Contents

Preface

Hitherto the normal technique for urban development has been for the developer- whether a municipality or private individual – to build on his land following a planning procedure. Land ownership, sometimes after purchases, has been on such a scale and of such a kind as to facilitate separate development, even where this has not been the best alternative. In the modern urban development, however, this has often been proved difficult to follow. Very often nowadays, the task is to transform and redevelop previously developed areas with the present level of technology and requirement of basic level of amenities. Or again, perhaps neither local authorities nor individual owners have the resource for developing the urban structure in step with population growth. This is a common problem not only in developing countries of the world but industrialized nations also.

The economic decentralization policies initiated during the initial period of 90's and the gradual integration of Indian economy with other developing countries of the world not only provide an opportunity for the reduction of poverty but also exclude some sections of the society. It is this section of society, which finds shelter in slums of the cities. For them it is very difficult to purchase land for residential purpose or are even not in a position to think the same. Government of India has initiated various measures to develop the weaker sections of the society. It has a check on the unwarranted rise in the land values in urban areas through its 20 point programme under Para 10 (C).

The present report on Lucknow is sixth in series after Delhi, Bangalore, Hyderabad, Pune and Thiruvananthapuram. The report presents an introduction of the study, profile of the city, the rich urban heritage of the city, housing scenario, slums and trends and movements of residential, commercial, and industrial land values in the city of Lucknow. The final chapter is devoted to findings and conclusions. It is hoped that the report would be helpful to administrators, policy makers, researchers, academicians, trade and commerce and people at large.

This report on the urban land price scenario of Lucknow is prepared by the Industrial and Economic Planning Division of the Town and Country Planning Organisation under the able guidance of Shri J. S. Negi, Industrial Planner and his fertile working team.

(K.T. Gurumukhi)
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List of Tables

List of Annexures

List of Figures

Introduction 1

As the world entered into a new century, the developing countries are no more content with what the advanced countries would dole out as developmental assistance; these are one and all claiming their rightful place under the sun. No country, not even a low development country, is prepared to accept poverty and anti-growth as facts of life or situations preordained, and are in haste to bridge the growth arrear and attain a reasonable level of economic development. The entire third world including many of the low developed and developing countries, is in fact clamouring for economic growth and to narrow down the arrears in such growth in relatively much shorter time. Many of these countries had many years of poor growth or economic stagnation and now want to bridge the age-old gap in economic growth by energizing a period of accelerated development.

Urbanisation has long been associated with industrialisation, indeed they have been considered synonymous. But manufacturing activities in cities are of relatively recent vintage. Cities evolved originally as market or trading centers and have traditionally been known more for their service sector activities than for industry. The situation is now turning full circle. In contrast to the early days of industrial revolution, when the proportion of employment in the urban service sector usually declined with rapid industrialisation and urbanisation, in the less developed countries today services have intended to expand as fast as industry so that process of urbanisation is a movement of people to both service and industry from the agricultural activities. It is only the service sector that lags

in productivity changes and therefore employs much of the incremental urban labour.

Urbanisation is a natural consequence of economic change that takes place as a country develops. Certain activities are better performed in, indeed require, agglomerations of people while others do not. The location of activities has therefore to be seen in the total context of activities existing in a country and their development in the future. Agglomerations economies are very important for the development of new ones as they enter in the industrialized or manufacturing world. There are also many economies of scale in the provision of urban infrastructure. Service activities such as banking and insurance also exhibit economies of scale. The economic activities thrive in the presence of many other economic activities. Hence agglomeration of economic activities and people, that is urbanization should be seen as positive for over all development. Hence, it should be supported by policy actions. The puzzle of India is that, when industry and overall gross national product grew at unprecedented rates, the rate of growth of urbanization slowed down.

In such a framework, decelerations of urban growth in a developing economy like India is a cause for concern. This could be caused by a deceleration in productivity growth. It is possible that the slow growth in the productivity especially in agricultural sector, except in certain pockets of the economy, is not releasing labour from the rural areas. This may be due to various factors such as introduction of inappropriate technology choice, faulty tariff structure providing greater protection for capital intensive industries, changes in the labour laws from time to time and mainly inadequate investment in the urban infrastructure etc, would inhibit

both tertiary sector growth or industrial sector growth. India with second largest population in the world, also accounts for the second largest urban population while in terms of urbanisation it ranks quite low as compared with other countries.

Since Independence India's population has trebled. The rate of growth of urban population has increased more than 2.6 time during the last three decades from 108 million in 1971 to 285 in 2001. India's decadal growth rate of the urban population has always outpaced by the rise in the total population despite the fact that decadal growth rate of population (1991-2001) was substantially lower than that of the previous decades due to reduction in growth rate of total population. Moreover, increasing investment in big cities since the Independence led to the generation of more and better income and huge employment opportunities. This has further enhanced the trend of migration of people rural to urban in all categories of labour. The migrated population got another powerful stimulus in the form of skill improvement leading to better economic opportunities and higher income.

Due to the large migration from the rural to the urban , among others, led to a wide gap in their incomes. This flux of migrating workforce from the rural to the urban areas also put immense pressure on the already existing limited availability of infrastructural facilities such as electricity, housing, health, drinking water, sanitation , etc,. This ultimately resulted in the negative development of the city, in a haphazard manner. Infrastructural facilities failed to grow pari passu with the growing population. Urbanisation is usually associated with the rapid growth of industrialisation in urban areas and better economic opportunities,

which encourage rural to urban migration to a large extent. The increase in urban population has attracted entrepreneurs both national as well as multinational to invest in urban areas.

After food and cloth, shelter is very important for mankind. Generally people prefer areas which are closer to their workplace and the required basic infrastructural facilities. On the basis of this speculation starts. Moneylenders, real estate people, businessmen, property developers invest huge amount of money for the same and expect a huge return from selling of these plots in future. Moreover they construct houses or multistoried flats as per the requirement of huge sections of the society. The increased demand for housing and the requirement for land for housing and commercial activities in urban areas leads to the development in a haphazard way. With the increasing urban population it was realized by the planners as well as common lay man that horizontal expansion of housing will not only meet the demand for the existing population but also demand for the same growing population in future. Then vertical expansion was the solution due to the steep rise in the prices of urban residential and commercial land and the limited availability of the land.

The rocketing price of the land in urban areas has also caused hardships to the economically weaker sections of the society as they have been compelled to live only in the peripheral areas commonly called as the outskirts or fringe areas of the city. Another casualty of high land prices is the lack of space for basic facilities like hospital, school, college and other educational institutions, play grounds, parks, worship and recreational places, etc,. The existing prime land has either been commercialized or occupied by the high rise apartments, the concept of preferring

master plan came up specifying green belt areas, industrial, commercial, residential areas, etc, in order to have the growth of town in a planned way.

The limited availability of land the more demand for land together have increased the prices of existing land. Thus, only those who have plenty of money in their hand to invest or have higher purchasing capacity could afford to purchase the land. The economically poor sections of the society had compelled to settle on unused public/ private land or in the fringe areas of the city. This had further resulted in the growing problem of slums in cities. In order check the sky rocketing prices of available land in the urban areas Government of India in its Twenty Point Programme under para 10 (c) stressed the need to check the same and also reduce the concentration of urban residential ownership in few private hands and protect the wishes of the all sections of the society. As far as the overall development of the society is concerned, participation of all people is very essential without which it leads to a downward situation. It has also intended to achieve optimum social use of urban land and ensure availability of land sufficient for deserving people at reasonable prices.

The information regarding urban land prices, apartment rates, rent rates both in commercial and residential is very limited and available are not in time series and no specialized agency provide time series data. It may be the absence of a specialized central system/ agency for the collection of market value of urban residential land, apartment rates and rent rates at regular intervals, ignorance of interviewers, lack of training and published the same periodically. Moreover number of institutions involved in the process including Development Authorities, Local Bodies, Housing

Boards, Municipal Corporations, Trusts, Co-operative Housing Agencies, Charitable institutions, Registrar of Co-operative Societies, Registrar of Land Records, etc,. The system of maintenance of the available information of urban land values, apartment rates, rent rates differ not only from state to state but also department to department. In addition to all these, there exists a wide gap between the actual value of urban residential land, apartment rates, rent rates and the institutional prices fixed by the concerned authorities. Due to this the available information on the urban land prices, rent rates and apartment rates also does not reflect the actual existing in the system.

In order to have a true picture of urban residential land prices, rental rates both in commercial as well as residential in urban areas and apartment rates, Town and Country Planning Organisation, a technical wing of the Ministry of Urban Development and Poverty Alleviation, Government of India has taken up a study for metropolitan cities relating to the above mentioned data, its contributory factors causing the sudden changes and suggest appropriate remedial solutions for abrupt changes of the same. Studies for Delhi, Bangalore, Hyderabad, Pune and Thiruvananthpuram have already been completed and brought out in the form of report. The present study deals with the urban residential land prices, apartment rates and rent rates both in commercial as well as residential in the capital of Uttar Pradesh-Lucknow. It also examines various factors causing the sudden changes in the urban residential land values, apartment rates and rent rates in Lucknow.

Lucknow, the capital of Uttar Pradesh State, the twelfth largest Municipal Corporations of India is growing at a phenomenal rate. Its population as per 2001 Census stands at 2207340. The

rapid urbanization and industrial growth both formal and informal sector in and around the city as compared to the metropolitan cities in Uttar Pradesh, has generated increasing demand for land mainly to growing population in residential, commercial and industrial purpose.

Data Collection and Methodology

The Government of India has been conducting decennial census surveys since 1871, which are treated as the backbone of many of the academic and non-academic studies and considered as to be quite reliable in all sense. The census data is readily available throughout the country and with the development of information technology it is available on the finger tips. As the capital city of Uttar Pradesh is concerned the information regarding the same is available. Moreover this research study topic does not look in to small topic but dealt with whole system of research items, the way of collection of primary data from the field dependant on the type of data required. Various survey technical methods that have been used include policy analysis, questionnaire surveys, formal and informal discussions, interviews with the key persons involving in the field of real estate business and property developers/dealers, etc,.

The information regarding the historical background of Lucknow and those concerning the maintenance of rich urban heritage have been collected from the Archaeological Survey of India and Uttar Pradesh Tourism. The data concerning the formal planning and development policies have been culled out from Lucknow Development Authority, Lucknow Municipal Corporation, Uttar Pradesh State Planning Office and other State government Urban Development Departments. Some other requisite

informations have been acquired through desk work statistical data on the extent of physical, economic growth and development. Most of the statistical informations were available with State Economics and Statistic Bureau Office and its district office in some way or other and were brought together bit by bit from different desks.

The primary data mainly on urban residential land values, commercial land values and industrial land values in Lucknow both in minimum and maximum was collected through a pre-tested questionnaire. The questionnaire was prepared after a series of discussions and interviews with the various officials of the Centre, State and Local Governments, academicians, researchers, policy makers, non governmental organizations, property dealers/developers, subject experts in this field etc,. The study examines both maximum and minimum values of urban residential land, commercial land and industrial land by taking into consideration all possible causes mainly locational advantage, proximity to various infrastructural facilities like hospitals, educational institutions, road, water, electricity, and the last but the main cause of speculation among the property dealers. Various statistical techniques have been used to analyze these data such as average, index number, co-relation, time series, trend analysis, etc,. In addition to all these, interviews with the key persons dealing with this topic from all sectors including government and non governmental agencies, regular interaction with local people specialized in this topic have helped significantly to a large extent for gaining a basic insight in this research topic.

Objectives of the Study

The study is based on a certain well-defined objectives, they are:

1. To analyze the historical and socio economic conditions in the city.
2. To examine the existing infrastructural facilities in the city.
3. To explain the various rich urban monuments in Lucknow and analyze the methods adopted by the concerned authorities for preserving the rich heritages in the city.
4. To study the demand for housing in Lucknow and its shortage.
5. To explain the living conditions of slum people in the city and various methods adopted by the agencies for the development of slums.
6. To examine various factors affecting the urban residential land values, commercial land values and industrial land values in Lucknow.
7. To compare the land price fixed by the government agencies and actual market value of land.
8. To provide a base level data mainly for assessment rate schedule for fixing of stamp duty on land transactions and other policy decisions and
9. To recommend strategies for removing the existing bottlenecks in the system.

Structure of the Report

The report is divided into six chapters. The first chapter of the report is introductory and brings out objectives and methodology used. The second chapter entitled as 'Lucknow- An Outlook' clearly explains the historical, demographic, economic profile of the city and narrates the existing infrastructural facilities also. The third chapter analyses the rich urban heritages in

Lucknow and the preservation techniques used by the concerned agencies for maintaining the same without losing any character. The next one explains the demand for housing, housing shortages and the adoption of the new technology in housing which is cost less more durable and successful in the existing weather conditions in the city. The fifth chapter clearly narrates slums and its improvement programmes and other community development programmes for the improvement of the same. The sixth one is the main chapter that highlights the changes in urban residential, industrial and commercial land values during the last half decade in selected localities of Lucknow, its movement, the causes or factors for the changes in the land prices and comparison of the land price fixed by the government agency for fixing the stamp duty and the prevailing market values. The last chapter mainly tries to include all the findings observed, suggest some good remedial solutions and conclusions drawn.

Lucknow- An Outlook 2

Lucknow is located in the central region of Uttar Pradesh and the Capital of the biggest populated states in India. It is located between 26^0 30^0 and 27^0 10^0 in the north latitude and 80^0 30^0 and 81^0 31^0east longitude. The main urban areas of Lucknow are situated on the southern part of the river Gomti. Three National Highways and other five Provincial Highways serve the region of Lucknow. Kanpur and Lucknow are separated only by 80 kms. Lucknow Kanpur area has become an area of intense interaction reflected by changes in land use, mushroomed development in all sectors of the economy.

Historical

The Lord Lakshmana founded the town, which eventually grew in to Lucknow and a mound on the south bank of the river in the western part of the city bears the name, Lachmantila. The sheikhs who held Lucknow in the 13th Century developed the area between present day Machhi Bhavan and Residency. At the site of Machhi Bhavan they built a fort called Quila Lakhna. During the Tughlak and Lodhi period ie. the end of the 15th century, haphazard development took place around the south of the Quila.

The area in an around the Quila received prominence during the Moghul period. During the Akbar's reign several mohallas were added to the south of Quila. A monument of this period is the Akbari Darwaza built by the Subedar of Auadh, Jawahar Khan. At the same time, Shaikh Rahim developed the area to the east of the Quila. His tomb today stands in as Nadan Mahal. During the Shajahan's rule Mohammed Arif was the Subedar of Auadh. Development took place in Asharfabad to the south of the Quila.

Towards the end of the Moghul period especially in the regime of Aurangajeb, the development took place in a great extent in the present day Alam Nagar to the west of the Quila. According to the architectures view, the buildings of this period are the specimens of the Indo-Islamic architecture.

Lucknow grew at a rapid rate under the patronage of the Nawabs. Sadat Khan, the first Nawab commonly called for the expansion of some mohallas. The major contribution to the development of Lucknow was made by the Nawab Asaf-Ud-Daulah. During his reign significant number of mohallas were added to the western part of the Quila. These are Aishbagh, Charbagh, Tahiyaganj, Wazirganj, Amaniganj, Fatehganj, Rakabganj, Daulatganj, Begumganj and the Nakkhas, Prominent places built by the Nawab Asaf-Ud-Daulah are the Bara, Imambara, Romi Darwaza, Bibiapur palace and the Residency.

The architecture of this period shows the sign of European influence. The responsibility of this lies with Major General Claude Martin who advised these Nawabs on military matters. During the pre independence war period rapid development of the city took place especially in the central and western part.

Saadat Ali Khan developed the area between Dilkush and Kaisarbagh. Significant number of mohallas in the south as well as western parts of the city were developed by him. Some of them are Saadatganj, Mohiganj, moghulganj, etc. Like-wise the prominent monuments developed during this period are Hyat Buksh, Nur Buksh, Beily Guard, Tekri Kothi, Lal Bara dan, Dilkusha Palace, Khurshed Manzil, etc,.

Next phase development of the city of Lucknow was during the reign of Gazi-Ud-Din Haidefr and Nazir-Ud-Din Haider. The important monuments constructed during the period are along the banks of the river Gomti, namely Chattar Manzil, Moti Mahal. Ganesh is the prominent mohalla during this period. Hazrat Ganj, Hussain Ganj and kaisar Bagh were developed in the later period. The three rulers of the Shah Dynasty developed these areas. Iron Bridge, Kanpur Road, Chotta Immambara and Jama Masjid and Aminbad Bazar are the other important development works undertaken during this dynasty. Moreover the architecture during the period was treated as the distinct blend of the Indo-Islamic and European designs.

After 1847 Lucknow was under the hands of the British rule. For over all development of Lucknow a master plan was prepared by the Brigadier General of the British Army, Robert Napier. This plan was treated as the first master plan of Lucknow for overall development. This British Military Plan had Machhi Bavan as the nodal point from which three roads, 150 feet wide radiated. This road led to Talkatora in the south, Mosa Bagh in west and Char Bagh in the southeast part of Lucknow. In 1915 Patrich Geddes chalked out the schemes for the development of the city especially giving the importance to housing, communication, landscaping, basic infrastructure for the requirement of people in Lucknow. In 1930, Nazul land was occupied for the construction of houses for the Britishers living in Lucknow. The well known posh areas of Lucknow, are Hazrat Ganj, Blunt Square, Lawrence Terrace, Harlock Road, and Crompton square.

The present growth of the city of Lucknow was limited on manifolds: on the north west due to water logged reservoirs, south and south east by the pressure of considerable big areas of use and undefined development. Therefore, the future of development of Lucknow city is towards only northern part of the city. Sitapur and Faizabad roads and Sitapur roads on the southern sides and Kanpur road sides are also given vital attention by the physical planners for developing the city of Lucknow for future.

Demographic Features

Urbanization takes place when the major economic activity of the particular area moves from primary agricultural sector to a secondary called industrial sector and tertiary / service sectors. The primary agricultural activities mainly concentrate on labour intensive techniques and major activities are not in a spatial manner. While on the other hand, the secondary and tertiary activities are mainly adopting capital intensive techniques and activities are concentrated for attaining optimum level of development. Therefore, the elasticity of substitution between land and non-land factors mainly labour, capital and entrepreneurs in industrial sector and service sector is greater than that in agricultural sector, a greater use of capital and labour per unit of land is available in secondary and tertiary sectors. As the development proceeds income automatically increases the relative demand for service sectors and non-food items increasing while that of food items is more or less same or decreasing in a small proportionate manner. At the same time, the use of high yielding variety of seeds, chemicals, fertilizers, pesticides and most modern techniques in agriculture sector specially in water harvesting, minor irrigation programmes has increased the agricultural productivity with the use of less level of labour. Thus, more amount of labour is

available in the rural market called as surplus labour by various development economists. Automatically this surplus labour has not found any jobs in the rural sectors and thus moves towards urban sectors for finding jobs. Commonly this labour shifts from the agricultural sector to the non-food and service sectors. Therefore, these non-food and service sectors become urban areas of the region.

The age-old traditional characteristics of an urban area are population above the sizeable limit commonly called as high density of population and the importance of non agricultural activities and service activities. In this area, the industry and tertiary activity are growing at a faster rate, because they exhibit economies of scale and its prevalence needs a spatially concentrated work force mainly skilled and technologically fitted personnel. The increasing work force along with its dependents needs huge increasing number of activities especially in service sector and people also need service to its needs, as do the industrial activities themselves. Thus, population starts to a snowball as more and more people and business and other organizational set up move into the area to meet the existing requirements. The combination of economies of scale the multiplier effects, transportation needs, housing and comparatively higher no land substitution, the elasticity in the secondary and service sector produces the agglomeration of people and economic activity. Thus, on this basis the city develops.

The increasing number of cities in the developing countries offer number of employment opportunities not only for skilled and technologically efficient persons but also for there own family members. The concentration of the skilled and technically fitted

jobs attract the more skilled and educationally well versed persons from smaller cities and other states also. This in turn generates more employment opportunities, better communication, transportation, housing, water, sewerage system, and education, hospital system all of which make it possible for the cities to grow. According to the Census of India the population of India in 1991 was 846.3 million, more than 16 per cent of the total world population. The population in India as per 2001 Census exceeds 1027 million. It means that India's population is growing at an annual rate of 2.1 per cent i.e. an annual addition of existing population of nearly 18.1 million. This alarming growth of population directly affects the increasing demand for basic requirements of the existing system. More over, this growth of population reduces the supply of investigatable surplus for investment.

As population increases the demand for housing, education, medical facilities, transportation, drinking water, etc, increases simultaneously. As far as India is concerned we don't have the capacity to mobilize the required level of resources to meet the enhanced demand for consumption of goods and the required level of basic infrastructures, owing to social as well as biological factors has a multiplier effect with serious social and economic consequences. Population has thus tended to remain an endemic problem to us, Presently the process of modernization and industrialization are developing side by side. Moreover the economy is moving in a faster rate of economic growth especially after opening of economic liberalization programmes. Table 2.1 presents the population of India and Uttar Pradesh during the last half-century.

Table 2.1 Populations of India and Uttar Pradesh 1951-2001

(million)

No	Years	India	Uttar Pradesh	Per Cent
1	1951	361.09	63.22	17.51
2	1961	439.23	73.75	16.79
3	1971	548.16	88.36	16.12
4	1981	685.18	110.86	16.18
5	1991	846.30	139.11	16.44
6	2001	1027.02	166.05	16.17

Sources:- ***1. Census of India Various Issues***

2. Urban Statistics, TCPO, 2002.

It may be observed from the Table 2.1 that the annual growth of population of India was higher than that of Uttar Pradesh by 0.44 per cent during the last half century. The absolute growth of population of India was also higher than that of Uttar Pradesh during the same period by 1.22 times. The population of Uttar Pradesh has increased from 63.22 million in 1951 to 166.05 million in 2001 showing an annual growth of 3.25 per cent. The percentage share of Uttar Pradesh population to Indian total population was more or less same during the period covered under the study on an average of 16 -17 per cent. The slightly less annual growth rate of population in Uttar Pradesh may be due to partition of certain areas of Uttar Pradesh in to and other state, namely, Uttranchal in recent times. Moreover, the slow rate of growth of population in Uttar Pradesh may be due to low level of birth rate, high level of migration of skilled and semi-skilled and educationally and technically fitted personnels to urban metro cities in India. The urban and rural classification of population in Uttar Pradesh and India during the last fifty years is presented in the following table.

Table 2.2 Rural and Urban Classification of Population in India and Uttar Pradesh – 1951-2001.

No.	Years	India			Uttar Pradesh		
		Rural	Urban	Total	Rural	Urban	Total
1.	1951	298.99 (82.8)	62.10 (17.2)	361.09	54.59 (86.4)	8.63 (13.6)	63.22
2.	1961	361.07 (82.2)	78.16 (17.8)	439.23	64.27 (87.1)	9.48 (12.9)	73.75
3.	1971	440.34 (80.3)	107.82 (19.7)	548.16	76.00 (86.0)	12.36 (14.0)	88.36
4.	1981	525.78 (76.7)	159.46 (23.3)	685.18	90.96 (82.0)	19.90 (18.0)	110.86
5.	1991	628.70 (74.3)	217.61 (25.7)	846.30	111.51 (80.2)	27.60 (19.8)	139.11
6	2001	741.66 (72.2)	285.36 (27.8)	1027.02	131.54 (79.2)	34.51 (20.8)	166.05

Sources: ***1. Census of India Various Issues***
2. Urban Statistics, TCPO, 2002.

Note: ***Figures in parenthesis relate percentage to totals.***

It may be inferred from Table 2.2 that near about four fifth of the total population of Uttar Pradesh is still living in rural sector for livelihood. Uttar Pradesh is still lacking the basic facilities and is treated as the agrarian economy. The process of urbanization took place in Uttar Pradesh during the last two decades. Before that, the level of development in state was very slow. This may be due to the low level of literacy, low level of infrstructure facilities basically in key sectors, slow migration of people as compared with other states in the Indian Union etc,. The growth rate of population in India and Uttar Pradesh and rural and urban growth rate of

population of the same is presented in table 2.3 and 2.4 respectively.

Table 2.3 Decadal Growth Rates of Population in India and Uttar Pradesh 1951-2001

(Per cent)

No	Years	India	Uttar Pradesh
1	1961	21.63	16.66
2	1971	24.80	19.81
3	1981	25.00	25.46
4	1991	23.52	25.48
5	2001	21.35	19.37

Source: Census of India Various Issues

Table 2.4 Rural and Urban Growth Rates of Population of India & Uttar Pradesh- Absolute & Decadal

No	Growths	1961	1971	1981	1991	2001
1	India					
	a. Absolute (million)					
	1.Rural	62.08	79.27	85.44	102.92	112.96
	2.Urban	16.06	29.66	51.64	58.15	67.75
	3.Total	78.14	108.93	137.08	161.07	180.71
	b. Decadal (%)					
	1. Rural	20.76	21.95	19.40	19.57	17.97
	2. Urban	25.86	37.95	47.90	36.47	31.13
	3. Total	21.63	24.80	25.00	23.52	21.35
2	Uttar Pradesh					
	a. Absolute (million)					
	1.Rural	9.68	11.73	14.96	20.55	20.03
	2.Urban	0.85	2.88	7.54	7.70	6.91
	3.Total	10.53	14.61	22.50	28.25	26.94
	b. Decadal (%)					
	1. Rural	17.73	18.25	23.28	22.60	17.96
	2. Urban	9.85	30.38	61.00	38.69	25.04
	3. Total	16.66	19.81	25.46	25.48	19.37

Source:- Census of India, Various Issues

The population of India and Uttar Pradesh during the last half-century and absolute growth of the same is depicted in Figure 2.1 and Figure 2.2 respectively.

Figure 2.1 Population of India & Uttar Pradesh –1951-2001(million)

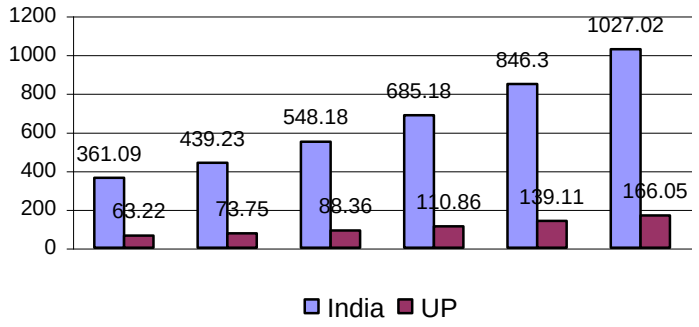
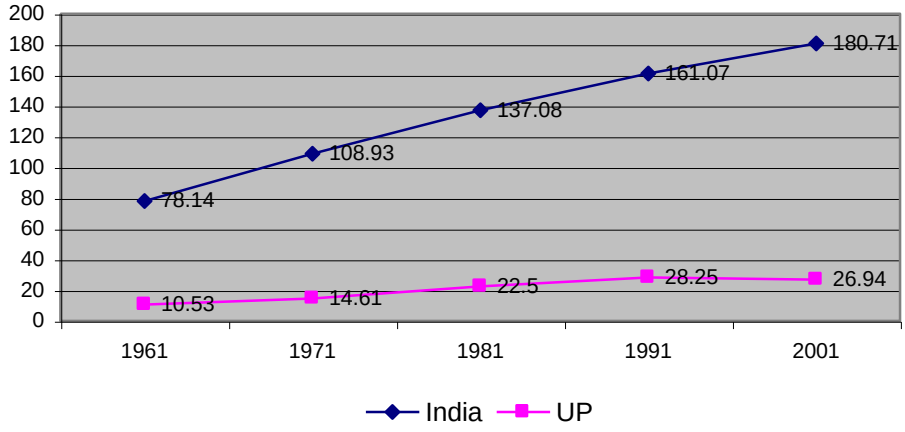


Figure 2.2 Absolute Growth of Population India & Uttar Pradesh 1951- 2001 (Million)



It may be shown from the Table 2.4 that the annual growth of population of Uttar Pradesh during 1991-2001 was lesser than that of nation by 1.98 per cent. During the same period rate of growth of population of urban area of India was higher than that of Uttar Pradesh by 6.09 per cent. The high difference between the national urban growth of population and Uttar Pradesh may be due to social

conservative set up existing in the rural areas of Uttar Pradesh, slow pace of literacy especially in rural areas and women in the state, slow growth of development of all the basic facilities as compared with other states in the Indian Union and majority of them are inadequate, etc,. Moreover the flow of rural population of Uttar Pradesh to urban areas in the state as well as other urban areas of India showed a very negligible level may be due to comparatively less development of education as well as technological development. In Uttar Pradesh urban growth of population showed the highest per cent during the year 1981-91 at 61 per cent and lowest at 9.85 per cent 1951-61. The growth rate of population of India was always higher than 20 per cent during the last half century covered under the study. While the growth rate of urban population in Uttar Pradesh was more than 20 per cent during1971-81 and 1981-91 respectively. The detail of urban population of Uttar Pradesh and Lucknow (UA) during the half century is presented in the following Table.

Table 2.5 Urban Population of UP & Lucknow (UA)

(million)

No	Years	Uttar Pradesh	Lucknow (UA)	% of Column 4 to 3
1	1951	8.63	0.497	5.76
2	1961	9.48	0.656	6.92
3	1971	12.36	0.814	6.59
4	1981	19.90	1.008	5.07
5	1991	27.60	1.669	6.05
6	2001	34.51	2.267	6.57

Source:- Census of India various Issues

It may be inferred from the Table 2.5 that only 6.57 per cent of the urban population of Uttar Pradesh state is living in Lucknow city during the year 2001. The Lucknow (UA) population increased from 0.497 million in 1951 to 2.267 million in 2001, increased 4.56

times (456 per cent) during the last fifty years. The growth rate of population Lucknow (UA) was at 7.12 per cent per annum. While urban population growth of Uttar Pradesh State was at 6 per cent during the period covered under the study. This shows Lucknow (UA) population growth outweighs that of urban Uttar Pradesh. It may be due to the seat of the head of the Government, the presence of adequate number of educational as well as medical institutions in Lucknow, large number of small as well as informal industries in Lucknow. The growth rate of urban population of Uttar Pradesh as well as that of Lucknow (UA) is presented in the following Table.

Table 2.6 Growth Rates of Urban Population of UP & Lucknow (UA)

No	Years	Urban UP	Lucknow (UA)
1	1951-61	9.85	32.00
2	1961-71	30.38	24.09
3	1971-81	61.00	23.83
4	1981-91	38.69	65.58
5	1991-2001	25.04	35.83

Source:- Census of India various Issues.

It may be inferred from Table 2.6 that highest growth rate of population in Lucknow was observed during the year1981-91 at 65.58 per cent. While lowest growth rate was observed during the year 1971-81 at 23.83 per cent.

As per 2001 census, Lucknow stands 12th position in terms of population of the metropolitan cities in India. As compared with Lucknow's population, Kanpur the other metro in Uttar Pradesh showed the higher number of population at 2532138. The other metros in the State of Uttar Pradesh are Agra, Varanasi, and Meerut. The population of other metros in Uttar Pradesh as per the Census of 2001 is presented in Table 2.7.

Table 2.7 Population of Metros in Uttar Pradesh – 2001

No.	Metros	Population	% of U.P. Urban Population
1.	Kanpur	2532138	13.63
2.	Lucknow	2266933	6.57
3.	Agra	1259979	3.65
4.	Varanasi	1100748	3.19
5.	Meerut	1074229	3.11

Source: Urban Statistics, TCPO, 2002.

It may be inferred from Table 2.7 that 14 per cent of the total urban population of Uttar Pradesh exists in Kanpur, one of the industrial cities of India. Moreover the state government's industrial head quarter is also in the same place. While Lucknow the capital of Uttar Pradesh being biggest state population-wise occupies only 6.57 per cent of the total urban population of the state. The other metros in the state namely Agra, Varanasi and Meerut have become the status metro only in 2001. The contribution of these metros constitutes only a negligible level at 3.65, 3.19 and 3.11 per cent respectively. Demographic features of Lucknow (UA) is presented in Table 2.8

Table 2.8 Demographic Features of Lucknow(UA) –1991-2001

No	Details	1991	2001
1	Population		
	a. Male	892308	1199273
	b. Female	776896	1067660
	c. Total	1669204	2266933
2	Sex Ratio	871	890
3	Area (Sq. km)	337.50	337.50
4	Density of population	4946	6717

Source: Census of India, 1991 & 2001.

It may be inferred from Table 2.8 that density of population of Lucknow (UA) has increased 35.8 per cent during the last decade. Some positive trends in the sex ratio that is an increased level from 871 to 890 during the same period covered under the study. The information regarding the population of Lucknow UA during the last century is presented in Table 2.9 and the same is depicted in Figure 2.3.

Table 2.9 Population of Lucknow (UA) –1901-2001

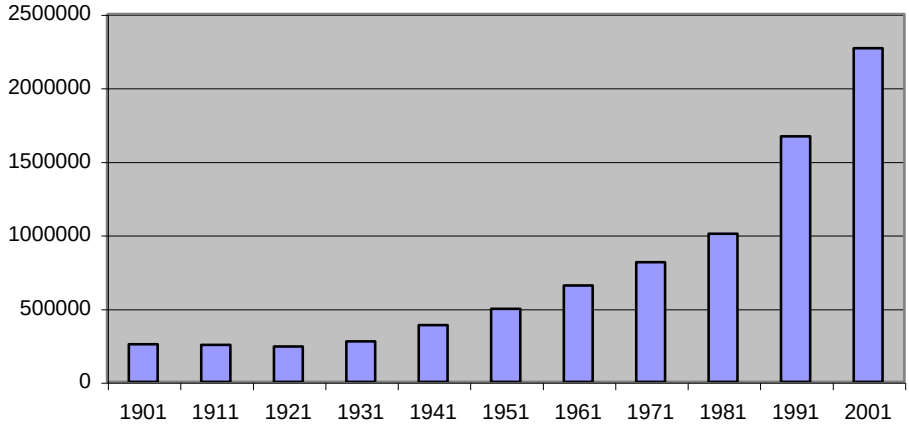
No	Years	Population
1	1901	256239
2	1911	252114
3	1921	240566
4	1931	274659
5	1941	387177
6	1951	496177
7	1961	655673
8	1971	813982
9	1981	1007604
10	1991	1669204
11	2001	2266933

Source: Towns & Urban Agglomerations, Census of India

Economic Features

Every country wants to do better for itself and its people for attaining higher economic growth. The fundamental to the achievement of the above said aspirations lies in achieving economic development. Growth with structural changes is called economic development. That means that economic development is a process where the real per capita income of a country increased

Figure 2.3 Population of Lucknow (UA) 1901-2001.



over a period of time and distributive justice is secured by introducing necessary social, economic cultural and institutional changes and by making the optimum use of available resources. The need for economic growth is fundamental to the aspirations of the development of a country, irrespective of the status of governments, socio – economic conditions, basic difference in approach and attitude of developed, developing and under-developed economies of the world. Majority of the advanced countries try to maintain their development and also to accelerate their rate of growth simultaneously with other developed countries of the world. On the other hand, for under-developed economies it is the matter of survival and a question bridging or dismantling the hurdles to growths. In the case of the developing countries of the world, the main aim is to attain economic growth with a higher rate, in a limited short time-span and also to achieve good welfare objectives of the people as well as the world-class infrastructure facilities.

Uttar Pradesh has the highest number of persons in the country and treated as first rank population-wise as per the census

of India. It has a multi pronged character. There is well-developed, well-linked world-class infrastructural facilities available in selected urban areas of the state. On the contrary, the rural areas of the state are facing number of problems such as absence of basic infrastructure, hospitals, educational institutes, tele-communication facilities, drinking water, sewerage, housing, etc.

Lucknow is the capital of Uttar Pradesh – the highest populated state in India. It has a good percentage of literate workforce, high quality of life index, good communication network, and with the implementation of latest industrial policy to facilitate foreign direct investment, foreign technology transfer, equity participation, and offshore sourcing making an excellent investment place in Uttar Pradesh especially in information technology. Electronics, tourism especially in religious places, floriculture, agro-based industries, herbal product manufacturing are also stated to be doing well in and around Lucknow. Health care facilities based on latest most modern allopathic, homeopathic and traditional Ayurvedic, Unani lines can also be ideally located in this Lucknow because of its geography, well educated health conscious people and well linked transportation facilities like rail, road and air. The importance of readymade cloth materials especially in cotton items called “chicken embroidery” has attracted both domestic as well as foreign investment, creation of a management culture and maintenance of cordial relations between employees and employers. These measures will definitely boost the economic progress through out Uttar Pradesh especially in Lucknow being the capital of Uttar Pradesh.

For analyzing the economic status of any economy work participation rate plays a vital role. It gives a clear idea about the

number of people engaged in various jobs for lively hood called as main workers, number of people engaged in various activities less than 180 days in an year is called as marginal workers by the Census of India and number of people not engaged in any type of work, parasite, known as non workers. Non-workers mainly consist of children below 14 years of age and old age people. The information regarding the work participation rate of urban India, urban Uttar Pradesh, Lucknow UA, and Lucknow district during the year 1991 is presented in Table 2.10

Table 2.10 Work Participation Rate - Urban 1991

(Per cent)

No	Place	Main Workers	Marginal Workers	Non-Workers
1	India	29.5	0.7	69.8
2	Uttar Pradesh	26.6	0.6	72.8
3	Lucknow District	28.7	0.9	70.4
4	Lucknow (UA)	26.5	0.1	73.4

Source:- Census of India, 1991.

It may be observed from Table 2.10 that more than 70 per cent of the urban population in India as per the 1991 census was under the category of non-workers. The main workers have higher dependency burden for taking care of their kids as well as their old age parents. While in Uttar Pradesh and Lucknow UA non workers group constitutes more than the national by 2 per cent and 3.6 per cent respectively. Major proportion of non workers category comprising the children in the age group of less than 14 years of age and the remaining few percentage from the category of old persons. The invention and the innovation of most modern

technologies in the field of medicine have attributed the higher level of life expectancy especially in the urban population. Moreover the development of education has directly affected the development of health sector and people are more aware about their diseases and its causes and its first aids. The reason behind the large proportion of non-workers category may be due to the large level of unemployment. In the global scenario jobs are available in some selected areas only. The available jobs are only for highly specialized personnel. After securing a decent level of education majority of Indian youths want white-collar employment. They are not interested for blue-collar jobs. Thus, this has resulted in enormous increase in the category of non-workers group in recent times. On an average less than 1 per cent of the people in Urban India and Urban Uttar Pradesh were involved in marginal work for livelihood. This group constitutes 0.9 per cent in Lucknow district while in Lucknow UA it was only 0.1 per cent. The work participation rate of Urban India, Uttar Pradesh, Lucknow district and Lucknow UA is depicted in the Figure 2.4.

Figure 2.4 Work Participation Rate India, UP& Lucknow

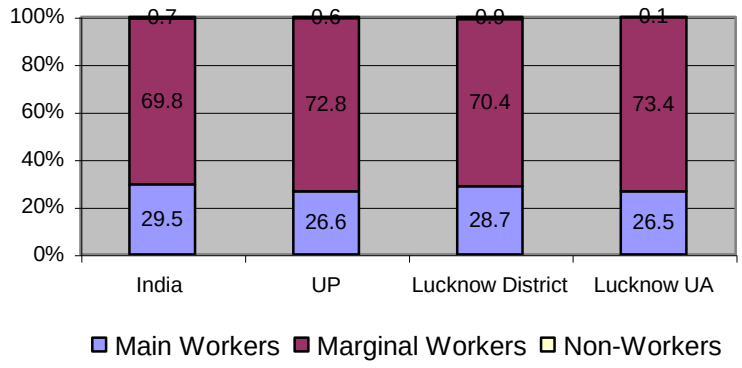


Table 2.11 Employment & Occupational Structure – Urban Uttar Pradesh and Lucknow-1991

No	Category	Urban UP		Lucknow Dt.		Lucknow UA	
		No	%	No	%	No	%
1	a. Cultivators	590904	8.0	235538	29.7	11034	2.5
	b. Agriculture Labour	527257	7.2	68893	8.7	11205	2.5
	c. Livestock, forestry, fishery, hunting & plantations	101006	1.4	12184	1.5	9593	2.2
	d. Mining &Quarrying	5159	0.1	463	0.1	376	0.1
	Agricultural sector	**1224326**	**16.7**	**317078**	**40.0**	**32208**	**7.3**
2	a. Manufacturing, Processing, Servicing and repairs in HH industry	383972	5.2	16673	2.1	12194	2.7
	b. Manufacturing, Processing, Servicing and repairs other than HH industry	1263166	17.3	67427	8.5	59315	13.5
	c. Construction	251825	3.4	26849	3.4	22123	5.0
	Industrial Sector	**1898963**	**25.9**	**110949**	**14.0**	**93632**	**21.2**
3	a. Trade & Commerce	1691043	23.1	112662	14.2	102043	23.1
	b. Transport, Storage &Communication	474359	6.5	38288	4.9	34766	7.8
	C Other Service	2044319	27.8	213251	26.9	179801	40.6
	Service Sector	**4209721**	**57.4**	**364201**	**46.0**	**316610**	**71.5**
4	**Main Workers**	**7333010**	**100.0**	**792228**	**100.0**	**442450**	**100.0**

Source:- Census of India, 1991.

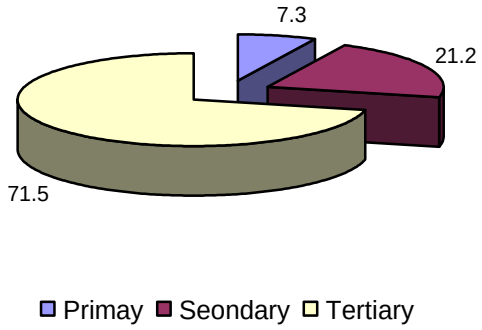
The detail of employment and occupational structure of Urban Uttar Pradesh, Lucknow district and Lucknow UA is presented in above Table 2.11. It may be inferred from Table 2.11 that 17 per cent of the population of Urban Uttar Pradesh is mainly involved in primary sector for livelihood as per

the 1991 census. While it was very high in Lucknow district at 40 per cent. In Lucknow UA, only 7 per cent of the workers were involved in agricultural sector for livelihood, 21 per cent of them in industrial sector and remaining large percentage in service sector. Of this, trade and commerce and other services play a vital role for providing employment to the large section of the working groups, being 89 per cent.

In urban Uttar Pradesh 57 per cent of the workers were involved in the tertiary sector, while 46 per cent of the Lucknow district workers were engaged in service sector. The contribution of workers involved in industrial sector of urban Uttar Pradesh was higher than that of Lucknow UA at 4.7 per cent may be due to large level of industrial units exists in other urban parts of Uttar Pradesh especially in Kanpur, Meerut, Agra, Ghaziabad, Greater Noida, Varanasi, etc,. The participation of construction workers in Lucknow UA was higher than the Lucknow district as well as urban Uttar Pradesh. This clearly indicate the fact that Lucknow UA is growing at a very fast rate than the other areas. This will in turn reflect the potential of growing the economy especially in multiplier affects. Commonly treated, as the development through the construction sector is employment oriented one, which provides employment to semi skilled and unskilled workers especially those who migrated from the remote rural areas for job. But this is one industry in academic term having no permanent place of work, after the completion of the work the employees of the construction industry have no right, majority of the labour laws are not possible. The major portion of the workers in the industrial sector were involved in manufacturing, processing, servicing in repairs other than household industry. This is same in all the areas covered under the study. Thus, Urban Uttar Pradesh had 7333010 main workers

covering all the main three sectors namely primary, secondary and tertiary. This was same as 792228 and 442450 in the case of Lucknow district and Lucknow UA respectively. The sector-wise workers in Lucknow as per the 1991 census is depicted in the figure 2.5.

Figure 2.5 Sector-wise Workers in Lucknow UA.



India is in the midst of the most significant over all economic policies undertaken since 1950, when most of the para meters of economic as well as social policy were last set. Since the current set of policy reforms do not enjoy any consensus that seemed to have been the basis of economic policy set in 1950s, it is important to understand the evolution of economic policy over the last five and half decades. Moreover, Indian policies were consistent with the main stream of economic and political thought that then dominated the entire system. The external influences especially when deciding the policy were at least as great as they are now and perhaps there was then a much better openness in accepting the varieties of influences. Industrial policy corrections began successfully in the 1980s, the fiscal excesses and the macro economic mismanagement of the 1980s brought us to past that we

found ourselves at the end of the decade. However, what seemed like the beginning of a decade in crisis may now become the decade of new opportunity for the Indian industry and for the whole economy.

The challenges posed by the fast changing world of industrial production and industrial technology requires a much more dynamic government system, which is predominantly concerned with promotion rather than regulation of industrial development. The demand for a continuing increase in industrial policy, the demand for innovation, the necessity of expanding industrial employment in a vastly accelerated manner and the competitive imperatives for survival in today's industrial world means that Indian industry has to be helped rather than thwarted in its attempts to keep up with all such demands.

Governmental intervention in industry has to be far more knowledge based than it has been. Similarly, the governmental activity in terms of provisions of essential and basic infrastructure must be much more purposive and directed than it has been in the past. Industrial firms, whether it is in the private or governmental sector require for greater roof of maneuver than they have had. The government has to help in creating more supportive environment for industry to prosper and develop in the nation's interest. The future direction of industrial development has to be based far more on an understanding of the incentive effects of the whole tariff and excise structure, monetary and fiscal policy of the government investment policies. A medium or long time reform in all these areas has become very essential. It must be understood that such reforms cannot be carried out in our customary piecemeal fashion. They have to be accomplished in an organized and well-

defined plan manner and phased systematically over the coming years. At present government possess much more knowledge-based machinery to accomplish such reforms more effectively. In Lucknow district one industrial institute exists. The facilities provided by the industrial institute in Lucknow during 2000-03 is presented in Table 2.12.

Table 2.12 Industrial Facilities in Lucknow District During 2000-03.

No	Details	2000-01	2001-02	2002-03
1	No.of Industrial Institute	1	1	1
2.	No. of Industrial Sheds			
	a. Allotted	31	31	31
	b. Working	23	23	23
3.	No. of Industrial Plots			
	a. Allotted	130	130	130
	b. Working	103	103	103
4.	Average Workers Engaged	2005	2012	2016
5.	Output (Rs. in Lakh)	198.30	200.56	200.61

Source:- Statistical Handbook, Lucknow, 2003.

It may be observed from the Table 2.12 that 74.2 per cent of the allotted industrial sheds in Lucknow district were functioning during the period covered under the study. As in the case of industrial plots 79.2 per cent of the allotted industrial plots are functioning in the Lucknow district. During the last three years covered under the study there was no change in the number of allotted as well as functioning of industrial sheds / plots in Lucknow district. Only, a finger number of changes in the average number of workers in the above mentioned plots / sheds during the period covered under the study, was only 11 per cent. During the same

period, the growth of output had increased from Rs. 198.3 lakh in 2000-01 to Rs. 200.61 lakh during 2002-03, showed an annual growth of 0.06 per cent.

Small Scale Industry has been one of the major planks of India's economic development since independence. Today, small industry occupies a position of strategic importance in economic structure due to its significant contribution in terms of output, exports and employment. At the end of March, 2002 there were 3.4 million small scale industrial units, accounting for more than 40 per cent of the gross value of output in the manufacturing sector, about 35 per cent of the total export and providing employment to over 19.2 million people, which is second only to agriculture. This contribution is despite being exposed to intensifying the competition during the decade since the economic liberalization, 1991. Small Scale industry in India has been confronting with an increase in the competitive environment to liberalization of investment, favouring foreign direct investment, forcing the world trade organization to its member countries to drastically scale down quantitative and non quantitative restrictions on imports and domestic economic reforms.

Table 2.13 Registered Industrial Units, SSIs & Khadi Gram Industrial Units & Workers in Lucknow During 2000-03

No	Details	2000-01	2001-02	2002-03
1	Registered Industrial Units			
	a. Units	16	12	42
	b. Workers	291	359	738
2.	Small Scale Industries			
	a. Number	831	839	846
	b. Workers	2582	2687	2715
3.	Khadi Gram Industries			
	a. Number	12	15	15
	b. Workers	36	45	45
4.	Total			
	a. Number/ Units	859	866	903
	b. Workers	2909	3091	3498

Source:- Statistical Handbook, Lucknow, 2003.

The cumulative impact of all these development is a remarkable transformation of the economic environment in which small-scale industries operate, imply that the sector has no option but to compete or perish. The information regarding number of registered industrial units, small scale industries and Khadi Gram Industrial Units in Lucknow district during 2000-03 is presented in Table 2.13.

It may be observed from the Table 2.13 that the total number of industrial units in Lucknow district had increased from 859 in 2000-01 to 903 in 2002-03, an increase of 44 industrial units during the period and its growth was at 2.56 per cent per annum. The growth rate of registered industrial units in Lucknow district in the first year covered under the study showed a negative growth, while the next successive year it showed a highest growth at 162.5 per cent. Like-wise number of workers engaged in the registered industrial units showed a growth at 153.6 per cent. In the case of small-scale industries during the period covered under the study showed an increase of 15 units and its growth was at 1.8 per cent. The number of workers engaged in the small-scale industries increased from 2582 persons in 2000-01 to 2715 in 2002-03. The growth of number of persons working in small-scale industries was at 5.2 per cent. In Khadi Gram Industries only 3 units have started functioning after 2000-01. The number of workers involved in the said industry was also very few, i.e. 36 in 2000-01 to 45 in 2002-03.

The registered industrial units in Lucknow District provide an employment to the tune of 18 persons in each industry. While in small-scale industry and Khadi Gram industry provide an employment to the tune of 3 persons. In overall, the Lucknow

district had 903 industrial units in 2002-03, which provides an employment to the tune of 3.9 persons per industry. Statistical department of Uttar Pradesh Government had published the information on status of industrial units in Lucknow district during 1998-2000 is presented in Table 2.14.

Table 2.14 Working Status of Industrial Units in Lucknow District

No.	Details	1998-99	1999-2000
1.	Registered Industries	551	565
2.	Working Industries	119	125
3.	Progressive Industries	119	125
4.	Average Daily Workers	24413	18198
5.	Output (Rs. in Lakh)	12940.08	12685.23

Source:- Statistical Handbook, Lucknow, 2003.

It may be observed from the Table 2.14 that 565 registered industries exist in Lucknow district in 1999-2000. Only 23.8 per cent of the registered industries were functional during 1999-2000. During the period number of persons engaged in each industry had reduced from 44 persons in 1998-99 to 32 persons in 1999-2000. Like-wise output growth had also showed a retarded growth at 2 per cent.

Infrastructural Profile

Indians eat out more than ever at fabled dhabas or plush restaurants or other food outlets in big cities. They take their clothes to their drycleaners, their cars to mechanics, their dogs to veterinarians. They go to beauty saloons and hair cut shops. Some double career couples drop their children at day care centers before they go to work. For their homes, they hire maids, gardeners, plumbers, electricians, interior designers and vastu shilp

architects. Outside their home, schoolteachers, police officers and other public servants contribute to their daily lives. Lawyers, accountants, stock brokers, insurance agents help keep finance and personal affairs in order. All this – and more - is India's services economy. The service sector dominates the Indian economy today, contributing half of our gross national products. It is the fastest growing sector with an annual average growth of 8 per cent in the second part of 1990's. That is because services is the most diverse sector of the Indian economy, encompassing neuro surgeons, college professors, research scholars and house maids. The span of career ranges from the traditional favorite I.A.S. to the latest development in management, software management, fashion technology etc. taking in its fold some of the newest profession as well as some of the oldest. In this sector, workers are the highest paid and best educated.

An explosion in information technology fuelled the upsurge in telecom, software, banking, finance, just when consumer taste and globalization of business powered a boom in all other sectors. What made the boom in services and even more visible and fascinating was a slower growth and painful restructuring of India's manufacturing industry and virtual stagnation in primary agricultural sector. While addressing the Assocham, the Finance Minister unfurled the wishes of India becoming a knowledge society cum knowledge super power. He also mentioned the aspects of transaction both internally as well as externally. In the Board of Management of Industries at any time, it will be pertinent to ask, discuss the significance, or need of India becoming a developed nation or a knowledge super power. If the discussion is not done, then India will continue for long as a developing country. If industries discussed knowledge super power and vision for a

developed nation in the industrial Board rooms, then the seeding to developed nation has been put forth. Then the industries in India that worked for a developed nation will become multi-national industries. These will be the vision industries with stability, economic goal, technological goal and above all a national goal.

While knowledge society has a two dimensional objective of societal transformation and a wealth generation, a third dimension emerges when India has to transform to a knowledge super power. The hard end wealth and transformed society which are the two pillars on which knowledge society is supported have to be protected in order to sustain the economic stability of the nation. Our very old traditional knowledge and culture should be protected against multiple attacks launched through business or culture or media. Thus it has two important aspects, economic prosperity and national security. It is very important that our communication network and information generators have to be protected from electronic products. Thus, the core requirements of knowledge protection are two fold. There should be a focused approach to the intellectual property rights and its related issues and private sector initiatives in all sectors of the economy have to be launched in the areas of technology generation and its optimum usage.

Thus the imperatives of economic development, however call for shedding tardiness and making a concerted effort to not only consolidate but also to further gain already achieved. Like any other development effort, infrastructure development cannot be an isolated enterprise by one or a few sectors alone. The whole lot of institutions and all sections of the economy mainly industry, finance, bank, policy makers as well as implementers, the scientists, research and development activities, technologists etc,

will have to contribute their might, with responsibility and a far reaching future vision, to operationalise the nation's infrastructure development programme.

Availability of uninterrupted power supply occupies a very important role among the infrstructure facilities. It gives a vital input not only for smooth functioning of small, medium and large level industries, small and tiny firms, hotels, restaurants, mechanized activities but also for day to day activities of modern human life especially in urban areas. Now people can't think a life without energy /power. That is why energy is an integral part of the modern life in all places. The per cent of population living in Lucknow district (Block-wise) by electrification during the last thirteen years presented is in Table 2. 15.

Table 2.15 Electrified Blocks in Lucknow During1990-2003.

(per cent)

No	Block	1990-91	2001-02	2002-03
1	Mallihabad	100.00	100.00	100.00
2	Mall	100.00	100.00	94.30
3	Bakshi ka Talab	100.00	100.00	100.00
4	Kakori	100.00	100.00	100.00
5	Chinhat	100.00	100.00	100.00
6	Sarojini Nagar	100.00	100.00	100.00
7	Gosaiganj	100.00	100.00	95.60
8	Mohanlalganj	100.00	100.00	91.10
Total		**100.00**	**100.00**	**97.60**

Source:- Statistical Hand Book, Lucknow District 2003.

It may be inferred from Table 2.15 that all villages under the blocks in Lucknow district were electrified during 1990-91 and 2001-02. While during the year 2002-03 it was reduced to 97.6 per

cent. The lowest per cent was observed in Mohan Lal Ganj Block at 91.1 during the year 2002-03. The other two Blocks were also mentioned for less per cent of electrification in their villages in the State Capital district Lucknow. They were Mall Block at 94.3 per cent and Gosaiganj Block at 95.6 per cent respectively. The main reason behind less electrification during the last year covered under the study may be due to the recent development of habitats in the perspective blocks. Moreover the chances of development in the above mentioned blocks had sustained progress as compared with other blocks in Lucknow. The other blocks had already achieved its optimum and providing the electricity to habitats was easy as compared to Mohan Lal Ganj, Gosaiganj and Mall blocks in Lucknow district. The detail of electricity consumption of Lucknow District during 2000-03 is presented in Table 2.16.

Table 2.16 Item-wise Consumption of Electricity in Lucknow District 2000-03.

(000 kilo Watt. hour)

No	Items	2000-01	2001-02	2002-03
1	Domestic	899090	925400	967010
2	Commercial	235860	250400	260550
3	Industrial	163060	164550	169830
4	Public Light	41940	64380	67680
5	Agricultural	120860	110670	114300
6	Others	63840	70780	74340
Total		**1524650**	**1586180**	**1653710**

Source:- Statistical Hand Book, Lucknow District 2003.

It may be observed from Table 2.16 that the annual growth of consumption of electricity in Lucknow city was at 4.3 per cent. More than one half of the total consumption of electricity in Lucknow district was found in the household domestic purpose at

58.5 per cent. Commercial, industrial and agricultural purpose of electricity consumption was at the rate of 15.8 per cent, 10.3 per cent and 6.9 per cent of the total consumption respectively. During the year 2002-03 consumption of electricity in public light was at 67.680 lakh kilo watt. The lowest consumption was observed in other purpose category at 4.4 per cent of the total consumption. The percentage of households with basic civic amenities in Lucknow UA, urban Uttar Pradesh and Urban India during 1991 is presented in Table 2.17.

Table 2.17 Percentage of Households with Basic Amenities in Urban India & Uttar Pradesh and Lucknow UA.

No	Facilities	Lucknow UA	Urban	
			India	Uttar Pradesh
1	Electricity	76.25	75.78	67.76
2	Safe Drinking Water	88.21	81.38	85.78
3	Toilet	73.02	63.85	66.54
4	All the three items	63.37	50.46	53.72
5	None of the First 3 Items	5.00	5.41	7.00

***Source:- Census of India, Occasional Paper No.5, 1994*.**

In Lucknow Urban Agglomeration 76.3 per cent of the households had the facility of power supply, more than four fifth of them have excess to safe drinking water and near about three fourth of them are served by sewerage system. All the above three mentioned services such as electricity; safe drinking water and toilet facility are available to 63 per cent of the total household in the Lucknow Urban Agglomeration. Thus the basic requirement of the basic infrastructure namely, electricity, safe drinking water and toilet facility commonly called as basic status, of Lucknow Urban Agglomeration is higher than that of urban India and urban Uttar

Pradesh. It was higher than the urban Uttar Pradesh by 9.65 per cent and 12.91 per cent by the urban India respectively. In Lucknow district there were 1031577 wells available for safe drinking water during 2002-03. The consumption of water during the year 2001, piped water supply, average and its leakage is presented in Table 2. 18.

Table 2.18 Information Regarding Water Supply in Lucknow- 2001.

No	Items	2001
1	Consumption of Water (MLD)	
	Domestic	276.30
	Non- Domestic	30.71
	Total	307.01
2	Average Duration of Water Supply	2 hours per day
3	Total Water Supply (MLD)	471.60
4	Total Consumption (MLD)	307.01
5	Balance (MLD)	164.59
6	Average Price of Water	Rs2 per thousand Liters

Source:- Jal Board, Lucknow

It may be observed from Table 2.18 that the available water supply in Lucknow during the year 2001 was at 471.60 MLD. Near about two third of the available water supply was used for consumption. Of this nearly 90 per cent of the consumption was for domestic purpose. Near about one third of the available water supply was treated as balance. This clearly indicates the fact that Lucknow was not facing serious water shortage as compared with other metropolitan cities of India. The Jal Board has fixed the price of water at Rs. 2 per thousand litres. On average, water was available 2 hours per day during the year 2001.

The Government of India as well as majority of the state governments in India recognized the importance of world-class information infrastructure as well as communication as the key and

played a pivotal role for rapid social and economic development of the country. It is critical not only for information technology but it has cobweb effected in all the sectors in the economy. It is only anticipated that going forward, a major portion of our income would be contributed by this sector. Accordingly it is of importance to the country that there would be a forward-looking tele-communication policy, which automatically creates a conducive as well as an enabling framework for the development of the information technology industry.

The telecom policy stresses certain well defined objectives such as the availability of telephone on demand in any place, provision of world class telecom service at affordable prices, ensuring the country's emergence as a major manufacture and export oriented telecom equipment and availability of the basic telecom systems to all the inhabitants in our country. It has also recognized the importance of huge level of required resources for achieving the above mentioned well defined objectives would not be possible only through the government as well as the other public institutions and recognized the importance of private as well as foreign multi national companies to bridge the resource gap. That is why the government has continually invited private sector participation in a phased manner. Strategically located Lucknow-the capital of the biggest state in India, Uttar Pradesh is the home to some of the best known corporate sector within the country and abroad. As an investor the city offers the competitive edge for world-class environment for setting up of service sector industry. The other advantages of setting up of business and other service sector industries are low start up and low operational cost, clearness for setting up of industries at the minimum level, stable and sustainable development of other service sector industrial units

in the city, large reservoir of technically and educationally fitted manpower at the lower rate, attractive incentives offered by the government from time to time and other special benefits.

Telecommunications play a vital role for the economic growth and development of an economy. Its efficient network is very essential for the smooth functioning of the system especially in the day-to-day activities of information collection and analysis. The details regarding number of post offices, telegraphic offices, pubic call offices, telephone connections in Lucknow district during 2000-2003 is presented in Table. 2.19.

Table 2.19 Communicative Network in Lucknow District 2000-03

No	Items	2000-01	2001-02	2002-03
1	No. of Post Offices	284	284	284
2	No. of Telegraphic Offices	17	16	16
3	No. of Public Call Offices	6283	7209	7796
4	No. of Telephones	206824	230614	244165

Source:- Statistical Hand Book, Lucknow District 2003.

It may be inferred from Table 2.19 that number of post offices in Lucknow district during the last three years covered under the study remains the same at 284. While the number of telegraphic offices during the same period has reduced from 17 in 2000-01 to 16 both in 2001-02 and 2002-03. It may be due to the large level installation of number of telephone connections as well as Public Call Offices (PCO) during the same period. On an average of 9.2 per cent annual growth was observed in the telephone connections during the same period. Moreover, the

annual growth rate of PCOs in Lucknow district was observed at 12 per cent. This is the main reason behind the reduction of number of telegraphic offices as well as constant number of post offices during the same period covered under the study.

Out of the 284 post offices during the year 2002-03 in Lucknow district 136 post offices existed in urban areas of Lucknow. In the case of telegraphic offices near about 88 per cent of them exist in urban areas. This distribution is more or less in the category of PCOs/STD centres while the large share of telephone connections in Lucknow exists in the rural areas of the district at 94.4 per cent.

It is the general belief that greater level of urbanization that a developing nation experiences more will be devastating effects manifested in terms of high level of health consciousness among the public especially by reducing the growth rate of birth and death rate while the life expectancy of the people in Uttar Pradesh experiences different story that is despite its mass rapid urbanization, the development of health sector has not been developed as compared with other states in the Indian Union. Availability of better facilities in terms of number of hospitals in all categories such as ayurvedic, homoeopathic, unani, hospital beds, number of doctors and medical staff, etc,. The information regarding the number of hospitals and other health related information in Lucknow is presented in Table 2.20.

Table 2.20: Health Facilities in Lucknow District 2000-03

No	Items	2000-01	2001-02	2002-03
1	Allopathic			
	a. No of Hospitals/dispensaries	41	41	41
	b. No. of PHCs	32	29	29
	c. No. of Beds	4644	4684	4684
	d. No. of Doctors	560	560	569
	e. No. of Paramedical Staff	532	532	550
	f. Others	343	343	355
2	Ayurvedic			
	a. No of Hospitals/dispensaries	35	36	36
	b. No. of Beds	160	160	160
	c. No. of Doctors	35	39	39
3	Homeopathic			
	a. No of Hospitals/dispensaries	42	42	42
	b. No. of Beds	-	-	-
	c. No. of Doctors	40	40	40
4	Unani			
	a. No of Hospitals/dispensaries	6	6	6
	b. No. of Beds	24	24	24
	c. No. of Doctors	6	6	6

Source:- Statistical Hand Book, Lucknow District 2003.
Note:- PHC means Pubic Health Centers.

It may be observed from Table 2.20 that 125 hospitals are available in Lucknow district during 2002-03. The proportion of allopathic, homeopathic and ayurvedic hospitals in Lucknow district is more or less same and these contribute more than 95 per cent of the health care centres. The above table clearly indicates the fact that the number of person per hospital was averaged at 22102. If we take into account only allopathic hospital, it was 67385 persons per hospital. On an average, each doctor in the said hospitals (inclusive of allopathic, ayurvedic, homeopathic and unani) has the responsibility of taking care of 4224 persons. Total

number of beds in the Lucknow district during 2002-03 was 4868 beds. On an average, persons per bed in the health institution of Lucknow were at 568. In homeopathic category of hospital, number of beds for inpatient treatment in Lucknow was not available. Allopathic category of hospital constitute largest share of number of beds among the medical category and it was more than 96 per cent. In unani category of medical health only 6 hospitals were available in Lucknow district during 2002-03. The number of doctor of unani category was also at 6. This clearly means that each hospital in the unani category has only one doctor. In modern times, new system of medical science has developed called naturopathy. In Lucknow till today that concept has not developed and information regarding the same is not available. But from the discussions with senior officers of the State Government, it has emerged that these type of institutions are starting slowly and people have less confidence about the treatment and the entrepreneurs dealing with this are optimistic about the good future for this in the coming year.

As we entered the new era of 21st century the world economy is experiencing unprecedented changes. New developments in science and technologies, competition, media revolution, information technology, inter-nationalization or so called globalizations are revolutionizing the educational sector of any economy. We are shifting from the age-old traditional system of education: student go to teachers house and student do the household activities of teachers and teacher teaches lessons - Gurukul Vidhya to a modern well educated, sophisticated machine used technology. It has its own quality as well as demerits also. The quality side increases the intelligence quotia of the students. On the contrary, the present day student needs most modern

equipments like calculator, computer for calculation and other day – to-day activities of education curriculum. Presently we are witnessing the paradigm to shift in higher education from the national prospective to the globalization standard or we can say the state controlled system to an open market system. It is also changed from the general perspective to the specialist category of education, which is fully controlled by the market forces. Well-known private institutions presently control majority of the quality educations in India. These changes make new demands and pose fresh institutions to our established education system and practices and therefore, a time has come when we have to re-apprise its role and functions, the present administrative structure / financial conditions of the universities and management. The information regarding the educational facilities in Lucknow district during the year 2000-03 is presented in Table 2.21.

Table 2.21 Educational Facilities In Lucknow District 2002-03

(No)

No	Items	2000-01	2001-02	2002-03
1	Junior Basic School	1888	1948	1964
2	Senior Basic School	678	750	773
3	Higher Secondary Schools	207	207	207
4	Degree College	25	28	30
5	Post Graduate Degree College	13	20	18

Source:- Statistical Hand Book, Lucknow, 2003.

It may be observed from Table 2.21 that on an average educational institution in Lucknow district during the period covered under study grows at annual rate of 3.2 per cent. During the first year it had increased at the rate of 5.1 per cent. The number of junior basic schools in Lucknow district has increased at 4 per cent

during the same period. The highest percentage growth of institutions was observed in the postgraduate colleges at 38 per cent. It may be due to the intervention of government for higher education and it is essential for the job seekers in the international arena. During the same period growth in higher secondary schools remains the same. During the year 2000-01 the number of higher secondary schools in Lucknow district was at 207 and it was same during the year 2002-03. The number of students in the above-mentioned educational institutions during the year 2000-03 in Lucknow district is presented in Table 2.22.

Table 2.22: Number of Students In Lucknow District 2000-03.

(No)

No	Items	2000-01	2001-02	2002-03
1	Junior Basic School	301008	319959	387560
2	Senior Basic School	99650	103942	111988
3	Higher Secondary Schools	64553	65028	65884
4	Degree College	59834	62047	62070
5	Post Graduate Degree College	1088	1359	NA

Source:- Statistical Hand Book, Lucknow, 2003.

It may be inferred from Table 2.22 that the students mentioned in the above said categories had increased from 526133 during 2000-01 to 627502 in 2002-03. While the students in the post graduate degree classes during the year 2002-03 was not available. In the above-mentioned period the growth of students averaged 9.65 per cent per annum. During the last two years covered the highest per cent growth was observed in Junior Basic Schools students at 28.8. The lowest growth was observed in Higher Secondary School students at 2.1 per cent. Senior Basic students at 12.4 per cent, Degree college students at 3.7 per cent respectively during the same period. The information regarding the

post graduate students was available for only one year and during this period its growth was at 24.9 per cent. As per the observations from the state government officials, majority of students had the opinion that the required level of education up to graduation is not sufficient to meet their demand and they need at least post graduation. As the general phenomenon is found every where the largest chunk of the students are in the category of junior basic school, next is senior basic school, then higher secondary school, degree college and post graduate respectively. The number of teachers in Lucknow district during the year 2000-03 is presented in Table 2.23.

Table 2.23: Number of Teachers In Lucknow District.

(No)

No	Items	2000-01	2001-02	2002-03
1	Junior Basic School	4316	4646	4646
2	Senior Basic School	784	943	943
3	Higher Secondary Schools	2989	2989	2989
4	Degree College	911	834	834
5	Post Graduate Degree College	-	20	21

Source:- Statistical Hand Book, Lucknow, 2003.

It may be observed from Table 2.23 that the growth of teachers during the last two years covered under study was averaged at 4.8 per cent. The number of teachers in higher secondary schools remained the same during the period covered under study. Some positive growth of number of teachers during the said period was observed in Junior Basic Schools and Senior Basic Schools. The comprehensive picture of the educational system in Lucknow district during 2000-03 is presented in Table 2.24.

Table 2.24: Students Teachers Ratio in Lucknow District

No	Items	2000-01	2001-02	2002-03
1	Junior Basic School			
	a. No of Schools	1888	1948	1964
	b. No. of Students	301008	319959	387560
	c. No. of Teachers	4316	4646	4646
	d. Students Teacher Ratio	69.7	68.9	83.4
2	Senior Basic School			
	a. No of Schools	678	750	773
	b. No. of Students	99650	103942	111988
	c. No. of Teachers	784	943	943
	d. Students Teacher Ratio	127.1	110.2	118.8
4	Higher Secondary School			
	a. No of Schools	207	207	207
	b. No. of Students	64553	65028	65884
	c. No. of Teachers	2989	2989	2989
	d. Students Teacher Ratio	21.6	21.8	22.0
5	Degree College			
	a. No of Colleges	25	28	30
	b. No. of Students	59834	62047	62070
	c. No. of Teachers	911	834	834
	d. Students Teacher Ratio	65.7	74.4	74.4
6	Post Graduate College			
	a. No of Colleges	13	20	18
	b. No. of Students	1088	1359	NA
	c. No. of Teachers	NA	20	21
	d. Students Teacher Ratio	_	68.0	_

Source:- Statistical Hand Book, Lucknow, 2003.

It may be observed from the Table 2.24 number of students per teacher increased from 59 in the year 2000-2001 to 67 in 2002-2003. The first two years covered under the study show more or less same proportion. While the last year, showed highest increase at 7.9 per cent. It may be due to the largest number of students

enrolled in the last year especially, in junior basic school as well as senior basic school. Among the category covered under the study senior basic school teacher have more responsibility as compared with other categories. In the senior basic school, a single teacher controlled 127 students in 2000-01 which was reduced to 119 students in 2002-03. Among the categories the lowest responsibility of teacher come under the category of higher secondary school. It was more or less same through out the period covered under the study. In this category one teacher has the responsibility of education of 22 students. While it was 83 in junior basic school, 74 in degree colleges and 68 in post graduate college during 2002-03 respectively. This clearly indicate the fact that the teachers in Lucknow district had more responsibility of taking care of the education of their students as compared with other states in the Indian union. In this condition the quality of education as well as objectives of the national education policy cannot be achieved. Both central as well as state Governments have the responsibility of providing more number of technically as well as educationally fitted teachers. Other wise the condition of Lucknow in this respect will deteriorate further.

In addition to the above purely academic studies government also provides technical facilities for developing the young generation and equipping them to meet the challenges facing day-to-day modern industrial arena. For this purpose, government initiated development of poly techniques and industrial training institutes in Lucknow district. The information regarding the technical training centers in Lucknow during 2000-2003 is presented in Table 2.25.

Table 2.25: Technical Educational Facilities in Lucknow District During 2000-03.

No	Details	2000-01	2001-02	2002-03
1	Poly Techniques			
	a. Number	5	5	5
	b. No. of Seats	884	884	884
	c. Allotted	891	902	909
2	Industrial Training Centers			
	a. Number	5	5	5
	b. No. of Seats	1708	1708	1708
	c. Allotted	1451	1487	1494

Source:- Statistical Hand Book, Lucknow 2003.

It may be inferred from Table 2.25 that number of poly techniques and industrial training centers in Lucknow district was totalled to 10 and equally distributed ie. five each during the period covered under the study. It clearly shows that poly techniques have 177 each for the particular year, beyond that level it was difficult to accommodate and provide technical facilities to the growing demands of the students. Therefore, it was very difficult to get the admission in poly techniques not only in Lucknow but in other parts of India also. Like wise, the number of seats per industrial training centre in Lucknow district during the period covered under the study remained the same at 342.

In 2000-01 the poly techniques in Lucknow district had provided 891 seats which increased to 909 seats in 2002-03. It clearly shows the poly techniques in Lucknow district had provided beyond the optimum capacity. During the year2002-03 poly techniques in Lucknow district had provided 25 additional seats beyond its capacity. In the period covered under the study poly

techniques in Lucknow district had been providing additional seats. It clearly suggests the growing demand for poly techniques in Lucknow district. In this connection government should intervene this matter immediately and provide more poly techniques in near future. While on the contrary during the period covered under the study the allotted seats in industrial training centers in Lucknow district was always less than the available seats. But it had reduced from 257 seats in 2000-01 to 214 seats in 2002-03. This clearly indicated the fact that students in Luknow district have less option for studying in industrial training centers.

India is a vast country inhabited by over 106 crore of population belonging to a complex mixture of religions, languages, castes, tribes and races. For over five hundred years it has been under the colonial rule, first under the Mughals and later under the British. On becoming a republic, India adopted a secular, democratic constitution under which the thirteen general elections were conducted so far and the political power changed hands peacefully to the elected representatives of the people. The country had federal polity and parliamentary system of government. Power is divided between the union government, state government, within the states local governments and state governments. Women now have good percent of the elected positions under the constitution. Most of the important political and civil rights provided under the Universal Declaration are part of guaranteed freedoms under the Constitution of India and they are enforceable against the highest organs of the state. Minorities enjoy special rights under the constitution to continue their cultural integrity and independence. Many of the social and economic rights are part of Directive Principles of the state policy and an integral part of the Indian Constitution declared as fundamental governance of the country.

Judicial review is part of the unalterable basic structure of the Indian Constitutional scheme, thus making the court a most powerful instrument in ensuring legality in governance at every level. Thus, the legal architecture of India is perhaps one of the best models in the democratic governance in plural societies.

Human rights, being dynamic, inalienable and indivisible, are fundamental to the dignified existence of individuals. They are neither utopian nor legal dicta to be of concern to jurists and academics. They have direct impact on the quality of life of the society. Human rights ensure properly in society by having a stratified and productive people. Social and economic rights take care of the weaker and less privileged sections of the society by providing them equality of opportunity in the matter of education, employment and mobility. Equality in enjoyment of public facilities and in access to public employment enables upward mobility of the downtrodden. Economic opportunities and equality enable the citizens to strive hard and become more productive, which in turn add to the over all prosperity of the citizens ensuring through freedom of conscience and free profession, practice and propagation of religion. Right of minorities to establish and administer their own educational institutional and other rights, help the religious minorities to live happily with the majority. Thus, human rights help in promoting communal amity. Economic equality establishes good relations in society. As basic grievances of religious minorities, economically backward and others have been taken care of by human rights, life is free of tension and dissonance. Since peace prevails, there is less scope for the state to interfere with the activities of the public, who in turn enjoy their basic freedoms. Thus, human rights enable peace and harmony to prevail in the society. In spite of these positive thinking and

aspects, violations of human rights occur in our society at an alarming rate. The reason behind this increasing rate of violation of human rights due to various reasons, are summarized as follows;

1. The first reason is the feudal attitude of the people. The mindset of an average Indian is feudal. As feudalism believes in the inequality of man, the principles of human rights which uphold the universality of human being are not acceptable to the higher echelons in society, whose only credential to lord over others is the wealth and the caste in which they are born. These vested interests violate the basic rights of the poor and economically backward with impunity.

2. Our colonial past has taught us to obey authority without question. Human rights advocate principles of natural justice and exercise of authority by the state as circumscribed by human rights. Petty bureaucracy and the law enforcement authorities expect unquestioned submission to their authority by the citizens. When confronted with the basic principles of human rights and questioned about the legal base and justification for their actions, they react in anger and use violence against the people.

3. Social more, which assist in the violation of human rights. Indian society is changing very slowly and age-old prejudices of the caste system and gender are deep rooted. When lower castes, untouchables and the economically backward try to assert their rights,

they face retribution and retaliation from the upper castes and the rich.

4. Poverty is a great curse. The majority of the Indian live below the prescribed poverty level, which means an income level, which is inadequate to maintain a good standard of living as, judged by the society. When there is a grim struggle for existence, many principles of human rights appear to them to be impractical and devoid of merit. When employment itself is scarce, insistence on payment of minimum wages, abolition of child labour, abolition of bonded labour appears to them to be constraints in getting employment. For a poor man, if his child can earn any amount, it is an addition to his income and will keep the potboiling. He is unable to see merit in the virtues of universal education and prevention of child labour. When the targeted beneficiaries themselves do not appreciate the need and importance of these basic rights, they fall easily victims to the wiles of exploiters and vested interests. Poverty aids abets the violation of human rights in making the victims collaborate with exploiters.

5. Illiteracy prevents the proper appreciation of the egalitarian principles involved in human rights. Lack of awareness prevents people from exercising their rights. Much of the media efforts to create awareness fall short of expectations due to the lack of comprehension of illiterate people. Since the victims

are not aware of their rights, it becomes easy to violate the same.

6. Cumbersome legal procedures constitute another reason for human rights violations. Victims are unable to get quick redressal. They lose faith in the profession and concern for human rights. Since justice delayed is justice denied, legal procedures are fully exploited by vested interests to create delays, defeating the very purpose of these proceedings. The impatience of the downtrodden at years of neglect crest ideal conditions for the emergence of violent political movements, when its stability is threatened, society sanctions the use of force to quell the dissidence. The maintenance of order with an iron hand often results in the violation of human rights.

The human rights movement in India was spearheaded by the leftist orient institutions and intellectuals. Until recently left was not fashionable word in political circles. Consequently, the common man treated human activism as a political gimmick of the left and the movement did not get public support it deserved. Thus, a good cause was lost due to bad representation or advocacy. However, India has shown that a developing country can have the greatest concern for the human rights of the people.

Law enforcement and management of law and order, security, crime prevention and crime detention are essentially enforced and performed by the police authorities in India. The Indian Penal Code is the general penal code of the country. It identifies the acts of omissions and commissions that constitute the

offences and makes them punishable under the Indian Penal Code. It provides punishments for offences committed within India, punishment for offences committed beyond, but which by law may be tried within India and also extends applicability of the Act to extra territorial offences. The Indian Evidence Act is a major law relating to evidence and applies to all judicial proceedings in any court or court martial. The number of crimes as per the district crime record office, Lucknow during 1999-2001 is presented in Table 2.26.

Table 2.26: Reported Crimes in Lucknow District During 1999-2001.

No	Year	Homicides	Rapes	Thefts	Others	Total
1	1999.No of Victims					
	a. Male	180	X	1548	2492	4220
	b. Female	27	24	93	360	504
	c. Child	11	X	21	41	73
	d. Total	218	24	1662	2893	4797
2	2000.No of Victims					
	a. Male	98	X	1558	2877	4533
	b. Female	33	16	360	448	857
	c. Child	12	X	39	55	106
	d. Total	143	16	1957	3380	5496
3	2001.No of Victims					
	a. Male	82	X	1662	3363	5107
	b. Female	30	17	106	495	648
	c. Child	18	X	33	34	85
	d. Total	130	17	1801	3892	5840

Source:- District Crime Record Office, Lucknow

It may be inferred from the Table 2.26 that the reported crimes in Lucknow district had increased significantly and the number of victims increased from 4797 in 1999 to 5840 in 2001.

The growth rate of number of victims under the reported crimes in Lucknow district during the period covered under the study was at 21.7 per cent and the first year of the above mentioned study was comparatively higher than the later period covered under the study at 8.3 per cent. During the period covered under the study in Lucknow district more than 82 per cent of the victims were male and little more than 10 per cent of them were female and the remaining less than 2 per cent of them were children. In Lucknow district more than 30 per cent of the victims were due to case under Indian Penal Code of Theft category. While others constitute a higher proportion.

There are large-scale deficiencies in the existing road network in terms of road width strength of pavements and the quality of roads. There are congestions and crowding on the main arteries resulting in slow speed, high consumption of fuel, higher level of pollution, apart from causing the inconvenience and discomfort among the road travellers. Resentments on this account is often heard while interacting with the road users during various traffic surveys and at traffic jams, it has been approximately estimated that on bad riding surface increase by 10 to 15 per cent of fuel. The present length of the national high ways and state high ways was just above 57500 and 124300 Kms respectively during the initial year of the 21st century. About 39 per cent of the national high ways and 77 per cent of the state high ways are still single line whereas a two-lane road is considered to be minimum requisite for the safety as well as mobility on the main roads. The high-density corridors have inadequate width to take the increased flow of traffic. The deficiencies in the road surface and capacity of roads could not get due attention till recently because our main concern was to

provide better connectivity, accessibility and cover larger by road length.

The vehicle population in India is increasing faster than what the roads can accommodate. The road network in the country is, therefore, capacity constraint. In case it is not augmented and modernized without any further delay, the whole economic activity in the country will slow down. The road accident scenario in our nation is dismissal. The main factor responsible for the higher level of accidents every year is due to bad road geometry and encroachments. Good road geometry and efficient traffic management are the immense of importance in reducing the accidents. Concerned with this growing demand as well as the problematic situation the Government has embarked upon an ambitious plan to develop the national highways and state highways and expand the road network of the country in aggregate. To meet the new challenges thrown up by the huge road construction activity conditions will have to be created in the country for capacity enhancement of contractors and equipment manufacturers. The present capacity is not sufficient; entry of multi-national fame in specialized road building activity will have to be encouraged till the domestic capacity builds up. Therefore a very urgent need has been felt in the nation for immediate development of the road network to speed up the industrial and economic growth. It is now for the concerned government authorities, contractors, equipment manufacturers, consultants, research and training institutes and bitumen and cement manufactures to cope up with the situation and meet these challenges. Thus, the future of our economy lies on its road network. In Lucknow district where roads are maintained by the

public works department, local governments especially Municipality, forest department and transport department etc,.

The information of length of roads in Lucknow district during 2000-03 and details regarding its maintenance by the concerned agencies during the above-mentioned period is presented in Table 2.27.

Table 2. 27: Length of Pucca Roads in Lucknow District During 2000-03

(Km)

No	Details	2000-01	2001-02	2002-03
1	Pubic Works Department			
	a. National Highways	113	113	113
	b. State Highways	101	101	101
	c. District Roads	49	49	149
	d. Other Village Roads	1093	1152	1267
	e. Total	1356	1415	1630
2	Local Bodies			
	a. District Panchayat	13	13	14
	b. Municipality	4352	4430	4461
	c. Total	4365	4443	4475
3	Others			
	a. Transport Department	3	3	-
	b. Others	63	-	-
	c. Total	66	3	-
4	Total	5787	5861	6105

***Source:- Statistical Handbook, Lucknow, 2003*.**

It may be observed from Table 2.27 that the average growth of pucca roads in Lucknow district during 2000-03 was at 5.50 per cent. First year of the above-mentioned period the growth was very low at 1.3 per cent while the second part it has grown up by 4.16

per cent. During the year, 2000-01 the length of pucca in Lucknow District was at 5787 km. and increased to 6105 km. in 2002-03. The public works department handling the maintenance of pucca roads for 1630 km. during the year 2002-03, 4475 km. by the local authority mainly Lucknow Municipal Corporation. During the period covered under the study the National Highways and State Highways are the same and not increased any length. While the district road and other village road had expanded significantly. The number of registered vehicles in Lucknow UA during 1996 is presented in Table 2.28.

Table 2.28: Vehicle Population in Lucknow UA

No.	Vehicles	Number	Per cent
1.	Two-wheelers	242946	80.01
2.	Three-wheelers*	9561	3.15
3.	Cars	23917	7.88
4.	Jeeps	7754	2.56
5.	Taxis	2462	0.81
6.	Buses	1750	0.58
7.	Trucks	4553	1.50
8.	Tractors	7453	2.46
9.	Trailers	822	0.27
10.	Others	2138	0.78
Total		**303356**	**100.00**

Source: Urban Statistics, NIUA, 2000

**** Includes LCVs***

It may be observed from Table 2.28 that in Lucknow UA more than three lakhs vehicles were present during the year 1996. As the general notion is that larger share of the vehicles are in the group of two wheeler categories in majority of the metropolitan and other cities in India. Lucknow UA has also same facts. More than four fifth of the vehicles were in the category of two wheelers. Cars

constitute nearly 8 per cent of the total vehicles in Lucknow UA. Three wheelers including LCVs constituting just above 3 per cent of the total vehicles. The remaining less than 9 per cent of the total vehicles were jeeps, taxis, buses, trucks, tractors, trailers and others category. Moreover as compared with other metros in Uttar Pradesh state Lucknow UA is having higher number of vehicles.

The national air transportation system in India faces a tremendous challenge in the coming years. Airport congestion is already a serious problem, with delays at peak hours at most of the airports in India. The expected growth in the demand for air transportation will only add to the delays and reduce the overall reliability of air transportation. Unfortunately, developing new airports and airport facilities is a time consuming, costly process, and there is minimal new development underway to meet the growing demand. Worse still, the current system suffers from a shortage of capital to meet the airport system's future financing needs. Increased private involvement in developing the infrastructure has to be proven to be an effective remedy in most of the countries needs to be explored for India far more seriously than has been done so far. If airports in India are to meet the coming challenges of congestion, long development times, shortage of capital, the national air transportation system needs to recognize that the private sector can safely and efficiently develop and operate airports, and allow local authorities to make use of the private sector's capabilities.

Airports mediate between the suppliers of air services and airline passengers and are therefore an important component of civil aviation across the world. Airport presence plays an important role in influencing both the carrier's supply and the demand for its

services and consequently, reforms in the way of airports operate must complement the reforms taking place in civil aviation across the globe. Airport presence refers to airline's share at a particular airport. On supply side, the ability of the carrier to corner peak hour time slots at a particular airport has a direct relation to its ability to obtain high price cost margins on particular route. On the demand side airport presence introduces an element of a product differentiation into the industry. i.e. flight departing at peak hour is differentiated from a flight at off peak hour even though it is to the same destination. The information regarding number of passengers who used Lucknow airport both for arrival and departure during 1998-2001 is presented in Table 2.29.

Table 2.29 Airport Activity Rate- Lucknow 1998-2001

No	Years	Number of Passengers		Total
		Arrival	Departure	
1	1998	106450	99909	206359
2	1999	108715	124981	233696
3	2000	152711	140964	293675
4	2001	154398	144123	298521

Source:- Airport Authority of India.

It may be inferred from Table 2.29 that number of passengers who used Lucknow airport both arrival and departure had increased from 206359 in 1998 to 298521 during 2001, showed a growth of 44.7 per cent. Airport activity rate is defined as the yearly number of passengers have used airport both arrival and departure. On an average its growth was 15 per cent per annum. This positive indicative fact showed clearly that the demand for more number of flights. In this connection both government as well as private airline operators to decide to enhance its airport activity

rate by enhancing the number of flights and its linked flights to international scenario and expects the hope that this condition will dramatically change in the near future.

Banks play vital role in the process of economic development of the developed, developing as well as under developed economy. In the developed or developing its role is significant for maintaining the economic growth, while in under developed economy, it is very essential for attaining economic prosperity. They enhance the saving habit of the people especially from the lower as well as higher income categories and provide them to the dynamic and result oriented entrepreneurs to invest the same to attain economic development. They automatically lubricate the trade and commerce of any place by providing the necessary finance and to reducing existing inequalities to a certain level. Now banking institutions may be treated as the main center of all economic activities. The banking facility in Lucknow district during 2002-03is presented in Table 2.30.

Table 2.30 Banking Facilities in Lucknow District During 2002-03

No	Area	Nationalized Bank Branches			
		Nationalized Bank	Regional Rural Bank	Other Bank	Total
1	Rural	64	2	-	66
2	Urban	224	4	13	241
3	Total	288	6	13	307

***Source:- Statistical Handbook, Lucknow, 2003*.**

It may be observed from Table 2.30 that in Lucknow district 307 nationalized bank branches exist during 2002-03. More than 78

per cent of the branches in Lucknow district are operating in the urban areas while 22 per cent of the banks in rural areas. The nationalized bank branches constitute higher proportion in Lucknow district at 94 per cent. Other bank constitutes 4.23 per cent of the total bank branches in Lucknow district. Regional rural bank constitute only 2 per cent of the banking facilities in Lucknow district. The deposits, credit and priority sector lending by the commercial banks in Lucknow district during 2000-03 is presented in Table 2.31.

Table 2.31: Deposits, Credit & Priority Sector Lending in Lucknow District by the Commercial Banks During 2000-03

(Rs. Lakh)

No	Details	2000-01	2001-02	2002-03
1	Deposits	91768.20	99633.87	99998.10
2	Advance	16363.20	21857.00	32225.80
3	% of Advance to Deposits	17.83	21.94	32.23
4	Priority Sector Lending			
	a. Agriculture	1429.60	1473.81	2317.80
	b. Small Scale Industries	626.70	228.39	1680.10
	c. Others	3641.30	1419.84	8937.80
	d. Total	5697.60	3122.04	12935.70

***Source:- Statistical Handbook, Lucknow, 2003*.**

It may be inferred from Table 2.31 that deposits of the commercial banks in Lucknow district had increased from Rs. 91768.2 lakh in 2000-01 to Rs. 99998.1 lakh in 2002-03, showing an average growth of 4.5 per cent per annum. The first year covered under the study had showed highest per cent of deposit growth at 8.6 per cent. Advance of the above-mentioned period increased from Rs. 16363.2 lakh to Rs. 32225.8 lakh. The second year covered under the study showed highest rate of growth as

compared with the previous year at 13.9 per cent. The percentage of advance to deposits had increased from 17.8 in 2000-01 tlo 32.2 in 2002-03. This highest percentage of advance to deposits during the last two years may be due to the large level of investment requirements, initiatives and other training facilities provided by the government and other local authorities from time to time. In order to augment level of investment especially in primary sector the government has been initiating various measures to enhance the same through State Level Banking Committee meeting and the concerned Lead Bank in the district. The main reason behind the initiation of the government especially due to the reduction of investment in agriculture, small-scale industries and other linked activities.

The priority lending of the commercial banks had increased from Rs. 5697.6 lakh in 2000-01 to Rs.12935.7 lakh in 2002-03. The growth rate of priority sector lending in Lucknow district by the commercial banks was at 127 per cent during the period covered under the study. In the first year it showed a negative growth at 45.2 per cent. It may be due to the drought and other depressive nature of the economy. This was later overcome by the commercial banks by lending in the priority sector and its growth was at 314 per cent. During the above-mentioned period covered under study percentage of agriculture lending in the priority sector lending had reduced from 25.1 per cent in 2000-01 to 17.9 per cent 2002-03. It may be due to less level of demand of requirements of loans by the customers. Small-scale industries lending during the same period had increased from 11 per cent to 13 per cent. The highest percentage of priority sector lending through out the period covered under the study was in other category, more than three fifth of the priority sector lending. For smooth functioning of the credit system

the Central bank and other top-level financial institutions provide loans to state level co-operative banks. In this condition it is essential to study the Rural Co-operative Banks in Lucknow. The details of Lucknow District Co-operative Bank and Co-operative Agricultural and Rural Development Bank is presented in Table 2.32.

Table 2.32 Rural Co-operative Banks in Lucknow District During 2000-03.

No.	Details	2000-01	2001-02	2002-03
1.	District Co-operative Bank			
	a. Branch	20	20	20
	b. Members	370	370	370
	c. Capital Share (Rs. in Lakh)	31.94	32.91	33.65
	d. Working Capital (Rs. in Lakh)	953.96	1079.60	1117.69
	e. Short-term Credit (Rs. in Lakh)	212.74	407.76	510.55
2.	Co-operative Agricultural and Rural Development Bank			
	a. Branch	4	4	4
	b. Members	23520	24251	24854
	c. Share Capital (Rs. in Lakh)	6.05	6.25	6.42
	d. Working Capital (Rs. in Lakh)	127.30	128.35	129.16
	e. Credit (Rs. in Lakh)	27.63	21.80	26.46

Source:- Statistical Handbook, Lucknow, 2003.

It may be observed from Table 2.32 that Lucknow district co-operative bank has 20 branches in Lucknow district and the membership of the bank remains the same at 370 through out the period covered under the study. The share capital of the Lucknow District co-operative bank had increased from Rs. 31.94 lakh in 2000-01 to Rs. 33.65 lakh in 2002-03 and the annual growth during the period was averaged at 2.7 per cent. Co-operative banks generally provide short time loans to farmers less than five years,

increased from Rs.212.7 lakh in 2000-01 to Rs.510.6 lakh in 2002-03 and the growth was observed at 140 per cent.

Lucknow co-operative agricultural and rural development bank has four branches in the district and each branch has 6214 members during the year 2002-03. The share capital of the bank has slightly increased from Rs. 6.05 lakh in 2000-01 to Rs. 6.42 lakh in 2002-03. During the same period the working capital of the bank has increased from Rs. 127.3 lakh to Rs. 129.2 lakh. The loan facility provided by the bank has reduced from Rs. 27.6 lakh in 2000-01 to Rs. 26.5 lakh, showed a retarded growth at 4.2 per cent.

As per 2001 census, Lucknow district has 824 villages. The Statistical Department of the Uttar Pradesh State Government through its district level office provides the information on infrastructure facilities access to these villages by distances. The distances are classified into five categories namely, within the villages, less than one kilo meter, 1-3 kilo meter, 3-5 kilo meter and more than 5 kilo meter. The basic facilities include number of variables like safe drinking water, bazar haats, banking facilities, hospitals, mother and baby care homes, pucca roads, post offices, telegraphic offices, public distribution shops, public all offices, bus stations, railway stations, post office saving bank institutions, etc,. The information on basic services accessibility in the villages of Lucknow district on 31st March 2002 is presented in Table 2.33.

It may be observed from Table 2.33 that majority of the services included in the information have not available within the village except public distribution shops and availability of pucca roads. On the contrary majority of the facilities available in Lucknow

Table 2.33 Distance-wise Basic Services Accessibility in Lucknow District :Village-wise.

No	Service	Number of Villages					
		Within Village	<1 Km	1-3 Km	3-5 Km	>5 Km	Total
1	Development Blocks	4	5	48	53	714	824
	Per cent	0.5	0.6	5.8	6.4	86.7	100.0
2	Development Centers	524	40	159	47	54	824
	Per cent	63.6	4.9	19.3	5.7	6.5	100.0
3	Pubic Distribution Shops	516	43	175	46	44	824
	Per cent	62.6	5.2	21.3	5.6	5.3	100.0
4	Drinking Water	12	31	778	3	-	824
	Per cent	1.4	3.8	94.5	0.3	-	100.0
5	Bazzar Haats	103	25	207	244	245	824
	Per cent	12.5	3.1	25.1	29.6	29.7	100.0
6	PACSs	47	12	147	204	414	824
	Per cent	5.7	1.4	17.8	24.8	50.3	100.0
7	Govt. Buying Centers	15	8	81	110	610	824
	Per cent	1.8	1.0	9.8	13.3	74.1	100.0
8	Allopathic Hospital/PHCs	33	12	105	176	498	824
	Per cent	4.0	1.4	12.8	21.4	60.4	100.0
9	Ayurvedic Hospitals	20	4	50	102	648	824
	Per cent	2.4	0.5	6.1	12.4	78.6	100.0
10	Unani Hospitals	3	1	19	35	766	824
	Per cent	0.4	0.1	2.3	4.2	93.0	100.0
11	Homeopathic Hospitals	17	10	61	101	635	824
	Per cent	2.1	1.2	7.4	12.3	77.0	100.0
12	Mother /Baby Care Centers	87	18	147	163	409	824
	Per cent	10.6	2.2	17.8	19.8	49.6	100.0
13	Pucca Roads	468	67	171	69	49	824
	Per cent	56.8	8.1	20.7	8.4	6.0	100.0
14	Post Offices	119	19	231	228	227	824
	Per cent	14.4	2.4	28.0	27.7	27.5	100.0
15	Telegraphic Offices	4	4	23	57	736	824
	Per cent	0.5	0.5	2.8	6.9	89.3	100.0

16	Pubic Call Offices	94	13	173	162	382	824
	Per cent	11.4	1.6	21.0	19.7	46.3	100.0
17	Bus Stations	33	19	87	132	553	824
	Per cent	4.0	2.3	10.6	16.0	67.1	100.0
18	Banks	35	11	118	191	469	824
	Per cent	4.2	1.3	14.3	23.2	57.0	100.0
19	Post Office Saving Banks	111	18	222	235	238	824
	Per cent	13.5	2.2	26.9	28.5	28.9	100.0
20	Railway Stations	9	9	74	130	602	824
	Per cent	1.1	1.1	9.0	15.7	73.1	100.0

Source:- Statistical Hand Book, Lucknow, 2003.

Note:- PACSs means Primary Agricultural Credit Societies
PHCs means Primary Health Centres.

district are more than 5 kilometers far away. The majority of these facilities included in this category are development blocks, bazzar haats, Primary agricultural credit societies, government buying houses, all varieties of hospitals, mother and baby care centers, public call

offices, bus stations, banks, post office saving banks, etc,. Certain items like absence of medical facilities at the least level of distance compelled the people of Lucknow district to ignore small type of diseases and this became difficult health problems to them in the near future. These are clearly mentioned in health bulletin of the district. Like-wise the availability of credit facilities to the small farmers and other informal sector activities through the bank, primary agricultural credit co-operative societies and other institutions availability in Lucknow district were at a distance of more than 5 kilometers. This compelled the small farmers as well as tiny and small and medium industrial entrepreneurs to borrow the requisite funds from moneylenders charging higher level of interest. In this condition both state and other local institutions role

for providing these facilities at the grass root level with the minimum distance has become a top most priority.

Land is the basic and most important input in urban planning. Primary land use must be correlated to number of activities, which the concerned area performs. In addition, the change in the pattern of land use is a very difficult problem especially in urban area. The reasons behind this may be due to the interest of the individuals in the area, legislation, government policies and plans, decision of the property dealers, real estate agents, moneylenders, infrastructure development programmes, nature of land itself or availability of technique for the development of the land. For finalizing the land use of the concerned area, the importance should be given to the economic efficiency of the land and address problems related to the management of urban governance. Moreover it plays a vital role in the development of the area. Land use pattern of Lucknow is presented in Table 2.34.

Table 2.34 Land Use Pattern – Lucknow –2001

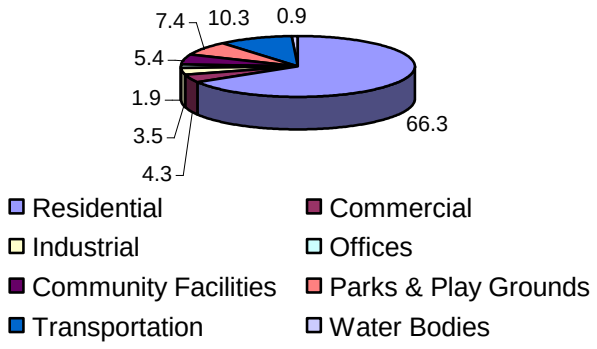
(Hectare)

No	Land use	Existing		Proposed	
		Area	%	Area	%
1	Residential	4485.98	48.91	13913.80	66.30
2	Commercial	223.77	2.43	912.50	4.30
3	Industrial	596.22	6.50	732.30	3.50
4	Offices	474.69	5.20	400.40	1.90
5	Community Facilities & Services	902.02	9.83	1128.00	5.40
6	Parks & Playground	346.48	3.78	1352.90	7.40
7	Transportation	952.00	10.38	2159.70	10.30
8	Water Bodies	193.66	2.11	188.90	0.90
9	Open Spaces	996.14	10.86	-	-
Total		**9170.96**	**100.00**	**20988.50**	**100.00**

Source: Lucknow Master Plan, 2001.

It may be inferred from Table 2.34 that near about one half of the existing land used is for residential purpose. This has increased to near about two third in the proposed land use pattern of Lucknow. The area proposed in the master plan of Lucknow had increased from the existing 9170.96 hectares to 20988.5 hectares, showing the growth at 128.9 per cent of the area. In absolute terms it increased to 11817.54 hectares. The land proposed for commercial purpose had increased from 2.43 per cent of the total area of the existing land use to 4.3 per cent of the total proposed area. This is a positive sign as far as the economy of Lucknow is concerned. On the contrary, industrial allocation of the land from the existing to a proposed one has dramatically reduced from 6.5 per cent to 3.5 per cent in the proposed land use pattern. Like wise the proportion of land used for community facilities and services has reduced from 9.83 per cent to 5.4 per cent in the proposed land use pattern. While transportation purpose the existing as well as proposed land use system in Lucknow was more or less same. The proposed land use pattern tries to reduce the water bodies in Lucknow. Moreover in the open space category, the proposed land use pattern has not mentioned any figure and treated as nil, clearly narrates the fact that all the areas are fully utilized.

Figure 2.6 Proposed Land Use Pattern –Lucknow –2001



The proposed Land use pattern of Lucknow during the year 2001 as per the Master Plan of Lucknow is depicted in the Figure 2.6.

Crafts

For centuries Lucknow has been famous for its various handicraft works. The Nawabs of Awadh were great patrons of fine arts of which the most well known is the exquisite chikan work. Chikan is a unique craft involving delicate and artistic hand embroidery on a variety of textile fabrics like muslin, silk, chiffon, organza, doriya and organdi. Nearly 36 types of stitches are used in chikan work, of which murri, bakhia, jali, tepchi, tappa, dhum, katao, are commonly used to produced exquisite latest fashion designs. Number of artisans renowned in the chikan works in Lucknow, became famous designers of the world like Ustad Fiyaaz Khan and Hasan Mirza Saheb. In addition to the above mentioned chikan work of Lucknow some other clothes materials like Kurtas, sarees, salwar suits, tops, hand kerchiefs and dupattas, chikan embroidery being used on number of products like table covers, trey covers, napkins etc. Both in India and rest of the world demand for these art pieces of the above mentioned clothes materials is very high. That is why the concentration of artisans in Lucknow is mainly on chikan work and other exquisite art pieces. The main work of chikan in Lucknow is found in the locality of Chowk and Daliganj.

Besides the chikan work, Zardozi and Kamadani works of Lucknow have attained world class attention. The hand embroidery works mainly with gold and silver thread are done on sarees, dupattas, lehengas, cholis, caps, and shoes etc. From the initial period onwards, Lucknow is known for its jewellery and enamelling

work. The Bidri and Zarbuland silver works of Lucknow find expression on excellent pieces of huqqa farshi, jewel boxes, trays, bowls, cuff links, cigarette holders, etc.

Fine pottery from Lucknow is yet another work of art that has captured the minds of the imagination of the consumers. The main world popular items in this pottery variety are long necked water pitchers and huqqa farshi. As a belief perfumes or Attar introduced in India by the Muslims, reached a new horizon in Lucknow. Available sources clearly reveal the fact that Lucknow perfumers experimented and succeeded in making perfumes with delicate and lasting fragrances from 19th century onwards. These perfumes are developed from various aromatic herbs, spices, sandal oil, musk, and essence of flowers and leave the famous khus, keora, chameli, zafran and agar.

Kite making is also another popular artistry work in Lucknow. Although it is popular all over India, this production activity has attained optimum perfection only in Lucknow. During the Nawabi period this kite making art form flourished in Lucknow and different types of kites and flying strings were developed. Thus, with these multifarious crafts specialties in Lucknow promises to be a shoppers paradise. In their own distinctive ways these crafts in Lucknow have provided employment to thousands of Lucknow people, delighted many more and continues to keep alive the invaluable tradition of the magnificent city of India.

Rich Urban Heritage- Lucknow 3

Lucknow is situated on the southern bank of river Gomti. It is well linked by rail, road and airways to the rest of India. It is 970 KM to the west of Kolkatta and 495 KM to the east of Delhi. Through ages, Lucknow has been a city where the rays of different cultures, languages, creeds and communities merged from the Avadh syndrome and where the Indians and foreigners, charmed by its peculiar attractiveness, made their homes. They left their mark on the city. Vestiges of the past stand every where, whispering about the centuries that have seen Lucknow evolve from its humble origin to the bustling, living city of today. It is best known as the abode of Nawabs; for its open spaces, its picturesque setting, its gardens and beautiful medieval buildings. The city has often been described, due to its innumerable parks and open spaces, as a garden city. The post Independence developments have, however, made it almost impossible to live up to its glorious past. The city is practically under siege and perpetually tormented by excessive pressure of population, poverty and mismanagement. Yet, it continues to be the best city of Ganga valley.

The monumental heritage of Lucknow is best reflected through its magnificent variety of edifices belonging to the Mughal, Nawabi and the British periods.

Mughal Period

Nadan Mahal : Nadan Mahal holds a pride of place, being the earliest monument of Lucknow. Situated in the Yahyahganj of Lucknow between Raquabganj and Nakkhas on the

Nadam Mahal Road, it was constructed during Mughal period. It is built in red sand stone. Locally known as the tomb of Sheikh Abdur Rahim, the Subedar of Awadh during the reign of Mughal Emperor Akbar (1556-1605 A.D.) it was constructed by his wife. The entire monumental complex consists of there structures named as Nadan Mahal, Sola Khamba and the tomb of Ibrahim Chisti.

The Nadan Mahal (a place of ethereal peace) consists of a domed chamber that is surrounded on all sides by a verandah; the main chamber of Tomb contains the graves. The verandah possesses four columns of Mughal style on each side, in addition to those at four corners of the Tomb. The brackets supporting the projecting Chhajjas are decorated with animal figures and the mouldings. The dome crowned by columns leaf final base rises from a low octagonal drum, which stands, on a square pedestal and ornamented pilaster. The roof is reached through a narrow staircase in the right side of the entrance wall. The roof of the verandah is covered by sand stone lintels. The floor of the mausoleum is designed with marble inlay work in floral and geometrical patterns, which contain two marble graves among which the Sheikh's tomb is placed in the center and the other one is his wife's.

The Sola Khamba is also called the Sixteen Pillared; an open pillared pavilion of red sand stone measuring 10mt.x 4mt. stands on a raised platform. The columns and the brackets are similar to the Nadan Mahal tomb and the corner brackets are ornated with elephant headed design. The parapet is also of sand stone and carved with elegant design. The floor of the platform is of

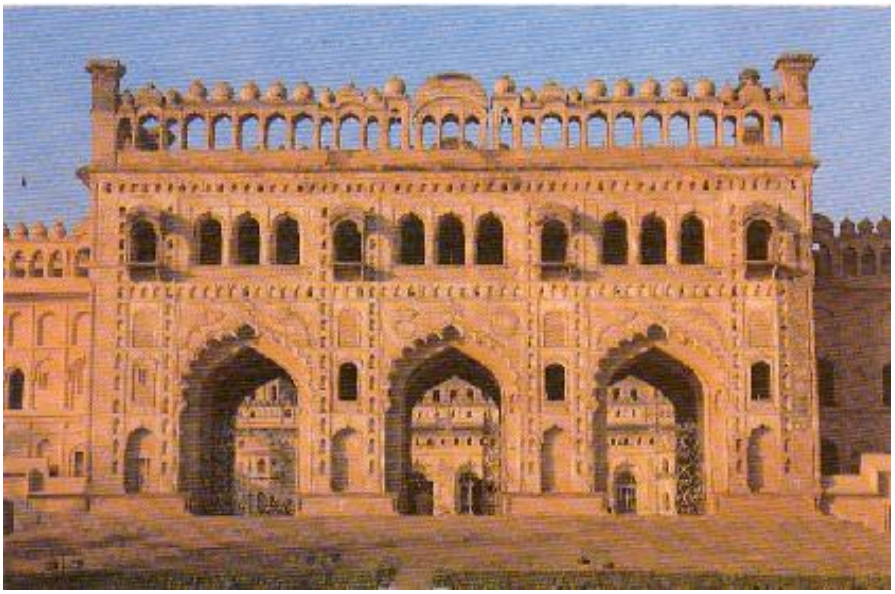
red sand stone bordered by a frieze of plain and elongated stars. The pavilion contains five graves, the ceiling of which is carved in a conventional pattern.

The tomb of Ibrahim Chisti, father of Sheikh Abdur Rahim, which lies a short distance to the Sola Khamba is a domed building built of Kankar blocks.

Nawabi Period

Asafi Imambara: Asafi Imambara locally known as Bara Imambara is the largest building complex in Awadh style, which represents the Indo-Syraasenic school of architecture. Built by Nawab Asaf-ud-daula (1775-1797 A.D.) and designed by Kifayat-ullah, a famous architect of that period, it was constructed for holding majlises and observing rituals. The Imambara and the Rumi Gate were constructed as a famine measures in 1784 A.D. The entire structure is made with the help of Lakhauri bricks, line plastered and decorated with fine plaster moldings. The main hall of the Imambara with a vaulted roof is one of the largest halls of its kind in the world, without pillar or support measuring 49.7 m. in length 16.16m. in breadth and 14.95 m. in height. The verandah, parallel to it, is 8.30 m. and 8.08 m wide. It has side room on either side and shah-n-sheeb (raised platform) having tazias and other ritual objects constructed on slightly raised platform. Above the hall, there is a unique labyrinth of intricate balconies and passages with 489 identical doorways, which gives the visitors the feeling of being lost on the way. As such it is also known as Bhul-Bhulaiya. The parapet wall of the building is decorated with undersized openings, chhatris and minarets. The main hall of the Imambara

contains the graves of the Nawab of Awadh Asaf-ud-daula, his wife Shamsunnisa and architect Khifayatullah. The Asafi mosque is located on western side of the main Imambara, a Shahi Baoli (stepped well) on eastern side, the Nakkar Khana or Naubut Khana (drum house) on northern side and the famous gateway called Rumi darwaza on the western side.



Bara Imambara

Hussainabad Imambara: Better known as Chhota Imambara, it is located in Mohalla Hussainabad and was built by the King Mohammad Ali Shah (1837-1842 A.D.) within an enclosure wall, consisting of main Imambara building, Hammam, mosque, while on the outer complex just to the main entrance stands Nakkar Khana or Naubat Khana along with two gateways on either side. The vaulted roof is capped by a gilded dome in the center and a cupola each on either side. The inner half of the Imambara contains the grave of Nawab Mohammad Ali Shah and

his mother and the central portion of the compound is flanked by a small tomb of Nawab's daughter Zeenet Asiya with its Jawab on other side. The Shah-n-sheen (raised platform) of the Imambara is decorated with Zari, Alam, Tazia, Panja Patka and some other rituals, while the hall is decorated with costly mirrors, chandeliers, paintings, photographs and a few other valuable objects. Besides this, the buildings like Baradari (picture gallery), Satkhanda were also constructed by the same king.

Chotta Imambara

Tomb (Maqbara)

Amjad Ali Shah Mausoleum: It is located in the western part of the Hazratganj popularly known as Imambara of Sibtainabad. It was built by the last ruler of Awadh, Wajid Ali Shah (1847-56 A.D.) over the grave of his father king Amjad Ali Shah (1842-47 A.D.) Within an enclosure wall, stand the main Imambara

building, mosque and a rectangular hauz (tank), entered through two lofty gateways. It is built of lakhauri bricks in lime mortar, lime plastered and decorated by fine plaster mouldings. The Imambara proper stands on a platform approached by two flights of steps and consists of a central hall and two other rooms on either side along with a raised platform (shah-n-sheen) for housing Tazias and other ritual objects. Its arcaded exterior wall and the ceiling are decorated with floral and geometrical design in colored stucco.

Shahnajaf Tomb

Tomb of Ghazi-ud-Din Haider: Better known as Shah Najaf Imambara, it was built by Ghazi-ud-din Haider (1814-27) on the pattern of Hazrat Ali's mausoleum at Najaf-e-Ashraf, Iraq. The main building is a square structure built of lakhauri bricks, plastered with lime and decorated with plaster mouldings. It stands on a slightly raised platform with a huge hemispherical dome, approached through flight of steps. The main tomb is further enclosed by an open verandah all around with open circumbulatory passage along with small bastions on corners. The central

chamber is adorned with Zarih of Hazrat Ali, Alams and Tazia of different materials, numerous chandeliers, mirrors, ritual objects, portraits, paintings and contains the grave of Ghazi-ud-Din Haider, his three Begums Sarfroz Mahal, Mubarak Mahal and Mumtaz Mahal.

Tomb of Saadat Ali Khan: It is located near Begum Hazrat Mahal Park on High Court road. The tomb was built by the King Ghazi-ud-din Haider (1817-27), the son and successor of Nawab Saadat Ali Khan (1798-1814A.D.), Made of lakhauri bricks, lime plastered and decorated with plaster mouldings, the main hall has got a rectangular verandah projecting on two sides, each corner has pillared Kiosks with a dome. The parapet has numerous minarets and domes. The central dome is flutted, while the floor is octagonal in plan and decorated in chessboard pattern with the help of black and white marbles. The Nawab is buried in an underground chamber.

Tomb of Khursheed Zadi: By the side of Saadat Ali Khan's tomb, another tomb known as Khursheed Zadi was also built by their son Ghazi-ud-din Haider on the spot of residential complex, where Ghazi-ud-din Haider lived as a crown prince. It is a square structure, built of lakhauri bricks, plastered with lime and decorated with plaster mouldings with four octagonal towers, the tomb is crowned by pillared kiosks with dome above. The parapet has a number of miniature domes and above the main hall four octagonal corner domes accompany an elegant central dome. The underground vault contains two graves, of which one is Khursheed Zadi and the other one is said to be that of her daughter.

Mosque (Masjid)

Asafi Mosque: Stands at an angle within the Bara Imambara complex, it was constructed during the reign of Nawab Asaf-ud-daula(1775-1795 A.D.) with the help of lakhauri bricks, lime plastered and decorated with fine plaster mouldings. The rectangular prayer hall on the west with a magnificent facade of eleven arches, the central arch being higher flanked by four storied tapering minarets on either sides. The prayer hall is surrounded by three pear shaped domes, decorated with inverted lotus while the parapet wall has a number of miniature domes.

Jama Masjid: It is located at Mohalla Thakur Ganj. The construction of the famous Jama Masjid was begaun by King Mohammad Ali Shah ir 1839 AD and completed by one of his wives Malka Jahan Begum after his death with the help of lakhauri bricks, lime plastered and decorated with coloured stucco. Standing on a square lofty terrace, it has a rectangular prayer hall on the west with a magnificent façade of eleven arches, the central one being higher provided on unusually high doorway which rises above the flat roof in sharply pointed arch in coloured stucco, especially the double arches, decorated with stylized flower buds on every cusped. The mehrao facing the west bears calligraphic inscription of Quranic verses. The prayer hall is surmounted by three pear shaped high double domes decorated with an inverted lotus on the top and is also flanked by two octagonal four storeyed tapering minarets on either side, crowned by chhatris on the top.

Dargah

Dargah Hazrat Abbas: It lies at Mohalla Rustam Nagar, which was built by Nawab Saadat Ali Khan in 1802 A.D. in commemoration of his recovery from serious illness. The present dargah is dedicated to Hazrat Abbas, the stepbrother of Imam Hussain and the son of Hazrat Ali. The original building of Dargah was a Kutcha structure of unbaked brick plastered with mud that houses the 'Alam' of Hazrat Abbas, brought from Iraq during the region of Nawab Asaf-ud-daula. The main building of the Dargah contains a raised hauz (tank), a rectangular hall with a small mosque to the right and Shah-n-Sheen in the center covered with fluted dome within an enclosure wall, accompanied by arched cells and a lofty gateway. The rectangular prayer hall has a magnificent facade of seven arches, the central being the highest, flanked by two tapering minarets.

Karbala :

Nasir-Ud-Din Haider's Karbala: It is located just behind Shia Degree College, Daliganj, built and named after King Nasir-un-din Haider (1827-37 A.D.). This Karbala was constructed with the help or lakhauri bricks, lime plastered and decorated with lime plaster mouldings. The tomb itself, placed on a centrally raised platform, is square in plan and flanked by two circular incomplete minarets on either side. The central chamber which houses tazia is covered with dome and another small chamber attached to this, contains the graves of King and the Begum Kudasia Mahal.

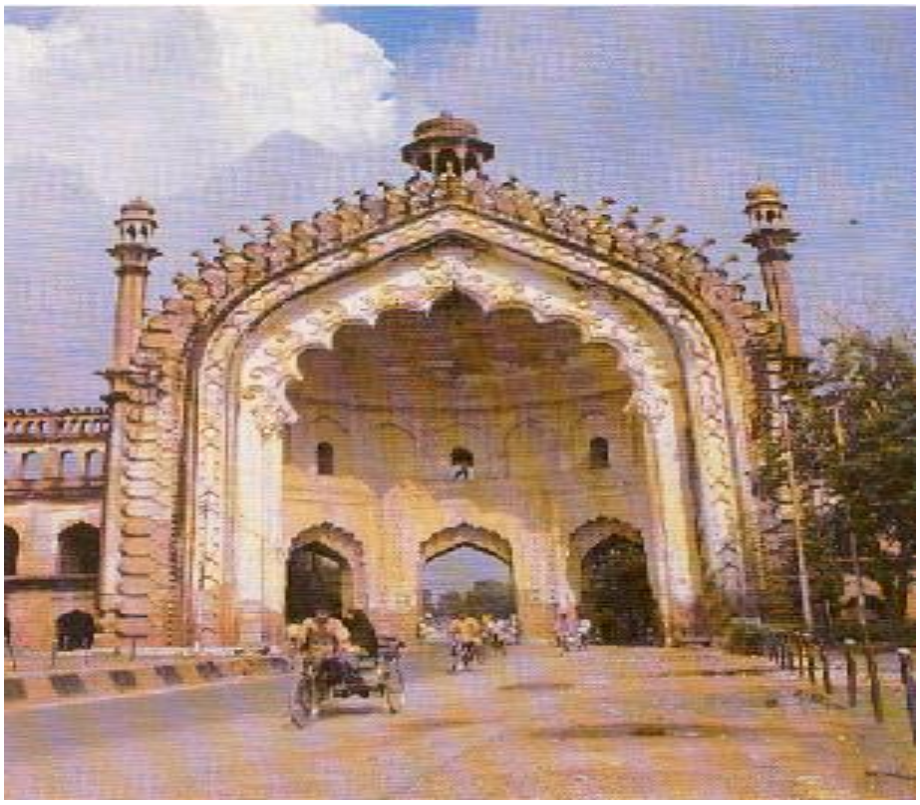
Dayanat-Ud-Daulah Karbala : Located at Noor Bari area of Mohalla. Saadat Ganj, was built by Dayanat-ud-daulah a Khwaja

Sara (eunuch) of King Nawab Wajid Ali Shah (1847-56A.D.). The model of the original Karbala was brought by him from Iraq and copied here which has an enclosing courtyard along with cells with arched front, entered through gateways from all the sides. The centrally placed tomb is square in plan with nine segments and a front verandah, flanked by a minaret on either side with a passage. The crowning beauty of this Karbala is its brass sheet embedded 'Shahjehani Dome' and on the apex of it is built a sunflower, perhaps symbolizing Hindu, Muslim unity of Awadh. In its premises are located main Rauza building, mosque and Khaimagah.

Kaz-man Building: Lies in Mohalla Mansoor Nagar, it was built in 1853 A.D. by Gulam Raza Khan 'Sharf-U-Daula' originally a Hindu merchant named Jaganath, a Minister of the royal court of Wajid Ali Shah. The Kaz-Main is believed to be a replica of Rauza of seventh and eight Imams of Islam, namely Hazrat Moosa Kazim and Hazrat Ali Raza in Iran. The proper rauza stands in the center within a square courtyard entered through gateways from all the sides. The Rauza is a rectangular building has a Zari in the center, placed on a raised platform made of lakhauri bricks, plastered with lime and decorated by floral and geometrical designs. The central chamber has a passage for circumbulation, each corner has minarets while both the central large domes have a very deep drain covered with brass sheets. Adjacent to this is a mosque known as Kufa. The large courtyard to the east of the Kazmain is known as Qatlgah, where Tazias are buried every year. The 'Mom Ki Zari' of Chhota Imambara is traditionally buried in this Karbala. The famous 'Chup Tazia' is also brought here on the 18th of Chehallum.

Talkatora Karbala : It is the largest and most important Karbala in Lucknow. It was built by Meer Khuda Buksh in A.D. 1800 during the rule of Nawab Saadat Ali Khan. It is a replica of Rauza of Hazrat Hussain. It comprises a mosque, an Imambara and Qatal-gah etc.

Darwaza or Gateways



Rumi Darwaza

Rumi Darwaza/ Gateway: The Rumi Darwaza, the main gateway of the Bara Imambara Complex is standing horizontally on the old Hardoi Road is made of lakhauri bricks with lime plaster and plaster mouldings. It is a magnificent and unparallel creation of Hindu-Muslim architecture, by the Architect. Kaifayat-ullah, during

the period of Nawab Asaf-ud-daula, having two faced form, from the western as well as eastern sides. While viewed from the west, looks like a large mehrab, formed by two extra areas, which intersects at a point on the apex. All along the Cursive engravings lotus petals and other intricate patterns with a series of Guldastas were provided to adorn the lofty gateway and within this three medium sized arched gateways appear in a semi-circular fashion. From the eastern side, it appears like a half crescent shaped building, influenced by the Rajput style, having three medium sized gateways adorned with multi foiled arches and floral designs, flanked by two minarets on both the sides. On the roof of the gateway, there is another pentagonal structure with five doorways on each wall. The roof of this geometric structure culminates in a small platform, resembling the top of Mexican hat. Above this, a red sand stone octagonal chhatri (cupola) visible from all the sides, serves as the mukuta or crown of the structure. The Roomi Darwaza is flanked by two five storeyed structures on either sides, along with two six storeyed octagonal bastions on their extreme ends.

Sikanderbagh building: Located on Ashoka Marg, it was built by Wajid Ali Shah (1847-56 A.D.), the last king of Awadh, in the memory of his favorite Begum Sikander Mahal.

The gateway of this building deserves special mention as it exhibits an exquisite architecture, embellished with relief's of floral decorations in white against light brown surface. Most significant parts of the structure are the two rectangular domes on either sides of the gate, built in pagoda style. Adjoining this, there are circular

domes and emblems of pair of fishes. Originally, the Sikanderbagh building had a high walled enclosure wall, made of lakhauri bricks, with lime plaster and decorated with plaster mouldings, used as a summer house with a garden. The remains original structure like **"Kangooredar"** fortification wall, small mosque and an imposing gateway are still surviving. The building still reminds us the fierce battle of freedom movement, fought at this bagh, where a large number of British and Indian soldiers lost their lives.

British Period

Colonial Buildings: Among the colonial buildings of Lucknow, the Residency Complex, Dilkusha Palace, Victoria Memorial, La-martinere Building and cemeteries deserve special mention.

Residency Complex: The Residency Complex was set up at the right bank of river Gomti in 1775 by Nawab Asaf-ud-daula (1775-1795 A.D.) for the British Resident, after shifting the capital from Faizabad to Lucknow. The main Residency building of three storeyed, having a Tah-Khana (underground chamber) under its annexure, was constructed during the reign of Nawab Saadat Ali Khan (1798-1814 A.D.) which was used by the Resident and Chief Commissioner of Awadh till 1857. The main entrance of Residency was from the eastern side, under a large double columned portico. To the western side there was a wide, lofty colonnaded verandah, and the whole area of Residency Complex covers thirty three acres of land, comprises several buildings and gardens, entered through an arched gateway Known as Baillie Guard Gate. Besides the main Residency building, there were Banqueting Hall, Treasury Building,

Dr, Fayre's house, Begum Kothi, Mosque, Imambara, Church and Cemetery giving an indication of varied nature of activities within the complex.

The annexure of the main residency building, which has been converted into a model room that displays a model of lay out of the total residency complex and other objects, related to the freedom struggle of 1857. The roofless building of residency complex had suffered great damages during the historic seize of 1857, which are still surviving in ruinous condition.

Dilkusha Palace (Cantonment Area): This castle like edifice was built of bricks, plastered with lime, decorated with plaster mouldings in a typical European style during the reign of Nawab Saadat Ali Khan (1797-1814 A.D.) Nasir-ud-din Haider (1827-37 A.D.) made additions to this palace. It was originally a hunting lodge for Nawabs and subsequently used as a summer resort too. The corners of the palace were adorned with towers, which had circular staircases in them. During the freedom struggle, the building suffered heavy damages except a few walls. Sir Henry Havelock, a British General was killed on 25th September 1857 over here.

Wajid Ali Shah built a Kothi to the North-west of Dilkusha palace and cleared the ground around it to hold military exercise for his troops during the early years of his rule. The British took exception to this and the King was asked to abandon the exercise, which he left rejected. Within the Dilkusha palace complex there

are three graves along with a cross within an enclosure wall, near Dilkusha palace, constructed by the British people.

Victoria Memorial: The famous Victoria Memorial was built by Jacob Saheb as a memory of Maharani Victoria of Britain in 1904-1908, on a raised platform of red sand stone, provided a series of steps all around the structure. On the corners of the square platform, octagonal small chhatris made of marble were provided to enhance the elegance of the central dome. The enduring beauty of the Chhatri is its well-proportioned marble dome placed on inverted lotus in the shape of large sized pearl. All around it, are the doorways, elegant 'toranas', mehrabs and pillars show carved floral designs. The famous Victoria Park is Lucknow was renamed in 1957 as Begum Hazrat Mahal Park at the time of First Centenary Celebration of India's first independence struggle (1857) in the memory of Begum Hazrat Mahal, wife of Nawab Wajid Ali Shah who took part in the freedom movement and put herself at the head of those fighting for freedom in 1857.

Cemeteries:

During the historic seize, a number of Britishers have been killed and their memorial pillars were erected in different places of Lucknow. Among them the Cemetery at Alambagh which contains the grave of Major-General Henry Havelock who died at Dilkusha on 29th November 1857 deserves mention. The Bargawan Cemetery was constructed by the Britishers in the memory of their Comrades, who died in the battle fields during the seize of Alambagh Camp (1857-58).

The other cemeteries such as cemetery near fort Machchi Bhavan, Mariaon Cemetery, Kalan-Ki-lat, Cemetery near Qaiser Pasand, Cemetery near Chiria Jheel, Cemetery near La-Martineer College, Saper's Tomb, Cemeteries at Lotan Bagh, Vilayati Bagh, Moosa Bagh, Raja Incha Singh compound and memorial pillar at Mohibullahpur are noteworthy.

Architecture of Lucknow:

In the Mughal period, it was a general practice to build the buildings in marble but in the places where there was scarcity of marbles imitation was done with bricks and stuccos. Lucknow, now the capital of Uttar Pradesh was the capital of India from where it was shifted to Delhi. A part of Uttar Pradesh was known as Oudh. There was no standardization of the bricks or the mortars to be used. It depended upon the supervisor on site. Thomas Williamson in 1810 wrote: "*Some of the Rauz, or bricklayers, in India, are very clever, so far as reflates to mere practical operations; but they have not the smallest idea of planning from paper, or on paper";* furthermore there were allocations of jobs, because " the Hindu is both bricklayer, Plaster maker, etc. and the blacksmith and carpenter are often the same person, and in the tools used for the jobs. " It is true, that many of the bircklayers, employed under regular architects, may be seen to use our tools of every description, but this takes place only under such guidance. No matter then how precise the architects intentions, ultimately it was up to the supervisor on the site to ensure that the plans were carried through, or to adopt the plans to the abilities of the work force and the materials available.

It is of great interest to look into the materials and the way they were used in Lucknow. This will speak about the intelligence and the vision of the supervisors controlling the work. The most common materials used were bricks and stuccos. It was used in buildings to the houses of well to do persons, the Nawabi palaces and the religious buildings. The bricks used were lakhauri. The brickwork was done very carefully and precisely. The more skilful the bricklayers, the less coarse was there for the stuccadors, who could concentrate on delicate work instead of covering the vast area with stucco to imitate the stonework effect.

Besides using the whole bricks these were also milled and was used as one of the constituent of the commenting material. The other constituents depend, varied depending on weather the mixture was to be used solely for join bricks together, for coarse plastering over walls, for the floors and roofs of buildings. (when it was known as tarras) or for the final coating over the walls. The chunam (which is often translated as lime), which should rendered as stucco had the cementing properties. The properties of lime of course depended upon the materials to produce the lime.

Lucknow workmen believe that the stucco in the Jama Masjid was made from red lime, gum, a kind of fine pulse called. “Urad ki Daal”, Jaggery, shells and a stricky paste called saras. The composition of chunam could vary considerably according to the pocket and the taste of the builder. The nawabi chunam of Lucknow was especially commanded upon and a few examples of marble like chunam remains, for instance in the Residency Banqueting hall. However, chunam in other parts India like Udaipur and Jaipur

in Rajasthan, where marble is used, is consistently better preserved and is of highest quality.

Stucco could be used to produce effects in quite deep relief, even applied to a flat wall, as in the pediment on the Husainabad wall where figures in Greeco-Roman style are moulded to produce a two dimensional effect without relying on a skeleton of brick or iron. Similarly the false domes which appear on the walls of the SafdarJang tomb in Delhi, the Great Imambara, and the Residency complex Begum Kothi in Lucknow, and are very characteristic of the eighteenth century Nawabi architecture, are built in stucco, and not built over a brick core.

As there was scarcity of stone near Lucknow, the buildings where the stones were used are rare, and speak about the status of the owner. Only two buildings are recorded that were constructed entirely from stone the Sungi Dalan in the Macchi Bhawan complex and the Lal Baradari in the Chattar Manzil. Although this latter building is now painted in red outside and could easily be mistaken for a brick and stucco structure, it is in fact made from Jaipur marbles. Most of the stones used in Lucknow were brought from Chunnar, a town to the south east of Lucknow. Claude Martin's inventory for Constantia mentions 363 slabs of Chunar stones for use in the House and in 1841 A.D. Colonel Wilcox speaks of the immense stones which were brought from Chunnar for the piers erected in his observatory. Various uses of marble in the interiors of buildings were recorded, through very few remain. Only two carved marble fountain basins are noted., the first taken from the palace of Zahur Baksh and presented to Lucknow Museum about 1988 (159)

and the second of fine white marble with a black inlay in the banqueting Hall of the Residency complex. The large tank in the center of the Chattar Manzil complex was of marble, as were the baths in the Badshah Bagh on the north bank of Gomti. Marble floors were found in some of the most elaborate buildings, including the white marble floor inlaid with a mosaic work of black and red which was laid over the heated flues of the hammam or the bath house in the Macchi Bhawan complex. It is probable that this was floor referred to in a news paper report of 1792 which says;

The prince of Oudh (Asaf-ud-daula) has given an order to a very eminent and ingenious artist in this country (England) to prepare him a flooring of marble etc. for a smoking room. The order is completed, and is the first thing of the kind that was ever made in this country. It is 20 square foot, and is composed of more than 8000 pieces. In this flooring are introduced all sorts of marble which are arranged with a taste and judgment that do infinite credit to the artist.

Besides the bricks and Nawabi stuccos, pottery was extensively used, not only for flow of hot air form the lower rooms to the vents in the flat roofs but also for decorative purpose. The potters have imitated balusters in clay and many still survive, especially on the roof parapet Asafi Kothi, and for garden walls at ground level. A more beautiful use of pottery, and the one very peculiar to Lucknow was for the roof finishes and the ornaments. These were carried out in a green glazed ware, produced by adding copper to the glaze, and when placed in the position along roof parapets and towers produced a striking effect. Of that still in existence the commonest types are the “pineapple” and the

“Guldasta”, a cluster of flower buds. Both these type of ornaments can be seen, first at Kakori and Mahmudabad and the second at the Capains Mosque in the Daulat Khana complex. Early pictures of Rumi Darwaza show a whole series of Guldastas around the arch, which P.C. KuKerjee believed, were originally to have fountains throwing jets of water up from the heart of each Guldasta. A more specialized use of pottery was made in producing small clay medallions, now found only in La martinierre in Lucknow.

The erection of atypical Nawabi pukka building was a slow process, first a deep foundation had to be dug, not just because of the light and friable nature of the soil and the weight of the proposed building, but because the basement or the semi basement rooms embedded in the soil were valuable as retreats during the summer season. These rooms, the tahkhana, had a small downward pointing shafts near the ceiling to provide light and air, but not directly sunlight. The floors of such basements were of considerable thickness, constructed of the layer of bricks and cement with flues inserted at regular intervals for drainage, although two rows of inverted pots were sometimes substituted, packed round with sand, then covered with a layer of tiles and cement. Wooden beams were not used a5t all at this level because of the fear that the imperfect drainage may rot the wood in the monsoon period.

All the walls were made of solid masonry of sumptuous thickness. The partition walls were even two feet in breadth. These are composed of solely lakhauri bricks and cement. Some solid walls in Constantia measure five feet across where walls have

been partially robbed for their bricks one can observe that they are indeed solid masonry, with no rubble core. The only exception are the outer walls of Constantia and Barowen which incorporated pottery ducts as air-cooling devices cemented into the walls.

Over the walls beams are placed. Over the beams were placed wooden joists or battens or thinner wood, and across these joists were laid flat pottery tiles, cemented in place. Normally two layers of tiles were used each sand witched with cement. Then four to five inches of rubble or mortar was laid on top before the final coat of mortar was laid, which would then in turn be stuccoed over and polished. Conventional wooden boarded floors were seldom used because the underside of the boards would not be visible for inspection for white ants and because of warping. Most buildings were of no more than three complete storyes, including the semi basement, though they often incorporated a smaller fourth storey over the center of the building, as in the Dilkusha, and Constantia has six storeys between the four “wells” sunk into the earth.

Once the masonry had been completed wooden lintels and frames were inserted where appropriate, doors, windows and shutters were hung, “invariably painted green… some prefer all verdigris, other, a deep clear green for the framework, with verdigris for several leaves or valves. Windows were normally glazed for glass was cheap and readily available in Lucknow, having been sent from Calcutta. Inside the building were the circular staircases, always surrounded by a masonry stairwell.

Even the building as palatial as Asif Kothi continued the tradition of small staircase. Until 1780 most staircases were masonry, but wooden staircases then came into use. "These rest on strong wooden beams, all joist were painted or tarred. Many Nawabi buildings have iron rings near the ceiling level, both inside an outside where cloth could be attached. Punkhas (fans) were attached to the ceiling beams by iron rings, and the varandh roof at Bibiapur still remains part of the wooden punkha frame.

Inside the house, after the walls had been stuccoed and the ornamental moldings made, delicate colours like lilac and sky blue were applied, often with the molding and beading of the mock door panels picked out in white. Many Nawabi houses still retain conventional European fireplaces with wide flues, but one must conclude from the complete absence of the chimneys at roof level that such fireplaces were purely decorative or, what is more likely, that they held moveable braziers of charcoal during the winter. Thus architecture of Lucknow displays a sense of a aesthetic agreement between the works of man and these of nature, simplicity and unity of design, proper use of building material, fine plaster, geometrical and ornamental moulding and finally the ideal location of the site chosen for their construction.

Preservation

It is an established fact that our cultural heritage has been endangered by the human development, unthinking urbanization, looting, neglect use of improper materials, lack of maintenance and above all unauthorized constructions in and around the monumental site which have caused unnecessary misplacement of

original fabric, appearance, character and historical value of these monuments. Under these conditions government has issued certain important guidelines for the preservation of these monuments, they are;

1. Before taking up any kind of repair , the inspection, proper investigation, measurement, all types of recordings, proper documentation are essential
2. For minor repairing scaffolding, ladder other tools and plants should be readily available.
3. Accumulation of rubbish/debrie inside and outside of the monuments can block escape routes, choke the outlets, increases dampness, leading to damage to structure.
4. Development of cracks should be observed thoroughly before going in to repair.
5. The cracked beams, pillars, missing tiles, poles should be replaced with new ones, maintaining the original colures, quality and design, etc,.
6. Basement of the monument should be kept dry and well ventilated and any kind of repairing should be done immediately.
7. The work of repointing, grouting, underpinning, monitoring the dampness and consolidation should be dealt regularly as a part of maintenance.

Housing 4

Housing is a basic need of man. In importance, it is third after food and clothing. The importance of housing was universally accepted from the dawn of history. Even the Neolithic man who lived between 10,000 and 2000 B.C. built durable habitation like pit dwellings, lake dwellings and beehive huts. However, its functions increased manifold over the years. Primitive men sought some kind of protection against wild animals and natural calamities. Housing protection is also sought against enemies as well. When the institutions of private property came to be recognized housing received a big boom in the investment sector.

With the development of knowledge and the advancement of civilization, people became particular about sanitation, environment, privacy, location of house, etc. He becomes more conscious of better facilities, which make his life easy and very comfortable. With the invention of electricity and other facilities the development of housing became more important. Then man began to bring electricity, toilet, bath, washbasin etc. within the walls of his house. Houses become useful in various ways. A house is the place where one can take rest, sleep and cook food. A house can also be used partly as a shop, work place, or a place for business for any type of activities. In developed countries the top most executives bring their work home in their own briefcases and get it done in the home at night. A significant percentage of recreational activities is being brought into the house with the advent of television, radio, computer, recorded music etc. As per the available information man spends a good part of his lifetime in his

house. This clearly indicates the fact that a house is a part and parcel of a man's life.

Urban housing problem that perhaps causes the most concern to a majority of urban dwellers is the problem of finding an appropriate place to live. The popular feeling is that the prices of housing of all kinds have been increasing exorbitantly could indicate that housing investment has not kept pace with the increasing demand for housing. The national income estimate clearly indicates the fact that housing investment as a proportion of gross capital formation in India has declined from about 30 per cent in 1950 to only just half or even less than that in 1990. To a large extent, this is as should be expected in an economy undergoing dramatic and considerable diversification with massive investment in an industry.

Census data indicates that the quality of per capita shelter has declined during the last 40 years as measured by indices of crowding. The pace of changes in the quality of housing which was evident during 1950s and 1960s seems to have been restricted in 1970s. A new approach to the provision of shelter is therefore, sorely needed, before conditions decline even further. Paradoxically, it must be bolder in providing an expanded house stock as well as more cautious in what we expect to provide taking account of the existing level of income distribution in the country. Given the low level of income and low level of growth it would be unrealistic to expect people to devote much portion of their income in housing sector. Hence, this approach needs to be changed from the prescription of unrealistic approach to the provision of facilities

and condition that are suitable for people to obtain maximum quality of shelter as per their needs as well as their capabilities.

The high rate of growth of urban population and its accumulative nature with a population over one lakh has led to increasing problem of housing, reducing privacy and over crowding in small house, steady growth of slums and unplanned settlements and severe effect on civic services in urban areas. Housing situation is becoming worse, due to inadequacy of water, supply of housing by the combined efforts of all public, private, group housing societies and joint venture between private and public etc. and acute shortage of investment in housing sector and the extension of city level infrastructure. Majority of the houses in India are constructed by the people themselves with their own resources. The main role of government at all levels is not to seek to built houses itself but to act as a catalyst and make appropriate investment and create conditions where the poor people may gain and secure good housing and to remove the existing difficulties in the housing system. For removing the existing impediments in the housing system national housing policy has framed certain well defined objectives.

1. To assist all people especially the houseless, economically weaker sections of the society, inadequate and lack of facilities within the house, to secure themselves affordable housing through access to land, building materials, housing finance, locally suited technology etc.

2. To develop a good environment for housing by all the sections of the society, by changing the attitude of public sector through developing an efficient and equitable distribution of housing delivery.

3. To increase the provision of infrastructural facilities as much to cope up with the demand of improvement of environment of human settlements, increase the access of economically weaker households to the basic services and to expand the supply of developed land for housing.

4. To implement the policies of government for eliminating poverty and providing employment to weaker sections of society as well as all other people, steps for expanding housing facilities to poorest section of the society by initiation and government financial support.

5. To mobilize the resources and invest in housing sector in order to meet the urgent needs of housing construction, modification and expansion of infrastructure.

6. To curb speculation especially from real estate agents and property developers for land acquisition. Special priority should be given to economically weaker sections of society and promote more equitable distribution of land and houses in urban sector towards these groups.

7. To create a habit among the rural as well as urban weaker sections of the society for saving and investment in needy sector mainly housing.

8. To increase the role of public, private, group housing societies, insurance companies, well renowned banking institutions for providing credit facilities to the people and their employees for housing like national housing board, housing and urban development corporation, multi-national companies. And these institutions try to expand investment in housing sector through their banking ties with foreign companies.

9. To develop researchers as well as engineers dealing with housing sector for making houses at lower cost, using locally made resources which is very suitable for the prevailing environment conditions for the particular area and its durability.

10. To promote architectural as well as planners role for providing good houses to the masses and preserve the nation's rich urban heritage for the generations to come.

11. To formulate a comprehensive programme which should stress the urban renewal and massive expansion of housing especially in towns and cities paying particular attention to the needs of slum dwellers and economically weaker sections of the society.

12. To try to reduce forced eviction and demolition of slums in urban areas, care will be taken to see that the urban and semi-urban poorest are provided housing near to their place of occupation.

The main policy adopted by the Government of India to achieve the objectives of housing sector is to make provision for shelter needs of all and to take direct responsibility for the homeless and economically weaker sections of the society. It also aims at providing security of tenure to household creating flexible institutional finance system for housing system, creating a tendency of saving and investment habit in all the sections of the society especially in rural areas, it further aims at a good environment to housing investment for rental purpose from the real estate agents, property developers and other investment people, especially in metro cities and other state capital towns. In addition to this, also to encourage research and development activities in housing sector mainly in low cost building, using locally available resources for house construction, inception of most modern equipments for better finishing and attaining highest durability of houses. The policy foresees the role of co-operatives, financial institutions, multi-national companies, private and public institutions etc.

On the basis of recommendations of the government of India regarding the national housing policy, the state government has prepared its own policies within the existing socio-economic, cultural, political, geographic conditions, with the optimum use of available local resources. The housing sector in biggest state population-wise, Uttar Pradesh relates to more on modification and

upgradation of existing houses, rather than the construction of the new one. It purely depends upon manifold reasons such as social, economic, cultural, physical and geographical conditions of Uttar Pradesh. The main reason for the low level of construction of new houses in Uttar Pradesh may be due to low level of income of household both in the urban as well as rural areas.

Housing Gap

Housing gap is the difference between the total requirements and supply of houses, which indicate number of additional houses that would be required to provide each household with a separate house. The dwelling must conform to the health needs and socially accepted standard. Number of factors act and accelerate the housing requirements and on the other side number of factors hinder the expansion of housing supply in proportion with the housing requirements. Generally the housing gap is the outcome of the combined effect of two sets of factors. One is needs which, because of low income cannot become effective demand and the other is needs which can be subsequently do emerge as effective demand. In these two factors the first one is more serious than the other.

Housing gap has two aspects namely quantitative and qualitative aspects. The quantitative aspect dealt with the difference between the number of households and number of existing houses. This is also called numerical housing gap. While on the qualitative aspects it means lack of per capita housing space or household relation to minimum housing space required for healthy living, which is of course socially accepted minimum

standard level. The qualitative gaps refer to number of items and hence it may be gauged from different angles. It can be low or poor quality of surrounding areas, durability of housing, age of the houses, quality of material used in the construction of houses, absence of certain well required modern amenities within the house like kitchen, toilet, water supply, bathroom etc., In order to avoid these lacunas, government of India, state governments and other local governments are making various policies for improving the housing situation and constructing new houses. In addition to all these actions initiated by the governments the level of requirement is not fulfilled, the quality of shelter especially, for the poor as well as economically weaker sections of the society has been steadily deteriorating.

In the development of housing number of agencies involved both public as well as private, joint venture, group housing societies and number of other institutions are in operation. Among the governmental side, central and the state government like developmental authorities, state and central owned public undertakings; housing boards, city improvement trust etc. are involved. In addition to above all, housing and urban development corporation, called HUDCO has been continuously involved in the preparation of various policies for the development of housing especially for poor sections of the society. Life Insurance Corporation and other agencies in the insurance sector are also contributing their might through promotion of loans and other advances to the employees in the private as well as public sector in large scale. In the private sector, the concession of massive housing are being encouraged by provision of adequate finance

provided by national housing bank, central bank i.e. Reserve Bank of India, commercial bank and housing development financial corporation called HDFC and other specialized institutions developed by the nationalized banks for housing.

From being a problem to be tackled by building more number of houses by the government sector shelter activity must now become means of mobilizing the motivations, energies and resources of the people so as to lead more and sustainable development at a faster rate. This is the main idea of new approach needed in the area of housing in urban sector in India. Shelter must be treated not as an activity to be carried out in isolation but as an important integral factor for attaining economic growth with stability of the country with special emphasis on the economically weaker sections of the society. For removing the existing bottlenecks in housing sector in India and planning for attaining sustained economic growth with stability in housing sector in coming years, the policy makers, researchers, academicians, planners etc. should take into account certain well established norms before making policy decisions. They are:

1. Careful Cost- Benefit Planning, well planned, sustainable, development oriented, equal development irrespective of all and recognition of the needs for structural change required for attaining the objectives of the housing policy.

2. A fully versatile and well defined development programme aims at promoting self reliance and

participation of private as well as public called joint venture by building up available resources, technical capability and managerial capability.

3. The main aim of the policy of housing is to provide houses for the homeless and it is the top most priority. For attaining this an improvement in the built environment of the neglected houseless is very essential and it plays as a catalyst of socio economic development.

4. A well-oriented housing activity creates a multiplier effect through widespread social, economical, psychological and other benefits.

5. The role of informal sector especially in urban sector has a vital importance and perspective role to play, provided that necessary support systems are available to it.

6. Generally accepted norm of the housing is that of low cost building and long-term durability of houses. This is very important especially for poorest sections of the society and informal sector.

7. The easy way for attaining development in housing sector or to speed up the activity is through the improvement in the informal sector mainly by providing material goods at the lower level, cash aid,

technical advise, use of locally available resources, etc,.

8. To attain the optimum potential that improved shelter has to offer to the nation, the decision must necessarily be self financing and viable. Moreover before implementing any scheme regarding housing needs a well-defined study that clearly aims at economic conditions of the concerned people. Only in a professionally sound manner, can we attain the level of efficiency of activities required.

9. In addition to the above-mentioned, well defined technologies and institutions which specialize in these type of activities and judicious mix of old and new methods, considering our age old traditional, conservative and most modern, sophisticated world can provide more broad based access to these facilities.

10. The worthiness of the shelter technologies must now be measured in the international standard that have rarely been used in the past.

In addition to all these efforts initiated by the government, various non governmental organizations, research and development organizations, government training institutions mainly dealt with development of housing sector, the difference between demand for housing and supply of housing in our country is

continuously widening. In order to understand the housing situation of India and Uttar Pradesh, first of all we have to know the number of residential houses as well as the number of households. The information regarding occupied residential houses and households in Uttar Pradesh and India is presented in Table 4.1

Table 4.1 Occupied Residential Houses & Households in India and Uttar Pradesh - 1991

No	Details	India	U.P.	%
1	No. of Households(Lakh)			
	a. Rural	1115.90	180.20	16.15
	b. Urban	404.20	43.50	10.76
	c. Total	1520.10	223.70	14.72
2	No. of Occupied Residential Houses (Lakh)			
	a. Rural	1079.40	173.40	16.06
	b. Urban	390.70	40.60	10.39
	c. Total	1470.10	214.00	14.56

Source: Handbook of Housing Statistics, NBO, Part I – 1996

It may be observed from Table 4.1 that in Uttar Pradesh 214 lakhs occupied residential houses existed during the year 1991. More than four fifth of the total occupied residential houses existed in the rural areas of Uttar Pradesh and the remaining less than one fifth of them existed in urban areas. 14.56 per cent of the occupied residential houses of India in 1991 existed in Uttar Pradesh. The information regarding population household and occupied residential houses in Lucknow UA during 1981-91 is presented in Table 4.2.

Table 4.2 Growth of Population, Households and Occupied Residential Houses in Lucknow 1981-91

No	Item	1981	1991	% Change
1	Number of Population	1007604	1669204	65.66
2	Number of Households	183010	293130	60.17
3	Number of Occupied Residential Houses	177133	270571	56.28

Source:- Metropolitan Housing Statistics, NBO, 2002.

It may be observed from the Table 4.2 that the population during the period 1981-91 had increased by 6.6 per cent. During the same period the growth of household was observed at 6 per cent and occupied residential houses at 5.63 per cent respectively. The household size had increased from 5.5 in 1981 to 5.69 in 1991. As far as the households size is concerned the population per occupied residential houses had increased from 5.69 persons to 6.17 persons during the same period. This clearly indicates the fact that the available houses were accommodating more number of persons as compared to the previous decade, suggesting that there is an urgent need for houses in Lucknow in the coming years. The main reason behind this may be due to the low level of income of Lucknow people for constructing new houses, acceptance among the family for accommodating more number of persons, high cost of construction of new houses, less mind setting nature etc.

A major task facing housing development in India relates to the provision of required housing to all mainly to economically and weaker sections of the society, mainly stressing in the Common Minimum Programme of the present United Progressive Alliance Government at the centre. Constant and steady rise in the urban

land prices and increasing the gap between the rich and poor in majority of the Indian cities have virtually eliminated these vulnerable groups from the urban land as well as housing markets. The increasing gap between rich and poor has further reduced the scope for integrating them in to the formal housing market system. In addition to all, the economically weaker sections of the society do not have the access to finance from the existing system owing to their low irregular and uncertain income and their inability to furnish acceptable collateral securities to the formal housing finance institutions. Despite various programmes and policies initiated by the government from time to time the housing situation remains a dismal picture. The information regarding housing shortages in urban India and Uttar Pradesh during the Ninth Five Year Plan is presented in Table 4.3.

Table 4.3 Urban Housing Shortages In India & UP 1997-01

(Million)

No	Year	India	UP	Per cent
1	1997	7.57	0.88	11.6
2	1998	7.36	0.86	11.7
3	1999	7.18	0.84	11.7
4	2000	6.93	0.81	11.7
5	2001	6.64	0.77	11.6

***Source:- Compendium of Environment Statistics, CSO, 2001*.**

It may be inferred from Table 4.3 that housing shortage in urban India had decreased from 7.57 million in 1997 to 6.64 million in 2001 and the growth was observed at 2.5 per cent per annum. During the Ninth Five Year Plan period the reduction of housing

shortage in urban Uttar Pradesh had reduced from 0.88 million to 0.77 million and the growth of housing was observed at 2.5 per cent. This clearly indicates the fact that during the Ninth Five Year plan period nearly one million houses were constructed in the urban areas of India. The information regarding housing shortage in Lucknow UA and other metros in India is presented in Table 4.4.

Table 4.4 Housing Shortage in Lucknow UA & Metros in India

(in 000)

No	Items	Metros	Lucknow UA	% of Col 3 to 2
1	Number of Households	13728	301	2.19
2	Number of Houses	13421	299	2.23
3	Housing Shortage*	927	17	1.83
4	Congestion Factor	656	14	2.13
5	Obsolesce Factor	564	13	2.30
6	Total Housing Shortage	2147	44	2.05

Source:- Urban Statistics Handbook, NIUA, 2000.
**** means without congestion and obsolesces factor***

It may be inferred from Table 4.4 that housing shortage in metros in India was around 21.5 lakh including the congestion and obsolesce factors and without these it was 9.27 lakh. In Lucknow UA itself housing shortage was observed at 44 thousand. The congestion factor was observed at highest percent of housing shortage in urban areas. More than 2 per cent of the shortage of houses was observed at Lucknow UA during the year 2000. The % contribution of number of households and houses in Lucknow within other metros in India was at 2.19 and 2.23 respectively during 2000. The houseless households and population in Lucknow UA in 1991 is presented in Table 4.5.

Table 4.5 Houseless Households and Population in Lucknow UA-1991.

No	Items	1991
1	Number of Households	293130
2	Number of Houseless Households	4852
3	Number of Houseless Population	11912
	a. Male	9224
	b. Female	2688

Source:- Metropolitan Housing Statistics, NBO, 2002.

It may be shown from Table 4.5 that 1.7 per cent of the households of Lucknow UA were houseless households during the year 1991. Near about 12000 persons were not having proper house for staying; they stayed either on the streets or roads, public places. Of this, 2688 were females. It clearly narrates the pathetic situation of housing in Lucknow UA. The main reason behind this may be due to the level of poverty, low level of maintaining the available houses, absence of maintaining the house due to the joint family system and not taking responsibility among the concerned at proper times, etc,.

Poverty means an inadequate income level that is very difficult to maintain the standard of living as judged by the society. The norms for fixing the level of poverty may differ due to the use of different types of tools/techniques. Some times it is in monetary terms or calorie terms or any other terms. The population below poverty level in the urban areas of Uttar Pradesh and India is presented in Table 4.6.

Table 4.6 Population Below Poverty Line In India & UP –Urban

(per cent)

No	Year	Urban	
		India	UP
1	1973-74	49.01	60.09
2	1977-78	45.24	56.23
3	1983	40.79	49.82
4	1987-88	38.20	42.96
5	1993-94	32.36	35.39
6	1999-2000	23.62	30.89

Source:- Compendium of Environment Statistics, CSO,2001.

It may be observed from Table 4.6 that near about one fourth of the urban population of India were below poverty line and during the last 25 years of the successfully implementation of the various government policies and schemes for eradicating the poverty, it has dramatically reduced from 49 per cent in 1973-74 to 23.62 per cent in 1999-2000. Poverty level covered under the study showed the fact that always urban poverty in Uttar Pradesh was higher than the national level, 10 per cent in 1973-74 to 7.27 per cent in 1999-2000. It may be due to the large number of factors such as low level of investment of Uttar Pradesh Government for the development of industrial units both in small, medium as well as large scale industries which absorbs huge level of population called employment, social systems, higher growth of population, widening the gap between the rich and poor, political rivalry actions, etc,. The present United Progressive Alliance government at Centre as well as Uttar Pradesh State government has been formulating various policies for eradicating the level of poverty. We hope in the near future the level of poverty may drastically reduce.

Typology of Houses

As one of the very basic human needs especially after food and clothing housing has to be an integral component of the main strategy to achieve the over all development, it is also both the cause and the consequence of many aspects of change in the existing social system. Evolution in the traditional system have brought about a series of problems from monetisation of traditional building materials, reducing the age old traditional building mechanism or local building skills, inadequate finance, increasing number of houseless population, etc,. A large densely populated states of Indian Union like Uttar Pradesh mainly in metro cities the availability land for the construction of new houses, adequate finance to the economically weaker sections of the society, less use of locally available resource for the construction of houses play a creating factor in the development of housing. This may be due to the development of education and social changes in the economy. Majority of the poor people are still using traditional locally available construction materials like mud, stone, bio-mass. This is mainly due to their affordability to the most modern construction materials is very less. The emphasis in recent years on most modern building materials such as cement, steel, fixed bricks have diverted considerable expenditure on to the development and production of these, but the poor have very little access to them. On the contrary the traditional building materials are becoming commercialized due to the movement of people towards naturopathy and partly because of its being scarce and higher cost of production of these materials. Therefore, it is very essential to understand the typology of housing.

On the basis of materials used in the construction of houses mainly wall and roof, Census of India classified the houses in to three categories viz. pucca, semi-pucca and kutcha. For arriving this typology of housing, the norms adopted by the National Building organization have been made use of. The main base of the typology of housing by the National Building Organization is presented in Table 4.7.

Table 4.7 Criteria of Typology of Houses By NBO

No	Materials		Typology
	Wall	Roof	
1	Burnt bricks, Glass sheets or other metal sheets, stone, cement concrete	Tiles, slate, shingle, corrugated iron, zinc, or other metal sheets, asbestos, cement sheets, bricks, lime stone and RBC/RCC Concrete	Pucca
2	Grass, leaves, reeds, bamboo, mud, un-burnt bricks, woods, etc,.	Grass, leaves, reeds, bamboo, thatch, mud, un-burnt bricks, woods, etc,.	Kutcha

Source:- Census of India 1991.

It may be inferred from Table 4.7 that those houses, which have both, wall and roof made pucca material are called pucca. When both wall and roof are made of kutcha materials the house is called kutcha. If either wall or roof is made of pucca material and the other of kutcha material, then the house is classified as semi-pucca. The kutcha houses have been further classified as serviceable and non-serviceable. If wall is made up of materials such as grass, leaves, reeds or bamboo and roof is made of material like grass, leaves, reeds, thatch, wood, mud, un-burnt bricks or bamboo then the house has been classified as un-serviceable kutcha and other

kutcha houses as serviceable. The distribution of houses by typology in Lucknow UA in 1991 is presented in Table 4.8.

Table 4.8 Houses by Typology in Lucknow UA –1991

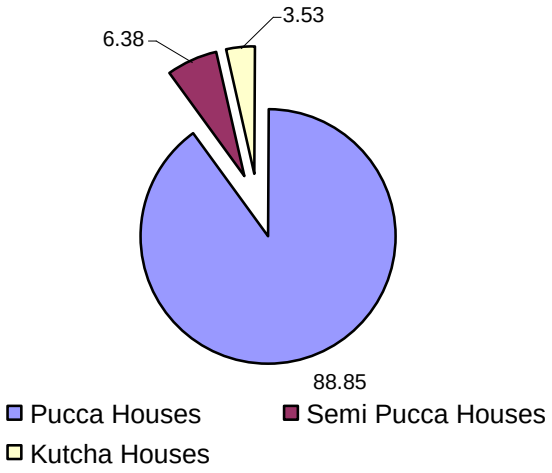
No	Item	Number	%
1	Number of Residential Houses	368790	100.0
2	Number of Pucca Houses	322515	88.85
3	Number of Semi Puccca Houses	23175	6.38
4	Number of Kutcha Houses	17295	4.77
	i. Number of Serviceable Houses	12810	3.53
	ii. Number of Unserviceable Houses	4485	1.24

Source:- Metropolitan Housing Statistics, NBO, 2002.

It may be observed from Table 4.8 that near about 89 per cent of the houses were of pucca category, 6 per cent of them as semi-pucca and the remaining 5 per cent as kutcha houses respectively during the year 1991. 3.5 per cent of the houses were classified as non-serviceable, which needs immediate change that means destroy the existing house immediately and construct a new house and it is not possible for modification or upgradation of the existing one or renovation. In comparison with the national level pucca houses in Lucknow UA was higher at 13.1 per cent and semi-pucca and kutcha houses were lower at 11.3 per cent and 4.79 per cent respectively during the year 1991. Moreover near about three fourth of the kutcha houses were treated as un-serviceable kutcha which clearly indicates that to destroy large number of kutcha houses, majority of houses were constructed by kutcha materials both in roof and wall and construct the new one. The information regarding distribution of houses by typology in Lucknow UA in 1991 is depicted in Figure 4.1.

Figure 4.1

Typology of Houses in Lucknow UA-1991.



The information regarding the distribution of households by typology of houses and proportion of structure in bad condition in India and Uttar Pradesh is presented in Table 4.9.

Table 4.9 Distribution of Households by Typology and Proportion of Structure in Bad Condition in India and Uttar Pradesh- 1991

(Per cent)

No	Typology	India	Uttar Pradesh
1	Pucca	73.84	77.15
2	Proportion in Bad Condition	3.44	4.71
3	Semi Pucca	17.89	15.68
4	Proportion in Bad Condition	18.66	24.28
5	Kutcha	8.27	7.17
6	Proportion in Bad Condition	52.63	55.55

Source:- Statistical Abstract, CSO, 2001.

It may be inferred from Table 4.9 that 56 per cent kutcha houses in Uttar Pradesh were in bad condition, it was just 2.92 per cent above national level. Like-wise near about one fourth of the semi-pucca houses were in bad condition and it needs some type of renovation or modification which was higher than the national level by 5.62 per cent. Near about three fourth houses in India and just above that level in Uttar Pradesh were Pucca during the year 1991. As a general phenomenon pucca houses do not need any change immediately and very less percentage of them were in bad condition and it were 3.44 per cent and 4.71 per cent in India and Uttar Pradesh respectively. The information regarding number of houses uses to which they are put in Lucknow UA during the year 1991 is presented in Table 4.10.

Table 4.10 Houses and the Uses to Which They Are Put- Lucknow 1991

No	Details	Number
1	Census Houses	368790
2	Vacant Houses	35110
3	Residences	274190
4	Shop Cum Residences	7335
5	Workshop/ Factory cum Residences	3080
6	Residence Combination with Other Uses	3200
7	Hotels, Tourist Houses, Inspection Houses, Dharamsalas	510
8	Shops Excluding Factory Houses	19380
9	Business Houses and Offices	2510
10	Factories, Workshops and Work sheds	8525
11	Restaurants, Sweet Meat Shops, Eating Places	1995
12	Entertainment and Community Gathering	150
13	Places of Worship	2050
14	Other Non Residential Houses	10735

Source:- Metropolitan Housing Statistics, NBO, 2002.

It may be observed from Table 4.10 that near about three fourth of the census houses were residences. Near about 10 per cent of the houses were vacant houses during the year 1991 in Lucknow. Factory houses in Lucknow constituted more than 5 per cent of the census houses. The remaining census houses in Lucknow were used for various other purposes, its proportion to the total census houses very nominal, clearly mentioned in Table 4.10.

Tenure Status

Tenure status of houses in the city is playing an important role for analyzing the scenario of housing. During the primary data collection at the field level showed the fact that majority of the housing stock in the city were under the category of owned and the remaining were in the category of rented and others. The information regarding status of housing viz, owned, rented and others in Lucknow UA during the year 1991 is presented in Table 4.11.

Table 4.11 Tenure Status of Lucknow UA 1991

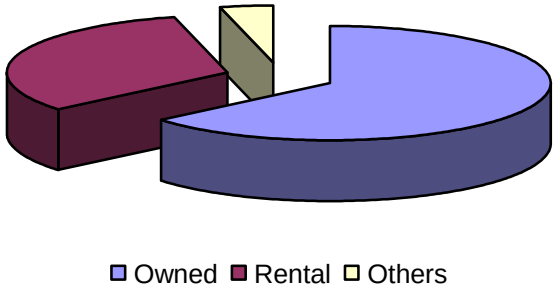
No	Tenure Status	Number of House Holds	%
1	Owned	188390	63.67
2	Rental	95970	32.43
3	Others	11410	3.90
4	Total	295885	100.00

Source:- Metropolitan Housing Statistics, NBO, 2002.

It may be inferred from Table 4.11 that near about two third of households in Lucknow UA during the year 1991 were in the tenure status of owned, 32 per cent of the households were in the

category of rented and the remaining 3.9 per cent of them were in others. The proportion of owned, rented and other categories of housing in the tenure status of urban India and Lucknow UA were more or less same. The tenure status of housing in Lucknow UA during the year 1991 is depicted in Figure 4.2

Figure 4.2
Tenure Status of Housing in Lucknow UA



The information regarding tenure status of housing by household size in Lucknow UA is presented in Table 4.12.

Table 4.12 Households by Tenure Status & Size- Lucknow UA 1991

No	Household Size	Owned	Rented	Others
1	1-2	17700	15205	2250
2	3-5	76230	49075	5405
3	6-8	62955	24615	2885
4	9+	31505	7075	870
Total		188390	95970	11410

Source:- Handbook of Housing Statistics, NBO Part I, 1996.

It may be observed from Table 4.2 that 44.2 per cent of the households in Lucknow UA during the year 1991 was in the household size of 3-5. Only 11.9 per cent of the households in Lucknow UA were in the size of 1-2, showed lowest proportion in this household size group. 13.6 per cent of the households and 13.3 per cent were in the household size of 6-8 and 9+ respectively in Lucknow UA in 1991.

Living Pattern of Household

Living standard of household in the city is an important indicator for analyzing the status of housing in the city. In order to understand the same in Lucknow UA the distribution of household by size and number of rooms during the year 1991 is presented in Table 4.13.

Table 4.13 Household by Size and Number of Rooms Occupied in Lucknow UA – 1991.

No.	No. of HHs Occupying	Household Size			
		1-2	3-5	6-8	9+
1	NER	20	45	15	-
2	One Room	19890	47770	28965	8010
3	Two Rooms	9140	43990	30235	10585
4	Three Rooms	3170	20260	14980	7330
5	Four Rooms	1390	9620	8965	5690
6	Five Rooms	535	3525	3470	3125
7	Six Rooms +	770	3170	3795	4700
8	Unspecified	240	2330	30	10
Total		35155	130710	90455	39450

Source:- Handbook of Housing Statistics, NBO Part I, 1996.

Notes: 1. NER – Non Exclusive Room

2. HHs - Households

It may be observed from Table 4.13 that more than one third of the households in Lucknow UA were occupying one room for their living purpose during the year 1991. Only 80 households in Lucknow UA during the year had not any space for living and treated as non exclusive room during the same period. Just below one third of the households (31.8 per cent) in Lucknow UA during the year 1991 had been using two rooms for living purpose. Only 4.2 per cent of the households in Lucknow UA had 6 rooms or more as their living space. This clearly indicates the fact that more than two third of the households in Lucknow UA had less than three rooms and suggested the requirement of more number of rooms for their purpose. It may be due to the low level of income among the households, less level of employment opportunity within the city, socio economic set up like joint family system etc,. The information regarding household availing electricity and toilet facility by tenure status in Lucknow UA during the year 1991 is presented in Table 4.14.

Table 4.14 Household Availing Electricity & Toilet Facilities by Tenure of Houses in Lucknow UA-1991.

No	Tenure	No of HHs	Facilities Available to the HHs	
			Electricity	Toilet
1	Owned	188390	137460	131480
2	Rental	95970	80705	77535
3	Others	11410	7375	6945
4	Total	295770	22540	215960

Source:- Metropolitan Housing Statistics, NBO, 2002.
HHs means Households.

It may be observed from Table 4.14 that more than three fourth of the household in Lucknow UA had the facility of electricity connection and 73.3 per cent of them had toilet facility during the year 1991. From electricity point of view the proportion of rental houses had more than that of owned houses, calculated at 11.8 per cent. The other category constituting 64.6 per cent of them had electricity facility. This phenomenon is more or less same in the case of toilet facility. Only 69.8 per cent of the owned houses had the facility of toilet, 80.8 per cent of rental houses and 60.9 per cent of other houses had toilet facility.

For deriving the actual cost of construction, the information regarding the market value of building materials in Lucknow as well as the average wage rate of construction workers in Lucknow during the year 2000 is presented in Table 4.15 and Table 4.16 respectively.

Table 4.15 Average Price of Building Materials in Lucknow.

No	Items	Unit	Rupees
1	Bricks	Per thousand	1475
2	Sand	Per Cu mt	348
3	Stone Ballast (20 mm gauge)	Per Cu mt	420
4	Sal Wood	Per Cu mt	22550
5	Cement	Per M Tone	2760
6	MS Round	Per M Tone	15250

Source:- Metropolitan Housing Statistics, NBO, 2002.

Table 4.16 Average Wage Rate of Building Workers in Lucknow.

No	Workers	Wage in Rupees
1	Manson (First Class)	110
2	Carpenter (First Class)	110
3	Unskilled Workers	57

Source:- Metropolitan Housing Statistics, NBO, 2002.

It may be inferred from Table 4.15 that each brick cost Rs. 1.48 during the year 2000 in Lucknow. Sand cost Rs.348 per Cu mt, Stone Ballast costs at Rs. 420 per Cu mt, Sal Wood at Rs. 22550 per Cu mt, cement at Rs. 2760 per M tone and MSRound at Rs. 15250 per M Tone respectively. The average wage rate of construction workers is clearly mentioned, the first class manson and carpenter at Rs. 110 and unskilled workers at Rs. 57.

Research and Development in Housing

Due to the fast development especially in computer software, hardware, training and all other service sectors, the standard of living of the people has increased manifolds. This has a correlation between the design, pattern, technology used, per capita living space and the mental satisfaction of the people towards housing. Now people take utmost care of certain facilities including design on the basis of vastushilp, free flow of air within the houses, a good and spacious house to live, the required number of rooms covering for the next at least thirty years, without creating a congestion, etc,. Moreover the vast knowledge of pollution and environmental problems especially in the educated urban people create another situation. They always try to construct the houses far away from these environmental hazardous situations

and stresses to make them in green belt areas where good environment of living and least chances of health problems not only for present generation but for the future generations also.

In India majority urban areas face the problem of pollution in all ways like water, air, sound. These are contributed mainly by the industrial units using outdated technologies, absence of treatment plants for protecting the environment, continuous use of very old vehicles, etc,. This has increased the pollution level in the water, air and sound. This in turn affects the health problems. In addition to all these the growing wastes, improper maintenance of sewerage system etc, are still major problems of cities of Indian sub continent. For reducing this problem constant and continuous research in application of environmental friendly technology needs to be taken up for adoption.

Development is process of changes in the mankind in developing the material requisites of better stand of living and effectively use them for productive purposes without reducing the environmental conditions of the system. If this created imbalances in the environmental existing system in turn it will create a disaster. Therefore it is not only concerned with optimizing the development but also for protecting the environment. Environment friendly and user-friendly construction is not a familiar concept in India. For this purpose a collaborative effort has developed in coming together of experts on environment friendly, housing material technology, new energy technology which required less level of energy and less level of cost, using the locally available building materials at a cheaper prices and intelligent building technocrats. Proper and

optimum use of lightning, energy, reducing the noise, humidity, stablising the temperature and host of other factors go in to a user-friendly housing. Excess of any of the factors create imbalance that become harmful. Some studies suggested the fact that excessive use of concrete results in radon emission, which would be major cause of cancer, vertical fluctuation could cause viral fever and other related ailments. Moreover it leads to carbon monoxide and carbon dioxide emission that are highly poisonous in nature. In this condition policy makers on housing should adopt the policy that covers energy rating system for houses based on insulation, bricks, concrete and other materials used that will definitely make a sustainable balanced ecological and environmental systems. Presently housing sector is facing number of problems like lack of knowledge and availability of information on appropriate building and construction technology, limited use of design that covers local needs, lack of trained personnel and institutions that are capable of supporting construction, design and research on housing especially in rural areas of India, an inadequate understanding of local resources and design practices which is necessary for any successful attempt to upgrade them, lack of adequate production and distribution system to disseminate innovative system of design, etc,. Any way, various research and development activities on this aspect are going on and it is expected that a new technology in housing which costs less, is eco-friendly, local resource based, energy saving, etc, would emerge in the near future.

Slums in Lucknow 5

The phenomenon of squatter settlements has to be seen as a stage in the process of urbanization in a developing country like India and not so much as a consequence of the growth of cities. Cities are the end product of the socio-economic process operating at the societal level thus are a part of the fundamental changes in the society that accompany socio-economic development and modernization. The cities, irrespective of their size, provide possibilities of varied occupations and collective services, such as health, education, cultural, technological, commercial or industrial services and thus act as focal points development opportunities. Economic, industrial and service sector development during the last three and half decades has resulted urbanizing large segments of the population. It has not only resulted in the rapid growth of urban centres, particularly the megapolitan cities, but also is drawing a large number of new social groups in the process of development. Majority of the rural migrants move to the cities not only for the new opportunities they offer but also to escape from the limitations of their traditional and conservative conditions.

The movement of large number of rural migrants to the urban areas has far reaching social implications in transforming the nature and character of urbanization in India. The migrants move into the city not only physically but also bring along their culture, style of life, values, etc,. The new groups in trying to gain access to the city's socio-economic system, often by forming communities of their own, in competition with the old groups of more educated, skilled and affluent urban dwellers create dichotomies and tensions.

This process of new social polarities and discontinuities indicates that the city is becoming ruralised in certain ways. The emerging urbanizing society is increasingly becoming a rural-urban environment, both as a way of life and physical form. It must be understood that the rapidly expanding urban environment is not taking shape as a simple projection of the economic and social structure of the past.

Formation of Slums

It is evident that the new groups, who come to the city to seek entry in the development process, create a new type of residential settlement in contradiction to that of the existing urban groups. Since the new groups are mostly constituted of low-income group of rural migrants, they accept whatever accommodations are available or can be quickly erected with waste materials or with those that can be procured on low costs on open spaces which are unusable or lying vacant. Generally the operation takes place in groups, initially consisting of relatives and kins or members from the same caste, village, district, region or language. This process involves illegal occupancy or squatting on public or private lands. They take place independently of the authorities charged with external or institutional control of local building and planning. A very noticeable aspect of these settlements is their location to the work places.

Another major characteristic of these settlements is their neo-rural or village like pattern since the dwellers in these settlements follow traditional procedures with regard to building and physical development. It seems to be an attempt for reinterpretation

of rural life in an urban condition. The process of formation of these autonomous squatter settlements makes it not only possible for large number of low income group families to get themselves cheap dwellings but also to supply labour force for a variety of urban activities at a lower costs. Thus the processes of producing autonomous settlements are manifestations of normal urban growth and as such the existence of these settlements is not the problem but that they are uncontrolled and their forms are often distorted. Unless there are alternatives for the millions of immigrants to live, these settlements will exist. It cannot also be assumed that unless the alternatives are found, the poor should not be really in the cities, but should wait patiently in the villages until rural and regional development policies can help them.

Urban Problems

Amongst a large stream of problems designated popularly by these slums as urban problems, poverty remains one with persistent relevance and continues to be growing concern for those desirous of understanding its genesis as also for others involved in offering a practical solution to it. In Indian case although poverty has equally haunted the society with almost an equal vigour, yet both the magnitude as well as the nature of poverty has been tremendously noticeable to a one third of the total population.

Urban poverty has revealed itself most evidently through urban slums, accommodating the people who normally live below poverty line although these are not only areas in habited by the poor. Poverty line means an income level that is inadequate to maintain a decent standard of living as judged by the standards of

the society. Yet the fact remains that the poor in the cities tend to get concentrated in some residential localities thus providing an ecological dimension to the phenomenon. For this reason, a slum was initially defined basically in ecological terms, emphasizing the unhygienic, dehumanizing and in sanitary conditions characterizing it of course, with some cross national as well as inter city variations. The slums do not only constitute merely ecological units but they are significant reflection of the larger social structure being sufficiently demonstrated. Just as a city cannot be understood as entity isolated from the large social structure of which it is a part of slum too would have little meaning if treated merely as an ecological unit. Our cities tend to appear like an extension of the rural community in so far as residential segregation of the poor and socially under privileged sections of the society is concerned. Physical separation between the poor and rich often leading to social distance has characterized both our cities and villages. This has often been treated as normal even by the planners, policy makers, who while rehabilitating the poor further segregated them residentially. How important can the repercussions be of residential segregation of the poor still remains an untouched realm as far as our urban planning is concerned.

Slums in cities have been found to be invariably inhabited by the poorest of the poor, those at the bottom of social hierarchy and also engaged in the dirtiest occupations irrespective of the level of development of the society. Slums in India inhabited largely by the urban poor were earlier labeled as areas of despair signifying pessimism among those dwelling in them. Urban poor are not hopeful of a better future and they lack high ambitions and

motivations thus making them as frustrated and desperate as in earlier periods. Later Indian cities were treated as areas of hope accommodating people with optimistic attitude towards life, having high hopes and ambitions for future.

The problem of urban poverty and consequently slums in India has most often ascribed to the persistent rural to urban migration due to various reasons. The observation had gained such a popularity that a great emphasis was laid on the need to decentralize the process of urbanization. It was strongly felt that rural areas had to be industrialized to avoid migration from these places. A strong case was built by emphasizing on the undesirable expansion of the informal sector in Indian cities as a result of the unwanted movement of those unemployed and under employed from the village to the cities. The urban centers always have attracted and will go on attracting the rural migrants.

The ever-burgeoning population of the largest cities in India and elsewhere is often a case of over urbanization signifying a higher growth rate in urban population as compared with economic development. As a consequence of this, cities have had a much higher proportion of persons than they can actually afford economically, ecologically, etc,. Thus, the population explosion accompanied by lagging economic growth is treated as the main reason for the persistence of over crowding slum conditions in our cities. Thus, slum has been accepted as an inevitable part of urban landscape in our cities, which is growing at a fast pace.

Slums in Lucknow

Urbanization has been accompanied by growth of population and slums from the very inception of the urban world. Urbanization is increasing at a rapid rate and available supply of land and housing in the urban centers cannot accommodate the surging squatter population. People are, therefore, illegally occupying land and creating their own shelters, residing in the deplorable living conditions. One of the varying problems confronting many of the developing nations in the world today is the illegal occupation of land-, which is generally called squatting. The population in these areas increases at a much faster rate at two or three times the rate of the urban population as a whole, while the health services, employment opportunities and social services do not increase correspondingly. As such, life style of many of the households staying in these areas starts deteriorating, facing extremely difficult conditions leading to anti-social elements and crimes and much needs to be done to improve their predicament.

Rapid urbanization has led to an alarming deterioration in the quality of the city dwellers in India. Our cities suffer from various infrastructural deficiencies, poor sanitation and solid waste disposal, water shortage, polluted natural water resources, water logging in monsoons and other rainy seasons, frequent epidemics, inadequate health care, depletion of green areas and ground water level, poor roads and transportation, proliferation of slums and lack of support for the social and economic development of the disadvantaged mainly economically weaker sections of the society. The aggregate impact of distress is especially debilitating for the urban poor living in slums.

Women and children in slums are most affected as they continuously manage their daily lives and chores in this decaying environment. Woman in the slum to our mind is the greatest sufferer. Unlike men and children who go out to work and play, woman has to remain within those surroundings throughout the day. She slogs and sweats for the whole day. She is not aware where her children go, what type of activities they are performing, etc,. She is ignorant about many things including how to guide her children to remain clean and keep away from epidemic diseases. She needs guidance and proper education, a special type of education, some one should talk to her as a friend to whom she can confide. She has to confide many things. There is no privacy in her house. The problem gets more complicated, when due to the urban living conditions, especially due to the pull factor. The woman in slum has more problems if she a new comer from the rural village. She is creator of future itself.

In slums the child suffers from many handicaps. Foremost among them is the neglect from the parental care. The environment of the slum itself is one the greatest handicaps from which the child suffers. We had seen these children grow and attain youth without any preparedness for work and employment. There is absence of adequate programme for them to equip them to compete with others for modern training and employment opportunities. Unaided and unguided frustration he faces often attains the state of recklessness. Their entire dream of being a good citizen, employment, marriage and other social participation becomes shattered. Even those few who are able to finish school or college

education have to compete with the more privileged youth of upper class and such a competition sows seeds of hatred. The result invariably leads to miserable conditions. These may be due to inappropriate development strategies; inadequate marshalling of resources and inequitable distribution of fruits of urbanization exacerbating the decay.

There is greater awareness in the country about vicious circle of problems of urban poor especially slum people as well about the deterioration of urban environment and infrastructure. Measures taken in the past to clear the slums never proved to be a success and therefore, the local authorities have started taking it as reality and legalized the areas, in spite of the fact that many of them are much below even the substandard level of living. Today it has become difficult for any authority to evacuate these areas and drive the poor slum dwellers away from where they are living in the city. Therefore, combating with slum problem is a big challenge of this era to the researchers, policy makers, planners, etc,.

Every slum is different in its origin, location, size and demographic characteristics. But all characteristics are not common for all slums in the city. It may differ due to various reasons such as its appearance, economic condition, over crowding of buildings, tenements, population, health and sanitary conditions, morality, way of life, standard of living, isolation of other residential communities, etc,. Thus, a slum is generally defined as a place where basic necessities of life like housing, employment, health, sanitation, drinking water, education facilities, etc, are absent. In India majority of small, mediums as well as other metropolitan cities are facing the problem of slum. Uttar Pradesh is also facing the

same problem. The information regarding the identified slums and urban population of India and Uttar Pradesh during 1981-2001 is presented in Table 5.1.

Table 5.1 Identified/Estimated Populations & Slum Populations In Urban India and Uttar Pradesh 1981-2001

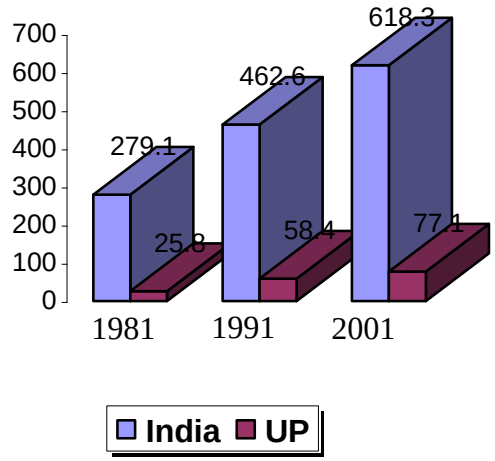
No	Year	Population (Lakh)		%
		Urban	Slum	
1	**India**			
	i. 1981	1594.6	279.1	17.5
	ii. 1991	2176.1	462.6	21.3
	iii. 2001	2909.4	618.3	21.3
2	**Uttar Pradesh**			
	i. 1981	199.0	25.8	13.0
	ii. 1991	276.1	58.4	21.1
	iii. 2001	365.4	77.1	21.1

Source:- Compendium of Environment Statistics, 2001.

It may be observed from Table 5.1 that more than one fifth of the total urban population of India is staying in slums. In urban India the slum population has increased from 279.1 lakh in 1981 to 618.3 lakh in 2001. During the same period the percentage of slum population to the total urban population has increased from 17.5 per cent in 1981 to 21.3 per cent 2001. During the same period in urban Uttar Pradesh the percentage of slum population to the total population has increased from 25.8 lakh (13 per cent) in 1981 to 77.1 lakh (21.1 per cent) in 2001. The higher percentage growth of slum population during the last two decade may be due to the large inflow of population from rural areas to the urban areas especially searching jobs in industrial and service sector, natural growth rates,

the higher wage rate in urban areas, etc,. The growth of slum population in urban India and Uttar Pradesh is depicted in Figure 5.1.

Figure 5.1 Slum Populations in Urban India & Uttar Pradesh 1981-2001(Lakh)



The growth rate of slum population in India and Uttar Pradesh during 1981-2001 is presented in Table 5.2.

Table 5.2 Growth Rate of Slum Population in India & Uttar Pradesh 1981-2001

No	Years	India	Uttar Pradesh
1	1981-91	65.74	126.36
2	1991-2001	33.66	32.02
3	1981-2001	121.53	198.84

Source:- Compendium of Environment Statistics, 2001.

It may be inferred from Table 5.2 that the annual growth rate of slum population in Urban Uttar Pradesh was higher than that of the Urban India during last two decades and was observed at 3.8 per cent. The first decade recorded higher growth rate both in

Urban India and Urban Uttar Pradesh. In urban Uttar Pradesh the annual growth during the first decade covered under the study was at 12.6 per cent, while that of the urban India was only 6.6 per cent. The highest growth rate of slum population during the decade 80's may be due to the natural growth rate of population, the importance of secondary and tertiary sectors, which provided larger share of employment opportunities, the higher level of migration of educated, skilled and semi skilled workers from the rural areas to the urban areas, various other social reasons like movement of family members from the rural to urban areas due to marriage and other social ties, etc,. According to Census of India Cities classified into Class I and Class II and others by the number of population. The slum population of Uttar Pradesh during 1991 by classification is presented in Table 5.3.

Table 5.3 Slum Population in Uttar Pradesh in 1991 by Class-wise

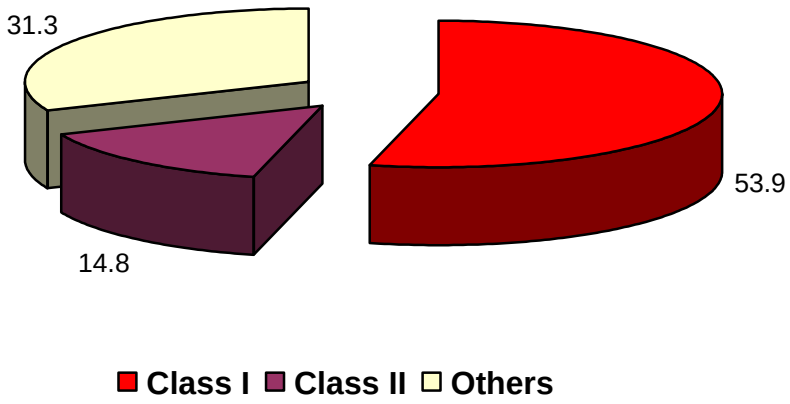
No	Classification of Cities	Percentage Distribution
1	Class I	53.9
2	Class II	14.8
3	Others	31.3
	Total	100.0

Source:- Compendium of Environment Statistics, 2001.

It may be observed from Table 5.3 that more than one half of the slum population in Urban Uttar Pradesh in 1991 was in Class I cities, 15 per cent of them in Class II and the remaining 31 per cent of them in other cities. The higher percentage of slum population in Class I cities may be due to the higher level of employment opportunities, informal sector opportunities, etc,. The slum

population in urban Uttar Pradesh by class-wise classification of cities is depicted in Figure 5.2.

Figure 5.2 Slum Population in UP by Class-wise Cities- 1991.



The74th Amendment 1992, envisages a critical role for elected municipal governments in the provision of basic services to their residents. The Act incorporates a 12th Schedule an illustrative list of municipal functions. Slum improvement and upgradation and urban poverty alleviation are considered as legitimate functions of municipal authorities. Although these functions can be best handled at the municipal level requiring local knowledge and active participation by the local communities, the functions redistribute in nature need support from Central and state Governments. As far as slum improvement and upgradation are concerned central support has been very negligible. During the Fifth Plan the central Government introduced a centrally sponsored scheme but later it

was transferred to the state sector subsequently. Experience shows that virtually none of the state governments has been able to provide sufficient funds for the scheme as a result of which there has not been much improvement and upgradation work in urban slums except, perhaps, where external funding agencies were involved. In the light of the 74th Amendment and considering the fact that the condition of urban slums in most of the states and towns are extremely unsatisfactory and that the slum population of the nation is going in an upward direction, it is considered appropriate that the government may introduce some good policies for upgradation of urban slums.

The factors contributing to the emergence of slums are many which affect the urban economy of the city. The main factors are low wage level, poverty, unplanned city growth and its planning, inadequate level of all basic facilities, inappropriate maintenance of existing available facilities, etc,. These slums create number of problems such as environmental problems, pollution, social disorders, unhygienic living conditions, etc,. Crime records of the city clearly reveal the fact that majority of the criminal activities are either directly or indirectly linked with these slum people. Majority of the males in these slums have the habit of smoking, drinking, snatching, gambling, not working, etc, leading to anti social elements and mal practices. The female members of the family manage a major portion of household expenditure mainly on food and clothing. They are mainly involved in the household activities of neighboring and high income groups. Children are involved in rag picking activities. The information regarding population and slum

population of Uttar Pradesh and Lucknow UA during the last two decade is presented in Table 5.4.

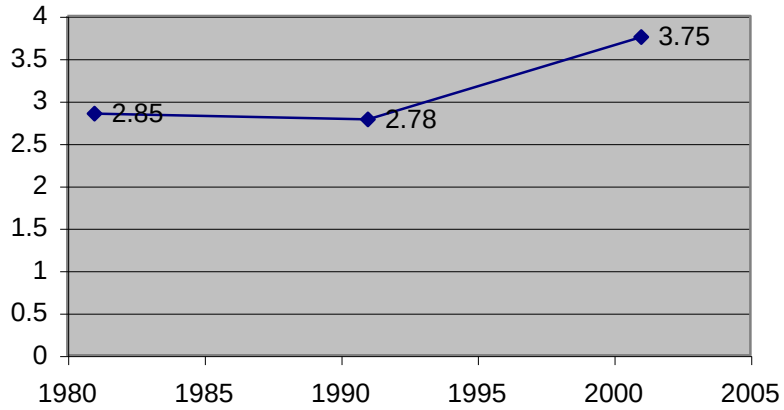
Table 5.4 Estimated Population & Slum Population in Urban Uttar Pradesh & Lucknow UA 1981-2001

No	Year	Population (Lakh)					
		Total			Slum		
		UP	Lucknow UA	%	UP	Lucknow UA	%
1	1981	199.0	10.07	5.06	25.8	2.85	11.05
2	1991	276.1	16.69	6.04	58.4	2.78	4.76
3	2001	365.4	22.58	6.18	77.1	3.75	4.86

Source:- Compendium of Environment Statistics, 2001.

It may be inferred from Table 5.4 that only 6.2 per cent of the urban population of Uttar Pradesh was in Lucknow UA during the year 2001. During the last two decades the contribution of Lucknow UA population to the total urban population of Uttar Pradesh has increased more than one per cent, 5.06 per cent in 1981 to 6.18 per cent 2001. On the contrary the proportion of slum population in Lucknow UA had decreased from 11.05 per cent in 1981 to 4.86 per cent in 2001, clearly reveals the fact that number of measures have been undertaken by the local authorities especially Lucknow Development Authority and Lucknow Municipal Corporation. The information regarding the slum population of Lucknow UA during the last two-decades is depicted in Figure 5.3.

Figure 5.3 Slum Population of Lucknow UA- 1981-2001 (Lakh)



The National Sample Survey Organization of the Ministry of Programme of Implementation has published the information regarding the urban slums in India by basic services. The information relating to the same is presented in Table 5.5.

Table 5.5 Distribution of Urban Slum By Basic Services in Uttar Pradesh& India – 1993

(Per cent)

No	Basic Services	Uttar Pradesh	India
1	Safe Drinking water	93.5	91.5
2	Electricity	5.4	26.1
3	Toilet	27.7	45.2

Sources:- 1. Compendium of Environment Statistics, 2001.

2. Report No. 147, NSSO 49th Round, 1993.

It may be inferred from Table 5. 5 that more than 90 per cent of the slums in India and Uttar Pradesh had facilities for safe drinking water. While only just above one fourth of the slum households in India had the facility of electricity. In Uttar Pradesh

only 5.4 per cent of the slum population had the facility of electricity, which was less than the national average by 20.7 per cent. Like wise the toilet facility is only lesser percentage of the slum population of Uttar Pradesh as compared with the national level at 45.2 per cent. It clearly narrates the fact that basic facilities in slums in Uttar Pradesh had lesser level as compared with the national level. It may be due to various reasons like slow process of implementing slum improvement programmes, absence of external assistance as compared with other municipal towns in India, absence of trained personnel for handling the programme implementation, monitoring and evaluation, lesser level of required level of basic infrastructure as compared with other cities, etc,. The information regarding households living in slums and their proportion living in kutcha houses both in urban India and Uttar Pradesh is presented in Table 5.6.

Table 5.6 Households in Slums and Their Proportion in Living in Kutcha Houses in Urban UP & India

No	Details	Per cent	
		UP	India
1	Households Living in Slums	9.53	26.34
2	Slum Dwellers Living in Kutcha Houses	29.17	88.07

Source :- Handbook of Housing Statistics, NBO, 1996.

It may be observed from the Table 5.6 that more than one fourth of the households in India were staying in slums. As compared with the national level, Uttar Pradesh constitutes only a lesser level, at 9.53 per cent. In India, more than 88 per cent of the slum households living in kutcha houses where the roof and wall are made up of thatch leaves, mud, plastic paper, cut boards,

clothes etc. While the available information shows the fact that only 29 per cent of the slums household in Uttar Pradesh were staying in kutcha houses which clearly narrates the fact that Uttar Pradesh was in a better position as compared with the national scenario.

Policy for Development

One of the major problems in urban development is that those who talk about development, who are entrusted with responsibility for the planning and implementation of development, are very often far removed from those, to whom development matters the most. The cities have wealth but the poor who live in them do not share that. They service the city, clean the house of the rich and cook for them, they provide labour for factories, shops and restaurants, they are the main carriers of goods, and yet they continue to be poor. The transfer of poverty from the rural set up called migratory movements, where it is well spread out over space, to a city where it is concentrated, presenting perhaps the most horrifying indicative nature of independent India.

Little is being done for the urban poor. They do not have the access to land for housing at a cost which they can afford, nor are they provided with any type of basic civic amenities. They are not helped to acquire work sites to establish their small business. They are accepted in the city only as a necessary evil without which the city would not function. The planning system has not placed them properly because master plans aim at the creation of regulated and zonal segments of an unaffordable nature. For the poor there is really nothing. From time to time political solutions are attempted

such as granting legal documents to people who have already helped themselves to get land and who even without the legal documents, would manage to survive on it. It is only in this perspective that issues like urban financing, town planning, environment and transport issues can be meaningfully addressed. We must resolve to keep this perspective so that urban development does not repeat the failures of earlier development in other areas by dealing mainly with physical and technological matters over the head of the people concerned and without even their slightest involvement.

The developmental wisdom can be attained by adequately compartmentalizing the big galaxy of problems into relevant and actionable clusters in two ways. Basic poverty, which demonstrate itself in low income, inadequate nutrition and all basic amenities, limited or no education, low skills and no or inadequate income etc. Another one is the environmental poverty manifesting itself through inadequate services and housing, over crowding, pollution, exposure of various diseases, low productivity, low income, inability to pay for adequate services, housing, etc. The last one is psychological dimensions which mainly stress the factors like insecurity, stress, depression, defiant social behaviour, no imagination, aspiration, lack of opportunity to demostrate one's efficiency and again low income and consequently inability to insure the security of family.

The urban poor has become an inevitable concomitant of the development path of many countries including India, have chosen or have been forced to choose. The poor in urban areas not only

prop up the economy, but they also help the city governments make services economical because the poor offer their labour at a very nominal rate. Imagine the city without the poor malnourished loader, the scavenger and the conservancy labour. Economically speaking, the urban poor makes the city living affordable and less costly than it would be. But seldom do the not so poor care to help them to make their living affordable. In order to be more meaningful, objectives and goals must be translated into day-to-day practice in conjunction with the people facing problems. That requires both dedication and sacrifice on the part of city government and its staff and of the non-governmental organizations, self help groups and volunteers and whose support is so essential in any effort to reach the un-reached.

Summary

Slum Improvement Schemes have been undertaken in our country for since long. However, the emphasis of these schemes has been on provision of basic civic amenities in urban slums and they are only ameliorative in nature. Slum upgradation on the other hand, which allows a long time and permanent solution, consistent with the principle affordability, cost, recovery, are now being thought by some cities. These programmes have apparently been successful in some selected large cities. Some other cities are now planning to undertake slum upgradation programmes along with slum improvement programmes. Despite the break through in addressing the slum problems in some cities, there are many issues in planning the slum development programmes for which there are no universal solutions. These issues will have different type of solutions for different type of cities. In order to attain

development in slums especially for checking the growth a strong local administration is very essential. Creation of focal centers for attraction in the form of satellite towns would serve to counteract the push from the rural to the already existing urban centers.

Trends in Land Prices 6

Land has always attracted man and it has been widely used for economic, social and environmental advancement of all countries. Land is the foundation of all forms of human activity; from which we obtain food we eat, the shelter we need, the space to work and the rooms to relax. Although, it is a part of man's natural heritage, access to land is controlled by ownership pattern, it is partitioned for administrative and economic purposes, and it is used and transformed in myriad ways. Population growth, technological hazards, environmental degradation etc. have all to be taken into account today by policy makers, resource planners, academicians and administrators who make decisions about the land. They need a well-detailed land information that has been the age-old traditionally available information system. Although, the printed map is still useful, computerized system still offers improved ways of acquiring, storing, processing and retrieving such information. Number of well-developed countries have pioneered for systems for new level of technology in land information. Their experiences need to be widely shared so that all countries do not have to experiment with expensive technologies or make mistakes.

In private or public or joint ventures, land information is a prime requisite for making decisions related to land investment, development and management. Information reduces uncertainty by helping to identify and analyze problems faced by the countries present day. Strategies to over come them by these countries may then be prepared and implemented. The value of information and effectiveness of the decision making process are directly related to the quality of the information and the manner in which it is made

available. The responsibility for providing this information is being taken on by a complex diverse group of individuals and institutions, who make up what may be described as the land information management. It is a community which includes village level surveyors, geographers, cartographers, foresters, valuers, real estate people and others who have traditionally played a leading role in the land information field, as well as system engineers, computer professionals, record managers, land use planners, lawyers, and various other resource specialists. It is a group which is increasingly interested not only in the technology for gathering and processing information and in the design and development of land information systems but also the policies and strategies for their effective use.

Land Management

It is the process where by resources of land are put to good effect. Land is a term with many meanings. To the physical geographer it is a landscape, the product of geological and geomorphological process. To the economist it is a resource, which along with capital and labour is to be exploited or conserved in order to achieve maximum economic production and development. To the lawyers land is a volume of space stretching notionally from the centre of the earth to the infinite in the sky, and associated with it are a variety of rights which determine what may be done with it. To many it is simply a space for human activity as reflected in the many different forms of land use. In the present context land will encompass all those features closely associated with surface of the earth, including those areas covered by water, it is a myriad of physical and abstract attributes from the rights to the

light or to build upon the land, to ground water and minerals and the right to use and exploit them. It includes all the materials, biological and chemical factors which surround human kind and which constitute the complex ecological system called biosphere. It is thus " the air we breath, the water we drink and use for recreation; the land we cultivate, mine and build on; cities we flock on to in growing numbers; and the wilderness we seek to enjoy today and preserve for future generation. "

The resources and attributes of land need to be carefully managed if they are to be properly used and if waste to be avoided. Land management entails decisions making and implementation of decision about land. It is concerned with stewardship of land both for the present and for the future generation. It includes the processes whereby land resources are allocated over a space and time according to the needs, aspirations, and the desires of man within the framework of technological inventiveness, political and social institutions and legal and administrative arrangements. At the one end, it may involve making fundamental policy decisions about the nature and extent of investment. On the other side it includes the routine and operational decisions made by land administrators, such as surveyors, valuers, and registrars. It includes the matters such as :

1. Property conveyancing including decisions on mortgages and investment.
2. Property assessment and valuation.
3. The development and management of utility and services.

4. The management of land resources, such as soils, forests, agricultural land etc;
5. The information and implementation of land use policies.
6. Environmental impact assessment and
7. The monitoring of all land based activities in so far as they affect the best use of land.

Information

The basic resource of all decision-making depends upon all information available. It is the function of a land information system to support land management at all phases. In practice many decisions are made on the basis of inadequate or quality wise improper information, in a disjointed and incremental way, and for reasons that are often subjective. The availability of good information can prevent neither mismanagement nor taking wrong decisions by the policy makers. It can, however, reduce the level of ignorance and consequence of action or inaction.

As with other resources, the land information needs to be carefully managed to maximize its potential benefits. Over the last three decades, new capabilities for data collection and processing together with expanding requirement of users, have attracted attention to the need for improved land information management strategies. Such strategies are concerned with the effective organization of resources in order to achieve well-established objectives. It may include improvements to the coverage, content, compatibility and reliability of information, of access to it and the possibility integrating it with other information. The ultimate goal is

to meet the needs of users more efficiently, effectively and equitably.

History of Land Information

The management of land information is not a new one. Information systems have been in existence since people first took to sedentary agriculture. When Babylonians occupied the lands between the Tigris and the Euphrates and the Egyptians cultivated the fertile regions of the Nile, the need for orderly land management was recognized. This in turn led to the development of rudimentary land information systems. More recent examples include topographical and geological mapping programmes, valuation and forest inventory surveys and the land title survey and registration systems. These systems provide both the information infrastructure necessary for land allocation and settlement and the additional technical and resource information needed for resource development. What is new today is the quantity of data, which can be handled, the speed with which these data can be processed, and the ways in which the data can be manipulated and analyzed. The state has had a growing role in the process of land administration through for example, granting of land titles, land taxation and various programmes dealt with environmental and land regulation, etc. This together with the gradual introduction of formal, systematic planning techniques has focused attention on the need for new strategies and policies for gathering administering, analyzing, disseminating the land related information. This growth in terms lead to emphasis on information as an important and expensive resource in its own right, and one that must be efficiently managed.

Planning

Planning relates to human activities and may be directed at personal survival, at optimizing the development and profitability of an organization or company or at securing benefits for the nation as a whole. In land use the responsibility for foreseeing and guiding change falls to the physical or land use planner. In urban point of view planning is a reconciliation of resources, particularly land, in such a manner as to obtain efficiency, whilst paying heed to the nature of the built environment and welfare of the community. In this way planning means the art of anticipating change, and arbitrating among the economic, social, political and physical forces that determine the location, form and the effect of urban development. It is interference in the free market in such a way as to persuade people to provide more universal benefits. When related to physical terms, the process may be termed as physical planning or some times town and country planning. Two separate activities are involved, viz. the preparation of plans for future and implementation. The later process is sometimes referred to as development control. But both the activities must operate must operate within a legislative framework that lays down the procedures for planning and standard for implementing.

The first stage is the preparation of plan and to understand the present environment. The problems must be addressed should then become more clear. In many areas of planning the most difficult and important task is to turn a problem of which people are partially aware in to more precise definition of its underlying nature. Since the way a problem makes itself manifest is often mistaken for its cause, the initial task must be to isolate causes from effects.

Thus, planning must be based up on knowledge, knowledge depends up on information, and information depends up on the method of survey and the manner in which its results are communicated.

Land Management Objectives

Land Information management is directed at the effective use of information to achieve an objective or a set of objectives. It entails;

1. Determining the requirements of land related information,
2. Examining how the information is actually used in the decision making process, how information flows from one producer or user to another and what constraints there are upon that flow,
3. Developing policies for determining priorities, allocating the necessary resources, assigning responsibility for action, setting standards for performance and methods for monitoring them,
4. Improving existing land information system or introducing new ones and
5. Assessing and designing the new tools and techniques in land information system

Land Information and the Developing World

Effective land information management is of particular importance to the developing countries. In the developing countries where other concerns have had priority and capabilities are thinly spread, there are enormous gains to be realized by strengthening management capabilities for urban and environmental protection

and resource based. This involves putting in place the technical personnel, the management information system and the legal and administrative mechanism to plan and gain resource use. Developing countries like ours, are arguably the most in need of land information system to prevent wastages of their scarce resources. The cost of introducing or improving existing system is high and the availability of skilled manpower in these countries is almost non existent. Even in more advanced countries there is a shortage of trained and skilled personnel. The problems which have to be faced are partly institutional and partly technical and managerial.

Lucknow occupies a special status in urban India today. It is a leading metropolitan city of India and primate city of Uttar Pradesh and one of the strategically located industrial, technical, service and cultural centre of north India. The city of Lucknow has been experiencing a rapid demographic growth in the recent past. The housing stock in the city has not been keeping pace with the increasing population. As a result, the city's housing gap between demand for and supply of housing has become very acute. The increase in over crowding has given rise to deterioration in the standard of living, quality of life, i.e. lesser living space, unhygienic living conditions, lack of public utility service etc. This has created a mushroom growth of slums not only in the age-old traditional Mughal city areas but also in developing the outskirts of the city.

A good percentage of the existing city's population still live in slums without having any access to basics civic amenities causing serious health and environmental hazards not only for slum people

but also for the entire city population, although the public agencies in the city are alive to the situation to bring about the result. Most of the slums come upon the government lands lying vacant or on the sides of roads and railway line or public offices. Despite various governmental efforts the signs of improvement are very less and still not under control. Through the resettlement, in-situ upgradation programme of the slum by the local authority a very little percentage of city household got flats/ some area with provision of basic infrastructure facilities. As time grows some of the slum people sell their plots/flats at a higher rate and again find their abode in slum pockets. This has effected the prices of formal land market system and parallel informal land market in slums is reported to be operating.

With the concentration of investment in cities in comparison with other areas and absence of proper linkages between various developmental plans at various levels; cities have become a marked developmental areas of the country and asylum for migrant from rural areas. The relative rise in wages of the newly migrants as compared with their earlier standards at the rural levels will not be sufficient to meet the requirements for a decent and good standard of living as judged by the standards of the city people. The main factor behind this may be due to the high cost of living in metropolitan cities. Automatically the demand of land for residential purposes shows an upward movement. Moreover, the fixed availability of land pushes up the existing market value of land. Consequently, it favourably affects the already advantaged rich people of the urban society i.e. real estate people, land owners, property dealers that constitute a very small fraction of the society.

Valuation of Property

Property taxes can be imposed on the land, on the improvements to the land or on both. They may be based on the capital value or on the rental value of the property. There may be a charge on the owner, on the occupier or on both. The level of taxation in part depends on what is construed as the value of the property. According to the United Nation's "Property has value because it provides amenities and satisfaction of living; as in the case of residences; services in the production of goods, such as manufacturing plant or industry; and income in the form of rents or lease. " The value of any tract of real estate depends on variety of factors, which include the use, and enjoyment of land, the income arising from which, the rights to alienate or transfer it. The value depends in part upon conditions inherent in the property and in part upon factors, which are extraneous to it. Intrinsic factors such as topography of the land, the nature of the soil, the design and condition of buildings. Extrinsic factors depend upon the environment in which a property is located, the proximity to other land resources, the availability of transport and the adequacy of all other public services. However, the value of land depends upon the economic climate and fiscal policy of the government. The value is often only minimally influenced by the action of landowner and may be largely influenced by the administrative and legislative framework of the government through developing the areas and other activities.

The process of valuation may be described as to carefully consider estimate of the worth of land property based on experience and judgment. The purpose of valuation is to

determine, " Value" a term generally prefaced by some description such as the market value or benefit value. A major distinction can be made between capital value and the rental value. The capital value is what would be paid to build or by the property; rental value is the income that can be expected from it. Market value may be defined as the most probable price in terms of money which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgably and assuming the prices not affected by undue stimulus. In simple terms, market value is what it is reasonable to expect the land would fetch if it were sold in the market place.

Methods of Valuation

The valuation is usually derived from the market price, expressed either as a capital sum or a potential income. Where there has been no sale or and the property itself has not changed hands then one or more of the following methods may be used:

1. **Comparative Methods**: This assumes that market value is equal to the price recently paid for a similar property or interest in land. The valuer's problem is to determine what the market considers to be recent and similar. Adjustment may be made for differences between the properties used in the comparison and changes that have subsequently taken place in the market or a structural nature. If an almost identical house was recently sold next door for a known price but which lacked particular facility. This approach is often

the most simple and efficient means to determine the market value.

2. **Income Method:** This is also a comparative method and holds that the market value of an interest in land is equal to the present value of the net income that should in future come from the land. The net income is the gross income less the cost of overheads, such as depreciation of the building stock and its maintenance and upkeep. It is equivalent to a notional rent and must be discounted at an appropriate rate. The valuer's problem is to determine the net benefits that should come from the land by comparison with similar properties and then to determine the market discount rate by analyzing recent sales of similar assets.

3. **Cost Method:** This is also known as contractor's method or the quantity survey approach. It assumes that the costs of replacement, less appropriate depreciation are equal to the value. The problem is to assemble suitable cost data including the cost of the site and to estimate depreciation rates. The method is particularly useful for insurance purposes where the cost of site clearance may be added to cover the possibility of a building being destroyed by fire and for valuing new constructions.

4. **Residual Method:** This represents a combination of the three methods listed above. The value of the site is assessed as if it had been developed. The method may be applied either to the land itself or to the improvements up on

it. It involves no new problems for the appraiser, save that of estimating the date of development completion. Its importance lies in that it should encourage land to be brought up to its full potential. Land that derelict can then be taxed as if it were fully productive, thus providing an incentive for the owner either to develop the land or to sell it to someone else who will use it more beneficially.

Thus a number of factors influence the market value of urban land such as the location of the areas, land use, availability of basic civic amenities, inherent character of land, floor area ratio, speculation among the rich people especially real estate agents, property dealers for attaining huge profit in the coming future, black money etc. The ultimate objective of the present study of trends and land price movement in Lucknow is to achieve a predictive and prescriptive reliability in land market research. Specifically, such research results should be able to prevent the unpleasant surprises experienced in the past national and regional urban programmes, which have generally, failed to obtain the targeted results.

Residential Land Values

Lucknow is a unique blend of history, geo-economic functions, social ethos and man's desire to live and let live. It has grown into a major city of India not less importantly because of its rich urban heritage, hinterland agriculturally, industrially and above all humanly. It is considered cosmopolitan in the truest sense. Of course, like another cities in India, Lucknow also has problems, but behind these problems, there is also a hope for new generation. Lucknow has learned to live peacefully without loosing in its

inherent agility and drive. It is a city of not only institutions of national importance but also of rich urban heritage, culture, architecture, industry, etc.

In order to avoid the inherent problems for the valuation of land, "*Industrial and Economic Planning Division"* of Town and Country Planning Organisation, under the Ministry of Urban Development and Poverty Alleviation, Government of India has undertaken a study based on sample survey and series of discussions with the officials at the centre, state and local governments, researchers, academicians, non governmental organizations, self help groups, well known property dealers, real estate agents, etc,. The available information on land in Lucknow presented in this report exhibits both minimum and maximum dealt with the prevailing market value of land. The entire city of Lucknow has been grouped in to five zones viz. Central, North, South, East and West and the information for the study on urban residential land has been collected from 57 localities spread over the city. It covers both minimum and maximum market value of residential land for five years from 1998 to 2002. The zone wise distribution of sample localities in Lucknow is presented in Table 6.1.

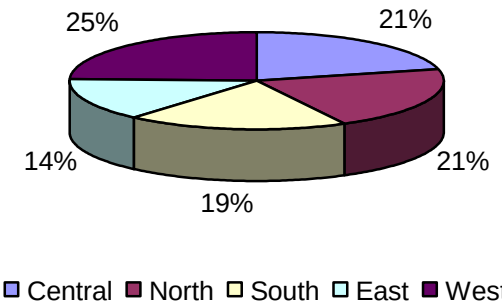
Table 6.1 Zone-wise Distribution Sample Localities in Lucknow.

No	Zones	No. of Localities	Per cent
1	Central	12	21.05
2	North	12	21.05
3	South	11	19.30
4	East	8	14.03
5	West	14	24.57
Total		57	100.00

Source :- Primary Survey, 2003.

It may be inferred from 6.1 that highest number of localities of the sample are in western zone of Lucknow city at one fourth of the total sample. Central and north zone of the city constitute same proportion at 12 localities each. The lowest number of localities is from the eastern zone at 14 per cent and southern zone constitutes at 14 per cent. The zone wise distribution of urban residential land sample localities in Lucknow city is depicted in Figure 6.1.

Figure 6.1 Zone-wise Sample Localities in Lucknow



The average market value of urban residential land in Lucknow and its growth from 1998-2002 is presented in Table 6.2.

Table 6.2 Market Value of Urban Residential Land in Lucknow and Its Growth (1998-2002)

No	Years	Land Value(Rs/Sq.ft)			Growth		
		Min	Max	Av.	Min	Max	Av.
1	1998	190	257	223.5	-	-	-
2	1999	211	289	250.0	11.05	12.45	11.61
3	2000	231	321	276.0	9.48	11.07	10.40
4	2001	256	343	300.0	10.82	6.85	8.70
5	2002	278	376	327.0	8.59	9.62	9.00
					46.32*	46.30*	46.31*

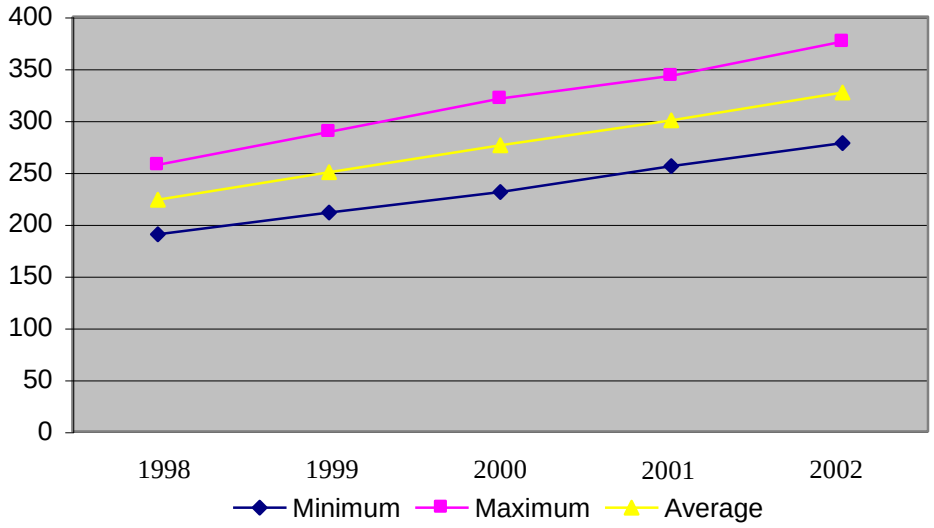
Source:- Primary Survey, 2002.
**** means percentage change 1998-2002.***

It may be inferred from Table 6.2 that the average urban residential land value in Lucknow had increased from Rs. 223.5 per sq. ft in 1998 to Rs. 327 per sq. ft in 2002 and growth was observed at 9.3 per cent. The initial two years covered under the study showed that the average growth rate of urban residential land in Lucknow was more than 10 per cent per annum, later it reduced to less than 10 per cent per annum. The lowest growth rate of average value of urban residential land in Lucknow was observed during 2000-01 at 8.7 per cent. It may be due to the general recession tendencies in the Indian real estate values, lesser investment by the property dealers and real estate agents due to the lesser speculative value, etc,. The minimum value of urban residential land in Lucknow had increased from Rs. 190 per Sq. ft in 1998 to Rs. 278 per Sq. ft in 2002. During the same period the maximum value of urban residential land in Lucknow increased from Rs. 257 per sq.ft. to Rs. 376 per sq. ft. In all the values Viz. minimum, maximum and average urban residential land values the growth rate during 1998-2002 was same, 9.3 per cent per annum.

Information is a basic resource. Like any other resource the information on land price, 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 consumable and hence remains however much it is used; yet it can be destroyed or corrupted. It can be transformed, yet it remains with the transfer. It is indivisible, yet it can be accumulated. It has social and cultural value but, on its own, it has very material use- its value is tangible only when the information on land values in the particular city is used for the productive purposes like as an

indicator for policy formulation, valuation, monitoring and evaluation of various policies introduced by the government from time to time or we can say with other tangible products. The policy planners, town planners and researchers specially dealt with land prices use information on land on a day-to-day basis. Many jobs are concerned specially with the collection, compilation and processing of land related information. Thus, land related information is major information in the information category. Spatial data may relate to specific sites or points in detail or may be generalized and have wide spread implication. There is a wide hierarchy of needs for such information on land from sovereignty, defence, public safety protecting the welfare of all sections of the society etc. The graphical representation of urban residential land values in Lucknow both minimum and maximum land values during the year 1998-2002 is depicted in Figure 6.2.

Figure 6.2 Urban Residential Land Values of Lucknow During 1998-2002 (Rs. per sq. ft.)



As mentioned earlier, the entire city of Lucknow has been classified in to five zones, viz., central, north, south, east and west. The urban residential land values of Lucknow in these zones during 1998-2002 is presented in Table 6.3

Table 6.3 Zone-wise Urban Residential Land Values in Lucknow During 1998-2002

(Rs. per Sq ft)

No	Zones	1998	1999	2000	2001	2002
1	Central					
	Minimum	345.83	371.66	395.83	420.83	445.83
	Maximum	442.50	479.16	510.83	547.50	583.33
	Average	394.17	425.41	453.33	484.17	514.58
2	North					
	Minimum	175.00	200.83	213.33	247.17	270.83
	Maximum	235.00	267.50	310.83	341.67	375.00
	Average	205.00	234.17	262.08	294.42	322.92
3	South					
	Minimum	87.27	110.91	134.55	165.45	190.91
	Maximum	135.45	168.18	209.99	238.18	263.64
	Average	111.36	139.56	172.27	201.82	228.28
4	East					
	Minimum	130.00	141.25	158.75	181.25	200.00
	Maximum	181.25	212.50	232.50	247.50	268.75
	Average	156.63	176.88	195.63	214.34	234.38
5	West					
	Minimum	183.57	200.00	223.57	239.29	253.57
	Maximum	256.43	282.14	306.43	325.71	350.00
	Average	220.00	241.07	265.00	282.50	301.79

Source:- Primary Survey, 2002.

It may be observed from the Table 6.3 that the average Urban Residential Land Value of Central zone of Lucknow was always higher than the average land value of Lucknow city as a

whole during the entire period covered in the city both minimum and maximum land value. It was nearly about 57.2 per cent higher than the average land value of the Lucknow during the year 2002. While all other zones namely, north, south, east and west zones, in Lucknow showed a lesser percentage as compared with the average land values. During the year 2002 a lowest average value as observed in south zone of the city at Rs. 228.28 per sq. ft., which was lower than the average value of Lucknow at 30.2 per cent. The lowest market value of urban residential land in Lucknow in minimum, maximum and average was observed in southern zone of the city at Rs. 87.27 per sq. ft, Rs. 135.45 per sq.ft and Rs. 111.36 respectively during the year 1998. Through out the period covered under the study the trend was same. The other zones of the city namely, east, west, and north zone of the city showed a lower than the average residential land value of Lucknow at 28.3 per cent, 7.7 per cent and 1.3 per cent respectively. The higher average value of the central zone of Lucknow city may be due to accessibility of various infrastructural facilities, linkage with other metropolitan cities in the northern India, communication facilities, transportation, commercial activities etc. Moreover, most of the Government machineries and well renowned educational institutions are in the central zone of the city, it is already developed more than three decades above. All other zones of the city showed a lesser value as compared with the average urban residential land value of Lucknow may be due to the development of various secondary and tertiary sectors of the economy in the later period especially during the second half of the 1990s. The southern zone of the city showed lowest value of urban residential land in Lucknow among the other zones of the city, may be due to

concentration of development that took place during the second part of the 1990s, concentration of small and tiny industries which are creating pollution as well as nuisances to the neighbuors. It has directly affected the land values of this particular zone. So majority of the new purchasers will not come forward to purchase the land for residential purpose in this zone. The information regarding the growth rate of urban residential land values of Lucknow, zone - wise is presented in Table 6.4.

Table 6.4 Zone-wise Growth Rate of Urban Residential Land in Lucknow During 1998-2002.

(per cent)

No	Zones	1998-99	1999-2000	2000-01	2001-02	1998-2002
1	Central					
	Minimum	7.47	6.50	6.32	5.94	28.91
	Maximum	8.28	6.61	7.18	6.54	31.83
	Average	7.93	6.56	6.80	6.28	30.55
2	North					
	Minimum	14.76	6.22	15.86	9.57	54.76
	Maximum	13.83	16.20	9.92	9.76	59.57
	Average	14.23	11.92	12.34	9.68	57.52
3	South					
	Minimum	27.09	21.31	22.97	15.39	118.76
	Maximum	24.16	24.86	13.24	10.69	94.64
	Average	25.32	23.44	17.15	13.11	105.00
4	East					
	Minimum	8.65	12.39	14.17	10.34	53.85
	Maximum	17.24	9.41	6.45	8.59	48.28
	Average	12.93	10.60	9.56	9.35	49.64
5	West					
	Minimum	8.95	11.79	7.03	5.97	38.13
	Maximum	10.03	8.61	6.29	7.46	36.44
	Average	9.58	9.93	6.60	6.83	37.18

Source:- Primary Survey 2002.

It may be observed from the Table 6.4 that the highest growth rate of urban residential land in Lucknow was observed at south zone, 21 per cent per annum as compared to 9.3 per cent per annum of the Lucknow city as a whole. It clearly shows the fact that near about 12 percentage increase in per annum growth rate of urban residential land price of Lucknow, people anticipated the fact that price of urban residential land in southern zone is very less in compared with other zones of the city and expected that the price of the same will increase in near future, and people purchased more land on this zone. In northern zone and eastern zone of the city also showed a higher per cent of 2.1 per cent and 0.63 per cent per annum growth of urban residential land of Lucknow city as a whole, the middle income group have the capacity to purchase the land in these zones. While the central zone and western zone of Lucknow showed a lesser percentage growth rate of urban residential land price during the period covered under the study; 3.19 per cent per annum and 1.86 per cent per annum respectively. The information regarding growth rate-wise distribution of localities in Lucknow during 2002 is presented in Table 6.5.

Table 6.5 Growth Rate – wise Distribution of Localities in Lucknow During 2001-02.

No	Details	Growth Rate (Per cent)/ Localities				
		0	1-10	11-25	26+	Total
1	Minimum	6 (10.5)	20 (35.1)	29 (50.9)	2 (3.5)	57 (100.0)
2	Maximum	4 (7.0)	33 (57.9)	20 (35.1)	-	57 (100.0)

Source:- Primary Survey, 2002.
Figures in Parenthesis relates to percentage total.

It may be observed from Table 6.5 that the growth rate of urban residential land prices in Lucknow during the year 2001-02,

was in the range of 1-10 and 11-25 per cent respectively. In minimum land values during the year the highest number of localities was in the class of 11-25 per cent growth and it was observed at 51 per cent. While in the maximum land values the highest per cent was in the class of 1-10 per cent at 57.9 per cent of the localities during the year 2001-02.

In 2001-02 in six localities minimum urban residential land prices in Lucknow showed zero per cent growth, which clearly means that the price remained the same as compared with the previous year. While in the case of maximum urban residential land values in Lucknow during the year 2001-02 seven per cent of the localities showed zero per cent growth. 20 localities in the maximum urban residential land prices in Lucknow showed a growth within the range 11-25 per cent. 26 plus growth rates were not observed in the maximum land price category. On the other hand, the minimum urban residential land prices showed a positive higher growth of 26 per cent plus category in two localities during the year 2001-02 and it was 3.5 per cent of the localities covered under the study. In the minimum urban residential land prices of Lucknow the growth rate category of 1-10 per cent was shown in 20 localities during the year 2001-02 and it was 35.1 per cent of the localities covered under the study. These clearly indicate the fact that the growth rate of minimum price has increased faster than that of maximum urban residential land prices of Lucknow during the year 2001-02. These play a vital role for a seller to purchase the land either for residential purpose or real estate or for the construction of multi-storied buildings called apartments for residential purposes, etc,. The information regarding

the growth rate of urban residential land prices in Lucknow during the year 2001-02 Zone-wise is presented in Table 6.6.

Table 6.6 Growth Rate-wise & Zone-wise Distribution of Localities in Lucknow During 2001-02.

No	Zones	Growth Rate (Per cent)/Localities				
		0	1-10	11-25	26+	Total
1	Central Zone 1. Minimum	3 (25.0)	5 (41.7)	4 (33.3)	-	12 (100.0)
	2. Maximum	-	10 (83.3)	2 (16.7)	-	12 (100.0)
2.	North Zone 1. Minimum	-	5 (41.7)	6 (50.0)	1 (8.3)	12 (100.0)
	2. Maximum	1 (8.3)	5 (41.7)	6 (50.0)	-	12 00.0)
3.	South Zone 1. Minimum	-	1 (9.1)	9 (81.8)	1 (9.1)	11 (100.0)
	2. Maximum	-	5 (45.5)	6 (54.5)	-	11 (100.0)
4.	Eastern Zone 1. Minimum	-	2 (25.0)	6 (75.0)	-	8 (100.0)
	2. Maximum	-	6 (75.0)	2 (25.0)	-	8 (100.0)
5.	Western zone 1. Minimum	3 (21.4)	7 (50.0)	4 (28.6)	-	14 (100.0)
	2. Maximum	3 (21.4)	7 (50.0)	4 (28.6)	-	14 (100.0)
6	Total 1. Minimum	6 (10.5)	20 (35.1)	29 (50.9)	2 (3.5)	57 (100.0)
	2. Maximum	4 (7.0)	33 (57.9)	20 (35.1)	-	57 (100.0)

Source:- Primary Survey, 2002.
Figures in Parenthesis relates to percentage total.

It may be inferred from Table 6.6 that in majority of the localities growth rates during the year 2001-02 was in the range of 1-25 per cent and it was more than four fifth of the localities covered under the study. During the year 2001-02 the minimum

land values of central and western zone of Lucknow showed zero per cent growth rates in three localities. While the maximum land price, in north zone and western zone of the city showed zero per cent growth and it was totaled in four localities, three in western zone and one in northern zone of the city. Only minimum land

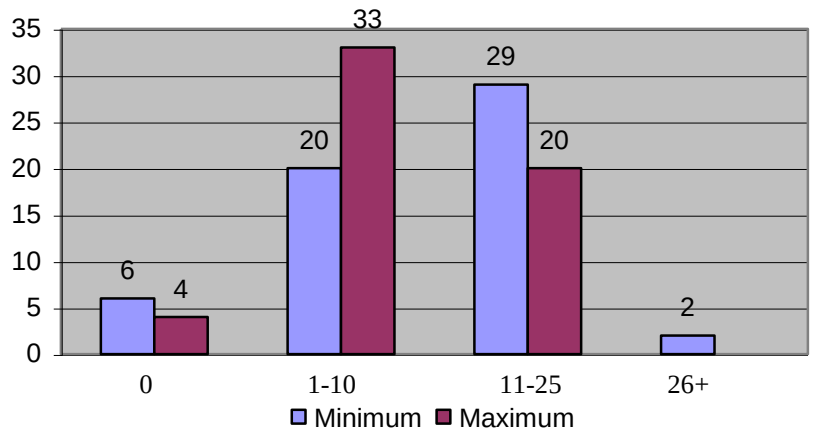
Table 6.7 Growth Rate-wise & Zone-wise Distribution of Localities in Lucknow During 1998-2002.

No	Year	G.R (%)	Central		North		South		East		West	
			Mi	Ma	Mi	Ma	Mi	Ma	Mi	Ma	Mi	Ma
1	1998-99	0	2	-	1	-	1	-	2	-	4	-
		1-10	7	7	5	4	-	-	2	1	3	9
		11-25	2	5	4	7	5	6	4	7	6	3
		26+	1	-	2	1	5	5	-	-	1	2
		Total	12	12	12	12	11	11	8	8	14	14
2	1999-2000	0	2	2	1	-	-	-	1	-	2	-
		1-10	6	8	9	2	1	-	2	4	5	11
		11-25	4	2	2	9	6	6	5	4	6	3
		26+	-	-	-	1	4	5	-	-	1	-
		Total	12	12	12	12	11	11	8	8	14	14
3	2000-01	0	3	-	1	1	-	-	-	-	3	1
		1-10	8	11	4	6	1	4	2	8	6	10
		11-25	1	1	7	5	7	7	4	-	5	3
		26+	-	-	-	-	3	-	2	-	-	-
		Total	12	12	12	12	11	11	8	8	14	14
4	2001-02	0	3	-	-	1	-	-	-	-	3	3
		1-10	5	10	5	5	1	5	2	6	7	7
		11-25	4	2	6	6	9	6	6	2	4	4
		26+	-	-	1	-	1	-	-	-	-	-
		Total	12	12	12	12	11	11	8	8	14	14

Source:- Primary Survey, 2002.
GR means Growth Rates
Mi - Minimum
Ma - Maximum

Value showed a higher growth rate during the year 2001-02 and it was in two localities, one each in north and south zone of the city. The information regarding growth rate-wise, and zone-wise distribution of localities in Lucknow during the year 1998-2002 is presented in Table 6.7. Growth rate wise distribution of localities in Lucknow during 2001-02 is depicted in Figure 6.3.

Figure 6.3 Growth Rate-wise Distribution of Localities in Lucknow During 2001-02.



In Lucknow the highest minimum urban residential land value during the year 2002 was observed in two localities of the central zone of the city namely Hazrat Ganj and Ram Tirath Marg at Rs. 800 per sq. ft. The same localities in the central zone of the city showed highest maximum urban residential land values during the year 2002 in Lucknow at Rs. 1000 per sq.ft each. The lowest minimum residential land value in Lucknow was observed in two localities namely Malai Tola of the eastern zone of the city and Rajiv Gandhi locality of the western zone of Lucknow at Rs 100 per

sq.ft. In addition to this, these two localities showed the lowest maximum urban residential land value in Lucknow city at Rs. 200 per sq. ft. Moreover five localities of Lucknow city showed the minimum urban residential land value at Rs. 150 per sq.ft, four localities in southern zone of the city namely Hind Nagar, Chitragupta Nagar,Geeta Palli and Guru Nanak Nagar and one locality in northern zone namely Pulwa Abadi respectively.

In the central zone of Lucknow city the highest minimum urban residential land value during the year 1998 at Rs. 800 per sq.ft and during the last five years covered under study showed zero per cent growth of the land value in the above mentioned locality, may be due to the highest concentration of commercial activities and less interest of the youngsters in staying on this congested area. The second highest minimum urban residential land value in the central zone was observed in Ram Tirath Marg at Rs. 700 per sq. ft during the year 1998 and the annual per cent growth of the land value in this locality was at 2.86. The lowest minimum urban residential land value in central zone was observed at Rs.150 per sq. ft in Shivaji Marg during the year 1998. This locality showed the lowest maximum urban residential land value in the central zone of the city during the year 1998.

In northern zone of the city the highest urban residential land values during the year 2002 was observed at Rs. 400 per sq. ft in three localities namely Ali Gunj, Nirala Nagar and Begum Hazrat. These three localities also showed the highest maximum urban residential land value at Rs.500 per sq.ft.each. The difference between the maximum and minimum urban residential land values

during the year 2002 in northern zone was in the range of 50- 200. The lowest difference of 50 was observed in three localities namely Janakipuram, Anand Nagar and Pulwa Abadi respectively. While the highest difference of 200 was observed at Maharshi Jai Shankar during the year 2002. The lowest minimum urban residential land value during the year 1998 at Rs.100 per sq.ft was observed in three localities of the northern zone of the city namely Bhartnidu, Kotwa Danpa and Pulwa Abadi respectively. The highest growth rate of minimum urban residential land value in the northern zone of the city during the period covered under the study was observed at 100 per cent that means 20 per cent per annum in three localities namely Bharatnidu, Ali Gunj and Kotwa Danpa. The lowest minimum urban residential land value growth was observed at 25 per cent during the period covered under the study in two localities namely Bajrang Bali Mandir and Ashok Nagar respectively.

The highest minimum urban residential land value in southern zone of the city was observed at Rs. 250 per sq.ft during the year 2002 in two localities namely Sardar Patel Nagar and Sharda Nagar. 45.5 per cent of the localities in the southern zone of the city showed the minimum urban residential land price at Rs.200 per sq.ft. Remaining 36.4 per cent of the localities of the southern zone of the city showed the minimum urban residential land value at Rs. 150 per sq.ft. The highest maximum urban residential land value during the year 2002 was observed at Rs.300 per sq.ft in three localities namely Sardar Patel Nagar, Om Nagar and Sharda Nagar respectively. The difference between the maximum and minimum urban residential land values during the year 2002 was in

two categories namely 50 and 100. The difference of 100 was observed in 45.5 per cent of the localities and the remaining 54.5 per cent of the localities was in the range of 50. The lowest minimum urban residential land value during the year 1998 was observed in Geeta Palli at Rs.50 per sq. ft and the highest at Rs. 120 per sq.ft in two localities namely Guru Gobind Singh and Sardar Patel Nagar. On the other hand the highest maximum urban residential land values in southern zone of the city during the year 1998 was observed at Rs.160 per sq ft in two localities namely Guru Gobind Singh and Lal Nagar and the lowest maximum urban residential land value in this zone at Rs. 100 per sq. ft in Chitra Gupta Nagar. The highest percentage growth of minimum land value was observed in Geeta Palli at 200 per cent and lowest at 66.7 per cent in Guru Gobind Singh during the period covered under the study. On the contrary the highest percentage growth in the maximum urban residential land value was observed in Om Nagar and Chitra Gupta Nagar at 150 per cent during the period covered under the study and lowest of 56.25 per cent in two localities namely Guru Gobind Singh and Lal Nagar respectively.

In eastern zone the highest minimum urban residential land value during the year 2002 was observed in Balak Kunj at Rs.300 per sq.ft and the lowest at Rs.100 per sq.ft in Malai Tola. On the other hand the highest maximum urban residential land value during the year 2002 in eastern zone of the Lucknow was observed at Rs.350 per sq.ft in two localities namely Balak Kunj and Shahadat Kunj and lowest at Rs. 200 per sq.ft Malai Tola. The difference between the maximum and minimum urban residential land values during the year 2002 was in three groups namely;

50,100 and 150 respectively. 12.5 per cent of the localities showed the difference of 150, one locality showed the difference of 100 and the remaining 75 per cent of the localities showed the difference of 50. Malai Tola was also observed the lowest minimum land value during 1998 at Rs.60 per sq. ft and highest of Rs.200 sq. ft in Balak Kunj. On other hand lowest maximum urban residential land value during the year 1998 was observed at Rs.250 per sq.ft in Balak Kunj and Shahadat Kunj and lowest of Rs.130 per sq.ft in Malai Tola. The highest growth rate of minimum urban residential land value in eastern zone was observed at Garipur Khas at 100 per cent during the period covered under the study, means 20 per cent per annum and lowest at 33.3 per cent in two localities namely Madhav Pur and Shahadat Kunj. On other hand the highest growth in maximum urban residential land value in eastern zone was observed at 66.7 per cent in three localities viz. Daulat Kunj, Garipur Khas and Shahapur Haider and lowest at 25 per cent in Madhav Pur during the period covered under the study.

In western zone of the Lucknow city the highest minimum market value of urban residential land during the year 2002 was observed at Rs.400 per sq. ft in three localities namely Indira Nagar, Maha Nagar and Gomti Nagar. The highest maximium market value of urban residential land of Lucknow was observed in the above-mentioned localities at Rs.500 per sq. ft. during the year 2002. The lowest value of urban residential land in western zone was observed at Rs.100 per sq. ft in Rajiv Gandhi which one of the lowest minimum market value of urban residential land in Lucknow. The other one is Malai Tola of the eastern zone of the city. The lowest minimum market value of urban residential land during the

year 1998 was shown in Rajiv Gandhi at Rs. 70 per sq. ft and the highest one was at Rs. 300 per sq. ft in Maha Nagar. The highest maximum value of urban residential land during the year 1998 was observed in Indira Nagar and Gomti Nagar at Rs. 400 per sq. ft. The difference between the maximum and minimum market value of urban residential land during the year 2002 was in three groups namely 50, 100 and 150. The difference of 50 was observed in 21.4 per cent of the localities in western zone, 64.3 per cent of the localities in the group pf 100 and the remaining 14.3 per cent of them in-group of 150 respectively. The hundred percent growth of minimum urban residential land during the period covered under the study was observed in two localities namely Babu Jagjeevan Ram and Lal Bahadur Shasthri and the hundred-percentage growth maximum land value was observed in Rajiv Gandhi. The information regarding market value of urban residential land both maximum and minimum during the year 1998-2002 and the percentage growth market value of urban residential land both minimum and maximum during the period 1998-2002 are presented in Annexure 1 and Annexure 2 respectively.

Assuming the market value of urban residential land during the year 1998 as 100, called index of land values. The land price index of both minimum and maximum market value of urban residential land of Lucknow from 1999 to 2002 is mentioned in the Table.6.8.

Table 6.8 Land Price Index of Lucknow During 1999-02.

(Base Year 1998=100)

No	Years	Minimum	Maximum	Average
1	1999	111.05	112.45	111.86
2	2000	121.58	124.90	123.49
3	2001	134.74	133.46	134.23
4	2002	146.32	146.30	146.31

Source:- Primary Survey, 2002.

It may be inferred from Table 6.8 that both the minimum and maximum market value of urban land price indices showed growth in more or less same proportion. Compared with the 1998 market value of urban residential land in Lucknow the value has grown at less than 10 per cent per annum during the period covered under the study. Zone wise land price index of market residential land in Lucknow during 1998-2002, assuming the market value of 1998 as 100 is presented in Table 6.9.

It may be observed from Table 6.9 that the land price indices of all period mentioned above showed a growing trend and not a retarded one. The highest land price indices during the year 2002 was observed in southern zone of the Lucknow city at 204.5 and lowest in central zone of the city at 130.55. The highest indices the minimum market value of urban land value was observed at 218.76 in southern zone of the city and lowest of 128.92 in central zone of the city during the year 2002. The second highest indices of land values both minimum and maximum market value of urban residential land was observed in northern zone of Lucknow. The information on zone-wise land price indices of Lucknow during the year 1999-2002, both minimum and maximum and locality-wise is mentioned in Annexure 3.

Table 6.9 Zone-wise Land Price Index of Lucknow 1999-02.

(Base Year 1998=100)

No	Zones	1999	2000	2001	2002
1	Central				
	i. Minimum	107.47	114.46	121.56	128.92
	ii. Maximum	108.28	115.44	123.73	131.83
	iii. Average	107.93	115.01	122.83	130.55
2	North				
	i. Minimum	114.76	121.90	141.24	154.76
	ii. Maximum	113.83	132.27	145.39	159.57
	iii. Average	114.23	127.84	143.62	157.52
3	South				
	i. Minimum	127.08	154.18	189.58	218.76
	ii. Maximum	124.16	155.03	175.84	194.64
	iii. Average	125.32	154.69	181.23	204.50
4	East				
	i. Minimum	108.65	122.12	139.42	153.85
	ii. Maximum	117.24	128.28	136.55	14.28
	iii. Average	113.15	125.14	137.11	149.93
5	West				
	i. Minimum	108.95	121.79	130.36	138.13
	ii. Maximum	110.03	119.50	127.02	136.49
	iii. Average	109.58	120.45	128.41	137.18

Source:- Primary Survey, 2002.

Localities in Lucknow city classified on the basis of land price range are mentioned in Table 6.9. In this classification land values are classified in to four major groups namely up to Rs100 per sq. ft, Rs.101-250 per sq. ft, Rs.251-500 per sq. ft and Rs.501 and above per sq. ft respectively. Most of the localities mentioned in Table 6.10 had the land value groups of Rs. 101- 500 per sq. ft.

Table 6.10 Percentage Distribution of Localities By Price Range During 1998-2002.

No	Years	Localities By Price Range (Rs. per Sq. ft)							
		Up to 100		101-250		251-500		501+	
		No	%	No	%	No	%	No	%
1	1998								
	A. Min	14	24.6	34	59.6	7	12.3	2	3.5
	B. Max	2	3.5	34	59.6	17	29.9	4	7.0
2	1999								
	A. Min	6	10.5	41	72.0	8	14.0	2	3.5
	B. Max	-	-	30	52.6	23	40.4	4	7.0
3	2000								
	A. Min	5	8.8	39	68.4	11	19.3	2	3.5
	B. Max	-	-	26	45.6	27	47.4	4	7.0
4	2001								
	A. Min	2	3.5	35	61.4	16	28.1	4	7.0
	B. Max	-	-	23	40.3	29	50.9	5	7.0
5	2002								
	A. Min	2	3.5	35	61.4	16	28.1	4	7.0
	B. Max	-	-	19	33.3	33	57.9	5	8.8

Source :- Primary Survey, 2002.

As seen from the Table 6.10 that the highest percentage of localities lie both in maximum and minimum category, urban residential land values in Lucknow during the year 2002 was in the range of Rs. 101-500 per sq. ft. and it was more than 90 per cent. In 1998, near about one fourth of the localities had minimum land value less than Rs. 101 per sq. ft. It reduced to 3.5 per cent of the localities during the year 2002. While in the case of maximum urban residential land value only 3.5 per cent of the localities showed the land value less than Rs. 101 per sq. ft. during the year 1998, and in all the localities the price had gone up more than Rs. 101 per sq. ft. during all the period covered under the study.

The zone-wise percentage distribution of localities in Lucknow during 1998 – 2002 is presented in Table 6.11.

Table 6.11 Zone-wise Percentage Distribution of Localities By Price Range During 1998-2002

No	Years	Localities By Price Range (Rs. per Sq. ft)							
		Up to 100		101-250		251-500		501+	
		No	%	No	%	No	%	No	%
1	Central								
	a. 1998								
	1. Min	-	-	6	50.0	4	33.3	2	16.7
	2. Max	-	-	1	8.3	7	58.4	4	33.3
	b.1999								
	1. Min	-	-	6	50.0	4	33.3	2	16.7
	2. Max	-	-	1	8.3	7	58.4	4	33.3
	c.2000								
	1. Min	-	-	5	41.7	5	41.7	2	16.6
	2. Max	-	-	1	8.3	7	58.4	4	33.3
	d.2001								
	1. Min	-	-	2	16.7	6	50.0	4	33.3
	2. Max	-	-	1	8.3	6	50.0	5	41.7
	e.2002								
	1. Min	-	-	2	16.7	6	50.0	4	33.3
	2. Max	-	-	-	-	7	58.4	5	41.7
2	North								
	a. 1998								
	2. Min	3	25.0	8	66.7	1	8.3	-	-
	2. Max	-		9	75.0	3	25.0	-	-
	b.1999								
	1. Min	-	-	11	91.7	1	8.3	-	-
	2. Max	-	-	6	50.0	6	50.0	-	-
	c.2000								
	1. Min	-	-	10	83.3	2	16.7	-	-
	2. Max	-	-	3	25.0	9	75.0	-	-
	d.2001								
	1. Min	-	-	7	58.3	5	41.7	-	-
	2. Max	-	-	2	66.7	10	83.3	-	-
	e.2002								
	1. Min	-	-	7	58.3	5	41.7	-	-
	2. Max	-	-	1	8.3	11	91.7	-	-
3	South								
	a. 1998								
	3. Min	7	63.6	4	36.4	-	-	-	-
	2. Max	1	9.1	10	90.9	-	-	-	-
	b.1999								
	1. Min	4	63.6	7	36.4	-	-	-	-
	2. Max	-	-	11	100.0	-	-	-	-
	c.2000								
	1. Min	3	27.3	8	72.7	-	-	-	-
	2. Max	-	-	11	100.0	-	-	-	-
	d.2001								
	1. Min	-	-	11	100.0	-	-	-	-
	2. Max	-	-	9	81.8	2	18.2	-	-

	e.2002								
	1. Min	-	-	11	100.0	-	-	-	-
	2. Max	-	-	8	81.8	3	18.2	-	-
4	East								
	a. 1998								
	1. Min	1	12.5	7	87.5	-	-	-	-
	2. Max	-	-	8	100.0	-	-	-	-
	b.1999								
	1. Min	1	12.5	7	87.5	-	-	-	-
	2. Max	-	-	6	75.0	2	25.0	-	-
	c.2000								
	1. Min	1	12.5	7	87.5	-	-	-	-
	2. Max	-	-	6	75.0	2	25.0	-	-
	d.2001								
	1. Min	1	12.5	6	75.0	1	12.5	-	-
	2. Max	-	-	6	75.0	2	25.0	-	-
	e.2002								
	1. Min	1	12.5	6	75.0	1	12.5	-	-
	2. Max	-	-	6	75.0	2	25.0	-	-
5	West								
	a. 1998								
	1. Min	3	21.4	9	64.3	2	14.3	-	-
	2. Max	1	7.1	6	42.9	7	50.0	-	-
	b.1999								
	1. Min	1	7.1	10	71.5	3	21.4	-	-
	2. Max	-	-	6	42.9	8	57.1	-	-
	c.2000								
	1. Min	1	7.1	9	64.3	4	28.6	-	-
	2. Max	-	-	5	35.7	9	64.3	-	-
	d.2001								
	1. Min	1	7.1	9	64.3	4	28.6	-	-
	2. Max	-	-	5	35.7	9	64.3	-	-
	e.2002								
	1. Min	1	7.1	9	64.3	4	28.6	-	-
	2. Max	-	-	4	28.6	10	71.4	-	-

Source:- Primary Survey, 2002.

It may be inferred from Table 6.11 that in central zone of Lucknow no localities represented the price in the range of upto Rs. 100 per sq. ft. in all the period covered under the study. Another notable fact is that only the central zone has shown the price above in the range of Rs. 501 plus category. The number of localities having Rs. 501 and above land price in minimum price was two in 1998 and increased to 4 in 2002. That means a 100 per

cent growth of Rs. 501 plus category. While in the case of maximum land price the number of localities have a marginal increase; 4 in 1998 to 5 in 2002. Localities in north, south, east and west zone of the city have not represented in the range of Rs. 501 plus category in all the period covered under the study. Southern, east and west zone of the city represented good percentage of localities in the range of less than Rs. 101 plus category in minimum prices. While the maximum price was observed in south and west zone of the city.

One of the main sources of revenue of the state government is through fixing the land value for the purpose of stamp duties. In order to discourage the tax evasion it is imperative that the value of land for levy of stamp duty purposes is arrived at considering all factors mainly locational advantages, infrastructure accessibility by the concerned officials like patwari, village office officials, officials of sub registrar offices, etc,. A general thinking is that the market value of land was always higher than that of the actual recorded or officially declared value. But this is not correct in all localities. In order to find out the fact same officials of the *"Industrial and Economic Planning Division*" of Town and Country Planning Organisation have collected information regarding 34 localities government fixed value of land and the actual market value of urban residential land during their field visit. Generally, the Government of Uttar Pradesh has been revising the information regarding the land values once in three year and publishing the same in their official publications. The information regarding the market value of urban residential land and the fixed value of the

urban residential land of some selected localities of Lucknow during 1999 and 2002 is presented in Table 6.12.

Table 6.12 Comparison Between the Market & Government Value of Residential Land in Lucknow During 1999 and 2002.

(Rs per Sq. ft)

No	Details	1999	2002
1	Market Value		
	1. Minimum	262.94	302.94
	2. Maximum	307.35	401.47
	3. Average	285.15	352.21
2	Government Value		
	1. Minimum	132.01	146.03
	2. Maximum	250.99	293.98
	3. Average	191.20	220.01
3.	Comparison of Column1 with 2		
	1. Minimum	130.91	156.91
	2. Maximum	56.36	107.49
	3. Average	93.98	132.20

Sources:- 1. Primary Survey, 2002.
2. Janpath Lucknow, 1999 & 2002.

It may be observed from Table 6.12 that the market value of urban residential land was always higher than that of government fixed value of residential land in Lucknow in both the years covered under the study. In 1999 the market value of urban residential land was higher than that of government fixed value by 32.95 per cent which increased to 37.53 per cent in 2002. As compared with the minimum and maximum urban land value with the government value, the minimum value of urban residential land had highly increased during 1999 and 2002. In all the localities covered under the study for comparing the government fixed value of land with the

actual market value of urban residential land, government fixed value of land was not always less than that of actual market value of urban residential land in all the localities. In 1999, 23.53 per cent of the localities minimum market value of urban residential land was less than that of government fixed value of land. While in the case of maximum market value of urban residential land during the same period, 29.41 per cent of the localities showed the fact that the maximum value was less than that of government maximum fixed value of land. On average value of urban residential land 26.47 per cent of the localities showed the market value of urban residential land was less than that of the average fixed government land value.

During the year 1999, the highest positive differentiate between the market value of urban residential land with the government fixed value of land was shown in Ram Tirat Marg, average 552.07, minimum value showed the highest at 659 and the maximum value showed at 455.14. In 1999 Vikramaditya Marg showed the positive differentiate at 317. On the other hand, the highest differentiate in negative category was shown in Ramji Lal Nagar at – 85.44 in 1999. Only 8.82 per cent of the localities showed the negative differentiate between the minimum market value of land and government fixed value of land in 2002. In the case of maximum land value 20.59 per cent of the localities showed the negative maximum market value of urban residential land with the government fixed value of land. In 2002, the highest positive differentiate in the land values was observed at Ram Tirath Marg, 555.65 in average land value, 662.26 in minimum value and 449.04 in maximum value respectively. In 2002, the highest negative differentiate between the market value of urban residential land with

the government fixed value of land was observed in Shivaji Marg, at – 62.21, minimum at 34.71 and maximum at – 159.14 respectively. On the basis of Semi Average method, the average value of land in Lucknow had increased by Rs. 25.58 per sq. ft per annum during the period covered under the study. It is expected that it will reach Rs. 531 per sq. ft during the year 2010 if all conditions remain the same. The information regarding the locality-wise market value of urban residential land and government fixed value of land, minimum, maximum and average and comparison between the market value with the government value is presented in Annexure –4.

Commercial Land Values

In order to know the real picture of urban land, the commercial land value plays a vital role for assessing the land value in the particular city. Generally, commercial land values will be always higher than that of urban residential land value. In order to understand the commercial land values in Lucknow we have collected the commercial land values of Lucknow city during the year 1999 to 2003. The information regarding urban commercial land values of Lucknow during 1999-2003 is presented in Table 6.13.

Table 6.13 Market Value of Urban Commercial Land in Lucknow during 1999-2003

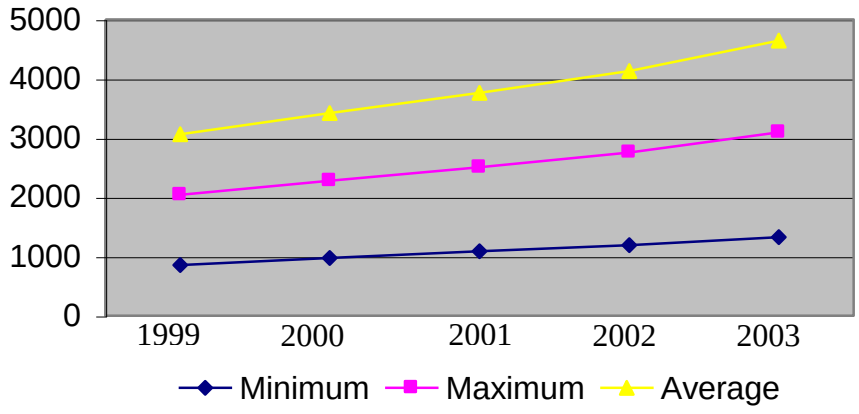
(Rs. per sq. ft.)

No.	Years	Minimum	Maximum	Average
1.	1999	854	1188	1021
2.	2000	976	1304	1140
3.	2001	1088	1420	1254
4.	2002	1190	1564	1377
5.	2003	1328	1768	1548

Source: Primary Survey 2003.

It may be observed from Table 6.13 that the average commercial market value of land in Lucknow increased from Rs. 1021 per sq. ft. in 1999 to Rs. 1548 per sq. ft. in 2003, showing an annual growth of 10.32 per cent. As time passes on, the gap between the maximum and minimum commercial values in Lucknow has also widened, 334 in 1999 to 440 in 2003. As the general notion is that the commercial land values was always higher than that of market value of urban residential land, Lucknow also showed the same result. It may be due to the location of commercial centers, nodal point of business, link between all basic facilities, is a junction of all market, in the sense buyers and sellers unite together and fixed the values etc. In Lucknow, the commercial land values were higher than that of urban residential land value, 373.4 per cent during the year 2002. The Information regarding commercial land value during 1999-2003 in Lucknow is depicted in Figure 6.4

Figure 6.4: Commercial Land Values in Lucknow During 1999-03



Information regarding the growth of market value of urban commercial land in Lucknow during 1999-2003 is presented in Table 6.14.

Table 6.14 Growth of Market Value of Commercial Land in Lucknow During 1999-2003

No.	Years	Minimum		Maximum		Average	
		Ab(Rs)	%	Ab(Rs)	%	Ab(Rs)	%
1.	1999-2000	122	14.29	116	9.76	119	11.66
2.	2000-2001	112	11.48	116	8.90	114	10.00
3.	2001-2002	102	9.38	144	10.14	123	9.81
4.	2002-2003	138	11.60	204	13.04	171	12.42
5.	1999-2003	474	55.50	580	48.82	527	51.62

Source: Primary Survey 2003.
Ab- Means Absolute

It may be observed from Table 6.14 that on an average the market value of commercial land in Lucknow has increased 5.16 per cent per annum during the period covered under the study. The growth of minimum commercial land value was higher than that of maximum commercial land value in Lucknow during the period covered under the study and it was observed at 0.67 per cent. In absolute terms the value of commercial land has increased to 527 from 1999 to 2003. On the maximum land value it was at 580 and minimum at 474. During the year 1999 the lowest minimum commercial land value of Lucknow was observed at Rs. 500 per sq. ft. in three localities namely, Jankipuram Sector-C, Indira Nagar and Alam Bagh respectively. The highest minimum commercial land value in Lucknow during the year 1999 was observed in Gomti Nagar at Rs. 1500 per sq. ft. On the other side, the lowest maximum commercial land value was of Rs. 700 and was observed

in three localities namely, Alam Bagh, Aminabad and Ullhas Nagar. The highest maximum commercial land value of Lucknow during the year 1999 was observed in Hazrat Ganj and Nishant Ganj at Rs. 2000 per sq. ft.

In 2003 the lowest maximum commercial land value in Lucknow was observed in Alam Bagh at Rs. 900 per sq. ft. and the highest maximum commercial land value of Rs. 3500 at Hazrat Ganj. On the contrary the lowest minimum commercial land value of Rs. 800 per sq. ft. was observed in Alam Bagh and Bada Chand Ganj. The highest minimum commercial land value was observed in Gomti Nagar at Rs. 2500 per sq. ft. in 2003. On the basis of semi average method the commercial land value in Lucknow has increased at an annual rate of Rs. 127.33. That clearly indicates the fact that the trends of the commercial land value in Lucknow has increased in a steadily rate of 127.33 per annum if all other conditions remain the same. If this trend is going like this, the average commercial land value in Lucknow during 2010 would be Rs. 2418 per sq. ft. The information regarding localities wise commercial land values in Lucknow during 1999-2003 and percentage growth of commercial land value during the same period are clearly mentioned in Annexure 5 and Annexure 6 respectively.

Industrial Land Values

For assessing the real land price scenario of a city the information regarding the land value of industrial area plays a vital role. Because age old cities developed either through the development of industrial set up of the city, the nature, work,

employment opportunities, etc,. Now majority of the heavy and large-scale industrial units are set up in the outskirts of the city, the government also tries to resettle age-old traditional polluting industrial units from the urban area and with the inception of new satellite towns and various measures government tries to reduce the population of the cities. Majority of our cities have faced serious problems like lack of all basic facilities, lack of funds for providing the required level of infrastructure, etc,. In Lucknow the majority of industrial units are in some pockets, governmental agencies try to convince the dynamic entrepreneurs to invest the same in the same localities where the required infrastructure is available at the least cost. In this connection ***"Industrial and Economic Planning Division Staff"*** of the Town and Country Planning Organization had collected the information regarding industrial land values in 16 localities of Lucknow during their field visit. The information regarding land value of industrial area in Lucknow is presented in Table 6.15.

Table 6.15 Market Value of Urban Industrial Land in Lucknow during 1999-2003

(Rs. per sq. ft.)

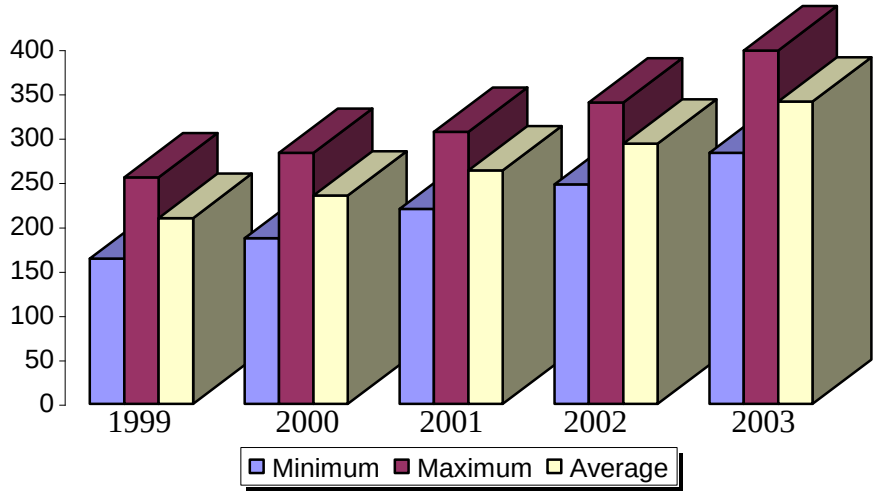
No.	Years	Minimum	Maximum	Average
1	1999	163.75	255.63	209.69
2	2000	186.88	283.18	235.01
3	2001	220.00	306.88	263.44
4	2002	247.50	340.00	293.75
5	2003	283.13	398.75	340.94

Source: Primary Survey 2003.

It may be inferred from Table 6.15 that the average market value of industrial land had increased from Rs.210 per sq. ft. in 1999 to Rs. 341 per sq. ft. in 2003 showing an annual growth of

12.52 per cent. The difference between the maximum and minimum industrial land value had increased from Rs. 92 in 1999 to Rs. 116 in 2003. These clearly indicate the fact that the dynamic and other development oriented entrepreneurs are investing in Lucknow and they optimistically hoped that there is a high scope for future development due to cheap availability of skilled and semi- skilled and technically fitted workers and low value of other inputs required for them. The information regarding the market value of industrial land in Lucknow during 1999-2003 is depicted in Figure 6.5.

Figure 6.5 Industrial Land Values in Lucknow During 1999-03



The information regarding the growth of market value of industrial land in Lucknow and its absolute growth during 1999-2003 is presented in Table 6.16.

Table 6.16 Growth of Market Value of Industrial Land in Lucknow During 1999-2003

No.	Years	Minimum		Maximum		Average	
		Ab(Rs)	%	Ab(Rs)	%	Ab(Rs)	%
1	1999-2000	23.13	14.12	27.55	10.76	25.32	12.07
2	2000-2001	33.12	17.73	23.70	8.39	28.43	12.10
3	2001-2002	27.50	12.50	33.12	10.79	30.31	11.51
4	2002-2003	35.63	14.39	58.75	17.28	47.19	16.06
5	1999-2003	119.38	72.90	143.12	55.99	131.25	62.59

Source: Primary Survey 2003.
Ab- Means Absolute

It may be observed from Table 6.16 that the growth of minimum industrial land value in Lucknow outweighs that of maximum during the period covered under the study, showing it at 3.38 per cent per annum. On the contrary, in absolute terms the maximum industrial land value was higher than that of minimum industrial land value in Lucknow during the period. It was at Rs. 23.74 per sq. ft. In 1999 the lowest minimum industrial land value in Lucknow was at Rs 100 per sq. ft in 44 per cent of the localities covered under the study, viz,. Rai Barely Road, Teri Bagh, Kanpur Road, Airport, Rajajipuram, Sultanpur and Gosaiganj respectively. During the same period the highest minimum industrial land value in Lucknow was observed in Dawa Road at Rs. 370 per sq. ft. The same locality observed the highest maximum industrial land value during the year 1999 in Lucknow. The lowest maximum industrial land value in 1999 was in Rajajpuram at Rs. 150 per sq. ft. The difference between the maximum and minimum industrial land value of Rs. 50 was observed in 37.5 per cent of the localities covered under the study. While the highest difference of Rs. 250 was observed in Tulsi Road during the same period.

In 2003, the highest maximum industrial land value in Lucknow was observed at Rs. 600 per sq. ft in two localities namely Dawa Road and Asish Bagh. The lowest maximum industrial land value was observed in Sultanpur at Rs. 250 per sq. ft. The highest minimum industrial land value in 2003 at Rs.500 per sq. ft in two localities namely Dawa Road and Asish Bagh. Like wise the lowest minimum industrial land value in 2003 of Lucknow at Rs. 180 per sq. ft was observed in Gosaiganj. The highest difference of maximum and minimum industrial land value in 2003 in Lucknow was observed in Tulsi Road of 300 and lowest at 50 in four localities of Lucknow ie. Chinhat, Mal Road, Budheswar Nagar and Sultanpur respectively.

On the basis of Semi Average Method the average industrial land value in Lucknow had increased at an annual rate of Rs.31.67 per sq. ft. If all other conditions remain the same the industrial land value in Lucknow during the year 2010 expected to reach the value at Rs. 555 per sq. ft. The information regarding the locality-wise industrial land value both minimum and maximum in Lucknow during the year 1999-2003 and the percentage growth of industrial land value of the same localities during the period covered under the study is presented in Annexure 7 and Annexure 8 respectively.

Thus land has often been identified as the primary resource from which wealth is derived. Information is also a resource and can be used in the creation of wealth,. Increasingly, it is being recognized that the acquisition and effective use of information are fundamental to the survival of any organization, however large or small. The more advanced countries of the world are moving in to

an age of high technology in which information holds the key to their prosperity and sustainable development. The information society has not, however, reached the poor countries of the world. They are struggling with much more basic technologies and wholly inadequate resources for coping up with social and environmental problems that beset them. To some extent, the problems facing us are no different from those faced by every one else. The difference is in their lack of resources, especially of educated manpower and available capital. Several things can, however, be done to improve matters.

There is a great need for better education. Staff needs to understand the practicalities as well as theory of land information management by understanding land, information and management. The technology must be made to fit into the human, legal and economic development and be its servant, not its master. Those giving help and guidance must become more familiar with the conditions under which the systems they recommend will have to operate. The problems are not simply technical: it is the human dimensions that will determine success and failure. Many of the well established systems that are operational today, have behind them one or two individuals whose derive and enthusiasm have carried them through. Another important factor is that whatever is attempted must be designed as much for the future as well as for the present. Maintenance is more important than initial system of creation; without which the system will become a historical monument and a folly. The system must be capable of change with the growing levels of sophistication of science and technology and the increasing skills of the people operating them. If we want to

make a quantum leap forward, if the growth of land information system is to have the impact on economy that is hoped, if in fact better land information can lead to better decisions about the use of land and resources and better management of most fundamental resource, then there is a heavy responsibility of those giving aid and assistance to get things right.

Summary and Conclusions 7

Urbanization takes place when the predominant economic activity in a particular place shifts from primary agricultural sector to secondary and service sector activities. Generally, primary activities are land and labour intensive and therefore, spatially disbursed. While on the other hand, the industrial as well as service sector activities are mainly involved in capital-intensive techniques and it is spatially centered. The elasticity of substitution between land and other factors of production in industrial and service sector activities is greater than that of the agricultural activities, greater use of capital and labour per unit of land is possible in service as well as tertiary activities. As income increases the relative demand for food and other agricultural items either remains constant or reduces and the relative demand for other non-food items and services increases. At the same time, increase in agricultural productivity due to introduction of various high yielding varieties of seeds, pesticides, insecticides makes possible to produce more and more food with a lesser unit of labour. Automatically, labour then shifts from the agricultural sector to those where production of industrial, non-food items and services is concentrated. Those areas thus become an urban area.

Urbanisation trend in Uttar Pradesh is lesser at 6 per cent than the national average of 31.13 per cent between 1990-2001. The pace of economic development in Uttar Pradesh and its accelerated trend for future has indicated the fact that there is slow level of development in the State of Uttar Pradesh as compared with other states of Indian Union. While on the other hand, certain

pockets of Uttar Pradesh especially like nodal urban centers, Kanpur, Varanasi, Lucknow, Allahabad, Agra, Meerut, have showed just opposite of the state. Lucknow is likely to witness unprecedented growth due to the location of the head of the Government, concentration of various service sector activities, implementation of various government problems for the development of medium and small level industries etc. The challenge is massive and it has to be translated into opportunities by ensuring a balanced development through adoption of participatory, responsive and people oriented policies by the concerned agencies like centre and state government, local authorities and other developmental institutions.

With the amazing growth of population- natural and in migration- along with the fast development activities, the demand for built up spaces for shops, commercial areas, public offices, factories, hotels and restaurants, recreational activity centers, play grounds etc, increases. In addition to this, the concentration of population in the developed areas or so called nodal points of the economy especially in production and distribution adds new dimension to the problem of equitable distribution of available infrastructures and it adversely affects the land value of the existing system. This in turn increases the gap between the demands for supply of land supported by the speculative nature in the land market has resulted in the increase of land values. In addition to this the residential areas of the city are gradually getting converted in to commercial because of the high rate of returns in this system. It has its own merits as well as demerits. However demerits outweighed and indulgence in the speculation in real estate market

on a wider level has resulted in stiff competition for prime locations of the towns and shifting away the lower and middle-income segments of the society. Actually the speculation factor is the only sole factor responsible for rise in the land values in the city. Besides this, among other factors, has influenced much to the large variations in different parts of the city.

The increase in the land values of urban land is caused by number of factors. With the overall development of the economy some level of increase in land values is essential and should be an accepted one. But the galloping land values detrimental to the investment in housing and other economic activities and effective participation of individual household in such activities gets restricted. The main factors behind the increase in urban land values and real estate is the overall level of inflation, rise in income level of the household or what we can say the rise in capacity of paying, scarcity of developed land, speculation among the richer sections of the society and black money, the existing tax structure of the economy, legal problems, employment avenues for the growing generations, physical as well as geological aspects, location of land, etc,. Sometimes impractical zoning and building byelaws in Master Plans for the cities have also been responsible for such differences and rocketing the level of land values.

Absence of physical, economical and social infrastructures in different localities of the particular city have contributed variations in land values. The traditional concept of Central Business District (CBD) has already lost its importance in metropolitan cities of India due to the spread of the city. This concept and its importance has

not only resulted in the increase in the land values but also over crowding of large sections of the society, which create the deprived sections in other parts of the city. The impacts of this factor can be observed in prime locations of Lucknow.

Summary

Most of the metropolitan cities of the country witnessed the increase in the land values during the previous half decade. The movement of urban land values in Lucknow has shown a gradual increase. The study covers the period of 1998 to 2002 (five years) and values obtaining at the mid point of the year have been reported. It covers 57 localities of the city of Lucknow – 12 each in central and north zone of the city, 11 in southern zone of the city, 14 in west and 8 in east zone of the city respectively.

The average value of urban residential land has increased from Rs. 223.5 per sq. ft. in 1998 to Rs. 327 per sq. ft. in 2002 showing an increase of 9.3 per cent per annum. The first two years covered under the study showed that the growth rate was higher than 10 per cent per annum. Based on the trend values in 57 localities in Lucknow during 1998 – 2002 it is apparent that the land value tends to move upward. On the basis of semi average method the land value of Lucknow has increased by Rs. 25.58 per sq. ft. per annum. If all other conditions remains the same the average land value of Lucknow expected to reach Rs. 531 per sq. ft. in 2010.

The average value of commercial land (based on the 25 localities) in Lucknow has increased from Rs. 1021 per sq. ft. in

1991 to Rs. 1548 per sq. ft. in 2003, showing an annual growth of 10.3 per cent. The highest maximum commercial land value was observed in Hasrat Ganj of Rs. 3500 per sq. ft. in 2003. The lowest was observed in Alam Bagh at Rs. 900 per sq. ft. Based on the trend behavior of commercial land values of Lucknow in 25 localities during 1999-2003, the commercial land value of Lucknow (on the basis of semi-average method) has increased by Rs. 127.33 per sq. ft. per annum.

The study also covers industrial land values of Lucknow city especially in outskirts of the city. It covers the period of 1999 to 2003 (five years) and values obtaining at the mid year have been reported. The average industrial land value of Lucknow has increased from Rs. 209.69 per sq. ft. in 1999 to Rs. 340.94 in 2003 showing an annual increase of 12.52 per cent. Based on the trend values (semi-average method) the value of industrial land in Lucknow had increased by Rs. 31.67 per sq. ft. per annum. It clearly indicates the fact that other conditions remaining the same, the industrial land value in Lucknow is expected to reach Rs.555 per Sq. ft in 2010.

In determining the land values in urban areas the availability of social, economic and physical infrastructure plays a vital role. It is also found that the speculative trend in land values finds favour with localities having better infrastructure accessibilities. As in the case of Lucknow the Central Zone of the city followed by north zone commands higher land values. The south zone of Lucknow is placed at lowest category of land values.

The highest percentage growth of urban residential land values in the Lucknow was observed in southern zone of the city at 21 per cent per annum during the period covered under the study. On the contrary to the highest urban residential land values in Central zone of the city the percentage growth during the period covered under the study showed at lowest among the zones at 6.11 per cent per annum.

The general thinking is that the government fixed value of land for fixing the stamp duty mainly in transaction of land is lesser than the actual market value of land. But it is easier said than done. Actually the government and the concerned local authorities fixed the value of the land based on the market survey conducted by the revenue department and the concerned section and periodically revised keeping in view the market trend. Before fixing the value of the land by the revenue department and other sections of the government various factors like the accessibility of numerous infrastructure, localtional advantage of land etc should be considered. The status in 1999 shows that of the average market value of 9 localities (26.5 per cent) differentiated with the government fixed value. The difference had reduced to17.6 per cent of the localities in 2002. This type of situation may occur because investment sentiments, public perception and future potential are major contributory factors, which go into determination of level of prices. The fixed value of land by the government should reflect the market value of land.

Lucknow has many national as well as international rich urban heritages. Many of them were constructed during the period

of Mughal and British. Presently, many of them are in deteriorating condition. It is due to the lack of maintenance at proper time, use of improper materials for renovation, unauthorized constructions in an around the monumental site etc. This has resulted in the lowering of the level of original fabric, appearance, character, historical value of monuments.

Housing is a basic need of man. In importance, it is after food and clothing. With the development of knowledge and advancement of civilization, people became more aware of sanitation, environment, privacy, location of houses especially adjacent to various basic amenities etc. As per the latest information regarding the housing shortage in India in 2001 it was 6.64 million, of this 11.6 per cent contributed for the state of Uttar Pradesh. The housing shortage in Lucknow UA was nearly 30,000 taking into account congestion factor and obsolesce factor. Moreover, the houseless household in Lucknow UA in 1991 was nearly 4900. In addition to above all, the urban poverty of Uttar Pradesh was higher than the national level by 7.27 per cent in 2001.

Rapid urbanization has led to an alarming deterioration in the quality of city dwellers in India. Our cities suffer from various infrastructural deficiencies, poor sanitation and solid waste disposal, water shortage, polluted natural water resources, water logging in rainy seasons, frequent epidemics, inadequate health care, depletion of green areas, reducing the ground water level, proliferation of slums and lack of support for social and economic development of the socially and economically weaker sections of

the society. The ultimate result is the development of slums in cities. As per the information provided by the Town Country Planning Organisation in Compendium of Urban Slums the estimated slum population in urban Uttar Pradesh during 2001 was 77.1 lakh. Slum population in Lucknow UA constitutes nearly 5 per cent of the slum population in urban Uttar Pradesh.

Conclusion

Economic liberalization policy initiated during the first half of1990s as an effective tool to bring about prosperity, reduction of poverty at the grass root level, empowerment of disadvantaged people in the society, distribution of wealth in equitable conditions, to better standard of living in the country and also cope up our economy with other competitive world economy, have now covered fairly better distance. It resulted in both merits as well as demerits. The economic liberalization policy provides ample opportunity for reduction of poverty, employment to the highly educated and skilled professionals within the country, better infrastructure and academically oriented institutions for our young generation for acquiring knowledge as well as training. On the other side now farmers are committing suicide in southern states especially due to non-repayment of loan caused by low yielding of produce, high cost of living and other standard of living, demonstration effect, low value of their product due to cheap availability of good quality items in the market, reduction of various subsidies, high cost of cultivation, absence of rain in monsoon and other rainy seasons, depleting the water level form the soil, cultivation purely depends on weather, etc,. This clearly indicates the fact that there is development in some selected sectors of the economy and not over

all development of the economy. In this condition some effective corrective measures are needed to develop the exclusive sectors for equipping them with other sectors of the economy.

Government has initiated various programmes and policies for the development of slums, the proliferation of slums still continues unabated. The reasons are not far to anticipate. The market driven prices in the day-to-day competitive conditions have left urban poor with no option but to squat or create slums. This is found in all most all towns in India. Lucknow is also facing the same problem. This is the time one has to look at where we have been, what we learnt through the introduction of various policies for the development of slums with co-operation of various governmental non-governmental organizations, self help groups from past and where we should be going. The integration of urban poor with urban development strategies should form the important theme and aim of urban planning. The policy must provide security and safety net against shocks at individual level and for those left behind by rapid changes of economic liberalization.

It is common perception that slums and its proliferation is direct outcome of failure of state policy to intervene effectively in this regard and to ensure access to land and financial resources for adequate and affordable shelter to the urban poor. Keeping in view the magnitude of this problem it is advisable that municipal and other local bodies facing this problem should create a separate sub head in their annual budget for allocation of slum development and poverty eradication. It is also pertinent to mention that adequate provision is made for achieving convergence between different

departmental programmes of both central and state governments in order to achieve social sector goals.

Generally speaking the main cause of lack of basic amenities in cities due to the weak performance of the local government charged with providing the necessary basic amenities, misuse of available funds, excessive interventions, weak monitoring and evaluation mechanism, corruption in all levels of public institutions etc,. This has resulted in 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 condition 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 integrated with planning for other services. The urban planning should cover all services keeping in view the carrying capacity of existing infrastructure and level of upgradation/ additions required periodically.

The nodal point of all economic activities is cities. As per the public perception the role of municipal bodies is very important for providing all required basic amenities and treated as a service provider. The 74th Constitution Amendment is the land mark in 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

according to their economies of their operation. 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. In addition to all the state government and other public institutions and other investing institutions there are social obligation towards the economically, socially, educationally, politically weaker sections of the society in their own areas and it is their prime duty to provide necessary basic amenities to them at affordable rates.

Presently the infrastructure facilities in all localities of Lucknow are not equal as in the case of other speedy metropolitan cities of India. The result of this is segregation of localities in two groups like rich and poor. This is the main reason for changes in land values in different zones of the city and different localities within the same zone. Some localities of central and western zone of Lucknow as compared with other zones command higher prices for a simple reason that in public perception the availability of basic amenities are decidedly better to lure the affluent class indulging in speculative activities or their willingness to pay higher values. In this condition the high value in such localities could be brought down if some parity and semblance in the availability of such services through out the width and breadth of the city is maintained.

There is an urgent need to take measures to check on the rise in the land value and speculation in land. The policy strategies in this regard consist of both promotional and restrictive measures. The first one includes provision of increased finance for housing, acquisition of undeveloped land area in advance for the purpose of

development and making the same to the poorest sections of the society at reasonable land values. It is pertinent to mention here that henceforth the state would act as a facilitator as per the housing policy of the government. But the poorest among the weaker sections of the society have no paying capacity or the level of land value is not affordable. For this group some system has to be evolved to meet their housing demands. It is high time to avoid soft-pedalling of urban rules and regulations. Already much damage has been done to the landscape of the city. This trend needs to be halted.

License to private developers/builders may be granted on the condition that they would develop the land or construct houses and certain portion thereof would be given/earmarked for economically weaker sections of the society. In addition to the housing related issues the major role of contention is the value of basic services. It has created a vicious circle. Inadequate level of services lead to less taxes and thus in turn leads to less investment for upgradation of services.

The study assumes significance for those who plan to purchase land for residential purpose, commercial and industrial purpose in Lucknow and surrounding areas with limited available resources, multinationals, innovative and dynamic entrepreneurs, etc,. It is also useful for researchers, academicians and policy makers while making laws pertaining to land. It will create a land value data bank in the city both minimum and maximum in all uses of land particularly residential, industrial and commercial purpose. In addition to the above mentioned it will also help to provide land

at very reasonable rate to economically weaker sections of the society and develop the required infrastructural facilities step by step. It will also bring out employment potentials within the city.

Market Value of Urban Residential Land in Lucknow (Rs. Per Sq. ft)

Annexure-1

S.No.	Zone/Localities	1998		1999		2000		2001		2002	
	Central Zone	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**
1	Netaji Subash Marg	380	400	400	420	420	500	460	550	500	600
2	Mankeshwar Mandir Marg	220	300	240	320	250	350	270	370	300	400
3	Hazrat Gunj	800	850	800	900	800	920	800	950	800	1000
4	Ram Tirath Marg	700	800	750	850	750		800	950	800	1000
5	Mahatma Gandhi Marg	420	600	440	640	500	680	540	740	600	800
6	Murli Nagar	200	280	220	320	240	360	260	380	300	400
7	Hussain Gunj	180	300	240	340	260	370	280	390	300	400
8	Lal Kuan	200	300	230	350	250	350	280	380	300	400
9	Shivaji Marg	150	180	150	200	180	200	180	250	200	300
10	Vikramaditya Marg	400	600	450	670	500	720	550	780	600	800
11	Jagdish Chandra Bosh Marg	300	400	320	420	350	450	380	480	400	500
12	Ganesh Gunj	200	300	220	320	250	330	250	350	250	400
	Northern Zone										
1	Janaki Puram	180	200	200	250	240	300	270	320	300	350
2	Bharatnidu harsheshchander Nagar	100	150	150	200	150	250	180	290	200	300
3	Ali Gunj	200	290	250	300	300	350	370	420	400	500
4	Nirala Nagar	220	300	240	350	200	400	300	440	400	500
5	Ashok Nagar	200	250	220	270	230	300	240	320	250	350
6	Anand Nagar	220	240	230	250	250	350	270	350	300	350
7	Kotwa Danpa	100	150	150	180	160	200	180	250	200	300
8	Pulwa Abadi	100	120	120	140	130	160	140	180	150	200
9	Bajran Bali Mandir	200	220	220	250	240	300	240	350	250	400
10	Maharsi Jai Shankar	140	250	150	300	160	350	180	360	200	400
11	Begum Hazart Mahal	300	400	340	420	350	450	380	480	400	500
12	Lohia Nagar	140	250	140	300	150	320	180	340	200	350
	Southern Zone										
1	Guru Gobind Singh	120	160	140	180	160	220	180	230	200	250
2	Babu Kunj Behari	100	150	120	170	140	190	170	230	200	250

3	Lal Nagar	110	160	130	180	150	200	180	220	200	250
4	Sadar Patel Nagar	120	150	140	190	150	250	220	290	250	300
5	Ramji Lal Nagar	90	120	120	160	150	200	180	220	200	250
6	Om Nagar	70	120	110	150	150	200	190	250	200	300
7	Geeta Palli	50	150	80	170	110	190	130	220	150	250
8	Guru Nanak Nagar	60	110	90	150	100	200	120	230	150	250
9	Hind Nagar	70	120	80	140	90	190	110	220	150	250
10	Chitragupta Nagar	60	100	60	160	80	210	120	240	150	250
11	Sharda Nagar	110	150	150	200	200	250	220	270	250	300
	Eastern Zone										
1	Balak Kunj	200	250	210	300	250	310	280	330	300	350
2	Malai Tola	60	130	70	160	80	180	90	190	100	200
3	Daulat Kunj	120	150	120	170	130	190	170	200	200	250
4	Garipur khas	100	150	120	180	140	200	180	220	200	250
5	Ambar Kunj	140	170	160	200	160	220	180	240	200	250
6	Madhav Pur	150	200	150	210	180	220	190	230	200	250
7	Shahadat Kunj	150	250	160	300	170	320	180	340	200	350
8	Shahapur Haider	120	150	140	180	160	220	180	230	200	250
	Western Zone										
1	Babu Jagjeevan Ram	100	200	120	250	140	300	170	320	200	350
2	Indira Nagar	280	400	300	420	350	440	350	460	400	500
3	Indira Priya Darshini	200	300	200	320	220	340	250	350	250	350
4	Lal Bahadur Sashtri	100	250	140	260	180	280	200	280	200	300
5	Maha Nagar	300	350	300	400	350	450	370	460	400	500
6	Paper Mill Colony	250	300	250	320	270	350	290	380	300	400
7	Gomti Nagar	250	400	300	420	350	440	400	450	400	500
8	Nishat Ganj	200	300	220	310	230	320	240	350	250	400
9	Ram Mohan Rai	220	300	220	320	240	340	240	350	250	350
10	Rafi Ahmed Kidwai	150	200	160	210	180	220	190	240	200	250
11	Rajiv Gandhi	70	100	80	140	80	150	90	170	100	200
12	Methali Gupt.Nagar	160	150	180	200	180	220	180	250	200	250
13	Ismail Gunj	140	140	160	160	180	200	190	240	200	250
14	Shaheed Bhagat Singh	150	200	170	220	180	240	190	260	200	300

Percentage Growth of Market value of Urban Residential Land in Lucknow

Annexure-2

S.No.	Zone/Localities	1998-1999		1999-2000		2000-2001		2001-2002		1998-2002	
	Central Zone	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**
1	Netaji Subash Marg	6.67	5.00	12.50	4.76	5.56	9.09	5.26	4.17	33.33	25.00
2	Mankeshwar Mandir Marg	14.29	40.00	0.00	7.14	12.50	13.33	11.11	17.65	42.86	100.00
3	Hazrat Gunj	12.50	33.33	0.00	10.00	0.00	13.64	11.11	0.00	25.00	66.67
4	Ram Tirath Marg	14.29	14.29	12.50	25.00	5.56	20.00	5.26	4.17	42.86	78.57
5	Mahatma Gandhi Marg	13.33	10.00	5.88	9.09	5.56	8.33	5.26	15.38	33.33	50.00
6	Murli Nagar	10.00	14.29	9.09	12.50	8.33	5.56	15.38	5.26	50.00	42.86
7	Hussain Gunj	33.33	13.33	8.33	8.82	7.69	5.41	7.14	2.56	66.67	33.33
8	Lal Kuan	15.00	16.67	8.70	0.00	12.00	8.57	7.14	5.26	50.00	33.33
9	Shivaji Marg	0.00	11.11	20.00	0.00	0.00	25.00	11.11	20.00	33.33	66.67
10	Vikramaditya Marg	12.50	11.67	11.11	7.46	10.00	8.33	9.09	2.56	50.00	33.33
11	Jagdish Chandra Bosh Marg	6.67	5.00	9.38	7.14	8.57	6.67	5.26	4.17	33.33	25.00
12	Ganesh Gunj	10.00	6.67	13.64	3.13	0.00	6.06	0.00	14.29	25.00	33.33
	Northern Zone										
1	Janaki Puram	11.11	25.00	20.00	20.00	12.50	6.67	11.11	9.38	66.67	75.00
2	Bharatnidu harsheshchander Nagar	50.00	33.33	0.00	25.00	20.00	16.00	11.11	3.45	100.00	100.00
3	Ali Gunj	25.00	3.45	20.00	16.67	23.33	20.00	8.11	19.05	100.00	72.41
4	Nirala Nagar	9.09	16.67	-16.67	14.29	50.00	10.00	33.33	13.64	81.82	66.67
5	Ashok Nagar	10.00	8.00	4.55	11.11	4.35	6.67	4.17	9.38	25.00	40.00
6	Anand Nagar	4.55	4.17	8.70	40.00	8.00	0.00	11.11	0.00	36.36	45.83
7	Kotwa Danpa	50.00	20.00	6.67	11.11	12.50	25.00	11.11	20.00	100.00	100.00
8	Pulwa Abadi	20.00	16.67	8.33	14.29	7.69	12.50	7.14	11.11	50.00	66.67
9	Bajran Bali Mandir	10.00	13.64	9.09	20.00	0.00	16.67	4.17	14.29	25.00	81.82
10	Maharsi Jai Shankar	7.14	20.00	6.67	16.67	12.50	2.86	11.11	11.11	42.86	60.00
11	Begum Hazart Mahal	13.33	5.00	2.94	7.14	8.57	6.67	5.26	4.17	33.33	25.00
12	Lohia Nagar	0.00	20.00	7.14	6.67	20.00	6.25	11.11	2.94	42.86	40.00
	Southern Zone										
1	Guru Gobind Singh	16.67	12.50	14.29	22.22	12.50	4.55	11.11	8.70	66.67	56.25
2	Babu Kunj Behari	20.00	13.33	16.67	11.76	21.43	21.05	17.65	8.70	100.00	66.67
3	Lal Nagar	18.18	12.50	15.38	11.11	20.00	10.00	11.11	13.64	81.82	56.25

4	Sadar Patel Nagar	16.67	26.67	7.14	31.58	46.67	16.00	13.64	3.45	108.33	100.00
5	Ramji Lal Nagar	33.33	33.33	25.00	25.00	20.00	10.00	11.11	13.64	122.22	108.33
6	Om Nagar	57.14	25.00	36.36	33.33	26.67	25.00	5.26	20.00	185.71	150.00
7	Geeta Palli	60.00	13.33	37.50	11.76	18.18	15.79	15.38	13.64	200.00	66.67
8	Guru Nanak Nagar	50.00	36.36	11.11	33.33	20.00	15.00	25.00	8.70	150.00	127.27
9	Hind Nagar	14.29	16.67	12.50	35.71	22.22	15.79	36.36	13.64	114.29	108.33
10	Chitragupta Nagar	0.00	60.00	33.33	31.25	50.00	14.29	25.00	4.17	150.00	150.00
11	Sharda Nagar	36.36	33.33	33.33	25.00	10.00	8.00	13.64	11.11	127.27	100.00
	Eastern Zone										
1	Balak Kunj	5.00	20.00	19.05	3.33	12.00	6.45	7.14	6.06	50.00	40.00
2	Malai Tola	16.67	23.08	14.29	12.50	12.50	5.56	11.11	5.26	66.67	53.85
3	Daulat Kunj	0.00	13.33	8.33	11.76	30.77	5.26	17.65	25.00	66.67	66.67
4	Garipur khas	20.00	20.00	16.67	11.11	28.57	10.00	11.11	13.64	100.00	66.67
5	Ambar Kunj	14.29	17.65	0.00	10.00	12.50	9.09	11.11	4.17	42.86	47.06
6	Madhav Pur	0.00	5.00	20.00	4.76	5.56	4.55	5.26	8.70	33.33	25.00
7	Shahadat Kunj	6.67	20.00	6.25	6.67	5.88	6.25	11.11	2.94	33.33	40.00
8	Shahapur Haider	16.67	20.00	14.29	22.22	12.50	4.55	11.11	8.70	66.67	66.67
	Western Zone										
1	Babu Jagjeevan Ram	20.00	25.00	16.67	20.00	21.43	6.67	17.65	9.38	100.00	75.00
2	Indira Nagar	7.14	5.00	16.67	4.76	0.00	4.55	14.29	8.70	42.86	25.00
3	Indira Priya Darshini	0.00	6.67	10.00	6.25	13.64	2.94	0.00	0.00	25.00	16.67
4	Lal Bahadur Sashtri	40.00	4.00	28.57	7.69	11.11	0.00	0.00	7.14	100.00	20.00
5	Maha Nagar	0.00	14.29	16.67	12.50	5.71	2.22	8.11	8.70	33.33	42.86
6	Paper Mill Colony	0.00	6.67	8.00	9.38	7.41	8.57	3.45	5.26	20.00	33.33
7	Gomti Nagar	20.00	5.00	16.67	4.76	14.29	2.27	0.00	11.11	60.00	25.00
8	Nishat Ganj	10.00	3.33	4.55	3.23	4.35	9.38	4.17	14.29	25.00	33.33
9	Ram Mohan Rai	0.00	6.67	9.09	6.25	0.00	2.94	4.17	0.00	13.64	16.67
10	Rafi Ahmed Kidwai	6.67	5.00	12.50	4.76	5.56	9.09	5.26	4.17	33.33	25.00
11	Rajiv Gandhi	14.29	40.00	0.00	7.14	12.50	13.33	11.11	17.65	42.86	100.00
12	Methali Gupt.Nagar	12.50	33.33	0.00	10.00	0.00	13.64	11.11	0.00	25.00	66.67
13	Ismail Gunj	14.29	14.29	12.50	25.00	5.56	20.00	5.26	4.17	42.86	78.57
14	Shaheed Bhagat Singh	13.33	10.00	5.88	9.09	5.56	8.33	5.26	15.38	33.33	50.00

Index of Market value of Urban Residential Land in Lucknow (Base 1998=100) Annexure-3

S.No.	Zone/Localities	1999		2000		2001		2002	
	Central Zone	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**
1	Netaji Subash Marg	105.26	105.00	105.00	119.05	109.52	110.00	108.70	109.09
2	Mankeshwar Mandir Marg	109.09	106.67	104.17	109.38	108.00	105.71	111.11	108.11
3	Hazrat Gunj	100.00	105.88	100.00	102.22	100.00	103.26	100.00	105.26
4	Ram Tirath Marg	107.14	106.25	100.00	105.88	106.67	105.56	100.00	105.26
5	Mahatma Gandhi Marg	104.76	106.67	113.64	106.25	108.00	108.82	111.11	108.11
6	Murli Nagar	110.00	114.29	109.09	112.50	108.33	105.56	115.38	105.26
7	Hussain Gunj	133.33	113.33	108.33	108.82	107.69	105.41	107.14	102.56
8	Lal Kuan	115.00	116.67	108.70	100.00	112.00	108.57	107.14	105.26
9	Shivaji Marg	100.00	111.11	120.00	100.00	100.00	125.00	111.11	120.00
10	Vikramaditya Marg	112.50	111.67	111.11	107.46	110.00	108.33	109.09	102.56
11	Jagdish Chandra Bosh Marg	106.67	105.00	109.38	107.14	108.57	106.67	105.26	104.17
12	Ganesh Gunj	110.00	106.67	113.64	103.13	100.00	106.06	100.00	114.29
	Northern Zone								
1	Janaki Puram	111.11	125.00	120.00	120.00	112.50	106.67	111.11	109.38
2	Bharatnidu harsheshchander Nagar	150.00	133.33	100.00	125.00	120.00	116.00	111.11	103.45
3	Ali Gunj	125.00	103.45	120.00	116.67	123.33	120.00	108.11	119.05
4	Nirala Nagar	109.09	116.67	83.33	114.29	150.00	110.00	133.33	113.64
5	Ashok Nagar	110.00	108.00	104.55	111.11	104.35	106.67	104.17	109.38
6	Anand Nagar	104.55	104.17	108.70	140.00	108.00	100.00	111.11	100.00
7	Kotwa Danpa	150.00	120.00	106.67	111.11	112.50	125.00	111.11	120.00
8	Pulwa Abadi	120.00	116.67	108.33	114.29	107.69	112.50	107.14	111.11
9	Bajran Bali Mandir	110.00	113.64	109.09	120.00	100.00	116.67	104.17	114.29
10	Maharsi Jai Shankar	107.14	120.00	106.67	116.67	112.50	102.86	111.11	111.11
11	Begum Hazart Mahal	113.33	105.00	102.94	107.14	108.57	106.67	105.26	104.17
12	Lohia Nagar	100.00	120.00	107.14	106.67	120.00	106.25	111.11	102.94
	Southern Zone								
1	Guru Gobind Singh	116.67	112.50	114.29	122.22	112.50	104.55	111.11	108.70
2	Babu Kunj Behari	120.00	113.33	116.67	111.76	121.43	121.05	117.65	108.70
3	Lal Nagar	118.18	112.50	115.38	111.11	120.00	110.00	111.11	113.64

4	Sadar Patel Nagar	116.67	126.67	107.14	131.58	146.67	116.00	113.64	103.45
5	Ramji Lal Nagar	133.33	133.33	125.00	125.00	120.00	110.00	111.11	113.64
6	Om Nagar	157.14	125.00	136.36	133.33	126.67	125.00	105.26	120.00
7	Geeta Palli	160.00	113.33	137.50	111.76	118.18	115.79	115.38	113.64
8	Guru Nanak Nagar	150.00	136.36	111.11	133.33	120.00	115.00	125.00	108.70
9	Hind Nagar	114.29	116.67	112.50	135.71	122.22	115.79	136.36	113.64
10	Chitragupta Nagar	100.00	160.00	133.33	131.25	150.00	114.29	125.00	104.17
11	Sharda Nagar	136.36	133.33	133.33	125.00	110.00	108.00	113.64	111.11
	Eastern Zone								
1	Balak Kunj	105.00	120.00	119.05	103.33	112.00	106.45	107.14	106.06
2	Malai Tola	116.67	123.08	114.29	112.50	112.50	105.56	111.11	105.26
3	Daulat Kunj	100.00	113.33	108.33	111.76	130.77	105.26	117.65	125.00
4	Garipur khas	120.00	120.00	116.67	111.11	128.57	110.00	111.11	113.64
5	Ambar Kunj	114.29	117.65	100.00	110.00	112.50	109.09	111.11	104.17
6	Madhav Pur	100.00	105.00	120.00	104.76	105.56	104.55	105.26	108.70
7	Shahadat Kunj	106.67	120.00	106.25	106.67	105.88	106.25	111.11	102.94
8	Shahapur Haider	116.67	120.00	114.29	122.22	112.50	104.55	111.11	108.70
	Western Zone								
1	Babu Jagjeevan Ram	120	125.00	116.67	120.00	121.43	106.67	117.65	109.38
2	Indira Nagar	107.14	105.00	116.67	104.76	100.00	104.55	114.29	108.70
3	Indira Priya Darshini	100.00	106.67	110.00	106.25	113.64	102.94	100.00	100.00
4	Lal Bahadur Sashtri	140.00	104.00	128.57	107.69	111.11	100.00	100.00	107.14
5	Maha Nagar	100.00	114.29	116.67	112.50	105.71	102.22	108.11	108.70
6	Paper Mill Colony	100.00	106.67	108.00	109.38	107.41	108.57	103.45	105.26
7	Gomti Nagar	120.00	105.00	116.67	104.76	114.29	102.27	100.00	111.11
8	Nishat Ganj	110.00	103.33	104.55	103.23	104.35	109.38	104.17	114.29
9	Ram Mohan Rai	100.00	106.67	109.09	106.25	100.00	102.94	104.17	100.00
10	Rafi Ahmed Kidwai	106.67	105.00	112.50	104.76	105.56	109.09	105.26	104.17
11	Rajiv Gandhi	114.29	140.00	100.00	107.14	112.50	113.33	111.11	117.65
12	Methali Gupt.Nagar	112.50	133.33	100.00	110.00	100.00	113.64	111.11	100.00
13	Ismail Gunj	114.29	114.29	112.50	125.00	105.56	120.00	105.26	104.17
14	Shaheed Bhagat Singh	113.33	110.00	105.88	109.09	105.56	108.33	105.26	115.38