Preface

The utilization of land in any nation at a given point of time is the resultant of many causes. Climate, soil fertility, population, availability of capital, scope and character of the markets for the products of land are all important factors. The profession and practice of land management, with its multidisciplinary nature, comprehensive perspective, changing character is difficult to define. It has been described variously as "the art and science of ordering the use of land and siting of buildings and communication routes so as to secure maximum practicable degree of economy, convenience and beauty". In another way, it is concerned with providing the right site, at the right time and price, in the right place, for the people. The opening up of the Indian economy and the policies of liberalization during the initial period of 1990's not only enhanced the standard of living of educated and skilled persons but also excluded some limited sections of the society. It is this section which finds shelter in slums and squatter settlements of cities. For removing this bottleneck, government at all levels has initiated various measures to uplift them.

The present report on Kolkata is the eighth in series after Delhi, Bangalore, Hyderabad, Pune, Thiruvananthapuram, Lucknow and Chennai. The report presents an outline of the city, housing scenario, slums and trends and movement of land prices in the city. In the third chapter an attempt has been made to analyze the trends in land prices on the basis of Method of Least Square. The last chapter is devoted to summing up and next steps.

I take this opportunity to place on record the assistance and valuable suggestions received from various central and state governments and other organizations especially, Principal Secretary, Land Revenue; Chief Executive Officer and Senior Economist Kolkata Metropolitan Development Authority; Secretary, West Bengal Planning Board; Commissioner, Kolkata Municipal Corporation; Chief Engineer, Municipal Engineering Directorate; Director, Kolkata Urban Services for Poor; Director, Bureau of Applied Economics and Statistics; Registrar and District Registrar of Assurance; Secretary General of Federation of Real Estate Developers; Consultant and Ambuja Group, Kolkata.

This report on Urban Land Price Scenario has been prepared by the Industrial and Economic Planning Division of the Town and Country Planning Organisation under the guidance of Shri. J. S. Negi, Industrial Planner and his complement of officers and staff comprising Dr. Rakesh.A.R, Smt. Nilima Verma, Smt. Shashi Sahdev, Shri. R.D. Meena & Shri. A.K.Mishra. Shri. M.L.Chotani, Additional Chief Planner gave valuable inputs while finalizing the report.

It is hoped that report would be helpful to administrators, policy makers, planners, researchers, academicians, etc,.

(J. B. Kshirsagar)
Chief Planner

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Introduction 1

Urbanization is an indicator of economic growth and agent of socio-economic transformation. Orientation of economic policies especially after 1991 is towards liberalization, structural reforms, rationalization of financial, industrial and trade policies. With the enhanced role of the private sector, the development and the associated urbanization are likely to concentrate in selected favourable locations, at least in the initial period.

As compared to developed countries of Western Europe and North America, India remains one of the low urbanized countries of the world. It entered the last century as one-tenth urban. It was around one sixth urban at the time of Independence in 1947. The 1991 census recorded over one- fourth, to be precise 25.7 per cent of the total population as urban. The last census 2001 recorded urban population in India at 285.4 million which was 27.8 per cent of the total population. In absolute numbers, however, India's urban population is the world's second largest after China.

Like many nations, Indian towns have been the centers of great human enterprise, culture and innovations. Towns are the places of opportunity and development potentials. This is manifested in the increasing contribution of urban sector to the GDP. The estimated contribution of urban sector to the GDP was

29 per cent in 1951 which increased to 60 per cent during the year 2001. Employment especially in the main workers category in the urban sector recorded a higher growth than the total growth of workers. The main reason for such growth may be attributed to the concentration of industrial and service sector activities in the urban areas. The flux of migration from rural areas to the urban areas put immense pressure on the already scarce infrastructural facilities in the urban areas, especially water supply, sanitation, housing, health, education and other facilities.

Housing is a basic need of man along with food and clothing. Generally, people prefer house near to their work place and in those localities which have basic infrastructure facilities. Real estate agents and property developers purchase the land at important locations in towns and cities which cause speculation in land prices. The lower income people can't afford to buy houses and residential plots in such prime areas. With the increasing demand for housing and commercial spaces, Malls and Multiplex complexes in cities have been developed. Planners and Architects are realizing that horizontal expansion may not meet the required demand of the enormous increase of population and as such advocating for the vertical expansion to accommodate the increasing demand and to check the rise in land prices.

Increase in land prices in city core areas compell the economically weaker sections to live in the outskirts and peripheral

areas of the city. This has led to the problem of slums in the cities. In order to check the rise in land prices of urbanisable land in the cities both centre and state governments have taken certain measures at various levels so that urban poor could also have housing at affordable cost. Common Minimum Programme of the Government clearly stressed for the development of housing especially for the economically weaker sections of the society as well as slum dwellers in urban India. It has also intended to achieve the optimum social use of urban land and ensure availability of serviced land for the weaker section at the affordable costs.

Data on land prices of residential, commercial and industrial areas is woefully inadequate and time series-data on the same is almost negligible. There is no public agency which compiles, collects and publishes the land value information at the city level. Of late some of real estate agents or property developers have initiated publishing information on price of apartments and land values for selling their lands or apartments. This actually does not reflect the real picture of the land values in the urban areas because the main aim of the property developers/ real estate agents is to earn maximum profits. The lack of information may be due to the absence of specialized system of data collection, ignorance about the purpose of information, lack of training, multiplicity of institutions, etc,. In some cases, those who collect the information on land prices, rental prices, rent rates, apartment price

and its rents, commercial land prices and rents, industrial land prices and other details do not disseminate for wider use. This leads to mismatch between the actual and quoted land prices by the concerned agencies which in turn affect the land development, policy formulation, implementation, monitoring, and evaluation. Information provided and maintained by the real estate agencies are exaggerated for selling their properties at a high margin.

In order to analyse land price scenario of Kolkata, Town and Country Planning Organisation of the Ministry of Urban Development, Government of India has taken up this study. It contains information on prices of urban residential, commercial and industrial land, rental rates in commercial and residential areas and cost of apartments. Data for the last five years has been collected and analyzed to find out the factors responsible for the changes in the land prices. Study has also suggested measures for controlling the abrupt changes in the land values. Similar studies have been undertaken for Delhi, Bangalore, Hyderabad, Pune, Thiruvanathapuram, Lucknow and Chennai by Town and Country Planning Organisation. This study on urban land price scenario in Kolkata is part of this series.

Data Collection and Methodology

The information regarding historical development of Kolkata during the last two centuries, recent planning and development policies and programmes have been mainly collected from Kolkata

Metropolitan Development Authority (KMDA), West Bengal State Planning Board, Municipal Engineering Directorate, Archeological Survey of India, Tourism Department and various other central and state government departments. Most of the statistical information available with the Bureau of Economics and Statistics and its district offices in one form or the other has been compiled and collated.

The primary data mainly on urban residential land, commercial and industrial land values in the Kolkata metropolitan area both minimum and maximum price is collected through a pre-tested questionnaire. The questionnaire was devised based on series of discussions held with the officials at centre, state and local governments level including academicians, researchers, policy makers, non governmental organizations, self help groups, property dealers/ developers, subject experts in the field etc,. The study examines both minimum and maximum values of urban residential, commercial and industrial land by taking into consideration possible causes mainly locational advantages, proximity to various amenities and facilities like hospitals, educational institutions, major arteries, water supply and electricity. Interviews of key persons in government and non-governmental agencies dealing with land price issues were taken. Regular interaction with local people well conversant with the subject helped greatly in having an insight of the problem.

Objectives of the Study

1. To highlight the historical and socio economic development scenario of Kolkata city.
2. To analyze the existing status of infrastructure facilities in Kolkata.
3. To study the availability and shortage of housing in West Bengal and Kolkata.
4. To assess the condition of slum dwellers in West Bengal and Kolkata.
5. To analyse factors responsible for changes in land prices.
6. To compile base level information on land prices in selected localities in Kolkata metropolitan area.
7. To recommend strategies and measures for improving the system.

Kolkata - An Outline 2

Kolkata is one of the largest metropolitan cities in India. Till 1912, Kolkata was the capital of India, when the British moved the capital city to Delhi. However, it continued to be the major trade centre and gateway to eastern India. Since independence Kolkata is the capital of the State of West Bengal. The major contributory factors for the growth of the city are highlighted below.

Political Changes: - The British traders conquered the land and monopolized their trade and commerce in the country. The defeat of the then Nawab of Bengal, Shiraj-Ud-Doula in 1757 was an important land mark in the British history of annexation of the political power in the country. They expressed their strong hold by fortification at the strategic point of the city, started business offices and series of large business godowns along the river Hooghly. They succeeded in exercising political and administrative control over the local counterpart at that time. Thus, the economy of Bengal at that time rapidly came under their full control and power.

Economic Transformation: - Initially, Kolkata grew with small business houses which gradually became larger and larger and a number of these houses established their administrative head offices in the city. Apart from

the foreign investors, a group of landed class also transferred their surplus from the agriculture to trade, commerce and industries. The administrative measures of the then colonial power played vital role for rapid transformation of the town economy. All these forces helped the growth of the city directly or indirectly.

Post Independence:- With the influx of refugees after independence from the then East Pakistan and migrants from the neighbouring states and districts, Kolkata witnessed a substantial increase of population in and around the city particularly in its peripheral areas. A group of municipal towns (39 numbers) which have encircled the city over time have actually turned the erstwhile isolated town of Kolkata., to a large urban agglomeration. In fact, economic as well as social factors have contributed much for the expansion of the city over a period of time. Spatial expansion may be attributed to pull forces which gradually transformed the surrounding rural settlements to new town areas and emergence of Kolkata Metropolitan Area (KMA). Pattern of growth of KMA over the years has direct bearing on the development of infrastructure, density of population and intra city variation in land price as reflected in the subsequent section of report.

Demographic Profile

With massive growth of urban population, concentration of population is more in larger towns/ cities and metropolitan areas. The last census count -2001 reveals that about 28 per cent of the population in India is urban. It was 25.72 per cent in 1991, 23.73 per cent in 1981 and 20.22 per cent in 1971. In absolute terms, total urban population of 285 million is more than the total population of several countries. There are 35 cities/ urban agglomerations with a population of 10 lakh or more. These million cities with a total population of 108 million account for 38 per cent of India's urban population.

With a population of about 81 million in 2001, West Bengal is the fourth most populous state in India. It accounts for about 2.7 per cent of the India's area but contains 7.8 per cent of the nation's population. The population pressure in the state inevitably puts more pressure on basic infrastructure. The extremely high population density obviously affects per capita resource availability.

The situation regarding rural-urban composition of population in India and West Bengal is comparable. In 2001 about 22.43 million population comprising 28 per cent of total population was classified as urban in West Bengal. However, growth of urban

population in India was higher than the West Bengal. Concentration of urban population in West Bengal was more in Kolkata.

The flow of migration from other states and from within the state to Kolkata is increasing due to the concentrated development in business outsourcing, information technology, information technology enabled services, medical transcription, etc,. Urban population of India, west Bengal and Kolkata (UA) during the last five decades is presented in Table 2.1.

Table 2.1: Population of India & West Bengal (Urban) & Kolkata UA: 1961-2001

(Million)

No	Years	Urban		Kolkata (UA)
		India	West Bengal	
1	1961	78.16	8.54 (10.93)	5.98 (70.02)
2	1971	107.82	10.97(10.17)	7.42 (67.64)
3	1981	159.46	14.45(9.06)	9.19 (63.60)
4	1991	217.61	18.71(8.60)	11.03(58.95)
5	2001	285.36	22.43(7.86)	13.21(58.89)

Sources: - ***1. Census of India, Various Issues***
2. Urban Statistics, TCPO, September 2005.

Notes: - ***1. Figures in parenthesis mentioned in Column relates to percentage to urban India total.***
2. Figures in brackets mentioned in Kolkata UA presents percentage to West Bengal urban total.

It is evident from the above table that about three fifths of the total urban population of West Bengal state is still confined to Kolkata itself. It may be due to the concentration of big, medium and small industrial units and the employment opportunities for skilled, semi skilled and unskilled workers in service, industrial and

informal sectors in and around Kolkata. The other reasons behind the high concentration of population in Kolkata is due to availability of infrastructure facilities especially health, education and other linked facilities. Although decadal growth rates of population in Kolkata was less than the state average during the inter-census years from 1961-2001.

In 2001 Kolkata UA stood at the second position among the mega cities in India as indicated in Table 2.2.

Table 2.2: Total Population and Growth of Mega Cities in India

No	Cities	Population (lakh)			Annual Exponential Growth Rate	
		1981	1991	2001	1981-91	1991-01
1.	Greater Mumbai	82.43	125.96	163.68	4.22	2.62
2.	Kolkata	91.94	110.22	132.17	1.72	1.82
3.	Delhi	57.29	84.19	127.91	3.80	4.18
4.	Chennai	42.89	54.21	64.25	2.23	1.70
5.	Bangalore	29.22	41.30	56.86	3.36	3.20
6.	Hyderabad	25.46	43.44	55.33	5.20	2.42
7.	Ahmedabad	25.48	33.12	45.19	2.58	3.11

Source: Handbook of Urbanization in India by K.C Sivaramakrishna, Amitabh Kundu and B.N. Singh, 2005.

Most of the mega cities showed growth in the peripheral areas or outskirts of the city because majority of the people can't afford to stay in the core or main areas of the cities due to high cost of living. In peripheral or outskirts of the mega cities small, medium and large level industrial units are concentrated which provide large number of employment opportunities. As such majority of the

workers working in these industrial units live in these areas. As the price of land tends to increase in core areas, the middle income people will move towards the outskirts of the mega cities. Moreover, the people in these peripheral areas also avail of most of the facilities that are enjoyed by the people staying in the core areas of the city.

Most of the mega cities in India are multi municipal corporations such as agglomerations comprise a large city in the core with smaller urban areas in the periphery. Growth of metropolitan cities in terms of core city, vis-à-vis periphery areas during 1981-91 and 1991-2001 reveal four important features i.e, declining in core-growing in periphery, growing in core-declining in periphery, growing in core and periphery and declining in core and periphery respectively. Development of mega cities in terms of growth tendencies of population in core and peripheral areas is mentioned in Table 2.3.

Table 2.3: Growth Tendencies in the Mega Cities of India

No	Cities	1981-91		1991-2001	
		Core	Periphery	Core	Periphery
1.	Greater Mumbai	1.86	4.22	1.82	2.62
2.	Kolkata	0.64	1.72	0.40	1.82
3.	Delhi	3.59	3.80	3.09	4.18
4.	Chennai	1.59	2.23	0.93	1.70
5.	Bangalore	0.71	3.36	4.79	3.20
6.	Hyderabad	3.31	5.20	1.58	2.42

Source: Handbook of Urbanization in India by K.C Sivaramakrishna, Amitabh Kundu and B.N. Singh, 2005.

It may be inferred from the above table that intra urban agglomeration of large mega cities indicates that within the area of large metropolitan cities in India mainly Greater Mumbai, Kolkata, Delhi and Chennai have recorded a fast growth in periphery areas than the core main areas. Huge population facing the problems of lack of infrastructure, basic amenities, cost of living, and stringent land laws may have degenerated the capacity of the core areas of these cities to absorb the net increase in population, which as a matter of fact find a place in and around the core main city indicating a faster growth rate of urban agglomeration. This tendency of the fast development of urbanization clearly indicates an agglomerated trend. The above table clearly shows that Bangalore has a reverse trend that is core areas of the city is growing faster than the peripheral area of the city during 1991-2001. This may be due to the concentration of people in the main city areas through the higher purchasing power of the new immigrants especially in information technology and information technology enabled services sectors working in the Great Silicon Valley of India called the Information Technology hub of India.

Table 2.4 presenting population of Kolkata UA during the last century reveal an interesting picture of the development pattern of Kolkata.

Table 2.4: Growth of Kolkata UA during 1901-2001

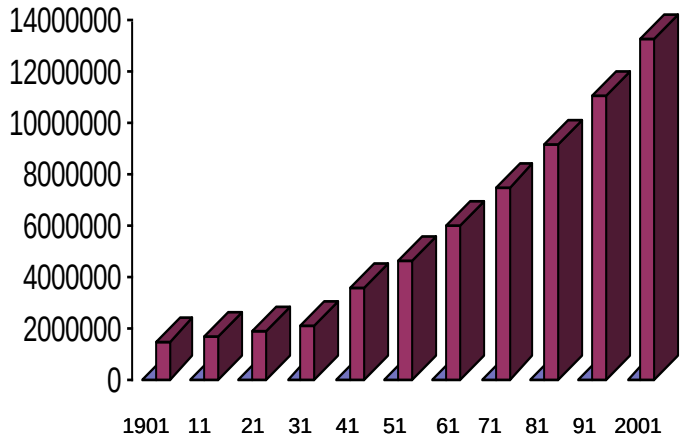
No	Years	Population	Variation	% Increase
1.	1901	1510008	-	-
2.	1911	1745198	235190	15.58
3.	1921	1884584	139386	7.99
4.	1931	2138563	253979	13.48
5.	1941	3621413	1482850	69.34
6.	1951	4669559	1048146	28.94
7.	1961	5983669	1314110	28.14
8.	1971	7420300	1436631	24.01
9.	1981	9194018	1773718	23.90
10	1991	11021918	1827900	19.88
11.	2001	13205697	2183779	19.81

Sources: - ***1. Census of India, Various Issues.***
2. Final Population of UAs and Towns, TCPO, Government of India, 2005.

In the beginning of the last century Kolkata had more than one million population; only city in India had the status of metro city. The population of Kolkata UA increased from 1510008 in 1901 to 13205697 in 2001. The annual growth rate of population in Kolkata UA during the last century works out to 7.75 per cent. The highest decadal growth of population in Kolkata UA was observed during1941-51 at 69.34 per cent and the lowest was in 1911-21 at 8 per cent. After 1961 the growth rate of population in Kolkata has been declining. (Figure 2.1) Growth of population not accompanied by proportionate increase in areas has resulted in increase of

density of population in selected locations. Consequently land prices also witnessed a substantial increase.

Figure 2.1: Population of Kolkata UA



Density of population is another important indicator for analyzing the pace of development. West Bengal is densily populated state in India with 904 persons per sq. km in 2001. Kolkata UA includes 99 constituents from Kolkata, Nadia, North 24 Paraganas, South 24 Paraganas, Hugli and Harora districts as per details given in Table 2.5.

Kolkata district is entirely urban and forms part of Kolkata Municipal Corporation. It contains one third of population of Kolkata UA and another one third population of Kolkata UA is from North 24 Paraganas followed by 15 per cent from Harora district, 10 per cent

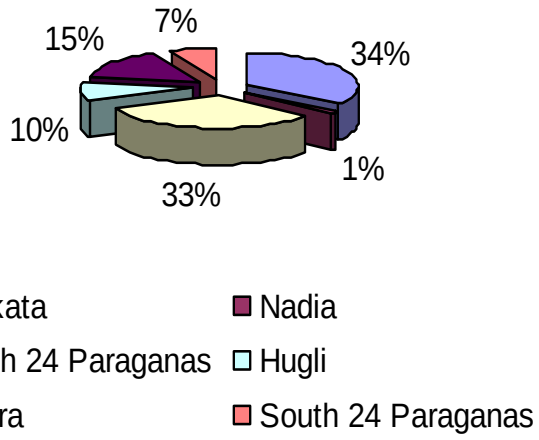
from Hugli district, 7 per cent from South 24 Paraganas and 1 per cent from Nadia district depicted in (Figure 2.2)

Table 2.5: Constituents of Kolkata UA- 2001.

No	Districts	No. of City/ Towns	Population	Per cent of total population
1.	Kolkata	1	4580546	34.67
2.	Nadia	2	140551	1.06
3.	North 24 Paraganas	32	4320317	32.72
4.	Hugli	23	1312425	9.95
5.	Haora	33	1962097	14.86
6.	South 24 Paraganas	8	889761	6.74
	Total	**99**	**13205697**	**100.00**

***Source: - Statistical Abstract, 2002-03, Bureau of Applied Economics and Statistics, Government of West Bengal*.**

Figure 2.2: Population of Kolkata UA- 2001.



Density of population in Kolkata district and West Bengal during 2001 is presented in Table 2.6.

Table 2.6: Density of Population in West Bengal& Kolkata 1991 & 2001

(Persons/Sq.km)

No	District/ State	1991	2001
1.	Kolkata	23783	24718
2.	West Bengal	767	903

***Source: - Census of India, 2001*.**

Socio economic indicators of West Bengal and India are comparable except position in West Bengal is better in respect of per capita income, literacy and infant mortality rate. Population below poverty line is however little higher in West Bengal.

Economic Profile

Trends of urbanization need to be channelized and regulated for balanced development. It is only a judicious mix of market forces and planning endeavors, which produce a liveable future.

West Bengal has a multi pronged character having well linked infrastructural facilities in the selected urban areas, while majority of the rural areas are facing the problem of basic facilities. Kolkata has adequate literally and educationally qualified work force, high quality of life index, world class communication network, foreign technology transfer, higher level of equity participation and offshore sourcing. It has developed an excellent centre in West

Bengal in information technology, information technology enabled services, film industry, electronics, tourism, cultural activities, health and education facilities. These activities have a direct positive impact on the economy of West Bengal especially in Kolkata being the capital. Work participation rate is one of the main indicators for measuring the level of development. Work participation rate in India and West Bengal during the last four decade is presented in Table 2.7.

Table 2.7: Work Participation Ratio in India and West Bengal during 1971-2001

No	India /State	Work Participation Ratio			
		1971	1981	1991	2001
1	India	33.1	36.7	37.5	37.2
2.	West Bengal	27.9	30.2	32.2	36.8

Source: - ***Economic Reforms & Employment Growth in India, Town and Country Planning Organisation, Ministry of urban Development, Government of India, 2005.***

It may be inferred from Table 2.7 that the work participation ratio of both India and West Bengal increased considerably during the last four decades. It clearly indicates the fact that the dependency burden of the working class during the last four decades had considerably reduced both in India and West Bengal. The information regarding the population, workers and work participation ratio of Kolkata UA during the last four decades is presented in Table 2.8.

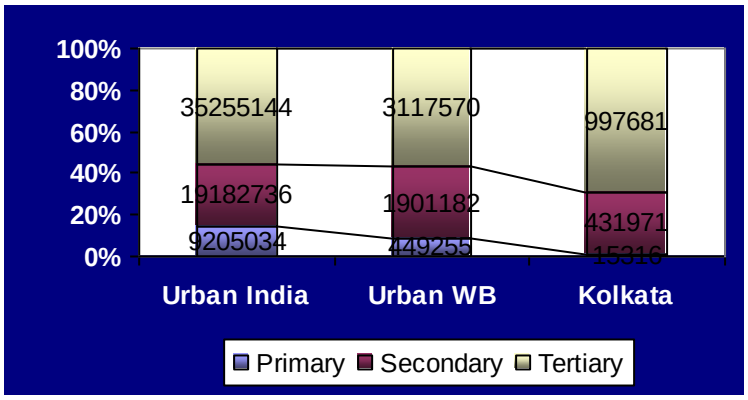
Table 2.8: Population, Workers and WPR of Kolkata UA: 1971-2001

No	Years	Population (No)	Workers (No)	WPR (%)
1.	1971	7031382	2286147	32.5
2.	1981	9194018	2830443	30.8
3.	1991	11021918	3367209	30.6
4.	2001	13205697	4589109	34.8

Sources: - ***1. Economic Reforms & Employment Growth in India, Town and Country Planning Organisation, Ministry of urban Development, Government of India, 2005.***
2. Urban Statistics, Town and Country Planning Organisation, Ministry of urban Development, Government of India, 2005.

Sector-wise distribution of workers in various activities in urban India, urban West Bengal and Kolkata district is depicted in Figure 2.3.

Figure 2.3: Sector-wise Distribution of Workers in Urban India, West Bengal and Kolkata District-2001.



The information regarding the domestic product of any economy indicates the progress of development. Accordingly information regarding state net domestic product of West Bengal and Kolkata during 1999-2000, 2000-2001 and 2001-02 at current prices is presented in Table 2.9.

Table 2.9: Net Domestic Product of WB and Kolkata District by Sectors. At Current Prices

(Rs. Lakh)

No	Sectors	1999-2000		2000-2001		2001-2002	
		Kolkata	WB	Kolkata	WB	Kolkata	WB
1.	Primary	11228	4026228	13144	4150161	13491	4464042
2.	Secondary	197995	1962311	225859	2214988	257785	2446683
3.	Tertiary	1025627	5701323	1210057	6507753	1392206	7443043

Source: - Statistical Abstract 2002-03, Bureau of Applied Economics & Statistics, Government of West Bengal.

It may be observed form Table 2.9 that both Kolkata district and West Bengal showed a positive growth of income during the three years from 1999-2000 to 2001-02. The growth of income in Kolkata district was higher than the West Bengal. This indicates the fast development in Kolkata district. As a general phenomenon less contribution from agriculture sector to the total income, Kolkata district also showed the same results. The percentage contribution of tertiary sector increased in Kolkata district during the same period.

Infrastructure Development

Traditionally urban infrastructures like water, sanitation, solid waste management and roads are provided by the local governments and other related state government agencies. Financing of infrastructure has largely been through the general budgets of the local governments and through the budgetary allocations of state and central governments and to a limited extend by the international agencies. Contribution of institutional finance for these investments has been limited. On the other hand, demand for urban infrastructure is being fuelled by both demographic pressure and rise in urban income. It is becoming increasingly clear that these services have failed to cope up with the rising demand and can significantly dampen even the economic growth prospects of the country. In response to these developments, there is a growing concern regarding the paradoxical problem of inadequate resources available for infrastructure investments, combined with the inability of appropriate authorities to absorb any additional finance in variable manner. This reflects the low level of equilibrium trap in most of the urban authorities trapped today, as evident by a low level of resources for urban infrastructure resulting in low level of services, leading to a low willingness of consumers to pay for these and hence low recovery. The low cost recovery limits the rate of returns of these investments and therefore, these get viewed as social investments. The low returns also make it difficult to mobilize additional resources for these critical investments.

The roads and road transport play a very vital role for economic development at various levels. Demand for transport facilities particularly in mega city like Kolkata has been increasing day by day with all round economic development. Roads and transport systems are the priority areas to strengthen the infrastructural support so as to facilitate the smooth movement of flow of commodity/ services/ people from one point to another by managing transportation system in an optimistic manner. Although price hike due to increase in fuel cost affect adversely the transport industry. Length of roads maintained by public works (roads) and municipalities in Kolkata during 1990-2005 is presented in Table 2. 10.

Table 2.10: Length of Roads Maintained by Public Works Department (Roads) and Municipalities in Kolkata 1990-2005

(In KM)

No	Years	Public Works	Municipalities	
			Surfaced	Un surfaced
1.	1990	--	1450	275
2.	2000	--	1560	270
3.	2004	20	1605	265
4.	2005	20	1620	250

Sources: - ***1. District Statistical Hand Book, Bureau of Applied Economics and Statistics, Government of West Bengal***
2. Municipal Corporation Kolkata.

It reveals that most of the roads in Kolkata amounting to 99 per cent of total road length are maintained by the Municipalities. Of this, 1620 km are surfaced and 250 km un-surfaced. Public works

department (roads) maintained only 20 km of road in Kolkata. The information regarding the number of motor vehicles in Kolkata district and West Bengal and Kolkata as on 31st march 1995, 2000 and 2003 is presented in Table 2.11.

Table 2.11: Motor Vehicles in West Bengal and Kolkata: (As on 31st March)

(Nos)

No	Vehicles	1995		2000		2003	
		1	2	1	2	1	2
1.	Goods Vehicles	53840	140645	63247	188658	67491	239166
2.	Motor Car/Jeeps	213483	282526	265477	367522	312911	482429
3.	Taxi	244853	663801	324649	1020172	374409	1429818
4.	Motor Cycles/ Scooter	28987	41298	30884	46836	35669	63390
5.	Mini Bus	--	3133	1179	5199	1207	6310
6.	Stage Carriage	6562	22442	7811	22339	8905	28916
7.	Autorickshaws	7511	14798	10562	27159	15074	42362
8.	Tractors	4497	20797	4767	34350	4821	43803
9.	Others	5663	9293	20726	28303	21043	30222
10.	**Total**	**565396**	**1198733**	**729302**	**1740538**	**841530**	**2366416**

Sources: - ***i. Transport Department, Government of West Bengal.***
ii. Statistical Abstract, 2002-03, Bureau of Applied Economics and Statistics, Government of West Bengal.

Notes: - ***1 &2 means Kolkata and West Bengal respectively***

It indicates that the percentage of vehicle in Kolkata district to the total number of vehicles in West Bengal reduced considerably from 47.17 per cent in 1995 to 35.56 per cent in 2003. From such a scenario it may be inferred that the percentage of people owning motor vehicles also increased in other districts than Kolkata reflecting an increasing per capita income. The average

annual growth of vehicles in Kolkata district was registered at 6.1 per cent while in West Bengal it was at 12.18 per cent during the same period. The highest proportion of motor vehicles in Kolkata district and West Bengal comprised taxies 44.49 per cent and 60.42 per cent in 2003 followed by car/ jeeps 37.18 per cent and 20.39 per cent respectively in Kolkata district and West Bengal and goods vehicles 8.02 per cent and 10.11 per cent respectively. All these three categories constituted more than 90 per cent of vehicles both in Kolkata district and West Bengal. Another means of transportation in Kolkata is tram service. Presently it is running from historical and heritage point of view. The information regarding tram services in Kolkata during 1990-2002 is presented in Table 2.12.

Table 2.12: Tram Services in Kolkata

No	Details	1990-91	1995-96	2000-01	2001-02
1.	No. of Tram Cars	396	319	319	319
2.	No. of Routes	33	29	29	29
3.	Route Length (in KM double track)	71	71	68	68
4.	Av. No. of Vehicles put on Road per day	253	179	164	153
5.	Total Lengths Run (000'KM)	9443	5400	5200	4980
6.	Passengers Served (Lakh)	1826	699	596	595
7.	Total Earnings (Rs. Lakh)	1065	855	960	926
8.	Total Expenditure (Rs. Lakh)	4473	6448	8429	9219

***Source: - Statistical Abstract, 2002-03, Bureau of Applied Economics and Statistics, Government of West Bengal*.**

As is clear from the above table all the variables of tram services in Kolkata showed declining trend during the period except expenditure which increased substantially. The number of tram cars reduced from 396 in 1990-91 to 319 in 1995-96 and after that the number remained the same till 2001-02. Number of routes also reduced from 33 in 1990-91 to 29 in 1995-96. The route length also reduced from 71KM in 1990-91 to 68KM in 2001-02. The average number of vehicles plied on road per day also reduced from 253 in 1990-91 to 153 in 2001-02. The total lengths run, passengers served and total earnings declined during the period. Increasing expenditure as running the tram service point to the fact that tram services in Kolkata is a liability on the government for maintaining the system.

Air travel is another important means of transportation in Kolkata which is well connected by air to various international and national destinations. A large number of foreigners as well as domestic tourists and business people travel to Kolkata metropolitan development area as indicated by passenger movement at Kolkata airport during 1990-2005 in Table 2. 13.

The number of air passengers showed a positive growth in Kolkata. More than four fifth of the total passengers in Kolkata airport during the year 2004-05 were domestic. The growth of passengers in Kolkata airport both domestic and international was registered at 4.44 per cent and 5.13 per cent per annum. On an

average the growth rate of passengers per annum in Kolkata airport was at 4.56 per cent.

Table 2.13: Passenger Movement at Kolkata Airport during 1990-2005

No	Particulars	1990-91	2000-01	2004-05
1.	No. of Passengers			
	a. Domestic	1714739	2054842	2857209
	b. International	360336	631558	637355
	c. Total	2075075	2686400	3494564

Source: - Department of Civil Aviation, Ministry of Civil Aviation, Government of India.

Kolkata is one of the prime ports handling foreign trade in India. The information regarding participation of Kolkata ports both sea and air in foreign trade of India during 1985-2005 is presented in Table 2.14.

Table 2.14: Participation of Kolkata Ports (Sea and Air) in the Foreign Trade of India

(Rs. Crore)

No	Year	All India		Kolkata		Percentage	
		X	M	X	M	X	M
1.	1985-86	10894.6	19657.7	1151.0	1881.7	10.57	9.57
2.	1990-91	32553.3	43192.9	1987.6	3219.9	6.11	7.45
3.	1995-96	106353.4	122678.1	3672.1	6628.9	3.45	5.40
4.	2000-01	201356.5	228306.6	7084.2	6465.1	3.52	2.83
5.	2004-05	361879.2	490531.7	16963.2	18039.1	4.69	3.68

Source: - Director General of Commercial Intelligence and Statistics, Government of India.

Notes: - X – Exports and M –Imports

The percentage of participation of Kolkata ports (air and sea) to the foreign trade of India was reduced considerably during the period covered under the study. It may be due to the development of various other sea ports and airports in various other parts of India. In export category, the percentage share reduced from 10.57 per cent during 1985-86 to 4.69 per cent in 2004-05. Like wise the percentage share of Kolkata ports to the national level imports also reduced from 9.57 per cent in 1985-86 to 3.68 per cent in 2004-05. The annual growth rate of exports and imports of national level was higher than the Kolkata ports.

Telecommunications play a vital role for the economic growth and development of an economy. Efficient telecommunication network is very essential for smooth functioning of the system especially in day-to-day activities of information collection and analysis. The information regarding post and telegraphic network at Kolkata district and West Bengal as on 31st March 2005 is presented in Table 2.15.

Table 2.15: Post and Telegraphic Network at Kolkata District & West Bengal- 2005

31st March 2005

No	Particulars	Kolkata	West Bengal
1.	No. of Post Offices (POs)	265	8752
2.	No. of Telegraphic Offices	20	57
3.	No. of POs per lakh population	6	204

***Source: - Economic Review 2005-06, Statistical Appendix, Government of West Bengal*.**

The information regarding telephone facilities in Kolkata during 1985-2002 is presented in Table 2.16.

Table 2.16: Telephone Facilities in Kolkata

No	Details	1985	1990	1995	2000	2002
1.	No. of TEs	49	56	68	192	322
2.	No. of Telephones	284378	337311	442288	1029121	1406511
3.	No. of PCOs					
	a. Local	959	2117	3647	14749	22974
	b. STD	--	--	--	11744	18156

Sources: - ***1. Chief General Manager, Kolkata, Telephones.***
2.Statistical Abstract, 2002-03, Bureau of Applied Economics and Statistics, Government of West Bengal.

Notes: - ***1. TEs means Telephone Exchanges.***
2. PCOs – Public Call Offices
3. STD – Subscriber Trunk Dial

Banks and financial institutions play a vital role in the process of economic development. They create awareness of the saving habits among the people, mobilize it and provide them to the dynamic and well versatile result oriented entrepreneurs to invest the same for providing employment to the needy, educated, technically professionals and other workers as well as to enhance over all economic development of the nation. They automatically lubricate the service sector and commerce and trade and industry by providing the requisite finance. The information regarding the scheduled commercial banks and population per bank in Kolkata District, West Bengal & India during 1991, 2001 and 2005 is presented in Table 2.17.

Table 2.17: Scheduled Commercial Banks & Population per Bank in Kolkata District, West Bengal & India, 1991-2005

No	Details	1991*	2001**	2005
1.	No of Banks			
	a. Kolkata District	907	988	1027
	b. West Bengal	4212	4424	4530
	c. India	60430	66119	68288
2.	Population per Bank (in thousand)			
	a. Kolkata District	5	5	5
	b. West Bengal	16	18	19
	c. India	14	16	16

Source: - Economic Review 2005-06, Statistical Appendix, Government of West Bengal.
Notes: -1. * As per 1991 Census Population.
2. ** As per 2001 Census Population.
3. Average Population per bank office based on estimated Population as on end of June.

It is evident from the above table that about 7 per cent of the scheduled commercial banks in India exist in West Bengal although its percentage declined during 1991-2005. While the percentage of scheduled commercial banks in Kolkata district to the state as whole was slightly increasing during the same period. It was more than one fifth of the scheduled commercial banks in West Bengal. Availability of banking services is better in Kolkata. On an average one bank served 5000 persons as against 16000 at the national level and 19000 in West Bengal.

Land is a basic and vital resource for planning of any development activity in urban areas. Land use is the function of

various activities which a city performs. Land use change is a continuous process in urban areas. This may be due to various factors such as personal choice, legislation, government policies, plans and programmes and development techniques. Land should be used judiciously and optimally giving due importance to the economic efficiency of the land use and sound management of urban environment. Table 2.18 indicates the land use pattern in Kolkata Metropolitan Area.

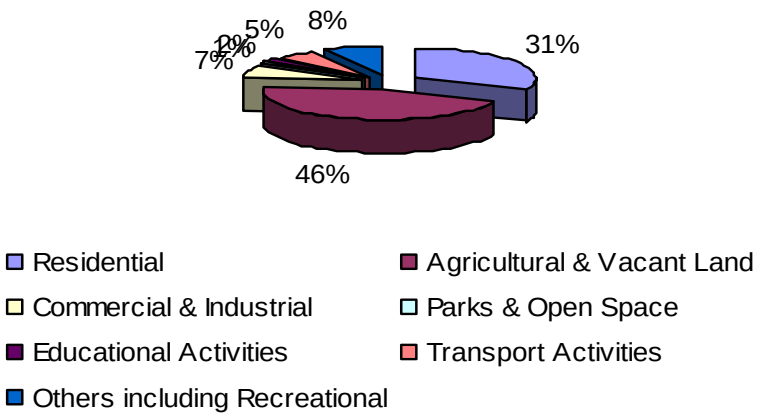
Table 2.18: Land Use Pattern- Kolkata Metropolitan Area

No.	Land Use	Area in Sq. Km.	Per cent
1.	Residential	421.4	31.21
2.	Agricultural & Vacant Land	611.8	45.32
3.	Commercial & Industrial	89.5	6.63
4.	Parks & Open Space	12.1	0.89
5.	Educational Activities	33.6	2.49
6.	Transport Activities	73.6	5.45
7.	Others including Recreational	108.0	8.01
	Total	**1350.0**	**100.00**

Source: ***1. Kolkata Metropolitan Development Authority, Vision 2025.***
2. A Perspective Plan for Kolkata – 201, Supp.Vol-I, State Planning Board, Govt. of West Bengal, Nov. 1990.

More than two-fifths of the total area in the Kolkata Metropolitan Development Area is either under agriculture use or lying vacant. In view of the major chunk of land under agriculture or lying vacant, area under residential use is below the norm and parks and opens space is much less.

Figure 2.4 Land Use Pattern of K.M.D.A. (in Sq. Km.)



Housing

The information regarding number of households and residential houses in India and West Bengal in 1991 and 2001 is presented in Table 2.19.

Table 2.19: Houses and Households in India & West Bengal 1991-2001.

No	Details	India (Crores)			West Bengal (Crores)		
		Urban	Rural	Total	Urban	Rural	Total
1.	Households						
	a. 1991	4.04	11.16	15.20	0.36	0.89	1.25
	b. 2001	5.37	13.83	19.20	0.46	1.11	1.57
2.	Residential Houses						
	a. 1991	3.91	10.79	14.70	0.35	0.84	1.19
	b. 2001	5.02	12.91	17.93	0.43	1.06	1.49

Source: - Tables on Households & Amenities, Census of India, 1991 &2001.

Out of 1.49 crore residential houses in West Bengal in 2001 about 29 per cent were available in urban areas of the state as against 28 per cent urban population of the state. The growth of residential houses in West Bengal during 1991-2001 was registered at 2.5 per cent per annum slightly higher than the national level by 0.30 per cent per annum indicating higher pace of housing development in West Bengal. The growth of households during 1991-2001 was recorded at 2.63 per cent per annum at all India level and at 2.56 per cent per annum in West Bengal almost parallel to the growth rate of population during the same period. The gap between the number of residential houses and households indicate backlog in housing. In 1991 there was a backlog of 50 lakh housing in India and 6 lakh in West Bengal which increased to 126.88 lakh in India and 8 lakh in West Bengal respectively in 2001. This clearly indicated the fact that problem was acute both at national and state level. The information regarding the growth rates of households and residential houses in India and West Bengal during 1991-2001 is presented in Table 2.20.

Table 2.20 Growth Rates of Household and Residential Houses in India and West Bengal: 1991-2001.

(Per cent)

No	Details	India			West Bengal		
		Urban	Rural	Total	Urban	Rural	Total
1.	Household	32.92	23.92	26.31	27.78	24.72	25.60
2.	Residential Houses	28.39	19.65	21.97	22.86	26.19	25.21

Source: - Tables on Households & Amenities, Census of India, 1991 &2001.

During 1991-2001 the growth rate of households in West Bengal and at national level was more or less same. However, the growth rate of households in urban area was higher than the rural area during the same period both at national and state level. The information regarding growth of household and census houses in urban West Bengal and Kolkata district during 1991-2001 is presented in Table 2.21.

Table 2.21: Growth of Housing Stock and Household in Urban West Bengal & Kolkata district.

No	Details	Urban West Bengal	Kolkata District
1.	Number of Households		
	i. 1991	3609230	875930
	ii. 2001	4554045	921495
	iii. Growth Rate	26.18	5.20
2.	Number of Census Houses		
	i. 1991	4450010	1063425
	ii. 2001	5726846	1151311
	iii. Growth Rate	28.69	8.26

Source: - Statistical Abstract 2002-03, Government of West Bengal, Kolkata.

The growth of household and census houses in urban West Bengal was higher than the Kolkata district during 1991-2001. The main reason behind this may be attributed to saturation level of population and census houses in Kolkata district, deficiency of area for the development, etc, while other towns in West Bengal have shown fast development both in terms of number of census houses and growth of population/ household.

The main problem facing the housing development in India as well as in Kolkata relates to the provision of required level of housing to the economically weaker sections of the society. The present government at the center aims at developing housing for these people and it was mentioned in Common Minimum Programme. The rising tendencies of the land prices and increasing gap between the poor and rich in the urban areas of India had no doubt eliminated these socially and economically downtrodden people not only from the land markets but also from the housing markets. This gap also reduced the scope for integrating them in to the formal housing system as mentioned in the housing policies of state and national level. Moreover, the economically downtrodden sections of the society do not have access to finance from the formal system due to the absence of permanent source of income, collateral securities and other required items. Despite various programmes introduced by the governments from time to time the housing situation continues to be a big issue at national and state level. The information regarding the housing shortages in urban India and West Bengal during 1997-2001 is presented in Table 2.22.

Table 2.22: Urban Housing Shortages in India and West Bengal 1997-2001

(million)

No	Years	India	West Bengal	Per cent
1.	1997	7.57	0.52	6.87
2.	1999	7.18	0.50	6.96
3.	2001	6.64	0.46	6.93

Source: - Compendium of Environment Statistics, Central Statistical Organization, Ministry of Statistics and Programme Implementation, Government of India, 2001.

It may be observed from Table 2.27 that the urban housing shortage in West Bengal declined from 0.52 million in 1997 to 0.46 million in 2001. During the same period urban housing shortage in India declined from 7.57 million to 6.64 million.

The main reason behind the slow growth of housing in most of the urban areas of India may be ascribed to the incidence of poverty among the economically weaker sections of the society. This group can't afford to construct the house due to various reasons such as the high cost of living in urban areas, high cost of materials used for the construction, high land prices, etc,. Poverty means an inadequate income level that is very difficult to maintain a decent standard of living as judged by the standards of the society. In some cases poverty may be mentioned in calorie terms or income levels or any other modes introduced by the institutions conducting the ground level surveys. The information regarding the population below poverty line in urban areas of India and West Bengal during 1973-2000 is mentioned in Table 2.23.

Table 2.23: Population Below Poverty Line in West Bengal and India

(Per cent)

No	India/ WB	Years					
		1973-74	1977-78	1983	1987-88	1993-94	1999-2000
1.	India	54.88	51.32	44.48	38.86	35.97	26.10
2.	West Bengal	63.43	60.52	54.85	44.72	35.66	27.02

Source: - Compendium of Environment Statistics India, 2003, Planning Commission Estimates.

Population below poverty line has been continuously declining due to the successful implementation of various policies of the central as well as state governments. The table indicates reduction of percentage of poverty affected people in India and West Bengal during the two and half decades from 1973-74 to 1999-2000. Population below poverty line in India declined from 55 per cent in 1973-74 to 26 per cent in 1999-2000 while in West Bengal the same declined from 63 per cent to 27 per cent.

Census of India published the information regarding the distribution of households on the basis of condition of houses they live. The information regarding the same in urban West Bengal and Kolkata district during 2001 is presented in Table 2.24.

Table 2.24: Condition of Houses in Urban West Bengal and Kolkata District 2001

(Per cent)

No	Condition of Houses	Urban West Bengal	Kolkata District
1.	Good	53.77	56.14
2.	Livable	39.75	38.88
3.	Dilapidated	6.48	4.98

Source: - Statistical Abstract 2002-03, Government of West Bengal, Kolkata.

More than a half of the total households in Kolkata district and urban West Bengal stayed in good condition of houses and nearing 40 per cent of the households stayed in livable houses. The households stayed in dilapidated houses were comparatively less in Kolkata district than in urban West Bengal. It may be due to

higher per capita income, proper and timely maintenance at affordable cost.

Standard of living of the people in particular area can be assessed on the basis of household by number of rooms occupied. This clearly reveals the development pattern of the area. The information regarding the number of rooms occupied in Kolkata district during the year 2001 as published by the Census of India is presented in Table 2.25.

Table 2.25: Households by Number of Rooms Occupied in Kolkata District During 2001

(No)

No	Rooms/Households	Kolkata	Per cent
1.	Non-Exclusive Room	11309	1.23
2.	1 Room	459165	49.93
3.	2 Rooms	227816	24.77
4.	3 Rooms	122892	13.36
5.	4 Rooms	52715	5.73
6.	5 Rooms	16642	1.81
7.	6 Rooms Plus	29144	3.17
8	**Total Households**	**919683**	**100.00**

Source: - Tables on Households and amenities, census of India, Ministry of home Affairs, Government of India, 2001.

About a half of the total households in Kolkata had single room accommodation for living followed by 25 per cent households in two room accommodation. More than one per cent of households in Kolkata district had no exclusive room for living. On the contrary 13.36 per cent of the households had the facility of three rooms.

This shows a clear picture of the inequalities in income and wealth of households in Kolkata.

Slums in Kolkata

Slums are result of unplanned and unregulated urbanization and industrialization. Slum dwellers are the real builders of urban infrastructure but they live in areas deficient of facilities and services. Planning and development practices generally followed by Development Agencies or other institutions are not very inclusive in nature with the result these slums sprang up and later on became difficult to control.

Slum is defined as that area where the buildings are in any respect unfit for human habitation or by reason of dilapidation, overcrowding, faulty arrangement of buildings, streets, lack of ventilation, light or sanitation facilities or combination of these factors, are detrimental to safety, health or morals. The concept of slums and its definition vary from country to country depending upon the socio economic conditions of each society, irrespective of location, whether in the core of the city, in the form of dilapidated structures or in the outskirts, in the form of squatting, slums have been characterized.

1. Physically, an area of the city having inadequate housing, deficient facilities, overcrowding and congestion.

2. Socially, slum is a way of life, a special character which has its own set of norms and values reflected in poor sanitation, health values, health practices, deviant behaviour and social isolation.
3. Legally speaking, section 3 of the Slum Areas (Improvement and Clearance) Act, 1956 defines slums as areas where buildings:
    a. are unfit for human habitations; and
    b. are by reason of dilapidation, over-crowding, faulty arrangements of streets, lack of ventilation, light or sanitation facilities or any combination of these factors which are detrimental to safety, health and morals.

The information regarding the urban population and slum population in India and West Bengal during the last 1981-2001 is presented in Table 2.26 and Figure 2.5.

The percentage of slum population to the total urban population of India and West Bengal increased during 1981-91 while it reduced considerably during 1991-2001. Slum population to the total urban population in West Bengal is higher than the national level. However the rate of reduction of percentage of slum population at national level was higher than West Bengal which may be due to implementation of Slum Eradication Programmes.

Table 2.26 Urban and Slum Population of India and West Bengal During 1981-2001.

No	Year	Population (in Lakh)		Per cent
		India	West Bengal	
1.	1981			
	a. Urban	1594.6	144.47	9.06
	b. Slum	279.1	30.28	10.85
	c. % of b to a	17.50	20.96	3.46*
2.	1991			
	a. Urban	2176.1	187.08	8.60
	b. Slum	462.6	51.95	11.23
	c. % of b to a	21.25	27.77	6.52*
3.	2001			
	a. Urban	2837.42	224.27	7.77
	b. Slum	425.78	41.15	9.66
	c. % of b to a	15.01	18.35	3.34*

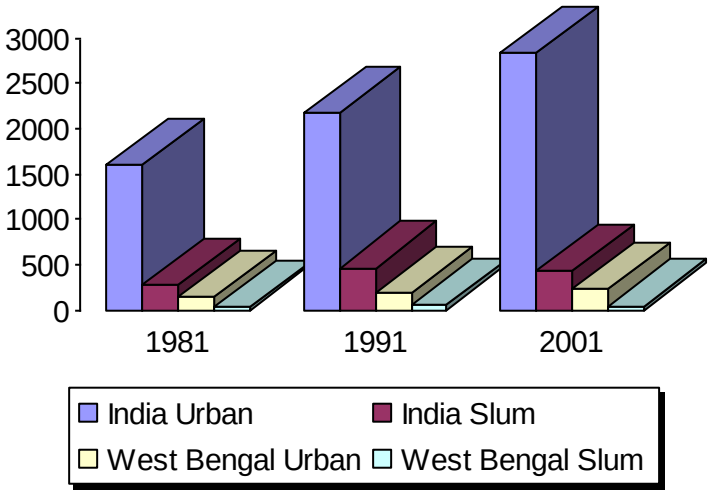
Sources:-1. ***Compendium of Environment Statistics, 2003, Ministry of Statistics and Programme Implementation, Government of India.***

2. ***Census of India, 2001, Ministry of Home Affairs, Government of India.***

Note: ******* ***Absolute difference***

Another noticeable fact observed is that the share of urban population in West Bengal to national level reduced from 9.06 in 1981 to 8.60 per cent in 1991 and 7.77 per cent in 2001. While on the other hand the percentage of slum population in West Bengal increased from 10.85 in 1981 to 11.23 in 1991. During 1991-2001 percentage of slum population to total urban population was declined in West Bengal. This indicates that living conditions of slum dwellers in West Bengal has improved.

Figure 2.5 Urban and Slum Population of India and West Bengal during 1981-2001(Lakh).



Growth rate of urban population and slum population in India and West Bengal during 1981-91 and 1991-2001 is presented in Table 2.27.

Table 2.27 Growth Rates of Urban and Slum Population of India and West Bengal During 1981-2001.

(Per cent)

No	Years	India		West Bengal	
		Urban	Slum	Urban	Slum
1.	1981-1991	36.47	65.75	29.33	71.57
2.	1991-2001	30.39	-7.96	19.89	-2.08
3.	1981-2001	77.94	52.55	55.24	35.90

Sources:-1. Compendium of Environment Statistics, 2003, Ministry of Statistics and Programme Implementation, Government of India.

2. Census of India, 2001, Ministry of Home Affairs, Government of India.

During the last two decades the urban population increased in India on an average growth rate of 3.9 per cent per annum as against 2.8 per cent per annum in West Bengal. The information regarding slum population and urban population in West Bengal and Kolkata UA during the last two decade is presented in Table 2.28 and Figure 2.6.

Table 2.28 Urban & Slum Population of West Bengal and Kolkata UA During 1981-2001.

No.	Years/ Details	West Bengal	Kolkata UA
1	1981		
	a. Urban Population (Lakh)	144.67	91.94
	b. Slum Population (Lakh)	30.28	30.20
	c. % of Column b to Column a.	20.93	32.85
2.	1991		
	a. Urban Population (Lakh)	187.08	108.60
	b. Slum Population (Lakh)	51.95	36.26
	c. % of Column b to Column a.	27.77	33.39
3.	2001		
	a. Urban Population (Lakh)	224.27	132.10
	b. Slum Population (Lakh)	41.15	43.06
	c. % of Column b to Column a.	18.35	32.60

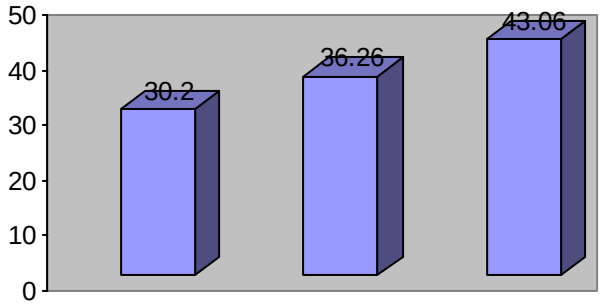
Sources: - 1. Census of India Various Issues, Ministry of Home Affairs, Government of India, New Delhi.
2. Urban West Bengal, 1991, Table 11.
3. Compendium of Environment Statistics, Ministry of Statistics and Programme Implementation, Government of India, New Delhi, 2003.

Urban population of West Bengal increased from 144.67 lakh in 1981 to 224.27 lakh in 2001, showing an annual average

growth of 2.75 per cent. During the same period the population of Kolkata UA increased from 91.94 lakh to 132.10 lakh at a growth rate of 2.18 per cent per annum. This clearly indicates that the growth of population in other towns in West Bengal has been more than Kolkata during the last two decades. It may be due to the high cost of living as compared with other cities in West Bengal and increasing employment opportunities for semi skilled and unskilled workers in other towns also. This is also reflected in terms of reduction in percentage of slum population in the state during the last two decade, from 20.93 in 1981 to 18.35 per cent in 2001. In addition, proportion of Kolkata UA population in West Bengal has also reduced from 63.55 per cent in 1981 to 58.90 per cent in 2001. Percentage of slum population to Kolkata population was more or less same during this period.

.

Figure 2.6: Slum Population of Kolkata UA- 1981-2001 (Lakh)



The growth rates of slum population of West Bengal and Kolkata UA during 1981-2001 is presented in Table 2.29.

Table 2.29 Growth Rates of Slum Population in West Bengal & Kolkata 1981-2001.

(per cent)

No	Years	Growth Rates of Slum Population	
		West Bengal	Kolkata UA
1.	1981-1991	71.56	20.07
2.	1991-2001	-20.79	18.75
3.	1981-2001	35.90	42.58

Source:- ***Census of India, Various Issues, Ministry of Home Affairs, Government of India, New Delhi***

Slum population in West Bengal registered a growth rate of 7.2 per cent during 1981-91 while it retarded drastically during 1991-2001 and growth rate was only 2.1 per cent per annum. While in Kolkata UA trend clearly indicates the fact that slum population in Kolkata has been increasing. Analysis reveals clearly that not only the absolute population but the slum population has been increasing in Kolkata. There is a shortage of formal housing. Kolkata continues to be the primate city in the country and gate way of north eastern part of the region. As a major employment centre in the eastern part it attracts lot of migrants which live in informal settlements. Expansion of the city from the core to periphery has affected the land price scenario significantly as discussed in the subsequent section.

Trends in Land Prices in Kolkata 3

Research on urban land price changes in developing nations involves a variety of data from different sources. Generally, there is a lack of uniformity in the data sources and as such comparability of data from various sources is difficult. It is observed that the availability of data from different sources formed basis for a particular methodology applied in land price research. Hence the need is to examine more closely the relative utility of major data sources available for taking up research in changing land price scenario. Exploratory analysis and diagnosis of each data source facilitate to rule out or accept certain data points in urban land price study. Without this, one takes a common platform where one can globally compare the findings of one study with others. This leads to assertions and wide scale generalizations such as that land prices are increasing at a rapid rate or sky rocketing. Anecdotal assertions based on isolated on highly selective cases may not be corroborated once analyzed empirically.

A meaningful analysis of the land registration information is required immediately, especially at a time when international agencies and multi-national agencies like United Nation's Development Programme (UNDP), World Bank, International Monitory Fund and various other organizations show a considerable concern to extend tools for land and housing market management in developing nations in the world. In view of the

above World Bank stresses the desirability of developing nations considering land price information as surrogates for land prices in order that governments can then recoup service provisions, host by ploughing back a proportion of land price change. Here in India, data questions the applicability of associating registered land prices with notional land price.

The main advantage of collecting land price information is to have information about land price changes also that occur at a city wide level rather than simply explaining prices for very recent deviations at the outskirts of the city. Land price information is available through out the city in most of the developing nations in the world. It is an important data but the need is to analyse the data in a comprehensive manner to explore its potential.

Nature of Land Price Information

In India the land price data are available at the Tehsil office (land registration office) with a breakup to the level of colonies, mohallas, (The term mohalla is normally used for old settlements that are mainly located in older areas of the city.) and villages located within the city limits. There are usually two main data sources at the land registration office or tehsil office level that provide the land price information. The first main source comprises confidential records of what can be termed as first level data. These are unpublished and contain basic details of individual property transactions that have taken place in the city over a period of time.

These records have information on each type of property transaction, ie. house and land (plot) and are used by the state and private individuals for completing property searches in order to ascertain plot or house ownership. One must be careful with these data sources because of listings of the house and land transactions are unsorted in the records. Moreover there are many types of registrations for land and house transactions. Types of registrations recorded in the confidential records at the first level are numerous. For example, registrations include gift deed, partition deed, errata, cancellation of sale deed, surrender deed, re-conveyance deed, mortgage, return of mortgage, rent deed, receipt, assignment deed, agreement deed, sale deed, etc. With these records, what should concern the researcher is the data for the plot sale, which have been registered as a sale deed or agreement. These are the only types of registration under which land is actually sold. In this respect the data reflect land transactions that include;

(i) Plot size,

(ii) Declared price of the plot (also known as registered price or the consideration money)

(iii) Valuation price as assessed by the officials of the revenue department,

(iv) Date of presentation of registry papers in the land registration office/ tehsil office (i.e. the date the transaction occurs)

(v) The date of registration in the land registration / tehsil office

(vi) Name of the seller and buyer and

(vii) Location of the Plot in the colony.

For research purposes, access to this first level of information can be obtained easily in a reasonable time.

The tehsil /land registration office in India also collects the information confidentially at the so called second level. These contain explanatory details of each property transaction as cited in the confidential report of the earlier mentioned first level. The second level records are extremely voluminous and are unpublished. Keeping in mind the time limits of the research it may not be wise to opt for a data collection from the second level over the confidential records of the first level. In addition, access to the confidential report of the second level is less assured. When the purpose of collecting land price information is partly met by the confidential report of the first level, there seems little practical gain in investing huge amount of time with the confidential records of the second level.

The third data source consists of open / public records. This information is unambiguously in the public domain. It is published data sources and contains city wide estimated land prices. The main purpose of this information is to minimize the under valuation of landed property in the registration office / tehsil office and to raise the revenues. The fixing of these prices at city level is largely

contingent upon changes in land and revenue policies over a period of time. Since these policies vary from state to state; comparability of the price with the rate prices remaining in other state is not straight forward or more complicated or difficult or impossible. The rate is the minimum market price of land expressed in terms of Rupees per unit of land. It is determined on the basis of a sub set of example land prices as informed by the property developers, colonizers, open market sale deed and rates of urban development and housing authorities in the state sector. Even knowing that the actual market prices are always higher than the prescribed rate, the latter are city wide kept to the minimum level. The government has taken the conscious decision to maintain minimum price in order not to discourage land registration at the concerned office. Thus, given priority to extend registration rather than technical accuracy of the land price value. In this way, it is expected that revenue will be maximized and not lost through the failure to register land by selling plots on a Power of Attorney basis. Power of Attorney includes any instruments (not chargeable with a fee under the law relating to court fees for the time being in force) empowering a specified person to act for and in the name of person executing it.

Limitations of Land Price Information

The Information of Land Price available from the confidential records of the Land Registration Office / tehsil office is rarely intact or complete for every year. It is generally maintained in hand written basis that are often found by the researchers to be in a

damaged form or illegible condition. It depends upon the use to which these books / register have been put, and that is normally contingent upon the number and the frequency of the transaction of property in a year. It is a general practice for lawyers, individuals and property developers to enquire about the basic information of the property before conveyance.

It is unlikely that the valuation price of each plot will be shown throughout the confidential records of the first level. Therefore, the information on the Registrar's assessment value as noted in the registers may not always be available. However, even if sufficient registers were available, the comparability of the assessment values would be weak in two aspects. The first is that valuation prices determined before the stipulation of the circle rates might be inconsistent since these were decided by the Chief Registrar under the Indian Stamp Act Rules. Though the rules are quite clear for the plot valuation, actual plot valuation in the land registration office is often quite arbitrary and idiosyncratic. It may be adjusted so as to provide benefits to all concerned- the valuer, the appropriator and the buyer. Underassessment of prices in the land registration office records is almost universal. It is likely to occur whenever taxation on land transaction is stringent and particularly where it is high. Underassessment is not common for the transactions of the state institutions or state based money.

The second reason for a lack of comparability in the data sources is the addition of one –off statutory reassessments. These reassessments are rarely applied evenly across the city and thus affect a small subset of plots in colonies. They do however, account for significant difference in the circle rates among colonies, as some include the additional assessments while others do not. Without an intimate knowledge of the city and significant amounts of cross checking, it is difficult to control for plots that have been subject to this assessment.

The records of the first level do not show the proper address of the seller or buyer of the plot sold. They tell us about the plot number and the situation on two sides of the plot. Since the address of the plot owner is not recorded in the first level, it is hardly possible to cross check the land prices of one plot (as recorded in the first level) to the same plot through a household survey. Of course, an address can be obtained from the second level records, but one has to overcome two problems; first, get access through the officials, and second, the enormous amount of time required in reviewing these records. Another complication is that in most cases the plot number does not correspond to the present house number, ie. Subdivisions are made on different numbers, and once house are built, the local authorities often assigns different numbers to the individual houses.

Factors Influencing Land Prices

The following factors determine the land price of urban area of any country. They are:

a. **Locational Advantage: -** Whether the particular land is adjacent to the main road or other important roads, near to the public utility places constructed by the urban local bodies/ development authorities / Municipal corporations at the government cost of the public exchequer.

b. **Land use:-** The value of the land significantly increases as the land use assigned to a piece of land in the plan changes from low importance to a higher importance like from public street or park and open space to a institutional or commercial or official, etc,. The land owners thus benefit or suffer from the somewhat artificially determined and externally imposed factors by which they are bound even without there will.

c. **Amenities: -** The cost of the land changes from the provision of infrastructural facilities by the urban local bodies/ urban developmental authorities or other service providing agencies in terms of facilities like road, transport, communication, water supply, sanitation, electricity, power, etc,.

d. **Inherent Value: -** It is related to the buildability on building potential of the land in an urban area.

e. **Floor Area Ratio (FAR):-** It is an important factor determining the market value of any land. For example, if the planning authority increases the FAR, the market value of the land almost doubles; if it is increased three times, the market value also trebles and so on. The owners of the land have no contribution, whatsoever, that would justify their appropriating all the benefits arising from the enhancement of FAR for them.

f. **Speculation: -** Generally it is called scarcity value. Whenever the demand is higher than the supply, speculation arises. The fast rate of growth of population and the development in urban areas leads to a migratory movement of the people from rural areas to the cities; the demand for serviced land perpetually outstrips its supply leading to ever rising price of land. Whenever there is a scarcity, there is a speculation and therefore, it would not be incorrect to conclude that urban land prices include high degrees of speculative factor.

g. **Black market: -**There is no secret that black market value of any piece of land is far more than its value in the legal market, mainly for exemption of stamp duty, income, wealth and other taxes. There is thus, a significant black market component attached to the

market value of urban land, as specified in the documents in the records of sale transaction.

h. **Changes in Interest Rate**:- Decline in the interest rate in the formal banking system is also another important factor for changes in the price of land. It is an inverse relation, that is, decline in the interest rate in the banking system leads to enhancement of investment in real estates and which in turn increases the price of land and vice-versa.

i. **Recent Developments of Service Sector: -** The rapid growth of Information Technology (IT), Information Technology Enabled Services (ITES), Business process Outsourcing (BPO), Special Economic Zones (SEZ), Industrial Parks (IP), Foreign Direct Investment (FDI) and other service industries handled by the multinational companies require lot of space in the urban area. These companies are purchasing the land at a higher rate than the market forces of demand and supply of land. This in turn leads to increase in the price of land.

Thus number of factors influences the price of urban land whether it is for residential or commercial or industrial use. In order to understand the causes as well as providing land for residential purposes or residence mainly to economically and socially weaker sections of the society, the policy makers, academicians,

researchers, social scientists, etc, need to know the average price of land in particular city or area. In this connection, the Industrial and Economic Planning Division of Town and Country Planning Organization under the Ministry of Urban Development, Government of India has undertaken a study on the basis of random sample survey, supported by series of discussions and interactions with the officials at the centre, state and local governments, researchers, academicians, non-governmental organizations, self help groups, consultants, property dealers/developers, real estate agents, etc,. The information mentioned in this report narrates both maximum and minimum land prices with the prevailing market trend. The maximum and minimum land prices have been culled out on the basis of locational advantage mainly the accessibilities of various infrastructure facilities and other disadvantages of the particular locality. The market value of land in Kolkata was collected from the well known real estate agents, their associations and property dealers with the active co-operation of the Government of West Bengal, Kolkata Metropolitan Development Authority and the like. The whole area of Kolkata was categorized into eight zones namely north east, north, north west, south central, south west, south, central and east zones respectively. The information regarding study of urban residential land has been collected from 70 localities spread over different zones in the city. It covers both the minimum and maximum land prices of residential land for six years from 2000 to

2005. The zone wise distribution of sample localities in Kolkata is presented in Table 3.1.

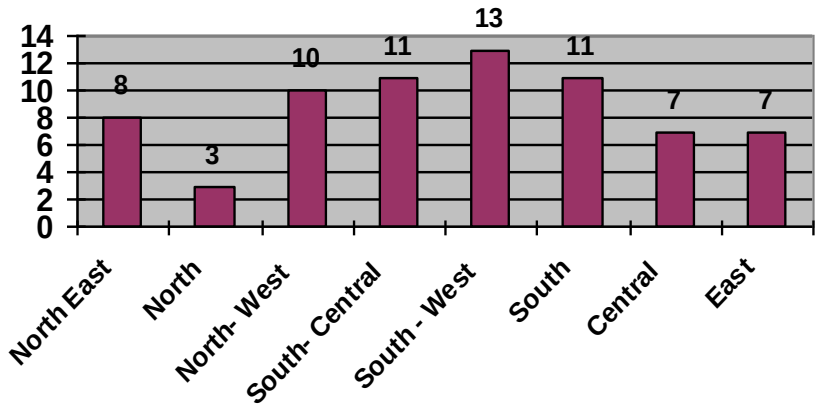
Table 3.1 Zone-wise Distribution of Sample Localities in Kolkata

No	Zones	No. of Localities	Per cent
1.	North East	8	11.43
2.	North	3	4.29
3.	North- West	10	14.29
4.	South- Central	11	15.71
5.	South - West	13	18.57
6.	South	11	15.71
7.	Central	7	10.00
8.	East	7	10.00
	Total	**70**	**100.00**

***Source: - Primary Survey 2006*.**

It may be observed from Table 3.1that the highest number of localities in the sample was found in south west zone of the city and it constituted near about one fifth of the total sample. The second highest number of localities was found in two zones namely south central and south zones and each constituted nearly 16 per cent of the total sample. North West zone provides the information regarding the land prices of ten localities while the lowest contribution of sample from north zone at 4.29 per cent of the total. The zone-wise distribution of sample localities in Kolkata is depicted in Figure 3.1.

Figure 3.1 Zone-wise Sample Localities in Kolkata



The information regarding the urban residential land price of Kolkata was derived in the units of Rupees per square yard. The average residential land price of Kolkata during 2000-2005 is presented in Table 3.2

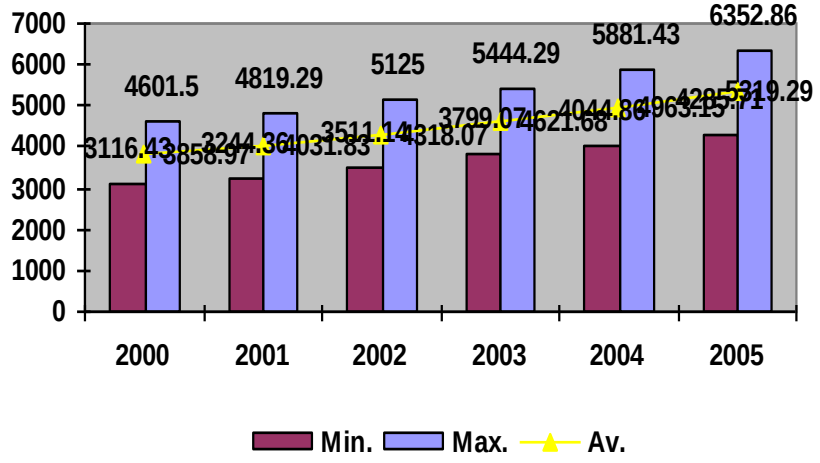
Table 3.2 Market Price of Residential Land in Kolkata 2000-2005.

No	Years	Land Price (Rs./Sq.Yard)		
		Minimum	Maximum	Average
1	2000	3116.43	4601.50	3858.97
2	2001	3244.36	4819.29	4031.83
3	2002	3511.14	5125.00	4318.07
4	2003	3799.07	5444.29	4621.68
5	2004	4044.86	5881.43	4963.15
6	2005	4285.71	6352.86	5319.29

***Source: - Primary Survey 2006*.**

It may be observed from Table 3.2 that the average market price of urban residential land increased from Rs. 3858.97 per sq. yard in 2000 to Rs. 5319.29per sq. yard in 2005 recording an annual growth rate of 6.31 per cent. During the same period the minimum average market price of urban residential land increased from Rs. 3116.43 per sq. yard to Rs. 4285.71 per sq. yard recording an annual growth rate of 6.25 per cent. In the case of the maximum average market price of residential land annual growth rate is 6.34 per cent. The difference of maximum and minimum average market price of urban residential land in Kolkata showed an increasing trend from 1485.07 in 2000 to 2067.15 in 2005. The graphical representation of market price of urban residential land in Kolkata both minimum and maximum price is in Figure 3.2 depicts a clear picture.

Figure 3.2 Market Price of Urban Residential Land In Kolkata 2000-2005.



The information regarding the growth rate of market price of urban residential land in Kolkata during. 2000-2005 is presented in Table 3.3.

Table 3.3 Growth Rates of Market Price of Residential Land in Kolkata

No	Years	Growth Rates (Per Cent)		
		Minimum	Maximum	Average
1.	2000-01	4.11	4.73	4.48
2.	2001-02	8.22	6.34	7.10
3.	2002-03	8.20	6.23	7.03
4.	2003-04	6.47	8.03	7.34
5.	2004-05	5.95	8.02	7.18
6.	2000-05	37.52	38.07	37.84

Source: - Primary Survey, 2006.

It may be observed from Table 3.3 that the growth rate of average market price of residential land was 37.84 per cent. While the growth rate of average maximum and minimum market price of residential land in Kolkata were at 38.07 per cent and 37.52 per cent respectively. In minimum as well as maximum market price of residential land in Kolkata the growth in 2000 was lowest. Analysis show minimum market price of residential land was the highest in 2001 but later on it increased at a lesser rate. Growth rate of maximum market price of residential land in Kolkata was the highest during 2003-04 which witnessed reducing trend during 2004-05. On an average market price of residential land in Kolkata had increased trend during 2000-2005 on an average growth rate of 6.31 per cent per annum.

Information regarding the market price of land is vital and is one of the basic resources. Like any other resources, the information on market price of land is also available in various forms. Some people are in possession of it or have access to it and others need it but do not have it. Those who have it can use it, waste it, market it or else give it away. But it is useful and hence its value will remain the same however much it is used; yet it cannot be destroyed or corrupted. It can be transformed, yet it remains with the transfer. It is indivisible, yet it can be accumulated. It has tremendous importance both from the social and cultural point of view but, on its own, it has been very material use- its value is tangible only when the information on land prices in the particular city is used for productive purposes like as a module for policy formulation, valuation, implementation and monitoring and evaluation of various policies introduced by the government from time to time or we can say with other tangible products. The policy makers, town planners, social scientists, academicians and researchers dealt with the land price information on various matters. Thus the information regarding the land price is major information. There is a wide hierarchy of needs for such information on land from the point of view of sovereignty, defence, public safety, protecting the welfare of all sections of the society.

Kolkata is divided into eight zones for the analysis of market value of land price in the city namely northeast, north, northwest,

south-central, southwest, south, central and east zones respectively which was mentioned earlier. The information regarding the market price of urban residential land in the above mentioned zones in Kolkata during the years 2000- 2005 is presented in Table 3.4.

The highest average market price of urban residential land in Kolkata during the year 2005 was in North West zone at Rs.8475 per Sq. yard. The highest minimum and maximum market price of urban residential land was also observed in the same North West zone of the city at Rs.7000 per sq. yard and Rs. 9950 per sq. yard respectively during the year 2005. While the lowest average, minimum and maximum market price of urban residential land in Kolkata during the same period covered under the study was observed in south zone of Kolkata at Rs. 2280 per sq. yard, Rs.1523 per sq. yard and Rs. 3036 per sq. yard respectively. The lowest market price of urban residential land in Kolkata during the initial period covered under the study was also observed in south zone at Rs.1515 per sq. yard. The minimum and maximum market price of urban residential land in this zone was observed at Rs.1030 per sq. yard and Rs. 2000 per sq. yard respectively. This clearly indicates the fact that the development process, all other basic facilities in this particular zone was comparatively lesser and the future scope for increasing the development activities in this zone was gloomy. The highest average market price of urban residential land in Kolkata during the year 2000 was observed

Table 3.4 Zone-wise Urban Residential Land Price in Kolkata: 2000-05.

(Rs. Per sq. yard)

No	Years	NE	N	NW	SC	SW	S	C	E
1.	2000								
	i. Mini	1813	4500	5450	5500	3000	1030	1757	1404
	ii. Max	3863	5667	7560	7455	4193	2000	3283	2446
	iii. Av.	2838	5083	6505	6477	3596	1515	2520	1925
2	2001								
	i. Mini	2163	4500	5690	5545	3250	1102	1947	1486
	ii. Max	4125	6000	7830	7500	4577	2118	3536	2571
	iii. Av.	3144	5250	6760	6523	3913	1610	2741	2029
3	2002								
	i. Mini	2388	5000	6000	5864	3577	1248	2111	1739
	ii. Max	4288	6333	8210	7909	5000	2277	3714	2900
	iii. Av.	3338	5667	7105	6886	4288	1763	2913	2320
4	2003								
	i. Mini	2600	5333	6420	6227	3908	1331	2393	2035
	ii. Max	4538	6833	8620	8182	5423	2400	3893	3421
	iii. Av.	3569	6083	7520	7205	4665	1865	3143	2728
5	2004								
	i. Mini	2850	5667	6780	6409	4269	1462	2517	2263
	ii. Max	4938	7500	9180	8591	6131	2577	4164	3743
	iii. Av.	3894	6583	7980	7500	5200	2020	3341	3003
6	2005								
	i. Mini	3150	6000	7000	6591	4731	1523	2721	2429
	ii. Max	5388	8833	9950	8773	6577	3036	4400	4200
	iii. Av.	4269	7416	8475	7682	5654	2280	3561	3314

Source: - ***Primary Survey, 2006.***

Notes:- ***NE,N, NW,SC,SW, S C, & E means Northeast, north, northwest, south central, south west, south, central and east zones respectively.***

in North West zone at Rs.6505 per sq. yard. The highest maximum market price of land was also observed in the same zone at Rs. 7560 per sq. yard. While the highest minimum market price of urban residential land in Kolkata was observed in south-central zone at Rs.5500 per sq. yard during the same period. The information regarding zone-wise ie. Northeast, north, northwest, south-central, southwest, south, central and east zones growth rates of market price of urban residential land in Kolkata is presented in Table 3.5.

It may be observed from Table 3.5 that the highest growth rates of market price of urban residential land in Kolkata during the period covered under the study was observed in east zone of Kolkata at 12.03 per cent per annum. The reason behind the fast growth rates in this zone was due to various reasons such as fast development during the last decade, high level of infrastructure facilities, initiating various developmental activities such as SEZs, industrial parks etc,. While the lowest growth rates of market price of urban residential land in Kolkata during the period covered under the study was observed in south-central zone at 3.1 per cent per annum. This zone has already reached the saturated level. The second, third and fourth positions of growth of market price of urban residential land in Kolkata was observed in southwest, south and

Table 3.5 Zone-wise Growth Rates of Urban Residential Land Price in Kolkata: 2000-05.

(Per cent)

No	Years	NE	N	NW	SC	SW	S	C	E
1.	2000-01								
	i. Mini	19.31	0.00	4.40	0.82	8.33	6.99	10.81	5.84
	ii. Max	6.78	5.88	3.57	0.60	9.16	5.90	7.71	5.11
	iii. Av.	10.78	3.23	3.92	0.71	8.18	6.27	8.77	5.40
2	2001-02								
	i. Mini	10.40	11.11	5.45	5.75	10.06	13.25	8.42	17.03
	ii. Max	3.95	5.55	4.85	5.45	9.24	7.50	5.03	12.80
	iii. Av.	6.17	7.94	5.10	5.56	9.58	9.50	6.28	14.34
3	2002-03								
	i. Mini	8.88	6.67	7.00	6.19	9.25	6.65	13.36	17.02
	ii. Max	5.83	7.89	4.99	3.45	8.46	5.40	4.82	17.96
	iii. Av.	6.92	7.34	5.84	4.63	8.79	5.78	7.89	17.58
4	2003-04								
	i. Mini	9.61	6.26	5.61	2.92	9.23	9.84	5.18	11.20
	ii. Max	8.81	9.76	6.49	5.00	13.06	7.38	6.96	9.41
	iii. Av.	6.92	8.21	6.12	4.09	11.47	8.31	6.29	10.08
5	2004-05								
	i. Mini	10.53	5.95	3.24	2.84	10.83	4.17	8.10	7.34
	ii. Max	9.11	17.77	8.39	2.12	7.27	17.81	5.67	12.21
	iii. Av.	9.63	12.65	6.20	2.43	8.73	12.87	6.58	10.36
6	2000-05								
	i. Mini	73.75	33.33	28.44	19.84	57.70	47.86	54.87	73.01
	ii. Max	39.48	55.87	31.61	17.68	56.86	51.80	34.03	71.71
	iii. Av.	50.42	45.90	30.28	18.60	57.23	50.50	41.31	72.16

Source: - ***Primary Survey, 2006.***

Notes:- ***NE,N, NW,SC,SW, S C & E means Northeast, north, northwest, south central, south west, south, central and east zones respectively.***

northeast zones respectively at 9.54 per cent, 8.42 per cent and 8.4 per cent per annum respectively during the period covered under the study.

The highest market price of urban residential land in Kolkata during the year 2005 both minimum and maximum was observed in Esplande or Dhramtalla of north west zone of Kolkata at Rs. 10000 per sq. yard and Rs. 12000 per sq. yard respectively. While the lowest minimum market price of Rs.600 per sq. yard in Bandsdroni locality of south zone of Kolkata during the same year. While the lowest maximum market price of urban residential land in the city was observed at Rs. 1600 per sq. yard in Haltu locality of the central zone. This clearly indicates the fact that there was a wide gap of price both minimum and maximum in Kolkata during the period covered under the study. This may be due to various reasons such as availability of various infrastructure facilities, speculation of the people for future development, state intervention especially in the introduction of special economic zones, industrial parks, export oriented units, institutes of high excellence, etc,.

In northeast zone of Kolkata the highest maximum market price of urban residential land was observed in Chitpore locality at Rs. 6800 per sq. yard during the year 2005 while the highest minimum market price of urban residential land was observed in Kashipur Sinthi at Rs. 4500 per sq. yard. The lowest maximum price at Rs. 3500 per sq. yard observed in Belgharia locality and

minimum price at Rs.2000 per sq. yard in two localities namely Belgharia and Alam Bazar respectively.

In north zone the highest maximum market price of urban residential land during the year 2005 was observed in Belgachhia at Rs. 9500 per sq. yard and lowest at Rs.8000 per sq. yard in Shyam Bazar. The highest and lowest minimum market prices at Rs. 7000 per sq. yard and Rs. 5000 per sq. yard were observed in Bag Bazar and Shyam Bazar localities respectively. The highest difference between the maximum and minimum market price of urban residential land was observed in Belgachhia locality and lowest at Bag Bazar during the same period covered under the study.

In North West zone the highest maximum market price of urban residential land was observed in Esplande or Dharmtalla during the year 2005 which is the highest recorded maximum price in Kolkata city as a whole. The lowest maximum market price was recorded in Jorsanko locality at Rs. 8000 per sq. yard during he same period covered under the study. The highest minimum market price was observed in Esplande or Dharamtalla at Rs. 10000 per Sq. yard and lowest at Rs. 3700 per sq. yard in Jorsanko. The highest difference between the maximum and minimum market price was observed in Maniktala at Rs. 4500 per sq. yard and lowest in three localities namely MG Road, Esplande and Kankurgachi at Rs. 2000 per sq. yard respectively.

The highest maximum market price of urban residential land in south central zone of Kolkata during the year 2005 was observed in Park Circus at Rs. 11000 per sq. yard and lowest at Rs. 7000 per sq. yard in Beleghata. On the other hand the highest minimum market price of urban residential land was recorded at Rs. 9000 per sq. yard in two localities namely Park Street and Park Circus respectively while the lowest at Rs. 4500 per sq. yard in Taltala respectively. The difference between the maximum and minimum market price of urban residential land recorded highest in Bow Bazar at Rs. 4000 per sq. yard and lowest in Park Street and AJCB Road at Rs. 1000 per sq. yard respectively.

In south west zone of Kolkata the highest maximum market price of urban residential land was recorded at Rs.8500 per sq. yard in Ballygunge locality during the year 2005 and lowest at Rs. 4500 per sq. yard in Dhakuria. The highest minimum market price of urban residential land was recorded at Rs. 7000 per sq. yard in Hazara Road and lowest at Rs. 3500 per sq. yard in four localities namely Dhakuria, Tollygunge, Watganj and Khidirpur respectively. The gap between the minimum and maximum market price of urban residential land was recorded highest at Rs. 3000 per sq. yard in two localities namely Bhawanipur and Ballygunge and lowest at Rs. 1000 per sq. yard in three localities namely Mominpur, Dhakuria and Hazara Road respectively during the period covered under the study.

The highest maximum market price of urban residential land in south zone of Kolkata recorded at Rs.6500 per sq. yard in Taratala and lowest maximum market price at Rs. 1800 per sq. yard in two localities Bansdroni and Thakurpukur respectively. On the other hand the highest minimum market price of urban residential land in this zone was recorded at Taratala at Rs.3100 per sq. yard and lowest minimum price at Rs. 600 per sq. yard in Bansdroni, which is the lowest minimum market price of urban residential land in Kolkata city as a whole during the year 2005. The gap between the maximum and minimum market price of urban residential land in this zone was recorded highest in Taratala at 3400 and lowest at 1000 in two localities namely Biren Road West and Thakurpukur respectively.

Santoshpur locality in central zone of Kolkata recorded the highest maximum market price of urban residential land at Rs. 6500 per sq. yard during the year 2005 while the lowest maximum recorded at Rs. 1600 per sq. yard in Haltu locality. In the case of minimum price, the highest recorded in Dhapa at Rs.4400 per sq. yard and lowest at Rs. 750 per sq. yard in Garfa. The highest difference of maximum and minimum market price of urban residential land in central zone of Kolkata during the year 2005 recorded at Rs. 2700 per sq. yard in Santoshpur and lowest at Rs. 700 per sq. yard in Haltu locality.

In east zone of Kolkata the highest maximum market price of urban residential land was recorded at Rs. 7000 per sq. yard in Bidhan Nagar and the lowest at Rs.1800 per sq. yard in Baguiati. In the case of the minimum price, the highest market price was recorded at Rs. 5000 in Salt Lake and lowest at Rs.700 per sq. yard in Rajarhat during the year 2005. The difference between the maximum and minimum market price during the year 2005 recorded highest at Rs.4000 per sq. yard in Bidhan Nagar and lowest at Rs.900 per sq. yard in Airport area. The information regarding the market price of urban residential land both minimum and maximum price of 70 selected localities during 2000- 2005 is presented in Annexure 1. The information regarding the price range-wise market price of urban residential land in Kolkata during the year 2005 is presented in Table 3.6.

Table 3.6 Price Range-wise Distribution of Localities in Kolkata During 2005.

No	Price Range(Rs. Per sq. Yard)	No. of Localities	
		Minimum	**Maximum**
1.	Up to 2000	14 (20.0)	7 (10.0)
2.	2001-4000	22 (31.4)	10 (14.3)
3.	4001-6000	20 (28.6)	14 (20.0)
4.	6001-8000	8 (11.4)	21 (30.0)
5.	8001+	6 (8.6)	18 (25.7)
	Total	**70 (100.0)**	**70 (100.0)**

Source: ***Primary Survey 2006.***
Note: ***Figures in parenthesis relate to percentage to total.***

It may be observed from Table 3.6 that more than in one half of the localities, the minimum price was up to Rs. 4000 per sq. yard during the last period covered under the study .ie. in 2005. While

the remaining three price range-wise classification, the highest number of localities lies in the range of Rs. 4001-6000 at 28.6 per cent. The other two ranges contribute 11.4 per cent and 8.6 per cent of the price of localities. On the other hand the maximum price, the highest percentage of localities land price was in the range of Rs. 6001-8000 per sq. yard during the year 2005. More than one fourth of the localities market price of urban residential land was in the highest price range of Rs. 8001+. Like-wise the lowest price range category had less number of localities in maximum land price and this constituted on 10 per cent of the total localities covered under the study. The information regarding the distribution of land price of Kolkata on the basis of price-range during 2000-2005 is presented in Table 3.7.

It may be observed from Table 3.7 that during the initial period covered under the study the highest number of localities where the price was in the lower categories namely up to Rs. 2000, Rs2001-4000 and Rs. 4001-6000 per sq. yard and it constitutes more than four fifth in the case of minimum market prices and three fourth in the case of maximum market prices. As a general tendency, as time passed the market price of land in any area of our nation increases due to various factors which have already been mentioned, the category that in the initial period lies in lower price category had shifted to higher land price category. The information regarding price range wise distribution of localities in Kolkata during 2000-05 is depicted in Figure 3.3.

Table 3.7: Price Range-wise Distribution of Localities in Kolkata During 2000-2005.

No	Years	No. of Localities/ Price Range (Rs. Per sq. Yard)					
		Upto 2000	2001-4000	4001-6000	6001-8000	8001+	Total
1.	2000						
	Min	29 (41.1)	27 (38.6)	6 (8.6)	7 (10.0)	1 (1.4)	70 (100)
	Max	14 (20.0)	22 (31.4)	17(24.3)	12 (17.1)	5 (7.2)	70 (100)
2.	2001						
	Min	27 (38.6)	28 (40.0)	6 (8.6)	8 (11.4)	1 (1.4)	70 (100)
	Max	11 (15.7)	19 (27.1)	21 (30.0)	10 (14.3)	9 12.9)	70 (100)
3.	2002						
	Min	24 (34.3)	23 (32.9)	14 (20.0)	6 (8.6)	3 (4.2)	70 (100)
	Max	10 (14.3)	18 (25.7)	18 (25.7)	12 (17.1)	12(17.1)	70 (100)
4.	2003						
	Min	20(28.6)	21(30.0)	19 (27.0)	5(7.2)	5(7.2)	70 (100)
	Max	10 (14.3)	14 (20.0)	17 (24.3)	16 (22.8)	13(18.6)	70 (100)
5.	2004						
	Min	16 (22.8)	23 (32.9)	18 (25.7)	7 (10.0)	6 (8.60	70 (100)
	Max	9 (12.9)	9 (12.9)	20 (28.6)	19 (27.0)	13(18.6)	70 (100)
6.	2006						
	Min	14 (20.0)	22 (31.4)	20 (28.6)	8 (11.4)	6 (8.6)	70 (100)
	Max	7 (10.0)	10 (14.3)	14 (20.0)	21 (30.0)	18(25.7)	70 (100)

Source: ***Primary Survey 2006.***
Note: ***Figures in parenthesis relates to percentage to total.***

In order to understand the growth pattern of urban residential land in Kolkata both minimum and maximum price an attempt has been made to analyze its growth during 2000-2005. The information regarding the growth of market price of urban residential land is divided in to five categories namely up to 25 per

cent, 26-50 per cent, 51-75 per cent, 76-100 per cent and 101 per cent and above respectively. This analysis will help the policy makers to understand the growth pattern of land price in Kolkata during the period covered under the study and they can implement various policies or strategies to implement the programme for sorting out the problems. The information regarding the percentage growth of market price of residential land in Kolkata both minimum and maximum during the period covered under the study is presented in Table 3.8.

Figure 3.3: Price Range-wise Distribution of Localities in Kolkata 2000-2005.

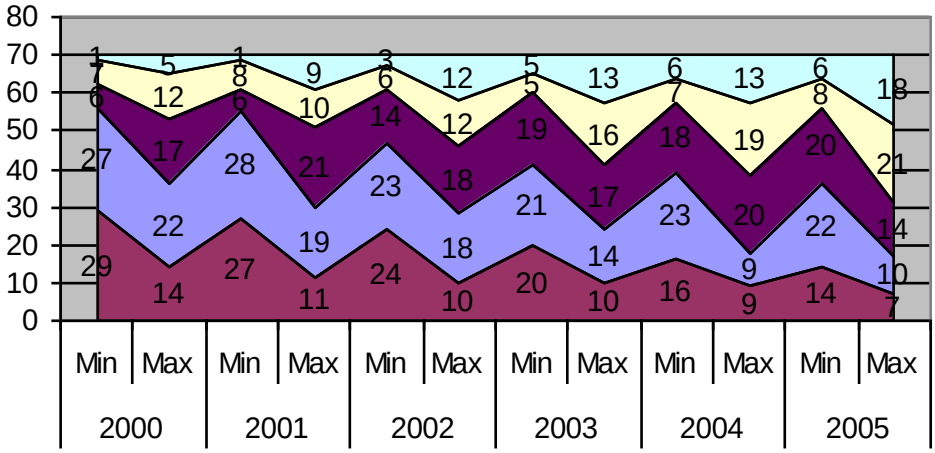


Table 3.8 Growth Rate-wise Distribution of Localities in Kolkata During 2000-2005

No	Growth Rate (per cent)	Localities	
		Minimum	Maximum
1.	Up to 25	15 (21.43)	23 (32.86)
2.	26-50	25 (35.71)	21 (30.00)
3.	51-75	17 (24.29)	14 (20.00)
4.	76-100	7 (10.00)	8 (11.43)
5.	101+	6 (8.57)	4 (5.71)
6.	Total	70 (100.00)	70 (100.00)

Source: ***Primary Survey 2006.***
Note: ***Figures in parenthesis relates to percentage to total.***

It may be observed from Table 3.8 that in more than one third of localities growth rate of minimum price was in the category of 26-50 per cent. In the case of maximum price the highest percentage i.e. more than 33 per cent localities were in the lowest growth category of up to 25 per cent. Very few localities in Kolkata showed the growth rate of market price of urban residential land both minimum and maximum above 75 per cent. In all the categories of growth rates of both minimum and maximum market price of urban residential land in Kolkata showed more or less same trend. Analysis of growth rates of market price of urban residential land in all the zones covered under the study is very important. The information regarding the zone-wise growth rate of market price of urban residential land in Kolkata during 2000-05 is presented in Table 3.9.

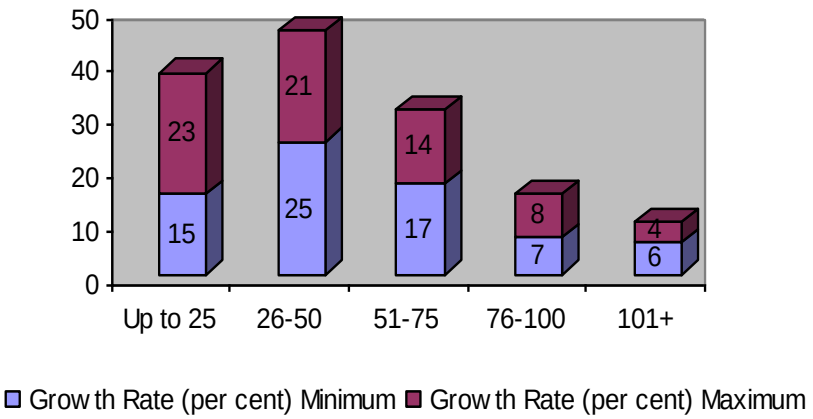
Table 3.9: Growths Rate-wise & Zone-wise Distribution of Localities in Kolkata During 2000-05.

No	Zones	Growth Rates (%)/ Localities					
		Upto25	**26-50**	**51-75**	**75-100**	**101+**	**Total**
1.	North- North						
	a. Mini	-	2(25.0)	2 (25.0)	3 37.5)	1(12.5)	8 (100)
	b. Max	2(25.0)	3(37.5)	3(37.5)	-	-	8 (100)
2.	North						
	a. Mini	-	1(33.3)	2(66.7)	-	-	3(100)
	b. Max	1(33.3)	-	1(33.3)	1(33.3)	-	3(100)
3.	North Central						
	a. Mini	4 (40.0)	6 (60.0)	-	-	-	10(100)
	b. Max	3 (30.0)	7 (70.0)	-	-	-	10(100)
4.	South Central						
	a. Mini	8(72.7)	3(27.3)	-	-	-	11(100)
	b. Max	9(81.8)	2(18.2)	-	-	-	11(100)
5.	South						
	a. Mini	1(7.6)	5(38.5)	4(30.8)	-	3(23.1)	13(100)
	b. Max	2(15.4)	2(15.4)	5(38.5)	3(23.1)	1(7.6)	13(100)
6.	South- South						
	a. Mini	1(9.1)	6(54.5)	3(27.3)	1(9.1)	-	11(100)
	b. Max	1(9.1)	4(36.4)	4(36.4)	2(18.2)	-	11(100)
7.	East						
	a. Mini	1(14.3)	1(14.3)	5(71.4)	-	-	7(100)
	b. Max	4(57.1)	1(14.3)	1(14.3)	1(14.3)	-	7(100)
8.	East -East						
	a. Mini	-	1(14.3)	1(14.3)	3(42.8)	2(28.6)	7(100)
	b. Max	1(14.3)	2(28.6)	-	1(14.3)	3(42.8)	7(100)
9.	Total						
	a. Mini	15(21.4)	25(35.7)	17(24.3)	7(10.0)	6(8.6)	70(100)
	b. Max	23(32.9)	21(30.0)	14(20.0)	8(11.4)	4(5.7)	70(100)

Source: ***Primary Survey, 2006.***
Note: ***Figures in parenthesis relates percentage to total.***

It shows that growth of minimum market price of urban residential land in Kolkata was recorded at 8.6 per cent and mainly in northeast, southwest and east zones of the city. While the maximum market price of urban residential land in Kolkata was recorded at 6 per cent of the localities during 2000-2005. In the category of 76-100 per cent growth of market price of urban residential land in Kolkata; minimum price was recorded at 10 per cent and maximum price at 11.4 per cent respectively. In the case of minimum market price of urban residential land in Kolkata 21 per cent of the localities recorded growth rate up to 25 per cent and 36 per cent of the localities registered a growth rate between 26 and 50 per cent and 24 per cent of the localities recorded the growth rate of 51-75 per cent. While in maximum category 33 per cent of the localities recorded the growth rate in the range of up to 25 per cent, 30 per cent in the range of 26-50 per cent and 20 per cent in 51-75 percent respectively. The information regarding growth rate-wise distribution of localities in Kolkata during 2000-2005 is depicted in Figure 3.4.

Figure 3.4: Growth Rate-wise Distribution of Localities in Kolkata during 2000-2005.



Market price of urban residential land both minimum and maximum showed either positive growth or neutral in all the localities. The highest growth rate in minimum market price recorded at 41.7 per cent per annum in Dhakuria locality which lies in south west zone of Kolkata. On the other hand the highest growth rate in maximum market price of urban residential land in Kolkata was recorded at 51 per cent per annum in Bidhan Nagar which is in east zone of Kolkata. The highest growth rate of minimum market price of urban residential land in northeast zone of Kolkata recorded in Baraha Bazar at 33.3 per cent per annum while the lowest growth rate recorded in Chitpore at 6.7 per cent per annum. The highest growth rate of maximum market price of urban residential land in northeast zone was observed in Dum Dum and Kashipur Sinthi localities at 11.9 per cent per annum and lowest growth rate recorded in Chitpore at 2.54 per cent per annum.

Belgachia in north zone of Kolkata recorded highest growth rate in both minimum and maximum market price of urban residential land and Shyam Bazar recorded the lowest. In North West zone of Kolkata the highest growth rate in maximum market price was observed in Maniktala at 8.3 per cent per annum and lowest at Shova Bazar at 2.88 per cent per annum. On the other hand, the minimum market price the highest growth rate recorded in Shova Bazar and Vivekanda Road at 8.3 per cent per annum and lowest at in BBD Bagh at 1.8 per cent per annum.

In south central zone of Kolkata the highest growth rate in minimum market price was recorded in Taltala and Sealdah at 8.33 per cent per annum and lowest recorded in Barbourne Road at 1.11 per cent per annum. On the other hand the maximum price, highest growth was recorded in Beniapur at 6.95 per cent per annum and the lowest at 1.85 per cent per annum in Park Street. The highest growth rate of minimum market price in south west zone of Kolkata was recorded in Dhakuria which is the highest in all localities covered under the study at 41.67 per cent per annum and lowest recorded at 2.78 per cent per annum in Khidirpur.

The highest growth rate of minimum market price of urban residential land in south zone was recorded at 12.96 per cent per annum in two localities namely Behala and Thakurpukur during the period covered under the study and the lowest at 3.54 per cent per annum in Sodhpur locality. On the other hand, the highest growth rate in maximum market price was recorded in Thakurpukur at 16.67 per cent per annum and the lowest at 4.17 per cent per annum in Sodhpur. The highest growth rate of maximum market price of urban residential land in central zone was recorded at 13.89 per cent per annum in Begha Jatin and lowest at 1.76 per cent per annum in Garia respectively. Begha Jatin and Naktala recorded the highest growth rate in minimum price and Garfa locality recorded the lowest growth rate in minimum market price.

The highest growth rate of maximum market price of urban residential land in east zone of Kolkata was recorded in Bidhan

Nagar which is the highest in all localities covered under the study at 51 per cent per annum and lowest at 3.94 per cent per annum in VIP Road. The highest growth rate of minimum market price in land in east zone of Kolkata recorded in Madhyam Gram at 38.89 per cent per annum and lowest in VIP Road at 6.67 per cent per annum. The information regarding the growth rate of market price of urban residential land in Kolkata both minimum and maximum during 2000-2005 is presented in Annexure. 2. In order to understand the trends in land prices in Kolkata an attempt has been made and the technique of Least Square Arithmetic Straight Line Trend has been used. This analysis is useful for predicting the land prices in future if all the conditions remain the same. For this, trend analysis has been made on average, minimum and maximum market price of urban residential land in Kolkata during 2000-2005 (From Table 6.2). Its details are presented in Table 3.10, 3.11 and 3.12 (average, minimum and maximum) respectively.

Table 3.10: Trends in Average Market Price of Residential Land in Kolkata

No	Years	X	X^2	Y	XY
1.	2000	-2.5	6.25	3858.97	-9647.43
2.	2001	-1.5	2.25	4031.83	-6047.75
3.	2002	-0.5	0.25	4318.07	-2159.04
4.	2003	0.5	0.25	4621.68	2310.84
5.	2004	1.5	2.25	4963.15	7444.73
6.	2005	2.5	6.25	5319.29	13298.23
Total		**0.00**	**17.50**	**27112.99**	**5199.58**

Y= a+bx

Where a= $\sum Y/n$, n means number of observations

b= $\sum XY/ \sum(X^2)$

x= means number of years for fitting trends.

a= 27112.99/6= 4518.83

b= 5199.58/ 17.50 = 297.12

Therefore, average market price of residential land in Kolkata during the year 2003 was around Rs. 4667.39 per sq. Yard. If all the conditions remain the same average market price of urban residential land in Kolkata is increasing at Rs. 297.12 per yard per annum during the period covered under the study. That means it is expected that the average market price of urban residential land in Kolkata will reach Rs. 6747.23 per sq. yard during 2010. The information regarding the minimum market price of residential land in Kolkata is presented in Table. 3.11.

Table 3.11 Trends in Average Minimum Market Price of Residential Land in Kolkata

No	Years	X	X^2	Y	XY
1.	2000	-2.5	6.25	3116.43	-7791.08
2.	2001	-1.5	2.25	3244.36	-4866.54
3.	2002	-0.5	0.25	3511.14	-1755.57
4.	2003	0.5	0.25	3799.07	1899.54
5.	2004	1.5	2.25	4044.86	6067.29
6.	2005	2.5	6.25	4285.71	10714.28
Total		**0.00**	**17.50**	**22001.57**	**4267.92**

Y= a+bx

a= 22001.57/6= 3666.93

b= 4267.92/17.50= 243.88

Then average minimum price during the year 2003 was around Rs. 3788.87 per sq. Yard. If all the conditions remain the same the average minimum market price of urban residential land in Kolkata is increasing at Rs. 243.88 per yard per annum during the period covered under the study. That means it is expected that the average minimum market price of urban residential land in Kolkata will reach Rs. 5496.03 per sq. yard during 2010. The information regarding the maximum market price of residential land in Kolkata is presented in Table. 3.12.

Table 312: Trends in Average Maximum Market Price of Residential Land in Kolkata

No	**Years**	**X**	**X^2**	**Y**	**XY**
1.	2000	-2.5	6.25	4601.50	-11503.75
2.	2001	-1.5	2.25	4819.29	-7228.94
3.	2002	-0.5	0.25	5125.00	-2562.50
4.	2003	0.5	0.25	5444.29	2722.15
5.	2004	1.5	2.25	5881.43	8822.15
6.	2005	2.5	6.25	6352.86	15882.15
Total		**0.00**	**17.50**	**32224.37**	**6131.26**

Y= a+bx

a= 32224.37/6= 5370.73

b= 6131.26/17.50= 350.36

Then average maximum price during 2003 was around Rs. 5545.91 per sq. Yard. If all the conditions remain the same the average maximum market price of urban residential land in Kolkata is increasing at Rs. 350.36 per annum during the period covered under the study. That means it is expected that the average maximum price of urban residential land in Kolkata will reach Rs. 7998.43 per sq. yard during 2010.

One of the main sources of revenue of the state government is through fixing the land price for the purpose of stamp duties. In order to discourage the tax evasion it is imperative that the price of the land for levy of stamp duty purposes is arrived at considering all the factors mainly location advantages, infrastructure accessibility by the concerned officials like village, officials of the sub Registrar offices, patwaris , etc. A general thinking is that market price of land was always higher than that of the actual recorded or officially recorded price of land. But this is not at all correct especially in the case of West Bengal. Because officials of the concerned authorities recorded the prevailing market value of land take in to account all the possible factors especially the accessibility of infrastructure facilities, location etc. In order to find out the difference between the market price as well as government recorded market price the officials of the Industrial and Economic Planning Division of Town and Country Planning Organization have collected the information regarding the government recorded price of selected localities in

Kolkata from the Offices of Additional Registrar of Assurance-II, Additional District Sub Registrar of Alipore, Kolkata during their visit. In this connection an attempt has been made to compare the market price of land and the government recorded price of land. The officials collected the information regarding 16 selected localities in Kolkata. The information regarding the difference between market price and government recorded price during the year 2005 is presented in Table 3.13.

Table 3.13 Comparison Between the Average Market Price & Government Price of Land

(Rs. Sq. ft)

No	Market price	Government	Difference
1.	6275	18869	12594

Sources: - ***1. Primary Survey, 2006***
2. Office of the Additional Registrar of Assurance-II, Additional District Sub Registrar

It may be observed from Table 3.13 that the government recorded price of land was higher than the market price of land in selected localities of Kolkata during the year 2005. The government recorded higher price in various localities of Kolkata which may be due to the fixing of market value on the basis of the main road and internal road, etc, and not takes into account the condition of inside area of the locality. This has also been questioned by number of property dealers or real estate agents in the city. They opined that only in the state of West Bengal has type of recorded price is prevalent and complained about the problems of other metropolitan cities in and outside the state. In addition they also opined that this

may reduce the level of tax evasion in certain cases. The highest difference between the market price and government recorded price during the year 2005 in selected localities covered under study was observed in Jawaharlal Nehru Road at Rs.27750 per sq. ft and lowest in Alipore at Rs.1747 per sq.ft. In all the localities covered under the study the market price of land was less than the government recorded price during the same period. The information regarding the market price and government recorded price of land in selected localities during the year 2005 is presented in Annexure3.

Commercial Land Prices

In order to examine the realistic picture of urban land in any area, the price of commercial land plays an important role for assessing the land price in the city. Generally commercial areas are located in the central business area of the city or core area, which in turn leads to an exorbitant price of the commercial land. These commercial areas have all types of accessibilities like infrastructure facilities and others. In order to examine the commercial land prices in Kolkata, officials of the Industrial and Economic Planning Division of Town and Country Planning organization collected the information regarding the commercial land prices in 18 selected localities during their visit. The information regarding the commercial land prices in Kolkata during 2000-2005 is presented in Table 3.14.

Table 3.14 Market Price of Commercial Land in Kolkata During 2000-2005.

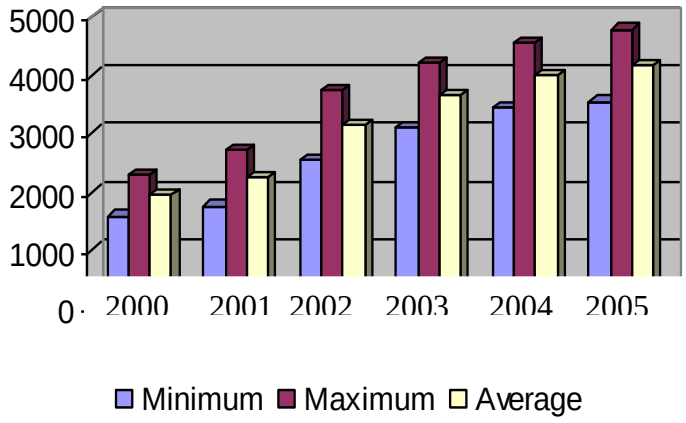
(Rs. per Sq yard)

No	Years	Minimum	Maximum	Average
1.	2000	1573.33	2293.33	1933.33
2.	2001	1746.88	2725.00	2235.94
3.	2002	2549.38	3735.29	3142.34
4.	2003	3086.23	4211.76	3649.00
5.	2004	3447.86	4538.24	3993.05
6.	2005	3541.18	4779.41	4160.30

Source: - Primary Survey.

It may be observed from Table 3.14 that the commercial land price in Kolkata increased from Rs. 1933.33 per sq. yard in 2000 to Rs. 4160.30 per sq. yard in 2005. During the same period the minimum market price of commercial land in Kolkata increased from Rs. 1573.33 per sq. yard to Rs.3541.18 per sq. yard. The difference between the maximum and minimum market price of commercial land in Kolkata was the highest during 2005 and lowest in the initial period in 2000. The average annual percentage growth of market price of commercial land in Kolkata was arrived at 19.2 per cent while the annual percentage growths of minimum and maximum commercial land price were derived at 20.85 and 18.07 per cent respectively. The commercial land price in Kolkata during 2000-05 is depicted in Figure 3.5.

Figure 3.5: Commercial Land Prices in Kolkata 2000-05



The information regarding the growth rate of commercial land prices in Kolkata during 2000-2005 is presented in Table 3.15.

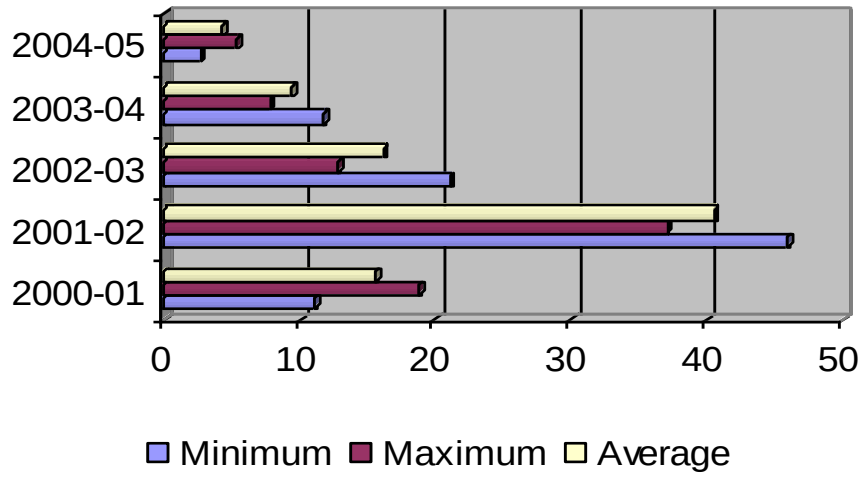
Table 3.15: Growth Rates of Market Price of Commercial Land in Kolkata

No	Years	Growth Rates (Per Cent)		
		Minimum	Maximum	Average
1.	2000-01	11.03	18.82	15.65
2.	2001-02	45.94	37.07	40.54
3.	2002-03	21.06	12.76	16.12
4.	2003-04	11.72	7.75	9.43
5.	2004-05	2.63	5.31	4.19
6.	2000-05	125.06	108.40	115.19

Source: - ***Primary Survey.***

It may be inferred from Table 3.15 that the lowest growth rate of market price of commercial land in Kolkata had been observed during 2004-05 and highest during 2001-02. The highest growth rate of market price of commercial land in Kolkata during initial period covered under the study was due to speculation but at later stage it did not increase as such and reached slightly upward direction. In general, the growth rate of maximum market price of commercial land was slightly less than the minimum market price of commercial land in Kolkata 2000-2005. The information regarding the growth rates of commercial land prices in Kolkata is depicted in Figure 3.6.

Figure 3.6: Growth Rates of Commercial Land Prices in Kolkata 2000-05



The highest minimum market price of commercial land in Kolkata was observed in Shyam Bazar and Ballyganj at Rs. 7000 per sq. yard during 2005 while the lowest at Rs. 300 per sq. yard in Uluberia. This was same in the case of maximum commercial land prices in Kolkata during the same period. The information regarding the market price of commercial land in Kolkata both minimum and maximum during 2000-2005 is presented in Annexure 4.

The highest growth rate of maximum market price of commercial land prices in Kolkata was observed in Uluberia at 58.33 per cent per annum and lowest growth rate of maximum market price of commercial land was recorded in Barasat at 1.19 per cent per annum. However, a good number of localities showed the higher growth rate. The highest growth rate of minimum market price of commercial land in Kolkata was observed at 66.67 per cent per annum in Rajarhat and lowest in Barasat at 0.55 per cent per annum. The information regarding the growth rate of market price of commercial land prices in Kolkata both minimum and maximum during 2000-2005 is presented in Annexure 5.

In order to understand the trends in commercial land prices in Kolkata an attempt has been made by using the technique of Least Square Arithmetic Straight Line Trend. This analysis is useful for predicting the commercial land prices for future if all the conditions remain the same. For this, trend analysis has been made on average market price of commercial land in Kolkata during

2000-2005 (From Table 3.14). The detail is presented in Table 3.16.

Table 3.16: Trends in Average Market Price of Commercial Land in Kolkata

No	Years	X	X^2	Y	XY
1.	2000	-2.5	6.25	1933.33	-4833.33
2.	2001	-1.5	2.25	2235.94	-3353.91
3.	2002	-0.5	0.25	3142.34	-1571.17
4.	2003	0.5	0.25	3649.00	1824.50
5.	2004	1.5	2.25	3993.05	5989.58
6.	2005	2.5	6.25	4160.30	10400.75
Total		**0.00**	**17.50**	**19113.96**	**8456.42**

$Y = a+bx$

Where $a = \sum Y / n$, n means number of observations

$b = \sum XY / \sum (X^2)$

x= means number of years for fitting trends.

a= 19113.96/6 = 3185.66

b= 8456.42/ 17.50 = 483.22

Therefore, average market price of commercial land in Kolkata during 2003 was around Rs. 3427.27 per sq. Yard. If all the conditions remain the same, average market price of urban commercial land in Kolkata is increasing at Rs. 483.22 per yard per annum during the period covered under the study. That means it is expected that the average market price of urban commercial land in Kolkata will reach Rs. 6809.81 per sq. yard during 2010.

Industrial Land Prices

For assessing the real land price scenario of a city the information regarding the land price of industrial area plays a vital role. Development of cities is linked with the development of industrial activities, physical conditions, work, employment opportunities, etc,. Now majority of the heavy and large scale industrial units are set up in the peripheral areas of the city, the government also tries to resettle the age old traditional polluting industrial units from the urban area primarily due to the health related issues and with the development of new satellite towns and various measures, government tries to reduce the size of population especially in the case of mega cities. Majority of our cities have faced multiple and serious problems like lack of all kinds of basic facilities, lack of funds for providing the required level of infrastructure facilities, etc. In Kolkata, the Government of West Bengal tries to convince the dynamic entrepreneurs, companies, internationally renowned institutions to invest in selected industrial pockets where the required level of infrastructure is available at the least cost. In this connection Industrial and Economic Planning Division of Town and Country Planning Organization had collected the information regarding industrial land prices in 13 selected localities of Kolkata during their field visit. The information regarding industrial prices in selected localities of Kolkata during 2000-05 is presented in Table 3.17.

Table 3.17 Market Price of Industrial Land in Kolkata During 2000-2005.

(Rs. per Sq yard)

No	Years	Minimum	Maximum	Average
1.	2000	1166.67	1925.00	1545.84
2.	2001	1175.00	1983.33	1579.17
3.	2002	1353.85	2200.00	1776.93
4.	2003	1500.00	2580.77	2040.39
5.	2004	1630.77	2773.08	2201.93
6.	2005	1876.92	2880.77	2378.85

Source: - Primary Survey.

It may be observed from Table 3.17 that the market price of industrial land in Kolkata increased from Rs.1545.84 per sq. yard in 2000 to Rs. 2378.85 per sq. yard in 2005. The difference between the minimum and maximum market price of industrial land in Kolkata increased from 758.33 in 2000 to 1142.31 in 2004 which however was reduced to 1003.85 in 2005. This indicates the fact that the market price of industrial land has increased at a particular level and it became stable level and may remain so in the near future. The information regarding the growth rate of industrial land prices in Kolkata during 2000-2005 is presented in Table 3.18.

It may be inferred from Table 3.18 that the annual growth rate of market price of industrial land in Kolkata during the period covered under the study was observed at 8.98 per cent. The annual growth rate of market price of minimum industrial land was higher than the maximum during the same period which was observed at

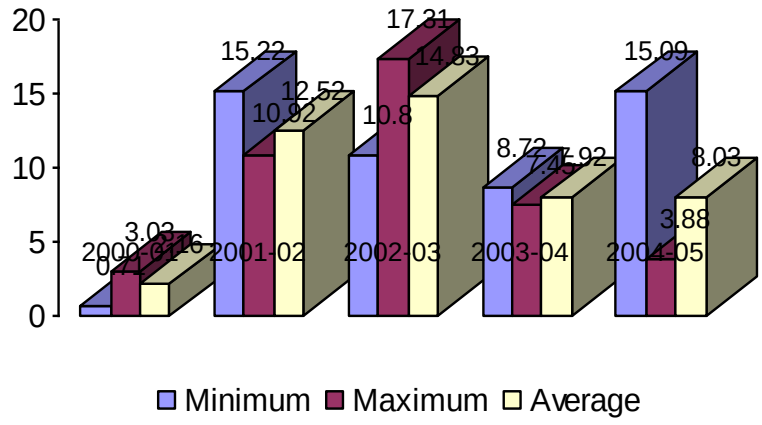
1.86 per cent. The higher growth rate of industrial land price was observed during 2002-03 at 14.83 per cent. The information regarding the growth rate of industrial land prices in Kolkata during 2000-2005 is depicted in Figure 3.7.

Table 3.18: Growth Rates of Market Price of Industrial Land in Kolkata

No	Years	Growth Rates (Per Cent)		
		Minimum	Maximum	Average
1.	2000-01	0.71	3.03	2.16
2.	2001-02	15.22	10.92	12.52
3.	2002-03	10.80	17.31	14.83
4.	2003-04	8.72	7.45	7.92
5.	2004-05	15.09	3.88	8.03
6.	2000-05	60.88	49.65	53.89

Source: - ***Primary Survey.***

Figure 3.7: Growth Rates of Industrial Land Prices in Kolkata 2000-05



The highest minimum and maximum market price of industrial land in Kolkata during 2005 was observed in Kasba locality at Rs. 4000 per sq. yard and Rs. 6000 per sq. yard respectively. The lowest minimum market price of industrial land in Kolkata was recorded at Rs. 500 per sq. yard in Barakpur and Uluberia. The lowest maximum market price was observed in Barakpur at Rs. 750 per sq. yard. The information regarding the market price of industrial land in and around Kolkata both minimum and maximum during 2000-2005 is presented in Annexure 6.

The highest growth rate of minimum market price of industrial land was observed in Champdani at 33.33 per cent per annum during 2000-2005. The lowest growth rate was recorded at 4.16 per cent per annum in Uluberia and Baranipur during the same period. On the other hand the highest growth rate of maximum market price of industrial land during 2000-2005 was observed at 16.67 per cent per annum in two localities namely Champdani and Rajarhat and the lowest growth rate at 3.33 per cent per annum in Mahestala. The information regarding the percentage growth of market price of industrial land in and around Kolkata during 2000-2005 both minimum and maximum is presented in Annexure. 7.

In order to understand the trends in industrial land prices in Kolkata an attempt has been made by using the technique of Least Square Arithmetic Straight Line Trend. This analysis is useful for predicting the industrial land prices for future if all the conditions remain the same. For this, trend analysis has been made on

average market price of industrial land in Kolkata during 2000-2005 (From Table 6.17). The detail is presented in Table 3.19.

Table 3.19: Trends in Average Market Price of Industrial Land in Kolkata

No	Years	X	X^2	Y	XY
1.	2000	-2.5	6.25	1545.84	-3864.60
2.	2001	-1.5	2.25	1579.17	-2368.76
3.	2002	-0.5	0.25	1776.93	-888.47
4.	2003	0.5	0.25	2040.39	1020.20
5.	2004	1.5	2.25	2201.93	3302.90
6.	2005	2.5	6.25	2378.85	5947.13
Total		**0.00**	**17.50**	**11523.11**	**3148.40**

$Y= a+bx$

Where $a= \sum Y/n$, n means number of observations

$b= \sum XY/\sum(X^2)$

x= means number of years for fitting trends.

a= 11523.11/6 = 1920.52

b= 3148.40/ 17.50 = 179.91

Thus, average market price of industrial land in Kolkata during 2003 was around Rs. 2010.48 per sq. Yard. If all the conditions remain the same, average market price of urban industrial land in Kolkata is increasing at Rs. 179.91 per yard per annum during the period covered under the study. That means it is expected that the average market price of urban industrial land in Kolkata will reach at Rs. 3269.85 per sq. yard during 2010.

Rental Scenario in Kolkata

Rental prices in cities are one of the main factors for influencing the urban land prices in urban areas of the world. There is a direct relationship between the rental prices and residential land prices. Due to the development of industries, mainly small and medium industries, urbanization, fast development of tertiary sector especially in information technology and information technology enabled services, various policies introduced by the government from time to time like special economic zones, tourism zones, education zones, industrial growth centers, industrial parks, etc, income of the people in Kolkata increased which had multiplied effects and created a profit hunting rental business among the landlords. Thus, landlords having land at core area in the cities constructed houses and rented them at maximum rate and it became a steadily growing business. The main reason behind the demand for rental housing was the large scale of migration of educated and technically qualified persons from other cities or rural areas, who are not having enough money to afford the exorbitant cost of housing and were compelled to stay in rental houses within the city. A general tendency is that the rental rate is increasing annually. In order to know the rental rates in Kolkata, information was collected from 18 selected localities. The information regarding the rent rates of Kolkata both minimum and maximum during 2000-2005 is presented in Table 3.20.

Table 3.20 Rent Rates in Kolkata During 2000-2005.

(Rs. per Sq ft)

No	Years	Minimum	Maximum	Average
1.	2000	7.53	12.53	10.03
2.	2001	8.82	13.35	11.09
3.	2002	10.44	16.06	13.25
4.	2003	11.11	17.11	14.11
5.	2004	11.39	17.39	14.39
6.	2005	11.67	17.39	14.53

Source: - Primary Survey.

It may be observed from Table 3.20 that the rent rates in Kolkata increased from Rs. 10.03 per sq. ft in 2000 to Rs. 14.53 per sq. ft in 2005 recorded an annual growth rate at 7.48 per cent. The percentage growth of minimum rent rates in Kolkata was higher than the maximum rent rates during the period covered under the study and it increased at 2.7 per cent. During 2003-05 the rent rates in Kolkata was more or less same. The highest minimum rent rate in Kolkata was recorded at Rs 30 per sq. ft in two localities namely Salt Lake and Ballyganj and lowest at Rs 1 per sq. ft in three localities Viz. Champdani, Barasat and Duttapukar during the year 2005. The highest maximum rent rate at Rs.45 per sq. ft was recorded in Salt Lake and lowest at Rs. 2 per sq. ft in three places, Champdani, Barasat and Duttapukur respectively during the year 2005. The information regarding the rent rates in Kolkata both minimum and maximum during 2000-2005 is presented in Annexure 8.

Market Price of Apartments

Population in India is increasing at annual rate of 2.13 per cent as per 2001 census. The increasing population not only needs jobs but also needs housing and other basic amenities. With the inception of economic liberalization during 1990's most of the industries especially medium and small were set up in most of the urban areas in the country. Hence large chunk of educated and technically qualified population is migrating to these cities in search of employment thereby creating a demand for housing in cities. This massive urban population will put great pressure on agricultural land near the developing medium sized cities. Medium and hi-rise buildings are coming up to cope up with rapid urbanization. Land is scarce and need is to build hi-rise buildings in greater number in these cities. Kolkata is also facing the same level of situation.

The advantage of constructing apartment system is that it will be easier to provide network of services, transport, community services, open space and other amenities. Development of construction technology has made vertical expansion in housing more economically viable as a solution for the large chunk of middle income households. The study examines the market price of apartments in 16 localities spread over the city. The information regarding the market price of apartments in Kolkata during 2000-05 is presented in Table 3.21.

Table 3.21: Market Price of Apartments in Kolkata 2000-05.

(Rs. per Sq ft)

No	Years	Minimum	Maximum	Average
1.	2000	696.88	843.75	770.32
2.	2001	731.25	909.38	820.34
3.	2002	760.94	945.31	853.13
4.	2003	767.19	989.06	878.13
5.	2004	798.44	989.06	893.75
6.	2005	804.69	995.31	900.00

Source: - Primary Survey.

It may be observed from Table 3.21 that the market price of apartment in Kolkata increased from Rs. 770.32 per sq. ft in 2000 to Rs. 900 per sq. ft in 2005. The annual growth rate of market price of apartment in Kolkata increased at 2.81 per cent during this period. The annual growth rate of maximum apartment price was little bit higher than the minimum market price of apartment by 0.41 per cent. The highest minimum market price of apartment during the year 2005 was observed at Rs. 1100 per sq. ft in Salt Lake and lowest at Rs. 400 per sq. ft in Barasat. On the other hand the highest maximum market price of apartment was observed in Uluberia at Rs. 1350 per sq. ft and lowest at Rs. 600 per sq. ft in two localities namely Barasat and Champdani respectively. The information regarding the market price of apartment in Kolkata during 2000-05 both minimum and maximum is presented in Annexure 9.

Summing Up & Way Forward 4

With the overall development of the economy increase in land price is inevitable. But, the galloping land prices is detrimental to the investment in housing and other economic activities and effective participation of individual household in such activities is also affected. The main factors influencing increase in the land price in urban areas are overall increase in the level of inflation, rise in the income level of the household or what we can say the rise in the paying capacity, scarcity of developed land, speculation by some sections of the society, black money, existing tax structure of the economy, legal problems, employment avenues for growing labour force, physical as well as geological aspects, development of service sector especially Information technology / information technology enabled services, etc.

Way Forward

Planners decide allocation of the available urbanisable land in town./citiesfor different purposes ie. residence, commerce, education, health, entertainment and so on. In most of the cities in India, main emphasis has been on housing. Space availability for housing is very large as compared to other uses of land. Land use and development policies followed in the past need to be reviewed in view of the changing situation. The current policy is responsible for the high price of space for commercial purposes as against the

price of space for housing. In view of the substantial price difference, some residential spaces are being diverted for commercial uses. This is illegal and needs to be checked. However, the underlying economics cannot be ignored in any future revision of policy.

In view of the above, planning for urban development may consider the following. The scarcity of developed land for urban use and low allocation of land for commercial purpose needs to be considered while allocating land for different uses. Required/ optimal allocation of land for housing and commercial purpose will reduce the price of space in urban areas in general and commercial area in particular. It will help the common man, because he not only consumes housing services but also consumes other services and goods, which are available through shops, offices and so on. Proper land policy needs to be formulated to address the issues in right perspective.

Liberalization, privatization and globalization (LPG) policy of the government initiated during 1990's have also affected Kolkata like other mega cities. The capital city of Kolkata enabling with investment environment for investors, became the destination of multinationals. In addition the movement of educated and technically knowledgeable persons from the rural area or other states or other countries has once again increased the momentum.

This speed up the process of urbanization that was not experienced before.

Land remains the most crucial factor in the developmental activities. The increase in the supply of land for housing purposes would bring down the prices to some realistic level. There are substantial vacant lands in the possession of government departments, educational institutes, charitable institutions and corporate organizations. There is a need to evaluate the requirement of such bodies and bring the surplus land in to the land market to augment the supply of land.

Land is a scarce factor of production and has, therefore, to be used wisely. Considering the ever-increasing population growth and the consequent increasing pressure on land there has to be optimal use of land. This calls for exploring the option for vertical expansion in our cities. This will go a long way in limiting the growth in price of land. In addition, vertical expansion will help to have more open spaces in cities.

There is an urgent need to check the economic concentration of activities in mega cities like Delhi, Mumbai, Kolkata and Chennai. This can be done by decentralizing the concentration of economic activities including governmental functionaries from the cities.

Urban poverty is the area which needs focused attention, significant and widening disparities in income and wealth distribution have pushed the urban poor out of the land market. Capacity building and improving the access to poor to economic and income generation activities is now the major issue to be tackled on the priority basis. Some regulatory mechanism is required to be adopted by the states to neutralize the onslaught of market forces on the availability of affordable shelter to poorer segments of the urban areas.

The main reasons behind the lack of basic amenities in cities relate to the weak performance of the local government, misuse of available funds, excessive interventions, weak monitoring and evaluation mechanism, etc,. This has ultimately lead to dramatic reduction of actual investment in the urban sector. Therefore policy reforms or good urban development schemes are less likely to succeed when governance and public institutions are weak. In this context an effective and ground level policy is needed for the development of urban area through a detailed monitoring and evaluation mechanism.

The Master Plan approach adopted for urban planning lays emphasis more on land use and it is not properly integrated with socio-economic planning. The urban planning should cover all services keeping in view the carrying capacity of existing

infrastructure and level of upgradation/ additions required periodically.

The 74th Constitution Amendment Act is an historic legislation, which emphasizes the importance of people (Local Representatives) involvement in the effective planning programme. The need of the hour is to price the civic amenities rationally taking into operation and maintenance cost. To maintain the quality, efficiency and reduction in cost, it is imperative that an element of competitiveness is slowly brought in to achieve the targeted results.

It was observed during the field survey that extreme land prices are dictated by two peculiar situations namely distress and increasing income of certain sections of the society i.e. posh. Distress land price means the price at which the poor persons are compelled to sell their piece of land due to extreme economic conditions such as the death of income earners in the family, debt and other conditions. On the other hand, posh price quoted in the records as very high which is manipulated by the owner of the land who knows that he has sound financial background. In order to avoid both the extreme conditions the land records should be put in the latest technique of information technology so as to make it transparent.

Comparison between the Average Market Price & Government Price of Residential Land During 2005

(Rs per Sq. ft)

No	Locality	Market Price	Government Price	Difference
1.	Bag Bazar	8250	18900	10650
2.	Jorsanko	5850	16200	10350
3.	Sealdah	6750	27000	20250
4.	Bow Bazar	7000	27000	20000
5.	Park Street	8500	27000	18500
6.	JN Road	8250	36000	27750
7.	AJCB Road	8000	31500	23500
8.	Taltola	5750	19800	14050
9.	Bhawnipur	6500	31248	24748
10	Ballyganj	7500	13752	6252
11	Tollygunj	4250	9999	5749
12	Kalighat	7000	12501	5501
13	Watganj	4250	9999	5749
14	Alipore	5750	7497	1747
15.	New Alipore	6000	17496	11496
16.	Jadavpur	2800	5004	2204

Sources: - ***1. Primary Survey, 2006***
2. Office of the Additional Registrar of Assurance-II, Additional District Sub Registrar

Annexure 4

Commercial Land Prices in Kolkata during 2000-05.

(Rs. per sq. yard)

No	Locality	2000		2001		2002		2003		2004		2005	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1.	Kamarhati	2000	4000	2000	4000	4000	5000	4000	5000	4000	5500	4500	5500
2.	Shyambazar	-	-	6000	7000	6000	7000	7000	8000	7000	8000	7000	8000
3.	Salt Lake	2000	3000	2500	3000	3000	6000	4000	6000	5000	7000	5000	7000
4.	Dum Dum	-	-	-	-	3000	4000	5000	6000	5000	6000	5000	6000
5.	Panihati	1000	2000	1000	2000	2000	3000	2000	3000	2500	3500	2500	3500
6.	Champdani	500	1000	500	1000	800	1200	1200	2000	2000	2200	2000	2250
7.	Rajarhat	300	700	300	1500	500	1500	500	1500	500	1500	1500	2500
8.	Barasat	3000	3500	3000	3500	3000	3500	3000	3500	3000	3500	3100	3750
9.	Duttapukur	1000	2000	1000	2000	1000	2000	1000	2000	1000	2000	2500	3000
10.	Kalyani	1000	2000	1000	2000	2000	3000	2000	3000	3000	3000	3000	3750
11.	Barackpur	1500	2000	1500	2000	2000	3000	2000	3000	2000	3000	2500	3750
12.	Ulubelia	100	200	150	300	200	500	200	600	300	700	300	900
13.	Mahestala	1000	1500	1000	1500	1500	3000	2000	3000	2000	3000	2000	3100
14.	Sonarpur	4000	5000	4000	5000	4000	5000	5000	6000	5000	6000	5000	6500
15.	Baruipur	2000	3000	2000	3000	2000	3000	3500	4000	4000	6000	4000	6500
16.	Budge Budge	300	500	500	800	500	800	600	1000	800	1250	800	1250
17.	Ballyganj	-	-	-	-	6000	7000	7000	8000	7000	8000	7000	8000
18	Kasba	1200	4000	1500	5000	1500	5000	2500	6000	2500	6000	2500	6000

Annexure 5

Growth Rates of Commercial Land Prices in Kolkata during 2000-05.

(Per cent)

No	Locality	2000-01		2001-02		2002-03		2003-04		2004-05		2000-2005	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1.	Kamarhati	0.00	0.00	100.00	25.00	0.00	0.00	0.00	10.00	12.50	0.00	125.00	37.50
2.	Shyambazar	0.00	0.00	0.00	0.00	16.67	14.29	0.00	0.00	0.00	0.00	16.67	14.29
3.	Salt Lake	25.00	0.00	20.00	100.00	33.33	0.00	25.00	16.67	0.00	0.00	150.00	133.33
4.	Dum Dum	0.00	0.00	0.00	0.00	66.67	50.00	0.00	0.00	0.00	0.00	66.67	50.00
5.	Panihati	0.00	0.00	100.00	50.00	0.00	0.00	25.00	16.67	0.00	0.00	150.00	75.00
6.	Champdani	0.00	0.00	60.00	20.00	50.00	66.67	66.67	10.00	0.00	2.27	300.00	125.00
7.	Rajarhat	0.00	114.29	66.67	0.00	0.00	0.00	0.00	0.00	200.00	66.67	400.00	257.14
8.	Barasat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33	7.14	3.33	7.14
9.	Duttapukur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.00	50.00	150.00	50.00
10.	Kalyani	0.00	0.00	100.00	50.00	0.00	0.00	50.00	0.00	0.00	25.00	200.00	87.50
11.	Barackpur	0.00	0.00	33.33	50.00	0.00	0.00	0.00	0.00	25.00	25.00	66.67	87.50
12.	Ulubelia	50.00	50.00	33.33	66.67	0.00	20.00	50.00	16.67	0.00	28.57	200.00	350.00
13.	Mahestala	0.00	0.00	50.00	100.00	33.33	0.00	0.00	0.00	0.00	3.33	100.00	106.67
14.	Sonarpur	0.00	0.00	0.00	0.00	25.00	20.00	0.00	0.00	0.00	8.33	25.00	30.00
15.	Baruipur	0.00	0.00	0.00	0.00	75.00	33.33	14.29	50.00	0.00	8.33	100.00	116.67
16.	Budge Budge	66.67	60.00	0.00	0.00	20.00	25.00	33.33	25.00	0.00	0.00	166.67	150.00
17.	Ballyganj	0.00	0.00	0.00	0.00	16.67	14.29	0.00	0.00	0.00	0.00	16.67	14.29
18	Kasba	25.00	25.00	0.00	0.00	66.67	20.00	0.00	0.00	0.00	0.00	108.33	50.00

Annexure 6

Industrial Land Prices in Kolkata during 2000-05

(Rs. per sq. yard)

No	Locality	2000		2001		2002		2003		2004		2005	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1	Panihati	1500	2000	1500	2000	2000	2500	2000	2500	3000	3500	3000	3500
2	Champdani	500	1000	500	1000	700	1000	1000	1500	1000	2000	1500	2000
3	Rajarhat	500	1000	500	1000	500	1000	500	1000	500	2000	1000	2000
4	Barasat	800	1500	800	1500	1500	2000	1500	2000	1500	2000	1800	2000
5	Duttapukur	500	800	500	800	600	1000	600	1000	800	1000	1000	1500
6	Kalyani	1000	2000	1000	2500	1500	3000	1500	3500	1500	3500	2500	3750
7	Barackpur	300	500	300	500	300	500	400	600	400	600	500	750
8	Ulubelia	400	800	500	1000	500	1000	500	1250	500	1250	500	1250
9	Mahestala	1500	2500	1500	2500	1500	2500	2000	3000	2000	3000	2000	3000
10	Sonarpur	2000	3000	2000	3000	2500	4000	2500	5000	3000	5000	3000	5000
11	Baruipur	2000	4000	2000	4000	2000	4000	2500	5000	2500	5000	2500	5000
12	Budge Budge	-	-	-	-	500	1100	500	1200	500	1200	700	1700
13	Kasba	3000	4000	3000	4000	4000	5000	4000	6000	4000	6000	4000	6000

Annexure 7

Growth Rates of Industrial Land Prices in Kolkata

(Per cent)

No	Locality	2000-01		2001-02		2002-03		2003-04		2004-05		2000-2005	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1	Panihati	0.00	0.00	33.33	25.00	0.00	0.00	50.00	40.00	0.00	0.00	100.00	75.00
2	Champdani	0.00	0.00	40.00	0.00	42.86	50.00	0.00	33.33	50.00	0.00	200.00	100.00
3	Rajarhat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	0.00	100.00	100.00
4	Barasat	0.00	0.00	87.50	33.33	0.00	0.00	0.00	0.00	20.00	0.00	125.00	33.33
5	Duttapukur	0.00	0.00	20.00	25.00	0.00	0.00	33.33	0.00	25.00	50.00	100.00	87.50
6	Kalyani	0.00	25.00	50.00	20.00	0.00	16.67	0.00	0.00	66.67	7.14	150.00	87.50
7	Barackpur	0.00	0.00	0.00	0.00	33.33	20.00	0.00	0.00	25.00	25.00	66.67	50.00
8	Ulubelia	25.00	25.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	25.00	56.25
9	Mahestala	0.00	0.00	0.00	0.00	33.33	20.00	0.00	0.00	0.00	0.00	33.33	20.00
10	Sonarpur	0.00	0.00	25.00	33.33	0.00	25.00	20.00	0.00	0.00	0.00	50.00	66.67
11	Baruipur	0.00	0.00	0.00	0.00	25.00	25.00	0.00	0.00	0.00	0.00	25.00	25.00
12	Budge Budge	0.00	0.00	0.00	0.00	0.00	9.09	0.00	0.00	40.00	41.67	40.00	54.55
13	Kasba	0.00	0.00	33.33	25.00	0.00	20.00	0.00	0.00	0.00	0.00	33.33	50.00

Annexure 8

Rent Rates in Kolkata during 2000-2005

(Rs. per sq. ft)

No	Locality	2000		2001		2002		2003		2004		2005	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1.	Kamarhati	15	20	15	20	20	25	20	25	20	25	20	25
2.	Shyambazar	-	-	-	-	20	35	20	35	20	35	20	35
3.	Salt Lake	25	40	25	40	25	40	30	45	30	45	30	45
4.	Dum Dum	5	10	8	10	8	10	8	10	8	10	8	10
5.	Panihati	5	8	6	8	7	10	7	10	7	10	8	10
6.	Champdani	1	2	1	2	1	2	1	2	1	2	1	2
7.	Rajarhat	1	2	1	2	1	2	2	3	2	3	2	3
8.	Barasat	1	2	1	2	1	2	1	2	1	2	1	2
9.	Duttapukur	1	2	1	2	1	2	1	2	1	2	1	2
10.	Kalyani	3	6	3	6	3	6	4	7	4	7	4	7
11.	Barackpur	1	2	2	4	3	4	3	4	3	4	3	4
12.	Ulubelia	2	4	3	5	3	5	3	5	3	5	3	5
13.	Mahestala	1	2	2	3	2	3	2	3	2	3	2	3
14.	Sonarpur	15	25	15	25	20	30	20	30	25	35	25	35
15.	Baruipur	10	25	15	25	20	40	20	40	20	40	25	40
16.	Budge Budge	2	3	2	3	3	5	3	5	3	5	3	5
17.	Ballyganj	20	30	30	40	30	40	30	40	30	40	30	40
18	Kasba	20	30	20	30	20	30	25	40	25	40	25	40

Annexure 9

Apartment Rates in Kolkata during 2000-2005

(Rs. per sq. ft)

No	Locality	2000		2001		2002		2003		2004		2005	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1.	Kamarhati	700	800	700	800	700	800	800	900	800	900	800	900
2.	Shyambazar	800	1000	1000	1250	1000	1250	1000	1250	1000	1250	1000	1250
3.	Salt Lake	900	1100	900	1100	900	1100	1100	1300	1100	1300	1100	1300
4.	Dum Dum	600	800	600	800	600	800	700	900	700	900	700	900
5.	Panihati	650	700	650	700	650	700	750	800	750	800	750	800
6.	Champdani	300	400	400	500	400	500	400	500	400	500	500	600
7.	Rajarhat	700	800	700	800	700	850	700	850	700	850	700	850
8.	Barasat	400	600	400	600	400	600	400	600	400	600	400	600
9.	Kalyani	600	800	650	900	650	900	650	900	650	900	650	900
10.	Barackpur	800	900	800	900	900	1000	900	1000	900	1000	900	1000
11.	Ulubelia	800	1000	900	1200	1000	1350	1000	1350	1000	1350	1000	1350
12.	Mahestala	700	800	800	900	800	900	800	900	800	900	800	900
13.	Sonarpur	800	1000	900	1200	950	1200	950	1200	950	1200	950	1200
14.	Baruipur	800	1000	800	1000	1025	1275	1025	1275	1025	1275	1025	1275
15.	Budge Budge	600	700	700	800	700	800	700	800	700	800	700	800
16	Kasba	800	1100	800	1100	800	1100	900	1300	900	1300	900	1300