.

²³ This is determined to have occurred when more than 70 percent of construction is deemed to be finished.

²⁴ On May 19, 2008, NDTV carried a special story on the Bangalore land grab story, in which it highlighted the characteristics BDA takes into account for making available subsidized land and affordable housing: a. The person must be a resident of Bangalore for greater than 20 years. b. They must have less than an annual income of Rs.1.2 lakhs. c. They should have no properties in the city. The story showed how using these criteria, even MLAs and MPs turn out to be under-privileged and qualify for subsidized housing.

²⁵ One project which the KIADB has executed in Bangalore is the acquisition of about 4316.25 acres of lands for Bangalore International Airport Ltd.

The primary objective of KHB, set up in 1962, is 'to make such schemes and to carry out such works as are necessary for the purpose of dealing with and satisfying the need of housing accommodation'. With this directive KHB endeavors to provide housing to the people of Karnataka at affordable cost and therefore, is the most important agency for housing throughout Karnataka (http://housing.kar.nic.in/DOH_KHB_page.htm). Over the decades, KHB has provided housing to 1.10 lakh families.²⁶ (http://www.khbcustomerinfo.com/about_us.htm)

While it is clear that KIADB acquires land for industrial purposes only, KHB provides housing only. The KHB Act of 1962 provides that the Board may enter into an agreement with any person for the acquisition from him by purchase, lease or exchange, of any land which is needed for the purposes of a housing scheme, provided that approval of the state government shall be obtained in case of purchase or exchange involving land worth more than Rs.10 lakhs or lease for more than five years.

As must be clear, BDA is the agency with the mandate of developing improvement schemes for Bangalore by acquiring land through payment of compensation. In fact, based on our discussions, it does appear that the BDA is the single largest assembler and disposer of land thus assembled. As an instance, the BDA through a single notification was able to acquire nearly 4,800 acres of land whereas KHB has acquired only about 250 acres in Bangalore over the past 10 years.

The BDA acquires land through payment of compensation to landowners, following the rules specified in the central Land Acquisition Act of 1894. According to this, landowners are paid a compensation based on the average sale value of the land transaction (recorded in the sub-registrar's office) plus 30 percent of this value along with payment of an interest of 12 percent from the time of notification till the time of award of compensation. The BDA acquires land wherever there is a need to develop the land, determined by accessibility.

The BDA has an alternative model to pay compensation to owners whose land is acquired. It pays either compensation, or, returns 40 percent of the land to the owner after

²⁶ One of the projects of KHB is to build 4000 dwelling units (multi-storied apartments) in 80 acres of land in Peenya.

fully developing infrastructure on the piece. The choice to go in favor of the compensation or the 40 percent developed land rests with the landowner.

There is no umbrella agency which has the authority to dispose off all assembled land. The agency which acquires the land has the autonomy to dispose it off. If KIADB acquires land for industrial purposes, only KIADB and no other agency can obviously dispose it. Likewise, if the KHB acquires land for housing purposes, it is likely to use it for the said purpose and then sell it. So whenever the BDA acquires land for development of an area, it disposes it off by whatever means it sees fit – auction (outright sale) if it is a corner site, allotment (if it is an intermediate site), and civic amenity site (to institutions) for sites with infrastructure and amenities.

As is clear, the BDA has three types of sites—corner sites, which are always auctioned in a competitive bidding process, intermediate sites which are allotted on a first-come-first-serve basis, and civic amenity (CA) sites which are always given to buyers on leasehold (for which rent is collected every year). Auction sites represent outright sale of land (free-hold), whereas (intermediate) sites are allotted on lease with the BDA for 10 years before their ownership is changed. Civic amenity sites are those with required infrastructure such as roads, hospitals, parks and other amenities, and they are subject to public notification rules. CA sites are given only on long lease (for 30 years).

Public Private Partnerships

Karnataka has been one of the pioneering states to mainstream infrastructure projects through the PPP route and has succeeded in initiating about 100 PPP projects worth Rs.1 lakh crores, in the last three years (Economic Times, August 12, 2008). Out of these, 86 projects worth Rs.94,615 crores are major infrastructure projects. A detailed review shows that urban and municipal infrastructure sector tops the list with an investment of Rs.42,000 crores. A major initiative includes the high speed rail link connecting Bangalore with the new international airport.

While the PPP model has been popular with the state, there are no examples of the PPP model yet being followed by the BDA, however there are some projects (such as that for the peripheral ring road in Bangalore) which are being considered for PPP, and a

detailed project report (DPR) has been prepared. Land has also not been used as a collateral by the BDA for obtaining loans. Most of the loans are for flyovers, underpasses, bridges and hospitals from the Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) and the JnNURM.

The BBMP, on its part, also leases land. As far as BBMP land leasing and/or sale is concerned, several points are worth mentioning:

1. Land is given on lease, that too, only for charitable purposes, not for commercial purposes; no land is sold outright. The BBMP has leased these out for very nominal rents, but is however recognizing the importance of commercial leasing now. Hence no existing leases are being renewed.
2. There is no data on number of properties leased by year. There is also no system of accountability which persuades the collection of such data on a regular basis.
3. There are several instances of land grabbing by corporators. There are a number of fictitious land owners. Besides, the Karnataka Judicial Employees' Cooperative Housing Society illegally allotted and sold nearly 190 acres of land and sites to excise, police and BBMP officials.
4. There is no systematic transfer of land that has taken place from the state's revenue department to the BBMP. The BBMP has no record of how much property it owns and holds.

This is true not only of land holdings, but also of other government transactions. One reason why the BBMP has not taken initiatives in recording land holdings is because the Constitution confers the record of rights to the state government, not the local body. However, there is every reason for the local body to have autonomy in this. The above anomalies need to be corrected, if we need to obtain an accurate, or even approximate idea of the market value of land held by the BBMP.

Summarizing the institutional arrangements in the case of all the cities, there is a need to do away with the multiplicity of institutions with respect to land, as with other services, since it is known to adversely impact service delivery (see studies such as Sridhar (2006)). Other studies (for instance, see Rajaraman et al (2005)) also recognize that it is important that duality of control over land and land-related matters is done away with for orderly growth of cities and towns. Further, the 74th Constitution Amendment

Act, 1992 also envisages that municipalities should assume responsibility for urban planning including town planning and regulation of land use functions.

Having studied the institutional arrangements for land use in each of the selected cities, the next chapter discusses in detail the sources of revenues for the various UDAs and municipal corporations, again in each of the selected cities, with a view to assess the revenue potential of land for cities.

CHAPTER 4: LAND AS A SOURCE OF REVENUE: FINDINGS FROM THE SELECTED CITIES

In this chapter, we focus on finances of the municipalities and the UDAs primarily from the viewpoint of land. We concentrate on revenue sources for UDAs and municipal corporations in the selected cities. It is instructive to note that Ahmedabad has octroi, whereas Bangalore, Jaipur and Kolkata abolished the octroi, hence for them the property tax is the most important source of revenue. In the case of each of these cities, we highlight the potential of land as a proportion of its total revenues, own source revenues and revenues from the property tax. Such a presentation enables us to make a realistic assessment of the potential of land in the context of the existing revenue structures in place in these cities. We make hypothetical computations of how much land, which is currently with UDAs, can contribute to revenues of the municipal corporations in each of the cities. We provide a profile of UDA expenditures on various components, given we are interested in knowing to what use the land sale proceeds are put.

Ahmedabad

In most cities, Urban Improvement Trusts (UITs) or Urban Development Authorities (UDAs) hold the statutory responsibility for matters relating to land. As discussed in chapter 3, the UDA in Ahmedabad, AUDA, holds considerable amount of land. We focus on the AUDA first and then shift our attention to AMC which anyway does not have a lot of control over land assets.

There are several sources of revenue for the AUDA:

1. Revenues from land leasing/sale: In the absence of tax related income for AUDA, the single largest source of revenue income is lands. Premium on lease of lands and development charges have fetched more than Rs.40 crores (in nominal terms) for AUDA during 2004-05 and accordingly the same has been projected to increase further in the future.
2. Approval of building plans and permits, scrutiny, registration and license fees in AUDA's jurisdiction.
3. Fines for removal of encroachments in AUDA's 'public' land.
4. Betterment charges paid by developers.

5. Fees from the provision of water supply and sewerage, fees charged from residents under the EWS/VAMBAY (Valmiki Ambedkar Rozgar Yojana).
6. Various grants, the most recent including an ADB grant, Government of India solid waste grant, grant from the JnNURM, and the JnNURM lake development grant.

AUDA's revenues may be applied towards expenditure incurred for various functions outlined by the Gujarat Town Planning and Urban Development Act (see the previous chapter), cost of acquisition of land, expenditure for development of land, and for other purposes as directed by the state government.

Table 4.1 describes the sources of revenue and their importance to AUDA. As shown by Table 4.1, 'other' receipts consisting of toll taxes, betterment charges, ADB grants, grant from the Government of India for solid waste, grants under the JnNURM, are the most important sources of revenue for AUDA, followed by sale/lease of land. Table 4.2 summarizes AUDA's revenues from sale and/or lease of land by year in nominal terms. It shows that the impact on revenues is higher if the plot is leased than if it is sold.

Table 4.1: AUDA's Revenue from Various Sources, (in Nominal Percentage Terms)

Year	Sale of Land	Drainage*	EWS/VAMBAY	Water Supply	Others	Revenue Receipts	Total Revenue
2003-04	24.89	3.12	1.78	5.72	55.39	9.11	100.00
2004-05	28.04	4.54	4.85	9.66	46.52	6.38	100.00
2005-06	35.93	3.23	10.72	5.77	36.86	7.49	100.00
2006-07	64.97	2.58	1.10	0.20	23.33	7.82	100.00
2007-08	4.71	6.75	14.00	0.00	65.75	8.79	100.00
2008-09	14.40	27.46	20.55	0.00	32.55	5.04	100.00
Average	28.82	7.94	8.83	3.56	43.40	7.44	100.00

Sources: AUDA, and Authors' Computations.

* This covers both underground and open drains.

For one thing, leasing rather than outright sale of public land is more common in all the cities we visited and reviewed. We reviewed the terms and conditions under which land is leased to private developers. They seem quite similar to a sale in that the private parties to whom the land is leased have to pay the present market value of the land, have to pay charges such as stamp duty, registration charge/fee lawyer fee, and other

associated expenses for the “registered rent deeds.” Once the plot is leased, the private developer is also responsible for water, drainage, electricity and other necessary connections at his own expense. However the lease is for a 50 or 99-year period, after which the land reverts back to the public authority (AUDA or AMC). There are also a few restrictions on change of land use (commercial to industrial, residential to commercial, and so forth), sub-lease for the plot which is not permitted. The plot is also subject to recall in case it is needed by the public authority before the end of the lease period of 50 or 99 years (see chapter 3).

Table 4.2: Revenues from Sale and Lease of Lands, AUDA (in Nominal Terms)

Year	Revenue from Land Sale- AUDA	Revenue from Land Lease- AUDA	Total Revenue from Land AUDA	Number of Plots Sold	Number of Plots Leased	Revenue/plot sold	Revenue/plot leased
1998-99	0	40,933,000	40,933,000	NA	4	NA	10,233,250
1999-00	0	42,202,000	42,202,000	NA	3	NA	14,067,333
2000-01	0	221,557,000	221,557,000	NA	NA	NA	NA
2001-02	0	151,340,000	151,340,000	NA	8	NA	18,917,500
2002-03	0	421,187,000	421,187,000	NA	12	NA	35,098,917
2003-04	6,513,045	427,689,955	434,203,000	2	17	3,256,523	25,541,353
2004-05	0	599,743,000	599,743,000	NA	21	NA	28,559,190
2005-06	0	992,156,000	992,156,000	NA	2	NA	496,078,000
2006-07	0	2,321,224,000	2,321,224,000	NA	20	NA	116,061,200
2007-08	7,282,821	141,346,179	148,629,000	1	3	7,282,821	49,543,000
Average	6,897,933	535,937,813	537,317,400	2	10	5,269,672	88,233,305

Sources: AUDA*, and Authors' Computations.

*We obtained the revenue data (total revenues and by plot) from AUDA's accounts office; information on the number of plots are from AUDA's estate office.

Table 4.3 summarizes AUDA's total revenues and expenditures in nominal terms. It shows that more than two-thirds of AUDA's revenues are from non-recurrent, capital receipt sources such as sale of land, and other sources such as grants, betterment fees and charges during all the years. Apart from “others,” the next biggest source of revenue for the AUDA is sale of land, as is clear from Table 4.3 (also confirmed from Table 4.1).

We examined AUDA's expenditures in nominal terms over 2003-04 to 2008-09. A major portion of AUDA's capital expenditures is on roads, buildings and over-bridges, which constitute nearly half of its total expenditure in some years and no less than 40 percent in all years. An additional one-fourth or one-fifth of AUDA's resources are spent on water supply. More than 90 percent of total expenditure in all years constitutes capital

expenditure. This does show that most of AUDA's revenues from land leasing and/or sales are spent on developing the requisite infrastructure.

Table 4.3: Revenues and Expenditures (in Nominal Terms), AUDA

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Balance	608,170,000	625,237,000	421,675,000	918,001,000	2,120,437,000	2,867,743,000
Capital Receipts						
Sale of Land	434,203,000	599,743,000	992,156,000	2,321,224,000	148,629,000	434,300,000
Others	966,409,000	994,996,000	1,017,964,000	833,546,000	2,075,055,000	981,433,000
Total	1,400,612,000	1,594,739,000	2,010,120,000	3,154,770,000	2,223,684,000	1,415,733,000
Drainage	54,361,000	97,136,000	89,156,000	92,147,000	212,867,000	827,900,000
EWS/VAMBAY	31,045,000	103,725,000	296,076,000	39,405,000	441,867,000	619,700,000
Water Supply	99,858,000	206,578,000	159,270,000	7,179,000	-56,000	0
Capital Receipt	1,585,876,000	2,002,178,000	2,554,622,000	3,293,501,000	2,878,362,000	2,863,333,000
Revenue Receipt	158,886,000	136,474,000	206,794,000	279,435,000	277,548,000	151,879,000
Total	2,352,932,000	2,763,889,000	3,183,091,000	4,490,937,000	5,276,347,000	5,882,955,000
Capital Expenditure						
Road, Building, ROB	876,858,000	918,604,000	945,639,000	1,172,180,000	1,155,109,000	1,569,000,000
Others	60,341,000	108,606,000	318,738,000	447,121,000	709,442,000	473,960,000
Total	937,199,000	1,027,210,000	1,264,377,000	1,619,301,000	1,864,551,000	2,042,960,000
Drainage	146,589,000	200,740,000	225,741,000	221,342,000	141,113,000	1,749,403,000
EWS/VAMBAY	106,241,000	154,055,000	203,252,000	276,561,000	227,531,000	1,110,000,000
Water Supply	417,414,000	859,195,000	393,207,000	82,898,000	52,838,000	10,000,000
Capital Exp.	1,607,443,000	2,241,200,000	2,086,577,000	2,200,102,000	2,286,033,000	4,912,363,000
Revenue Exp.	120,252,000	101,014,000	178,513,000	170,398,000	122,571,000	134,300,000
Total	1,727,695,000	2,342,214,000	2,265,090,000	2,370,500,000	2,408,604,000	5,046,663,000
Closing Balance	625,237,000	421,675,000	918,001,000	2,120,437,000	2,867,743,000	836,292,000

Sources: AUDA, and Authors' Computations.

Ahmedabad Municipal Corporation: Contribution of Land Leasing and/or Sales

The AMC continues to levy the distortionary octroi which accounts for a major proportion of its revenues. The other important source of AMC's revenues is the property tax. The AMC, on its part, levies property tax and service-based taxes of different type against the services provided by it to the citizens. For the AMC, land is not a very important source, but nonetheless is a generator of revenues from leasing and sales. The

corporation also owns assets in the form of land and buildings, which are leased/ rented out to generate revenue. The income from such sources contributes to the (non-tax) own source income of AMC.

As far as revenues from land leasing and/or sale is concerned, very little land is held by the AMC for residential and commercial purposes, which are the only purposes relevant for leasing or selling. Most of the land held by the AMC is meant for public purpose uses such as for the development of schools, parks, roads, hospitals and open spaces. Therefore the revenues from land leasing for the AMC are also very limited.

The non-tax own revenue sources of the AMC accounts for 8.51 per cent of the total revenue income. These revenue sources include fees and charges levied as per the legislation. Accordingly, the income sources have been classified under the following broad categories, viz.:

- Municipal properties,
- Collection from public places,
- Realization under special status,
- Public services charges/fee,
- Sale proceeds, and
- Miscellaneous income.

These revenue sources include the income from leased/ rented out municipal property and from the fees and charges levied for the different services rendered by the corporation.

Table 4.4 summarizes tax and non-tax revenues, including that from leasing of land, grants, and total revenues of the AMC over 1998-99 to 2007-08 in nominal terms. The increase in non-tax collection could be attributed to efficient collection and reflected in the non-availability of new sources. Revenues from land leasing for AMC is quite small, at best 4 percent of non-tax revenues, 1 percent each of own source revenues and of all revenues (when grants are taken into account), at best. On average, when all years are taken into account, these proportions are even less, accounting for 2 percent, 0.55 percent and 0.44 percent respectively.

Table 4.5 summarizes the revenues from land leasing as a proportion of AMC's total property tax, octroi, own source and total revenues.

Table 4.4: AMC, Tax, Non-Tax Revenues and Revenues from Land Lease, in Nominal Terms

Year	Total Tax Revenue	Revenue from Land Lease- AMC	Total Non-tax Revenue	Total Grants	Total Receipts
1998-99	3,810,012,000	809,154	939,962,000	733,713,000	5,483,687,000
1999-00	4,237,026,000	8,200,541	1,424,154,000	1,277,641,000	6,938,821,000
2000-01	4,203,464,000	46,308,416	1,422,380,000	1,284,090,000	6,909,934,000
2001-02	4,278,549,000	47,484,385	1,339,904,000	1,301,104,000	6,919,557,000
2002-03	4,725,487,000	39,788,578	1,430,928,000	1,299,264,000	7,455,679,000
2003-04	5,135,505,000	29,478,121	1,771,249,000	1,445,728,000	8,352,482,000
2004-05	6,085,090,000	59,498,399	1,985,763,000	1,234,107,000	9,304,960,000
2005-06	7,244,701,000	32,552,282	1,779,087,000	1,304,250,000	10,328,038,000
2006-07	9,072,786,000	20,276,661	2,887,643,000	1,965,672,000	13,926,101,000
2007-08	7,278,292,000	172,409,321	6,190,522,000	3,701,906,000	17,170,720,000
Average	5,607,091,200	45,680,586	2,117,159,200	1,554,747,500	9,278,997,900

Sources: AMC, and Authors' Computations.

Table 4.5: Land Leasing as a Proportion of AMC Revenues from Various Sources, in Nominal Terms

Year	Land leasing revenue as % of AMC property tax revenues	Land leasing revenue as % of AMC octroi revenues	Land leasing revenue as % of AMC own source revenue	Land leasing revenue as % of total Revenues
1998-99	0.07%	0.03%	0.02%	0.01%
1999-00	0.77%	0.27%	0.14%	0.12%
2000-01	5.04%	1.43%	0.82%	0.67%
2001-02	3.98%	1.55%	0.85%	0.69%
2002-03	3.64%	1.10%	0.65%	0.53%
2003-04	2.76%	0.74%	0.43%	0.35%
2004-05	4.25%	1.29%	0.74%	0.64%
2005-06	1.97%	0.59%	0.36%	0.32%
2006-07	1.01%	0.29%	0.17%	0.15%
2007-08	8.27%	3.35%	1.28%	1.00%
Average	3.18%	1.06%	0.55%	0.45%

Sources: AMC, and Authors' Computations.

It becomes clear that revenues from land leasing contribute to no more than 3 percent as a proportion of property tax revenues, no more than 1 percent of own octroi and own source revenues in general, and less than 0.5 percent of total revenues (after accounting for grants). Thus, for municipal corporations, land sales and/or leasing are not an important source of income on account of their limited jurisdiction over lands and other land-related assets.

The Gujarat Town Planning and Urban Development Act of 1976 specifies that indeed the state government should specify the amount a local authority should contribute

towards the expenses incurred by an area development authority in the discharge of its functions. We checked with the AUDA regarding this provision and were given to understand that while the provision exists, no transfer has been made from AMC to AUDA so far. This is not without precedence in the country. Along similar lines, in Punjab also, the Punjab Town Improvement Act of 1922 specifies that the Ludhiana Municipal Corporation has to transfer a certain amount to the city's Improvement Trust to enable it to carry its functions, but nothing has been paid by the Ludhiana Municipal Corporation to the Ludhiana Improvement Trust.²⁷

Given the insignificant role played by land leasing in AMC revenues, we computed the incremental revenues from AUDA's land leasing and/or sale, should they be transferred from AUDA to AMC. Table 4.6 summarizes these computations.

Table 4.6: Hypothetical Computations of Additions to AMC Revenues from AUDA Land Leasing and/or Sale, in Nominal Terms

Year	Addition to AMC Total Revenues from AUDA Land Lease and Sales	Addition to AMC Own Source Revenues from AUDA Land Lease and Sales	Addition to AMC Property Tax Revenues from AUDA Land Lease and Sales	Addition to AMC Octroi Revenues from AUDA Land Lease and Sales
1998-99	0.75%	0.86%	3.59%	1.55%
1999-00	0.61%	0.75%	3.97%	1.36%
2000-01	3.21%	3.94%	24.13%	6.83%
2001-02	2.19%	2.69%	12.67%	4.93%
2002-03	5.65%	6.84%	38.55%	11.66%
2003-04	5.20%	6.29%	40.70%	10.83%
2004-05	6.45%	7.43%	42.85%	12.98%
2005-06	9.61%	10.99%	60.12%	17.99%
2006-07	16.67%*	19.41%	115.77%	33.03%
2007-08	0.87%*	1.10%	7.13%	2.89%
Average	5.12%	6.03%	34.95%	10.40%
Std. Dev	5.00%	5.78%	34.32%	9.64%
Maximum	16.67%	19.41%	115.77%	33.03%
Minimum	0.61%	0.75%	3.59%	1.36%

Sources: AMC, AUDA, and Authors' Computations.

*In 2006-07, the revenue from land lease and sales in nominal terms was Rs.2.3 billion, and it decreased to a mere Rs.148 million in 2007-08. One reason for the high revenues in 2006-07 was the number of plots which was leased (20), whereas only 3 plots were leased in 2007-08.

²⁷ The Punjab Town Improvement Trust Act, 1922, Section 67, Chapter 7, provides that "...the Municipal Committee shall pay to the Trust....an amount per annum equal to two per cent of the gross annual income of such Committee." Accordingly, the Ludhiana Municipal Corporation owes the Ludhiana Improvement Trust (LIT) 2 percent of its gross receipts every year to enable the LIT carry out its activity (see Sridhar 2006).

Table 4.6 shows that the potential of increasing AMC revenues through the revenues currently accruing to AUDA through land leasing and/or sale is continually increasing. On average, if AUDA land leasing revenues were to be transferred to AMC, these revenues can constitute up to 5 percent of AMC's total revenues, more than 6 percent of AMC's own source revenues, 10 percent of octroi revenues, and nearly 35 percent of property tax revenues on average. In nominal terms, AUDA's revenues from land leasing and sales rose from Rs.434 million in 2003-04 to nearly Rs.2 billion in 2006-07, registering a more than 530 percent increase over the three-year period, but since then has tapered off to where it started in 2008-09 (see Table 4.3).

Table 4.7 shows the revenues from AUDA's land leasing and/or sales as a proportion of AMC's capital, revenue and total expenditures with a view to examine how much of AMC's expenditures AUDA's revenues from land leasing and/or sales can potentially finance. On average, AUDA's revenues from land leasing and sales constitute nearly 23 percent of AMC's capital expenditures on all services. However, given that AMC's revenue expenditure needs are huge, AUDA's revenues from land leasing and sales cover only 8 percent on average of AMC's revenue expenditures on all services. When AMC's total expenditures are taken into account, AUDA's revenues from land leasing and sales account only for 6 percent. Hence the potential is the greatest for AUDA's revenues from land leasing and sales to be used for AMC's capital expenditures since it can cover up to one-fourth. On some occasions, the AUDA revenues are capable of financing nearly two-thirds of AMC's capital expenditures, hence it is very promising as a financing mechanism.

Given these revenue increases are substantial for a municipal corporation, such institutional coordination is much required to honor the spirit of the 74th Constitutional Amendment Act, get rid of duality in service delivery as it relates to land, strengthen cities fiscally, and enable their orderly growth.

Table 4.7: Hypothetical Computations of Financing of AMC Expenditures from AUDA Land Leasing and/or Sale, in Nominal Terms

Year	Proportion AUDA Land Lease and Sales of AMC's Capital expenditure	Proportion AUDA Land Lease and Sales of AMC's Revenue expenditure	Proportion AUDA Land Lease and Sales of AMC's Total expenditure
1998-99	5.05%	0.98%	0.82%
1999-00	2.21%	0.81%	0.59%
2000-01	16.27%	3.95%	3.18%
2001-02	8.90%	2.70%	2.07%
2002-03	30.61%	7.24%	5.85%
2003-04	17.84%	7.72%	5.39%
2004-05	31.52%	9.90%	7.54%
2005-06	54.52%	15.78%	12.24%
2006-07	64.36%	29.79%	20.36%
2007-08	3.03%	1.71%	1.09%
Average	23.43%	8.06%	5.91%
Maximum	64.36%	29.79%	20.36%
Minimum	2.21%	0.81%	0.59%
Std.Deviation	21.75%	8.97%	6.25%

Sources: AMC, AUDA and Authors' Computations.

Kolkata: Land as a Revenue Source

As described in Chapter 3, the KMDA has some control over land, especially as it relates to jurisdictions across the 41 municipalities in the Kolkata metropolitan area. The KMC has control over land within the KMC area.

The primary sources of receipts for the KMDA under the revenue account are:

- a. Fixed grant to KMDA (in lieu of octroi ever since it was abolished);
- b. Grant for operations and maintenance (O&M) of assets created under the different capital works programs of KMDA;
- c. Disposal of capital assets (surplus);
- d. Interest on time deposits.

In nominal terms, the annual receipt from revenue sources for the KMDA averages out to be between Rs.150 and Rs.200 crores. KMDA's own sources of revenue from lease of lands, flats and commercial spaces constructed by the KMDA, development fees under the provisions of the Town and Country Planning Act, water charges, road tolls, advertising rights, sale of tender papers averaged out to Rs.30 crore per annum for the

last five years (2002-07) (KMDA Annual Report, 2007) in nominal terms. Thus own sources constitute a small portion of total receipts for the KMDA.

The major sources of capital receipts for the KMDA are loans from the state government and financial institutions, grants from the state government (for Megacity projects, basic minimum services), grants from the government of India, disposal of flats, commercial spaces and lands, deposit work (against projects that KMDA implements on behalf of other government departments/agencies, central assistance under the “Infrastructure and Urban Governance” and “Basic Services for the Urban Poor” components of JnNURM and escrow account containing the proceeds of lease premium/dividends received from private partners against the PPP projects. The annual receipts from capital sources are much higher than that from revenue sources, averaging around Rs.200 crore per annum, and is likely to make a further jump, with more funds projected to flow under the JnNURM and other PPP projects.

Table 4.8 summarizes KMDA’s revenue receipts in nominal terms. Nearly two-thirds of KMDA’s receipts are for developmental purposes, out of which 48 percent is special purpose development fund.

Table 4.8: KMDA’s Revenue and Capital Receipts

Revenue Heads	2006- 07	2007- 08	2006- 07 (in %)	2007- 08 (in %)
Fixed grants	1,237,300,000	1,303,762,000	12.78%	16.34%
Revenue grants & contributions	451,266,000	569,090,000	4.66%	7.13%
Interest receivable	209,400,000	687,850,000	2.16%	8.62%
Misc. Receipts	1,480,888,000	477,086,000	15.30%	5.98%
Total Revenue receipts	3,378,854,000	3,037,788,000	34.91%	38.07%
Development Heads (Capital Receipts)				
Development Schemes (General)	1,574,375,000	1,106,701,000	16.27%	13.87%
JM CURM	0	2,744,000,000	0.00%	34.39%
Special purpose development fund	4,685,353,000	983,569,000	48.41%	12.33%
Deposit works	40,088,000	108,024,000	0.41%	1.35%
Total Development Receipts	6,299,816,000	4,942,294,000	65.09%	61.93%
Total Receipts	9,678,670,000	7,980,082,000		

Source: KMDA Budget

Within revenue receipts, fixed grants and miscellaneous receipts account for more than half of revenues.

Table 4.9 summarizes KMDA’s revenues from land leasing and other sources during 1999-00 to 2005-06 in nominal terms. On average, a sizeable portion (nearly 37 percent) of KMDA’s revenues is from land leasing, with the exception of 2000-01, when only 10 percent of its revenues were derived from leasing land. Unfortunately, the number of transactions or the plots based on which these revenues are realized, were not available from the KMDA for these years. However, we have confirmed that most of the land which was leased, was in the KMC area. We had data on specific projects yielding lease revenues for 2006-07 and 2007-08 for the KMC. Based on nominal revenues for 2006-07 sent to us by the KMDA, 65 percent of KMDA’s revenues were from land leasing, and one third of revenues were from the KMC area.

Table 4.9: KMDA’s Revenues from Land Leasing (in Nominal Terms)

Year	Revenue from Land Lease	Other Revenue	Total Revenue	% KMDA Revenue from Land Lease
1998-99	192,869,122	137,240,385	330,109,507	58.43%
1999-00	232,075,148	170,532,418	402,607,566	57.64%
2000-01	153,631,819	1,396,419,781	1,550,051,600	9.91%
2001-02	531,714,085	1,755,058,349	2,286,772,434	23.25%
2002-03	577,844,454	1,451,655,864	2,029,500,318	28.47%
2003-04	498,726,650	1,597,925,014	2,096,651,664	23.79%
2004-05	690,853,576	1,780,428,696	2,471,282,272	27.96%
2005-06	1,182,035,194	2,021,917,128	3,203,952,322	36.89%
2006-07	4,391,201,065	2,355,275,337	6,746,476,402	65.09%
Average	938,994,568	1,407,383,664	2,346,378,232	36.83%

Sources: KMDA, and Authors’ Computations.

Table 4.10 summarizes in nominal terms, KMDA’s expenditures for two recent years for which the data were available. While the study’s objectives are to examine how the proceeds from land leasing are spent, it does appear that the receipts from land leases are not deposited in a separate account, as is the case in other cities as well, but go into the general fund, from where all capital and revenue expenditures are met.

In general, developmental expenditures constitute more than half of the total expenditures, with this proportion having increased to 72 percent in 2007-08, of which a major chunk being accounted for by general development schemes and those envisaged

under the JnNURM. This lends support to the general idea that proceeds from land lease and sales are used for infrastructure creation. Combined with this, we also observe from discussion later that KMDA's expenditure decisions are made by a committee consisting of local as well as state representatives. Hence there is reason to believe that there is enough local autonomy in KMDA's spending decisions.

Table 4.10: KMDA's Expenditures

Revenue Expenditure	2006- 07	2007- 08RE	2006- 07	2007- 08RE
Salary & other employee expenses	671,929,000	755,700,000	17.36%	11.12%
O & M dev. project	360,131,000	367,658,000	9.30%	5.41%
Expenses towards various schemes	157,339,000	255,333,000	4.07%	3.76%
Operating expenses of project auxiliary equipment	2,952,000	3,548,000	0.08%	0.05%
Repair & Maintenance	15,988,000	21,738,000	0.41%	0.32%
Consultancy services & Technical assistance fee	3,943,000	4,500,000	0.10%	0.07%
Payments under section 27 of the T & C (P&D) Act 1979	165,000,000	173,250,000	4.26%	2.55%
Public relation	9,423,000	10,630,000	0.24%	0.16%
Other Adm. & general expenses	53,919,000	84,698,000	1.39%	1.25%
Financial & Misc. expenses	242,748,000	220,534,000	6.27%	3.25%
Total Revenue Expenditure	1,683,372,000	1,897,589,000	43.49%	27.93%
Development Expenditure				
Development Schemes (General)	1,940,640,000	2,133,107,000	50.14%	31.39%
JM CURM	0	2,422,296,000	0.00%	35.65%
Deposit works	40,088,000	108,024,000	1.04%	1.59%
Capital assets	6,205,000	5,810,000	0.16%	0.09%
Special purpose development fund	200,000,000	228,051,000	5.17%	3.36%
Total Development Expenditure	2,186,933,000	4,897,288,000	56.51%	72.07%
Total Expenditure	3,870,305,000	6,794,877,000	100%	100%

Source: KMDA Budget

Turning our attention next to the KMC, find Table 4.11 summarize KMC's total tax, non-tax revenues and that from land leasing over time, in nominal terms. At the most, land leasing revenues account only for less than 2 percent of KMC's non-tax revenues, and

hence quite insignificant. Table 4.12 describes and summarizes in percentage terms, the proportion land leasing revenues form out of KMC's total revenues, tax revenues and property tax revenues. It may be readily seen that land leasing revenues constitute less than 1 percent of own source revenue, only 1.1 percent of property tax revenues and less than 0.5 percent of total revenues on average. It becomes clear that the KMC has not been able to use land as a revenue potential.

Table 4.11: KMC, Tax, Land Lease and Non-Tax Revenues (in Nominal Terms)

Year	Total Tax Revenue	Revenue from Land lease	Total Non-tax Revenue	Total Grants	Total Receipts
1998-99	994,588,572	374,700	2,562,928,480	2,094,522,787	5,652,039,839
1999-00	1,132,160,394	4,147,977	3,103,744,703	2,696,971,570	6,932,876,667
2000-01	1,157,261,376	3,158,046	5,455,453,337	3,172,047,415	9,784,762,128
2001-02	1,855,918,377	1,673,550	3,242,047,535	2,956,718,705	8,054,684,617
2002-03	2,118,559,708	72,465,240	4,412,991,576	3,083,221,873	9,614,773,157
2003-04	2,117,223,882	13,120,146	9,972,645,509	3,368,028,638	15,457,898,029
2004-05	3,618,680,932	70,876,647	4,283,753,420	4,662,126,088	12,564,560,440
2005-06	2,320,830,929	31,232,529	5,745,501,993	4,744,015,520	12,810,348,442
2006-07	2,485,750,898	11,981,856	5,923,532,406	10,334,478,079	18,743,761,383
2007-08	3,520,511,000	27,760,321	6,937,745,000	10,057,470,000	20,515,726,000
Average	2,132,148,607	23,679,101	5,164,034,396	4,716,960,067	12,013,143,070

Sources: KMC, and Authors' Computations.

Table 4.12: Land Leasing as a Proportion of KMC Revenue from Various Sources in Nominal Terms

Year	Land revenue as % of property tax	Land revenue as % of KMC's own source revenues	Land revenue as % of Total Receipts
1998-99	0.04%	0.01%	0.01%
1999-00	0.38%	0.10%	0.06%
2000-01	0.28%	0.05%	0.03%
2001-02	0.14%	0.03%	0.02%
2002-03	4.71%	1.11%	0.75%
2003-04	0.67%	0.11%	0.08%
2004-05	2.05%	0.90%	0.56%
2005-06	1.48%	0.39%	0.24%
2006-07	0.50%	0.14%	0.06%
2007-08	0.83%	0.27%	0.14%
Average	1.11%	0.31%	0.20%

Sources: KMC, and Authors' Computations.

Table 4.13 summarizes in nominal terms, the hypothetical additions to KMC's total, own source and property tax revenues, if KMDA's revenues from land leasing and sales in the KMC area were to accrue to the KMC.

Table 4.13: Hypothetical Computations of Additions to KMC Revenues from KMDA Land Leasing and/or Sale, in Nominal Terms

Year	Addition to KMC Total Revenues from KMDA Land Lease and Sale	Addition to KMC Own Source Revenues from KMDA Land Lease and Sale	Addition to KMC Property Tax Revenues from KMDA Land Lease and Sale
1998-99	3.41%	5.42%	20.61%
1999-00	3.35%	5.48%	21.27%
2000-01	1.57%	2.32%	13.49%
2001-02	6.60%	10.43%	43.10%
2002-03	6.01%	8.85%	37.52%
2003-04	3.23%	4.13%	25.64%
2004-05	5.50%	8.74%	20.02%
2005-06	9.23%	14.65%	55.88%
2006-07	23.43%	52.22%	182.35%
2007-08	6.28%	12.31%	38.55%
Average	6.86%	12.46%	45.84%
Std. Deviation	6.22%	14.48%	49.69%
Maximum	23.43%	52.22%	182.35%
Minimum	1.57%	2.32%	13.49%

Sources: KMC, KMDA, and Authors' Computations.

In nominal terms, additions to KMC's total, own source and property tax revenues from KMDA's land leasing and sales are respectively 7 percent, 13 percent and 46 percent.

Table 4.14 shows the revenues from KMDA's land leasing and/or sales as a proportion of KMC's capital, revenue and total expenditures with a view to examine how much of KMC's expenditures KMDA's revenues from land leasing and/or sales can potentially finance. On average, KMDA's revenues from land leasing and sales constitute nearly 85 percent of KMC's capital expenditures on all services. However, given that KMC's revenue expenditure needs are huge, KMDA's revenues from land leasing and sales cover only 8 percent on average of KMC's revenue expenditures on all services. When KMC's total expenditures are taken into account, KMDA's revenues from land leasing and sales account only for 7 percent. Hence the potential is the greatest for KMDA's revenues from land leasing and sales to be used for KMC's capital expenditures

since it can cover more than three-fourth. On some occasions, the KMDA revenues are capable of financing nearly 306 percent of KMC's capital expenditures, hence it is very promising as a financing mechanism.

In fact, public service delivery suffers in the case of institutional overlaps between the agencies, and there is a need to respect the decentralization provisions of the 74th constitutional amendment act. Hence merging the revenues of the urban development authority with that of the municipal corporation might be a solution for problems with municipal finances.

Table 4.14: Hypothetical Computations of Financing of KMC Expenditures from KMDA Land Leasing and/or Sale, in Nominal Terms

Year	Proportion KMDA Land Lease and Sales of KMC's Capital Expenditure	Proportion KMDA Land Lease and Sales of KMC's Revenue Expenditure	Proportion KMDA Land Lease and Sales of KMC's Total Expenditure
1998-99	62.68%	3.49%	3.30%
1999-00	54.82%	3.22%	3.04%
2000-01	38.25%	2.09%	1.99%
2001-02	306.26%	6.97%	6.81%
2002-03	132.69%	6.78%	6.45%
2003-04	35.74%	4.96%	4.36%
2004-05	30.94%	6.67%	5.49%
2005-06	45.97%	12.25%	9.67%
2006-07	120.05%	29.74%	23.84%
2007-08	23.75%	8.34%	6.17%
Average	85.12%	8.45%	7.11%
Maximum	306.26%	29.74%	23.84%
Minimum	23.75%	2.09%	1.99%
Std.Deviation	86.07%	8.03%	6.28%

Sources: KMC, KMDA, and Authors' Computations.

Jaipur: Assessment of Land as a Financing Tool

As described earlier, the JDA and JMC are the important organizations which control land in Jaipur. Given the JMC has quite limited taxing powers, and also the fact that sale of land is the most important source of revenue for most municipalities in

Rajasthan, we describe the sources of revenue for both these agencies and their finances in this section. According to the JDA Act, following are the JDA's sources of revenue:

1. Contribution made by the state government;
2. Grants, loans and advances made by the central or state government;
3. Fifty percent share of the proceeds of tax recovered on land and buildings situated within the Jaipur region in accordance with the Rajasthan Land and Buildings Tax Act 1964.
4. Income derived from premium on second and subsequent sale of vacant land, which is the main source; it has recently prepared the land bank through which it is likely to raise resources.
5. Income from levy on vacant land;
6. Conversion charges for conversion of use of land from residential purpose to commercial or other purposes;
7. All fees, costs and charges received by the JDA;
8. All monies received by the JDA from the disposal of land, building and other property, including lease money, urban assessment (ground rent from plot holders on the land sold on leasehold basis), development charges and other similar charges recovered from plot holders.

Table 4.15 summarizes JDA's revenues including that from land leasing and sales in nominal terms. On average, nearly 72 percent of JDA's total revenues is accounted for by land sales and leases, with a majority (65 percent) being accounted for by land sales on average, with revenue from land lease accounting for 7 percent of JDA's total revenues. The remaining sources are minor parts. Our objective is to examine the impact on revenues of leasing or selling. Data on the number of plots (or transactions) based on which the revenues were realized, were not available with the JDA (or at least not maintained in a systematic way). Table 4.15 shows that on average, the sale of land through auction or allotment is much more remunerative when compared with leasing. This is easy to understand; there are a number of terms and conditions that apply to leasing as opposed to outright sale.

Table 4.15: JDA's Revenues from Land Lease, Sale and Others (in Nominal Terms)

Year	Sale of land through auction/allot	Lease	Total Own Source Revenue	Total Revenue	%Land sales revenue of total revenue	%Land lease revenue of total revenue
1998-99	238,300,000	17,700,000	385,500,000	385,500,000	61.82%	4.59%
1999-00	378,900,000	53,100,000	590,900,000	590,900,000	64.12%	8.99%
2000-01	769,500,000	107,900,000	1,279,000,000	1,279,000,000	60.16%	8.44%
2001-02	981,900,000	78,600,000	1,196,600,000	1,206,600,000	81.38%	6.51%
2002-03	844,900,000	109,800,000	1,286,000,000	1,396,000,000	60.52%	7.87%
2003-04	1,036,600,000	118,800,000	1,214,100,000	1,274,100,000	81.36%	9.32%
2004-05	889,000,000	183,700,000	1,403,500,000	1,453,600,000	61.16%	12.64%
2005-06	3,676,800,000	135,500,000	4,202,000,000	4,232,000,000	86.88%	3.20%
2006-07	6,710,100,000	254,700,000	7,486,700,000	7,617,900,000	88.08%	3.34%
2007-08	6,089,400,000	412,500,000	7,736,700,000	7,891,300,000	77.17%	5.23%
Average	2,161,540,000	147,230,000	2,678,100,000	2,732,690,000	72.27%	7.01%

Sources: JDA, and Authors' Computations.

Another important objective we have also relates to how the revenues are spent. In JDA, as with UDAs in other cities, the revenues from land sales and lease are not kept in a separate account, but pooled with other resources for general developmental and revenue spending. Table 4.16 summarizes the details of JDA's capital and revenue expenditure.

Table 4.16: JDA's Expenditures (in Nominal Terms)

Year	Capital Exp.	Revenue Exp.	Capital Exp (%)	Revenue Exp (%)	Total Exp.
1998-99	440,800,000	195,400,000	69.29%	30.71%	636,200,000
1999-00	396,100,000	214,000,000	64.92%	35.08%	610,100,000
2000-01	932,400,000	253,500,000	78.62%	21.38%	1,185,900,000
2001-02	1,463,400,000	247,300,000	85.54%	14.46%	1,710,700,000
2002-03	1,552,200,000	373,600,000	80.60%	19.40%	1,925,800,000
2003-04	1,208,900,000	401,700,000	75.06%	24.94%	1,610,600,000
2004-05	1,085,900,000	397,300,000	73.21%	26.79%	1,483,200,000
2005-06	2,133,500,000	558,600,000	79.25%	20.75%	2,692,100,000
2006-07	3,707,300,000	683,000,000	84.44%	15.56%	4,390,300,000
2007-08	6,339,000,000	634,800,000	90.90%	9.10%	6,973,800,000
Average	1,925,950,000	395,920,000	78.18%	21.82%	2,321,870,000

Sources: JDA, and Authors' Computations.

Table 4.16 shows that a majority of JDA's expenditures are capital in nature, being for developmental purposes. On average, more than three-fourths of its spending is capital in nature with the remaining being on revenue expenditures. While it is possible to

compare the magnitude of expenditure with that of revenues from land leasing and/or sales, it is not possible to say which revenues go for developmental and which, for revenue expenditure. In fact, when we compare total revenues and expenditures in Tables 4.13 and 4.14, we find that on average, in nominal terms, expenditures are only about 88 percent of total revenues in 2007-08.

Given land sales are an important source of revenue for municipalities in Rajasthan, we next turn to JMC. Table 4.17 summarizes the main sources of revenue for JMC in nominal terms. Indeed, house tax is the only source of tax revenue for the JMC, with the exception of an urban development tax in 2007-08 from which there were some nominal revenues. The report of the Third State Finance Commission for Rajasthan notes that the abolition of house tax with effect from 24-2-2007 and its restoration with 29.8.2007 as Urban Development Tax, with reduced revenue potential, has further worsened the financial position of ULBs.

Table 4.17: Primary Sources of Revenue, Jaipur Municipal Corporation, in Nominal Terms

Year	Total Tax Revenue	Revenue from sale/lease of land	Total Non-tax Revenue	Receipt from JDA	Total Grants	Total Receipts
2000-01	130,265,000	11,020,000	212,859,000	30,000,000	1,103,548,000	1,446,672,000
2001-02	149,740,000	22,538,000	285,510,000	95,505,000	1,005,051,000	1,440,301,000
2002-03	144,428,000	29,160,000	331,776,000	65,000,000	940,209,000	1,416,413,000
2003-04	68,809,000	43,025,000	259,285,000	15,000,000	968,117,000	1,296,211,000
2004-05	87,286,000	73,671,000	329,499,000	30,000,000	1,111,687,000	1,528,472,000
2005-06	161,167,000	72,169,000	539,014,000	330,517,000	1,537,153,000	2,237,334,000
2006-07	105,475,000	252,993,000	1,070,500,000	350,000,000	1,642,441,000	2,818,416,000
2007-08	65,919,000	166,896,000	901,620,000	709,000,000	2,429,577,000	3,397,116,000
Average	114,136,125	83,934,000	491,257,875	203,127,750	1,342,222,875	1,947,616,875

Sources: JMC, and Authors' Computations.

*Only for 2007-08, there is an urban development tax for which there was a small revenue amount, which we were unable to deflate due to lack of data for this year. During all other years, the tax revenue refers only to the house tax.

Table 4.18 summarizes and compares with other sources, the revenue from land sales and lease as a proportion of JMC's total revenue. It shows that the revenue from

land lease and sales has been increasing steadily since 2005-06, and has surpassed other traditional revenue sources such as house tax and user charges.

Table 4.18: Revenue from Land Lease and Sale as % of Total Revenue, JMC, Compared With Other Sources

Year	House Tax as % of Total Receipts	Land Lease and Sale Revenue as % of Total Receipts	User charges as % of Total Receipts	Other non tax revenue as % of Total Receipts
2000-01	9.00%	0.76%	0.11%	13.84%
2001-02	10.40%	1.56%	0.18%	18.08%
2002-03	10.20%	2.06%	0.14%	21.23%
2003-04	5.31%	3.32%	0.28%	16.40%
2004-05	5.71%	4.82%	0.74%	16.00%
2005-06	7.20%	3.23%	0.82%	20.05%
2006-07	3.74%	8.98%	0.83%	28.18%
2007-08	0.90%	4.91%	0.25%	21.38%
Average	6.56%	3.70%	0.42%	19.39%

Sources: JMC, and Authors' Computations.

Finally, as in the case of other cities, we performed some hypothetical computations of additions to total JMC revenues, if JDA's revenues from land lease and sale were to accrue to the JMC. Table 4.19 summarizes these computations. Table 4.19 summarizes the hypothetical addition to JMC's total, own source and property tax revenues, if JDA's revenues from land lease and sales were to be added, in nominal terms.

With a view to examine how much of JMC's expenditures JDA's revenues from land leasing and/or sales can potentially finance, Table 4.20 shows the revenues from JDA's land leasing and/or sales as a proportion of JMC's capital, revenue and total expenditures. On average, JDA's revenues from land leasing and sales constitute nearly 325 percent of JMC's capital expenditures on all services. JDA's revenues from land leasing and sales cover a little less, 221 percent on average of JMC's revenue expenditures on all services. When JMC's total expenditures are taken into account, JDA's revenues from land leasing and sales account for 130 percent. Hence the potential is great for JDA's revenues from land leasing and sales to be used for JMC's capital, revenue as well as total expenditures. On some occasions, the JDA revenues are capable

of financing nearly 730 percent of JMC’s capital expenditures, hence it is very promising as a financing mechanism.

Table 4.19: Hypothetical Addition to JMC Revenues, with JDA’s Revenues from Land Lease and Sales, in Nominal Terms

Year	Addition to JMC Total Revenues from JDA Land Lease and Sale	Addition to JMC Own Source Revenues from JDA Land Lease and Sale	Addition to JMC Property Tax Revenues from JDA Land Lease and Sale
2000-01	60.65%	255.71%	673.55%
2001-02	73.63%	243.65%	708.23%
2002-03	67.40%	200.48%	661.02%
2003-04	89.14%	352.16%	1679.14%
2004-05	70.18%	257.37%	1228.95%
2005-06	170.39%	544.47%	2365.43%
2006-07	247.12%	592.26%	6603.27%
2007-08	191.39%	672.00%	21374.47%
Average	121.24%	389.76%	4411.76%
Std. Deviation	71.37%	184.66%	7132.22%
Maximum	247.12%	672.00%	21374.47%
Minimum	60.65%	200.48%	661.02%

Sources: JMC, JDA, and Authors’ Computations.

It is clear that the revenue implications of transfer to JMC from JDA’s land lease and sales are very high if nominal revenues were to be considered. On average, there would be a 121 percent increase in JMC revenues, should JDA revenues from land leasing and/or sales were to be added. The increase in JMC’s revenues would be the maximum if property tax revenues were to be considered, given that property tax revenues are quite meager (Rs.30 million in 2007-08 for instance). On average, if JDA’s revenues from land leasing and sales were to be added, the increase in JMC’s property tax revenues would be more than 4,000 percent and the increase would be to the extent of nearly 390 percent if JMC’s own source revenues were to be considered.

Table 4.20: Hypothetical Computations of Financing of JMC Expenditures from JDA Land Leasing and/or Sale, in Nominal Terms

Year	Proportion JDA Land Lease and Sales of JMC's Capital expenditure	Proportion JDA Land Lease and Sales of JMC's Revenue expenditure	Proportion JDA Land Lease and Sales of JMC's Total expenditure
2000-01	193.96%	109.80%	70.11%
2001-02	194.18%	125.97%	76.40%
2002-03	189.72%	104.84%	67.52%
2003-04	257.90%	127.19%	85.18%
2004-05	207.12%	104.88%	69.63%
2005-06	441.32%	317.22%	184.56%
2006-07	730.09%	466.20%	284.52%
2007-08	382.76%	413.83%	198.84%
Average	324.63%	221.24%	129.60%
Maximum	730.09%	466.20%	284.52%
Minimum	189.72%	104.84%	67.52%
Std.Deviation	189.72%	152.94%	82.47%

Sources: JMC, JDA and Authors' Computations.

It is, however, a different issue whether the transfer of JDA's revenues to the JMC, over and above the existing 15 percent of (80 percent) its revenues which is currently being transferred (see Chapter 3) from the JDA to JMC, and the merging of JDA with JMC's town planning functions, is practically feasible.

Bangalore: Findings from Land Leasing and Sale Revenues

As discussed earlier, the BDA and BBMP are two organizations which regulate the use of land within the Bangalore metropolitan area. We describe BDA's sources of revenues and BDA's expenditures in this section, to understand how much BDA's revenues from land leasing and sales could potentially contribute to BBMP's total revenues, property tax revenues and own source revenues to finance its infrastructure activity.

Table 4.21 describes the revenues accruing to the BDA from its allotment sites (intermediate sites), auction and civic amenity (CA) sites (see chapter 3 for background

regarding these sites). On average, revenues from land leasing and sales account for more than one-third of BDA's revenues. In numbers, intermediate or allotted sites are the largest number sold by the BDA, when compared with CA or auction sites. Even in terms of revenues, they are the largest source for the BDA (yielding Rs.1.3 billion on average), followed by auction sites at Rs.1.06 billion on average in nominal terms (Table 4.21). We would expect auction sites to yield the maximum revenues since they are sold through a competitive bidding process. However, given the fact that only corner sites are sold through auction by the BDA, the number of allotment sites sold is larger than that of auction sites, which explains their revenue yield.

Table 4.21: Revenue from Land Leasing and Sales, in Nominal Terms, BDA

Year	Revenues from Land Leasing and Sales			Other Revenue	Total Revenue	% Land leasing/sales revenue of BDA's revenues
	Revenue from allotment sites	Revenue from auction sites	Revenue from CA Sites			
1998 - 99	132,618,000	113,115,000	58,598,000	1,121,709,000	1,426,040,000	21.34%
1999 - 00	253,655,000	133,586,000	28,030,000	1,123,816,000	1,539,087,000	26.98%
2000 - 01	1,056,554,000	557,937,000	71,594,000	1,945,113,000	3,631,198,000	46.43%
2001 - 02	1,443,751,000	571,466,000	64,530,000	2,521,732,000	4,601,479,000	45.20%
2002 - 03	3,098,675,000	625,021,000	75,409,000	5,057,406,000	8,856,511,000	42.90%
2003 - 04	2,999,805,000	689,219,000	87,490,000	5,778,921,000	9,555,435,000	39.52%
2004 - 05	1,768,709,000	1,196,469,000	56,509,000	11,555,303,000	14,576,990,000	20.73%
2005 - 06	548,262,000	1,541,051,000	92,514,000	2,050,114,000	4,231,941,000	51.56%
2006 - 07	1,635,277,000	1,991,700,000	195,544,000	2,052,480,000	5,875,001,000	65.06%
2007 - 08	328,842,000	3,182,069,000	389,180,000	2,929,412,000	6,829,503,000	57.11%
Average	1,326,614,800	1,060,163,300	111,939,800	3,613,600,600	6,112,318,500	41.68%

Sources: BDA, and Authors' Computations.

Table 4.22 summarizes the revenues per auction site, allotted site and CA site. As we expect, on average, the revenue per site is the largest from auction sites being nearly Rs.130 million (Rs.13 crores). These are followed by revenue per CA site and revenue per allotted site. Given the fact that CA sites are always on lease, and auction is always outright sale, the effect of sale is much more favorable as far as revenue is concerned. The revenues the BDA makes from leasing and selling land, are all spent within Bangalore. However, some amount might flow to state government agencies or might be redistributed to other locations through the BDA, if the state government directs it to do

so. Thus far, all its revenues from land leasing and/or selling have been spent within the city.

Table 4.22: Revenue Per Site (in Nominal Terms) from Auction, Allotted and CA Sites, BDA

Year	Revenue/allotted site	Revenue/auction site	Revenue/CA site
1998 - 99	NA	NA	NA
1999 - 00	63,414	NA	NA
2000 - 01	264,139	278,968,500	214,997
2001 - 02	72,188	190,488,667	162,955
2002 - 03	309,868	78,127,625	218,577
2003 - 04	99,994	25,526,630	308,063
2004 - 05	NA	199,411,500	135,839
2005 - 06	NA	171,227,889	225,644
2006 - 07	NA	41,493,750	547,742
2007 - 08	NA	57,855,800	847,887
Average	161,920	130,387,545	332,713

Sources: BDA, and Authors' Computations.

How are these revenues spent by the BDA? Table 4.23 summarizes BDA's expenditures in nominal terms and shows capital and revenue expenditure by category and by year. Overall, on average, revenue expenditure constitutes only 18 percent of BDA's total expenditure with the remaining 82 percent accounted for by capital expenditure. Establishment and salaries account for half of revenue expenditure. Less than half (44 percent) of the capital expenditure is under the mega city projects scheme. So it does seem that the BDA's revenues from land leasing and sales are being put to productive use and that assets/infrastructure are being created, as we would imagine, based on their revenues.

However, it does matter whether the local body, the BBMP, does not have access to this revenue base. If it had had access to this revenue base, then it may have been in a position to decide what kind of infrastructure the revenue is spent on. Based on our discussions with the BDA, we find that all spending decisions which are lesser than Rs.50 lakhs can be made by the BDA, however, those which are greater than Rs.50 lakhs have to be approved by the Board of the BDA which consists of representatives from the state and local agencies, namely, BDA's Commissioner, BBMP, councilors (who are members of the legislative assembly (MLAs)), the state's Housing Secretary, and the state's

Principal Secretary for Urban Development. Hence while there is enough reason to believe that there is local representation in spending decisions, it is difficult to guess how much of actual voice the BBMP's commissioner would have in response to a decision by the state's housing secretary or the principal secretary, urban development.

Given we would like to compare BDA's revenues from land lease with that of the BMP, Table 4.24 summarizes Bangalore Mahanagara Palike (BMP)'s revenues from various sources²⁸ from 2002-03 to 2007-08 in nominal terms. Table 4.24 shows that tax and non-tax revenues are both equally important for the (erstwhile) BMP. The primary sources of tax revenue are the property tax while the most important sources of non-tax revenues are "others." Revenues from land leasing and/or sales form an insignificant part of non-tax revenues for the BMP and there is a significant amount of variability in their revenues over the years. This is primarily because BMP leases land only for charitable purposes such as schools, hospitals, markets and other purposes.

Table 4.23: BDA Expenditures, Nominal Terms

YEAR	Revenue Exp.				Capital Exp.		
	Maintenance of works	Admin.& Estb. including contingencies	Others	Total Revenue Exp.	Projects under Mega city	Other Expenditure	Total Capital Expenditure
1998 - 99	36,557,000	97,852,000	97,873,000	232,282,000	298,323,000	320,844,000	619,167,000
1999 - 00	27,362,000	117,549,000	185,694,000	330,605,000	633,022,000	220,170,000	853,192,000
2000 - 01	40,445,000	138,324,000	218,786,000	397,555,000	387,115,000	330,795,000	717,910,000
2001 - 02	25,858,000	158,862,000	243,421,000	428,141,000	682,672,000	848,752,000	1,531,424,000
2002 - 03	21,134,000	182,822,000	138,723,000	342,679,000	840,988,000	1,418,015,000	2,259,003,000
2003 - 04	31,034,000	192,952,000	110,941,000	334,927,000	1,138,221,000	1,873,473,000	3,011,694,000
2004 - 05	50,483,000	206,183,000	75,839,000	332,505,000	506,950,000	1,831,158,000	2,338,108,000
2005 - 06	57,434,000	257,534,000	66,341,000	381,309,000	622,550,000	862,054,000	1,484,604,000
2006 - 07	109,586,000	214,198,000	90,341,000	414,125,000	1,557,404,000	1,046,032,000	2,603,436,000
2007 - 08	100,097,000	273,675,000	90,133,000	463,905,000	793,579,000	714,267,000	1,507,846,000
Average	49,999,000	183,995,100	131,809,200	365,803,300	746,082,400	946,556,000	1,692,638,400

Sources: BDA, and Authors' Computations.

There is a general view that the government should make available land for 'public' purposes and that its intention should not be to make money out of land. There is

²⁸ Recall that the BMP became Bruhath BMP only in 2007. Nearly all the data we have relates to that of the BMP.

also a lot of political pressure for the BBMP to lease out land at nominal rates of rent. However, recently the BBMP has not been renewing old leases since it has realized the market value of land, and has been attempting to cash on that. So it does seem that the purported “charitable” purposes for which land has been leased thus far was, as a revenue raising strategy, flawed in nature. On average, land has constituted less than 0.5 percent of own source revenues for the BMP (this can be extracted from Table 4.21). If revenues from land lease and/or sales are taken as a proportion of total revenues, it is less than 0.5 percent on average. Hence the potential of land as a revenue generating source has not been realized by the BBMP.

Table 4.24: Trend in Revenue Sources in Nominal Terms, BMP

Year	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Average
Total Tax Revenue	3,075,822,000	2,867,525,000	3,128,715,000	3,544,864,000	4,683,393,000	5,859,441,000	3,859,960,000
Property Tax	2,551,839,000	2,617,648,000	3,019,434,000	3,428,464,000	4,553,968,000	5,396,957,000	3,594,718,333
Others	523,983,000	249,877,000	109,281,000	116,400,000	129,425,000	462,484,000	265,241,667
Total Non-tax Revenue	3,078,076,300	5,369,684,000	7,279,722,000	4,987,797,000	4,914,903,000	6,230,247,000	5,310,071,550
User Charges	29,333,000	27,452,000	16,775,000	8,833,000	13,364,000	12,839,000	18,099,333
Revenue from Land lease	7,633,300	4,503,000	17,415,000	9,663,000	5,491,000	1,692,000	7,732,883
Revenue from sale of Land	0	0	33,411,000	11,710,000	0	0	7,520,167
Total Land revenue	7,633,300	4,503,000	50,826,000	21,373,000	5,491,000	1,692,000	15,253,050
Others	3,041,110,000	5,337,729,000	7,212,121,000	4,957,591,000	4,896,048,000	6,215,716,000	5,276,719,167
Total Revenue Income	6,153,898,300	8,237,209,000	10,408,437,000	8,532,661,000	9,598,296,000	12,089,688,000	9,170,031,550
State Revenue Grant	695,995,000	612,814,000	593,575,000	1,407,871,000	2,919,694,000	5,791,067,000	2,003,502,667
State Capital Grant	463,536,000	246,666,000	382,427,000	1,050,000	990,643,000	1,183,356,000	544,613,000
Total Grants	1,159,531,000	859,480,000	976,002,000	1,408,921,000	3,910,337,000	6,974,423,000	2,548,115,667
Total Receipts	7,313,429,300	9,096,689,000	11,384,439,000	9,941,582,000	13,508,633,000	19,064,111,000	11,718,147,217

Sources: BBMP, and Authors’ Computations.

Table 4.25 summarizes in nominal terms the hypothetical additions to BBMP’s revenues if revenues from land leasing and sales by the BDA were to be added to BBMP’s total, own source and property tax revenues. The revenues in nominal terms constitute about 32 percent of BMP’s total revenues on average, 39 percent of own source revenues and nearly 102 percent of BMP’s property tax revenues on average. In some years (e.g., 2002-03, revenues from land lease and sale accounted for nearly 150 percent of BMP’s property tax revenues. Hence it is possible to believe that land can potentially be a quite powerful financing tool for the BMP, if the necessary institutional changes were to take place.

With a view to examining how much of BMP's expenditures BDA's revenues from land leasing and/or sales can potentially finance, Table 4.26 shows the revenues from BDA's land leasing and/or sales as a proportion of BMP's capital, revenue and total expenditures. On average, BDA's revenues from land leasing and sales constitute nearly 75 percent of BMP's capital expenditures on all services. BDA's revenues from land leasing and sales cover a little less, 65 percent on average of BMP's revenue expenditures on all services. When BMP's total expenditures are taken into account, BDA's revenues from land leasing and sales account for 34 percent. Hence the potential is great for BDA's revenues from land leasing and sales to be used for BMP's capital, revenue as well as total expenditures. On some occasions, the BDA revenues are capable of financing nearly 144 percent of BMP's capital expenditures, hence it is very promising as a financing mechanism.

Table 4.25: Hypothetical Addition to BBMP's Total, Own Source and Property Tax Revenues, from BDA's Land Lease and Sale Revenues, in Nominal Terms

Year	Addition to BMP Total Revenues from BDA Land Lease and Sale	Addition to BMP Own Source Revenues from BDA Land Lease and Sale	Addition to BMP Property Tax Revenues from BDA Land Lease and Sale
2002-03	51.95%	61.73%	148.88%
2003-04	41.52%	45.85%	144.27%
2004-05	26.54%	29.03%	100.07%
2005-06	21.95%	25.57%	63.64%
2006-07	28.30%	39.82%	83.94%
2007-08	20.46%	32.26%	72.26%
Average	31.78%	39.04%	102.18%
Std. Deviation	12.38%	13.34%	36.52%
Maximum	51.95%	61.73%	148.88%
Minimum	20.46%	25.57%	63.64%

Sources: BDA, BMP, and Authors' Computations.

Table 4.26: Hypothetical Computations of Financing of BMP Expenditures from BDA Land Leasing and/or Sale, in Nominal Terms

Year	Proportion BDA Land Lease and Sales of BMP's Capital Expenditure	Proportion BDA Land Lease and Sales of BMP's Revenue Expenditure	Proportion BDA Land Lease and Sales of BMP's Total Expenditure
1998-99	18.00%	6.80%	4.94%
1999-00	22.45%	13.50%	8.43%
2000-01	21.92%	25.66%	11.82%
2001-02	120.27%	73.25%	45.52%
2002-03	144.17%	126.67%	67.43%
2003-04	141.92%	112.45%	62.74%
2004-05	90.48%	86.35%	44.18%
2005-06	54.07%	50.51%	26.12%
2006-07	65.02%	93.32%	38.32%
Average	75.37%	65.39%	34.39%
Maximum	144.17%	126.67%	67.43%
Minimum	18.00%	6.80%	4.94%
Std.Deviation	51.13%	43.55%	23.05%

Sources: BMP, BDA, and Authors' Computations.

The next and final chapter pulls together the findings, summarizes the policy implications of the exploratory study and presents concluding remarks.

CHAPTER 5: SUMMARY, POLICY IMPLICATIONS AND CONCLUSIONS

The implication of the research here is that governments in India and other developing countries have been capitalizing on increases in public land values and natural economic growth, through leasing and sales to finance their infrastructure needs.

When we review institutional arrangements for land use between the UDAs and municipal corporations in the selected cities, we find that the UDAs are state government entities everywhere, which have a host of advantages, with their grants from the state and the institutional autonomy.²⁹ However, municipal corporations are hard-pressed for resources everywhere, with revenues from land lease and sale constituting a small share of their revenues, with the exception of Jaipur, where revenues from land lease and sales form a significant portion. This is more generally in line with the observation that income from land lease and sales constitutes a significant portion of the revenue for municipalities in Rajasthan. It is also less common to see public authorities to sell land outright, rather, leasing under a set of terms and conditions is more common.

There is a statutory arrangement in many states which mandates transfer of funds from the municipality (as in the case of Ahmedabad) to the UDA to enable it to carry out its functions effectively (another example not studied here is Punjab). However the transfer has not taken place in Ahmedabad and many other cities thus far. This is understandable, given the municipal corporations' financial position and their relative burden of service responsibilities.

In the case of Kolkata, the transfer of funds is not statutory, but is required as part of their responsibilities. For instance, the KMDA owes property tax to the KMC, which is required to pay the KMDA in return for the water supply received. This transfer of funds is not statutory but in the nature of *quid pro quo*.

Table 5.1 summarizes the potential of land as a revenue option (as a proportion of own source revenues) for all the selected cities, putting together the various hypothetical

²⁹ The report of Rajasthan's Third State Finance Commission notes that at the time of establishment of JDA (and other UITs), the state government had transferred its assets in the form of land and buildings to these organizations for taking up developmental activities in the areas falling within their jurisdiction. Given the revenue by way of sale of land is on the increase, the Commission recommended that JDA should contribute 20% of the sale proceeds of the land and buildings to the Consolidated Fund of the state which may be utilised by the state for onward devolution to Urban Local Bodies and other development activities.

computations performed in this study. On average, Ahmedabad and Kolkata Municipal Corporations can realize only about 6 and 12 percent respectively of their total own source revenues from their respective UDAs' sale and lease of land. In the case of the other cities, this is much higher, being nearly 39 percent of BBMP's own source revenues in the case of Bangalore and nearly 10 times more, i.e., being 390 percent of own source revenues in the case of Jaipur.

Table 5.1: Potential of Revenues from UDAs' Land Leasing and/or Sales as a Proportion of Municipal Corporation's Own Source Revenues, in Nominal Terms

Year	Ahmedabad	Kolkata	Jaipur	Bangalore	Average
1998-99	0.86%	5.42%	NA	NA	3.14%
1999-00	0.75%	5.48%	NA	NA	3.11%
2000-01	3.94%	2.32%	255.71%	NA	80.47%
2001-02	2.69%	10.43%	243.65%	NA	70.98%
2002-03	6.84%	8.85%	200.48%	61.73%	63.46%
2003-04	6.29%	4.13%	352.16%	45.85%	98.25%
2004-05	7.43%	8.74%	257.37%	29.03%	71.32%
2005-06	10.99%	14.65%	544.47%	25.57%	105.27%
2006-07	19.41%	52.22%	592.26%	39.82%	141.97%
2007-08	1.10%	12.31%	672.00%	32.26%	108.37%
Average	6.03%	12.46%	389.76%	39.04%	89.46%
Std. Deviation	5.78%	14.48%	184.66%	13.34%	33.67%
Maximum	19.41%	52.22%	672.00%	61.73%	147.44%
Minimum	0.75%	2.32%	200.48%	25.57%	51.26%

Sources: Various Municipal Corporations, UDAs, and Authors' Computations.

Before we start to discuss and explain these findings, we present more summary data on the proportion revenues from land lease and sales form of the municipalities' total revenues and property tax revenues. Tables 5.2 and 5.3 respectively summarize the contribution of UDAs' land leasing and sales to municipal corporations' total revenues and property tax revenues for all cities (in nominal terms). Table 5.2 summarizes for all cities, the potential of revenues from UDAs' land leasing and sales as a proportion of municipal corporations' total revenues, in nominal terms. Jaipur is the one with above average additions to total revenues, with Bangalore coming out second.

Table 5.2: Potential of Revenues from UDAs' Land Leasing and/or Sales as a Proportion of Municipal Corporations' Total Revenues, in Nominal Terms

Year	Ahmedabad	Jaipur	Kolkata	Bangalore	Average
1998-99	0.70%	NA	3.40%	NA	2.10%
1999-00	0.60%	NA	3.30%	NA	2.00%
2000-01	3.20%	60.65%	1.60%	NA	21.80%
2001-02	2.20%	73.63%	6.60%	NA	27.50%
2002-03	5.60%	67.40%	6.00%	51.90%	32.80%
2003-04	5.20%	89.14%	3.20%	41.50%	34.80%
2004-05	6.40%	70.18%	5.50%	26.50%	27.20%
2005-06	9.60%	170.39%	9.20%	21.90%	52.80%
2006-07	16.70%	247.12%	23.40%	28.30%	78.90%
2007-08	0.90%	191.39%	6.30%	20.50%	54.70%
Average	5.11%	121.24%	6.85%	31.77%	33.46%
Maximum	16.70%	247.12%	23.40%	51.90%	78.90%
Minimum	0.60%	60.65%	1.60%	20.50%	2.00%
Std.Dev	5.01%	71.37%	6.22%	12.36%	23.75%

Sources: Various Municipal Corporations, UDAs, and Authors' Computations.

Table 5.3 summarizes the potential of revenues from UDAs' land leasing and sales as a proportion of municipal corporations' property tax revenues in nominal terms.

Table 5.3: Potential of Revenues from UDAs' Land Leasing and/or Sales as a Proportion of Municipal Corporations' Property Tax Revenues, in Nominal Terms

Year	Ahmedabad	Jaipur	Kolkata	Bangalore	Average
1998-99	3.60%	NA	20.60%	NA	12.10%
1999-00	4.00%	NA	21.30%	NA	12.60%
2000-01	24.10%	673.55%	13.50%	NA	237.10%
2001-02	12.70%	708.23%	43.10%	NA	254.70%
2002-03	38.60%	661.02%	37.50%	148.90%	221.50%
2003-04	40.70%	1679.14%	25.60%	144.30%	472.40%
2004-05	42.90%	1228.95%	20.00%	100.10%	348.00%
2005-06	60.10%	2365.43%	55.90%	63.60%	636.30%
2006-07	115.80%	6603.27%	182.30%	83.90%	1746.30%
2007-08	7.10%	21374.47%	38.60%	72.30%	5373.10%
Average	34.96%	4411.76%	45.84%	102.18%	931.41%
Maximum	115.80%	21374.47%	182.30%	148.90%	5373.10%
Minimum	3.60%	661.02%	13.50%	63.60%	12.10%
Std.Dev	34.33%	7132.22%	49.68%	36.54%	1638.57%

Sources: Various Municipal Corporations, UDAs, and Authors' Computations.

Table 5.3 shows that revenue additions from land leasing and sales as a proportion of cities' property tax revenues can be expected to follow a positive exponential trend. This is primarily because of Jaipur, while that for the other cities is more or less flat.

On average, taking all cities into account, revenue from land lease and/or sale by UDAs accounts for nearly 90 percent of existing own source revenues of municipal corporations (Table 5.1), 33 percent of their total revenues (Table 5.2), but more than 900 percent of property tax revenues (Table 5.3). It is true that Jaipur is an outlier. Even when Jaipur is removed, UDAs' land leasing and sale revenues contribute to nearly 50 percent of property tax revenues on average, in nominal terms.

Given Tables 5.1-5.3 show land leasing and sale revenues from UDAs as a proportion of municipal revenues, we examined separately in per capita terms, municipal and UDA revenues from land leasing and sales. Before that, given land leasing and sales contribute hugely to property tax revenues, but not to the same degree to own source revenues, we examined the structure of own source revenues and contribution of property taxes to own source revenues of municipalities. Table 5.4 summarizes per capita municipal own source revenues in all the cities.

Table 5.4: Per Capita (PC) Own Source Revenues, Municipal Corporations, in Nominal Terms

Year	AMC PC Revenues	KMC PC Revenues	JMC PC Revenues	BMP PC Revenues
1998-99	1404.98	787.02	NA	NA
1999-00	1641.04	933.49	NA	NA
2000-01	1598.21	1451.66	154.77	NA
2001-02	1564.22	1114.83	187.40	NA
2002-03	1679.74	1422.82	195.71	1393.38
2003-04	1846.82	2623.50	128.71	1816.44
2004-05	2114.97	1708.23	156.07	2235.36
2005-06	2317.43	1736.94	250.27	1784.71
2006-07	3010.23	1803.82	401.23	1955.23
2007-08	3322.13	2234.69	315.11	2398.51
Average	2,049.98	1,581.70	223.66	1,930.60
Maximum	3,322.13	2,623.50	401.23	2398.51
Minimum	1,404.98	787.02	128.71	1393.38
Std.Dev	651.31	568.92	93.37	356.47

Sources: Various Municipal Corporations and Authors' Computations.

Table 5.4 shows that AMC is the richest of all, followed by BMP and Kolkata. The poorest is the JMC, consistent with the financial position of other municipalities in Rajasthan. We have more to say on this when we explain the discrepancies across the cities in terms of their revenues from land leasing and sales.

Table 5.5 summarizes the contribution of property tax revenues to the total own source revenues of all cities of study. Broadly, on average, property tax contributes the greatest in BMP followed by the KMC and JMC. In BMP, sources other than property tax revenues which are important are recovery of advances from contractors, refund of deposits, improvement charges. AMC is the last in terms of contribution of the property tax to own source revenues. This is due to the continued existence of octroi over there. Octroi in AMC contributes nearly 55 percent of own source revenues in the case of AMC. In the case of KMC, a major portion of own source revenues apart from the property tax is accounted for by user charges and fees which are high in the case of building sanctions. In the case of JMC, non-tax revenues other than that from land leasing and sale are important. So in the case of all municipalities (more so in Jaipur and Kolkata), it does appear that non-tax revenues play an important role (contributing more than 70 percent of own source revenues) with the exception of Ahmedabad where they contribute only one-fourth on average, given the importance of octroi.

Table 5.5: Contribution of Property Taxes to Own Source Revenues, Municipal Corporations, in Nominal Terms

Year	Contribution of Property Tax, AMC (in %)	Contribution of Property Tax, KMC (in %)	Contribution of Property Tax, JMC (in %)	Contribution of Property Tax, BMP (in %)
1998-99	24.00	26.30	NA	NA
1999-00	18.78	25.76	NA	NA
2000-01	16.32	17.22	37.96	NA
2001-02	21.26	24.20	34.40	NA
2002-03	17.74	23.58	30.33	41.47
2003-04	15.45	16.09	20.97	31.78
2004-05	17.34	43.66	20.94	29.01
2005-06	18.29	26.23	23.02	40.18
2006-07	16.76	28.64	8.97	47.45
2007-08	15.47	31.94	3.14	44.64
Average	18.14	26.36	22.47	39.09

Sources: Various Municipal Corporations and Authors' Computations.

Tables 5.6 and 5.7 summarize respectively the per capita revenues in each of the municipal corporations and UDAs from land leasing and sales, which add support to Tables 5.1-5.3.

Table 5.6: Per Capita (PC) Revenues from Municipal Corporations' Land Leasing and/or Sales, in Nominal Terms

Year	AMC PC Revenues from Land Leasing and Sales	KMC PC Revenues from Land Leasing and Sales	JMC PC Revenues from Land Leasing and Sales	BMP PC Revenues from Land Leasing and Sales
1998-99	0.24	0.08	NA	NA
1999-00	2.38	0.91	NA	NA
2000-01	13.16	0.69	4.97	NA
2001-02	13.22	0.37	9.7	NA
2002-03	10.86	15.79	11.98	1.73
2003-04	7.88	2.85	16.88	0.99
2004-05	15.59	15.32	27.59	10.92
2005-06	8.36	6.73	25.8	4.47
2006-07	5.10	2.57	86.32	1.12
2007-08	42.53	5.93	54.35	0.34
Average	11.93	5.12	29.70	3.26
Maximum	42.53	15.79	86.32	10.92
Minimum	0.24	0.08	4.97	0.34
Std.Dev	11.82	5.94	27.58	4.02

Sources: Various Municipal Corporations and Authors' Computations.

As Table 5.6 shows, the clear winner even when we look at the municipality's revenues from land leasing and sales is JMC, which earns nearly Rs.30 per capita from land leasing and sales, on average, followed by Ahmedabad (AMC at Rs.12 per capita), with Kolkata and Bangalore trailing, at least as far as average per capita municipal revenues from land leasing and sales are concerned.

Table 5.7 which summarizes UDAs' per capita revenues from land leasing and sales confirms what we find in Tables 5.1-5.4. This is the finding that the per capita revenues are the highest in Jaipur followed by Bangalore and with Kolkata and Ahmedabad trailing.

Table 5.7: Per Capita Revenues from UDAs' Land Leasing and/or Sales, in Nominal Terms

Year	AUDA	KMDA	JDA	BDA
1998-99	12.11	42.67	126.73	76.59
1999-00	12.23	51.14	204.14	101.79
2000-01	62.94	33.73	395.76	402.49
2001-02	42.13	116.28	456.61	483.51
2002-03	114.92	125.88	392.37	860.20
2003-04	116.10	108.22	453.26	832.78
2004-05	157.16	149.34	401.69	648.95
2005-06	254.80	254.53	1,362.67	456.36
2006-07	584.21	941.93	2,376.32	778.67
2007-08	36.66	275.15	2,117.53	773.75
Average	139.33	209.89	828.71	541.51
Maximum	584.21	941.93	2,376.32	860.20
Minimum	12.11	33.73	126.73	76.59
Std.Dev	173.48	270.01	820.82	288.21

Sources: Various UDAs and Authors' Computations.

Thus all our findings based on municipality revenues and UDA revenues both from land leasing and sales, suggest two groups of cities: one set which is able to capitalize on land for raising revenues (Jaipur and Bangalore) and the other which is unable to do so (Kolkata and Ahmedabad). These city types are representative of many we find in the country some of which are capitalizing on land value increases, and some of which are unable to lease or sell land, due to various constraints.

We investigated into causes of these discrepancies across cities in terms of the potential of land as a revenue generating source. We conjecture that the causes of these discrepancies could be embedded in the institutional arrangements for land use in the cities. For instance, in the case of Kolkata, we found that the funds transferred by developers into the KMDA's escrow account are not taken into account in the KMDA revenues from land leasing and sales. This could be one reason why Kolkata comes a distant third in terms of KMDA's contribution to the municipality (KMC)'s revenues. In the case of Ahmedabad (AUDA), its inability to make money out of land leasing and sales seems to arise due to constraints imposed on it by the Gujarat TP Act (see footnote 11 (p.30), for instance). The Gujarat Town Planning and Urban Development Act specifies reservation to the extent of 10 percent of land for providing housing to the

socially and economically weaker sections, 15 percent for roads, 5 percent for parks, playgrounds and open space, 5 percent for social infrastructure such as schools, dispensaries, fire brigade, and only 15 percent for sale by the authority for residential, commercial or industrial use depending on the nature of development.

In the case of Jaipur, it is worthy to note that the sale of land is an important source of non-tax income for municipalities in Rajasthan, particularly for the smaller municipalities. According to the report of Rajasthan's First State Finance Commission, sale of lands accounts for, in the aggregate, 8–9 percent of the total income of municipalities, and it could be as high as 15–16 percent of the income of smaller municipalities. For municipal corporations, however, land sales are not an important source of income on account of their limited jurisdiction over lands and other land-related assets, as we have observed in the case of Jaipur. In all municipal corporations, Urban Improvement Trusts (UIT) hold the statutory responsibility for matters relating to lands. Thus in the case of Rajasthan, given the poor financial position of ULBs which all the three State Finance Commission reports make a note of, and the lack of an adequate tax base (due to the abolition of octroi in 1998) have led to attempts on the part of municipalities to improve their other sources of income. We surmise that land lease and sales are the most important of these.

Another reason why the impact is huge in Jaipur is because JMC's own source revenues are quite low (at an average of Rs.605 million during 2000-01 to 2006-07 or an average of Rs.224 per capita (also see Table 5.4)), compared with the JDA's revenues from land leasing and sale (average of Rs.2.3 billion or Rs.829 per capita on average over the same period). However, in contrast, the revenues of the AMC and the KMC are huge (average of Rs.7.7 billion and Rs.7.3 billion respectively over our study period) compared to that from the UDAs' revenues from land leasing and sales (Rs.821 million and Rs.973 million respectively for AUDA and KMDA). Hence the impact of the additional revenues from UDAs in Ahmedabad and Kolkata are muted.

In the case of Jaipur, while the revenues from JDA have been fairly stable, there is substantial variability in the revenues of the JMC, hence there is variability in the proportion JDA revenues account for out of JMC's revenues.

In the case of Bangalore, corner sites are sold off by the BDA through auction which yield a revenue of nearly Rs.130 million per plot (which is possibly much higher than the per plot price of up to Rs.1 crore, based on secondary data (see chapter 1)),³⁰ compared with a mere Rs.5.2 million per plot sold in Ahmedabad by AUDA (compare Tables 4.2 (Ahmedabad) and 4.22 (Bangalore), Chapter 4). This explains Bangalore's relatively higher revenues from land lease compared with that in Ahmedabad. In the case of Bangalore, the BBMP thus far has not used land as a revenue generating source, but only for charitable purposes (not for affordable housing). But the BDA has been relatively more prolific in its use of land for revenue generation. This explains these findings here.

Summarizing the reasons for the discrepancies we have found across cities in terms of the ability of land lease and sales as a revenue generating mechanism, one answer could lie in the institutional arrangements for land use and the escrow mechanisms used to transfer the revenues from the private parties to the UDAs. Another reason could be the relative financial strength of the municipality vis-à-vis that of the UDA. Yet another reason could be the land disposal process itself – usually auctioned off plots or sites are sold at a premium than are other sites.

In the early part of the decade, revenues from land leasing and/or sales were small in the case of most cities, but have progressively grown even in the case of Ahmedabad and Kolkata. The results from this pilot study thus show that cities have been attempting to use land as a potentially powerful financing tool, and plenty of opportunities remain for transfer of funds from land lease and sales from UDAs to municipal authorities. Some cities such as Jaipur have already been doing this. As described in Chapter 3, the JDA transfers about 15 percent of its gross revenues (after transfer of 20 percent to the state government) from land leasing and sales to the JMC to enable it to carry out municipal functions, as specified by the state government, and this is also confirmed by the report of Rajasthan's third State Finance Commission.

In Bangalore as well, a similar situation exists, but in a different form. The BDA transfers funds to the BBMP in an ad hoc way sometimes as and when required by the

³⁰ Unfortunately we did not have information on the size of plots sold/auctioned by the BDA or AUDA, while we had information on the number of plots, to enable us to compare it with the secondary data (of Rs.1 crore per acre).

BBMP to operate and maintain land transferred to it by the BDA. But frequently ULBs have argued that lands that are transferred are often inadequately developed and serviced, and therefore, place a disproportionately large financial burden on them (Mathur and Peterson (2006)). Last year, in 2007, the BDA transferred some Rs.1.5 crores to the BBMP to enable it to do the operations and maintenance of lands transferred to it by the BDA. Also, recently Karnataka's new Chief Minister promised that the BDA will undertake Rs.700 crores worth of work on BBMP's behalf this year. Such transfers are one-time, sometimes meager, and are not required by the statute. Moreover such transfers by the BDA to the BBMP are made only for enabling of operations and maintenance purposes only, not to enable the carry out of *general municipal functions*, as is done by the JDA to JMC.

In Ahmedabad, the case is reverse and it is as in Punjab. Here, the municipal authority is required, as described in Chapter 3, to transfer funds to the UDA to enable it to carry out its functions of city improvement. While AMC's finances are in relatively good condition, given AMC's increasing burden of public services with the merging of surrounding areas, there should be a flow in the reverse direction, from AUDA to AMC.

In Kolkata, while the KMC and KMDA owe something to each other,³¹ they are in the nature of quid pro quo payments. There is no statutory transfer of funds that is required by the KMDA to the KMC or vice-versa, as is required in the other cities of study. Hence the finding of interest is that municipalities such as the KMC would stand to benefit substantially if the revenues from land leasing and/or sales taking place in the KMC area were to be transferred to the KMC by the KMDA. Recall that transfer of KMDA's funds from land leasing and sales could add nearly 12 percent of KMC's own source revenues (Table 5.1).

Similarly, given AMC's service responsibilities, it would make more sense for the AUDA to transfer some portion of its funds routinely to the AMC to enable it to carry out its functions, rather than the transfer from AMC to AUDA, that is specified by the Gujarat Town Planning and Urban Development Act. Bangalore and Jaipur are already partly doing what this study recommends, except that *all* revenues from land leasing and

³¹ See chapter 3 for details. The KMDA supplies water to the KMC, hence the KMC owes payments to the KMDA. The KMDA, in its turn, has to pay property tax to the KMC which it has not been.

sales have to be transferred. For instance, the BDA's revenues from land leasing and/or sales could potentially constitute 39 percent of BBMP's own source revenues. Similarly, JDA's revenues from land leasing and sales constitute 10 times as much, i.e., 390 percent of JMC's own source revenues.

There is also a significant amount of variation in the potential of land for PPPs across the cities. While PPPs are fairly common in the UDAs (with the exception of BDA), the municipal corporations (with the exception of Jaipur) are not intensive users of this model. Hence there is reason to believe that UDAs get a premium out of their use of land as a financing tool.

Hence transfer of funds and functions from the UDAs to the municipal corporations is much recommended for orderly growth of cities, doing away with the multiplicity of agencies with respect to land use, and respecting the financial autonomy and decentralization spirit of the 74th CAA.

We are, however, unable to say anything certain regarding the impact of lease or sale on revenues. While in Ahmedabad and in Kolkata leasing of land is more remunerative from a revenue point of view, in Bangalore and Jaipur, outright sale of land by the UDA is more conducive for higher revenue potential. In general, we may surmise that outright sale would be more conducive for revenue potential, given that there are a number of terms and conditions associated with leasing.

Further, in all the cities, most of the revenues of the UDAs are spent on capital projects, hence we may be reasonably sure that the resources from land leasing and sales are being used for developing infrastructure of some sort. Our discussions also confirm that there is enough local autonomy at least on paper for spending limited resources (i.e., funds up to a ceiling) as seen by the existence of local representatives on committees appointed to approve spending decisions. However, are cities doing enough for affordable housing?

Are Cities Doing Enough for Affordable Housing?

Having found this, we also find that UDAs utilize their land more for revenue generation than for affordable housing, especially for the urban poor. While UDAs have every right to capture the outcome of economic growth which manifests itself in

increased land prices, and also their own investment through sale, they should reserve land for housing the lower income groups, since lack of adequate of housing leads to problems of a different nature (such as illegal encroachments on public land). Urban development authorities do routinely reserve a small portion of the land they acquire for housing the economically weaker sections, but there is near consensus that this is not adequate, when we consider the fact that more than half of certain metropolitan areas such as Mumbai live in slums (see Bertaud, 2004). Hence urban development authorities need to more actively plough their revenues from land leasing and auctions into infrastructure and housing for the economically weaker sections.

The evidence shows that legislation has not helped in building an adequate stock of housing for the urban poor. The BDA, for instance, usually allows for housing for economically weaker sections at a rate lower (at half the price) than for others (p.231, BDA Act) and may set apart 40 percent of the total number of sites in any area for allotment to persons belonging to EWS. However, this is not a thrust area.

In the case of Ahmedabad, 5 percent of land is actually used for the EWS, whereas the Gujarat Town Planning and Urban Development Act specifies "...reservation of land to the extent of 10 percent...for the purpose of providing housing accommodation to the members of socially and economically backward classes of people.." The West Bengal Town and Country Planning and Development Act (of 1979) provides that a development authority may "(undertake)..housing schemes for different income groups.." (p.33), but does not specify what proportion is to be reserved for housing the lower income groups. The Jaipur Development Authority (JDA) Act is similar. It specifies that a project may make provisions for "...housing accommodation to the members of Scheduled Castes, Scheduled Tribes, backward classes and weaker sections of the society.." (p.32), but does not specify what proportion be reserved for the "weaker sections."

In July 2008, the Ministry of Housing asked states to crack down on developers who violated norms for economically weaker sections (EWS) reservation and that builders would face hefty fines if they did not set aside 15 percent space in their housing projects for EWS. According to this policy, at least 15 percent of land in housing projects or 20 percent floor area ratio (FAR) – whichever is greater – has to be reserved for

EWS/LIG (low income group) housing. Similarly, municipal authorities would not allow developers to advertise their buildings or flats if their building plan did not have accommodation for the poor. Apart from this, the Ministry of Housing also directed nationalized banks to lend EWS families funds at lower rates to buy houses, specifically at 5 percent below the market rate.

With economic growth, capitalization and speculation, land values have increased significantly and governments have been capitalizing on them through leasing and auctions, but have to do much more in the way of affordable housing for the urban poor. This has been an incidental finding and not the primary objective of the study.

Policy Implications

This study has shown that the institutional arrangements for land use are fragmented between the UDAs and town planning departments of municipal corporations. There are overlaps among various agencies as far as planning and development of schemes for town planning are concerned. Given municipal corporations have limited control over land assets especially for commercial purposes (leasing and selling), they cannot leverage their land resources for raising revenues. However, given UDAs have control over huge land resources and are entitled by law to dispose them through leasing or selling, they are in a position to raise substantial revenues from leasing and selling land. This study finds that if the UDA revenues from land leasing and/or sales alone were to be added to municipal corporations' revenues, they would contribute to municipal finances in a substantial way. Because of this, this study suggests that UDAs have to be merged with the town planning departments of the municipal corporations of cities. This is also in line with recommendations made by Karnataka's First State Finance Commission (see Mathur and Peterson (2006)) elaborated later. This merging has the following advantages:

1. Cities would have enough resources to finance their urban infrastructure programs, which would be in line with the provisions of the 74th CAA.
2. The multiplicity of institutions with respect to land use would be done away with. This would enable more orderly growth of cities.

Having said this, we should recognize that land acquisition, land development, sale and lease of lands, and preparation of master plans including long-range urban planning and determination of land uses are specialized functions. Such required expertise might not be available in most ULBs. As Mathur and Peterson (2006) point out, the scale and complexity of urban planning could overwhelm the ULBs' primary function of service provision and maintenance if such functions were transferred to the ULBs. Hence they suggest that it is unrealistic to simply transfer these functions to ULBs by a stroke of the pen.

We also need to recognize that despite the many advantages the development authorities have with regard to land related activity, in practice, as Mathur and Peterson (2006) point out, the functioning of development authorities and other similar agencies has been found to be far from satisfactory. They have not been able to control haphazard development on the periphery and on lands that are either notified for acquisition or acquired for development. Nor have they been able to effectively put in place cost recovery principles for charging for the services that they provide.

Thus it is fundamental to decentralization for ULBs to participate in the planning decisions that affect their future development and future service responsibilities. There are several prerequisites for achieving efficient functional performance at the level of ULBs, as Mathur and Peterson (2006) point out.

- i. Clarity of functions and responsibilities between the different tiers of government and between various agencies and ULBs, not only at a broader policy level, but at the operational level;
- ii. Formal participation of ULBs in the preparation of master plans and determination of land uses and other land-related activities;
- iii. Enforcement of proposed land uses and regulation of land use to be a key responsibility of ULBs, with no role for developmental authorities;
- iv. Approval of master plans or structure plans by ULBs should be a requirement, although the formulation of such plans may continue to be vested in the development authorities;
- v. Strong coordination mechanism between the state, parastatal and other institutions, and the ULBs in matters relating to city development and restructuring and provision of

services.

In fact, the report of the First State Finance Commission of Karnataka recommended that all functions of urban development boards constituted in the state, and all town planning units operating in the state, should be brought under the jurisdiction of the respective municipal bodies. That report mentions that “..even the functions of the Bangalore Development Authority and the Town Planning organization have to be transferred to Bangalore City Corporation. They cannot function independently hereafter.... This is the ultimate objective of 74th Amendment and should be respected.” The second State Finance Commission of Karnataka argued for greater clarity in demarcation of the roles of different agencies and greater clarity and enforcement of the rules for interaction. However, it did not offer specific guidance as to how this could be accomplished at the operational level.

Hence, taking the above discussion into account, we think that there is a need for revisiting the institutional roles of the UDAs versus the municipal corporations, and seriously considering transfer of institutional autonomy and requisite resources to municipal authorities in matters relating to land, given it can constitute a substantial addition to municipal revenues.

Concluding Remarks

While this pilot study has shown that land can be quite attractive as a financing tool for cities, it has implications for the institutional arrangements pertaining to land between UDAs and municipal corporations. This pilot has looked at a sample of only four, but diverse Indian cities. Apart from the questions examined here, there are several other questions which would be worth examining: Are the proceeds from land lease/sales used to finance "related" infrastructure, such as access roads, water and wastewater systems to service the development to take place on the land that is sold? Or is a significant part of the proceeds used for more general infrastructure purposes? What procedures are followed in allocating funds, how fully defined is the process, and how much public disclosure takes place? However, these are questions for another study.

REFERENCES

- Ansari, J.H. (1994) Land management and Urban development in India—Critical issues and management shortfalls, UMP—Asia Occasional Paper No.7, June.
- Bertaud, A., 2004, Mumbai FSI conundrum: The perfect storm: the four factors restricting the construction of new floor space in Mumbai, Retrieved from <http://alain-bertaud.com>.
- Chan, Kam Wing (1997) “Urbanization and urban infrastructure services in the PRC,” in Christine P.W.Wong (ed.), *Financing Local Government in the People’s Republic of China*, Chapter 3. Hong Kong: Asian Development Bank and Oxford University Press.
- Chreod Ltd. (2005) *Report to World Bank on City Development Strategies II*. Ottawa, Canada: Chreod Ltd.
- Deng, Frederic (2005) Public land leasing and the changing roles of local government in Urban China, *Annals of Regional Science*, 39 (2): 353-73.
- Ding, Chengri (2005) Property tax developments in China, *Land Lines*, 17 (3). Cambridge: Massachusetts: Lincoln Institute of Land Policy.
- Economic Times (2008) Karnataka Chants PPP Mantra to Fuel Growth, August 12.
- Hong, Yu-Hung (1996) Can Leasing Public Land Be An Alternative Source of Local Public Finance? Lincoln Institute of Land Policy Working Paper WP96YH2. http://66.223.94.76/pubs/dl/145_hong96web.pdf, Retrieved April 30, 2008.
- Mathur, O.P. (2006) “Local Government Organization and Finance: Urban India,” in *Local Governments in Developing Countries*, (ed)., Anwar Shah, Washington, DC: World Bank.
- Mathur, O.P. and George Peterson (2006) State Finance Commissions and Urban Fiscal Decentralization in India: India Urban Initiatives, Washington, DC: The Urban Institute.
- National Institute of Public Finance and Policy (2007) *Improving the Fiscal Health of Indian Cities: A Pilot Study of Kolkata*, Draft report submitted to the World Bank, Washington, D.C., June.
- OECD (1983) *Taxes on Immovable Property*. Organization for Economic Co-operation and Development, Paris.
- Peterson, George E. (2009) *Unlocking Land Values to Finance Urban Infrastructure*. Trends and Policy Options Series. Washington, DC: World Bank.

Peterson, George E (2007) "Land Leasing and Land Sale as an Infrastructure Financing Option," in *Financing Cities*, (eds.), George E. Peterson and Patricia Clarke Annez, Washington, DC: Sage Publications and the World Bank.

Rajaraman, Indira, O.P.Mathur and Debdatta Majumdar (2005) Restructuring State and Local Finances for Rajasthan (New Delhi: NIPFP, mimeo; December).

Rao, Govinda M., G.Pradhan and O.P.Bohra (1985) *Alternatives to Octroi in Rajasthan*, New Delhi: NIPFP.

Reedy, Diane E (1986) Domestic Water Use and Sanitation in Lagos, Nigeria. Background paper. Washington, DC: World Bank, West Africa Projects Department.

Sridhar, Kala S. (2008) Who benefits from land? *The Economic Times*, (<http://www.economictimes.com>) July 9.

___ (2007) Reforming delivery of urban services in developing countries: Evidence from a case in India, *Economic and Political Weekly*, 42 (33) (August 18, 2007): 3404-3413.

___ (2006) "Institutional Arrangements for Land Use in Ludhiana, Punjab," in *India Infrastructure Report 2006: Urban Infrastructure* (ed., 3i Network), New Delhi: Oxford University Press.

Sridhar, Kala S. (2004) Cities with Suburbs: Evidence from India, *National Institute of Public Finance and Policy Working Paper No.23/2004*.

Sridhar, Kala S., O.P. Mathur and A.Nandy (2006) Costs of Urban Infrastructure: Evidence from India's Cities, Final report submitted to the South Asia Network of Economic Research Institutes, Islamabad, Pakistan, May.

Voith, Richard (1992) "City and suburban growth: Substitutes or complements?" *Business Review*, Federal Reserve Bank of Philadelphia (September/October): 21-33.