

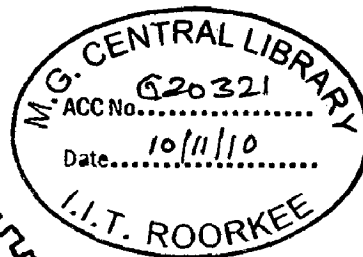
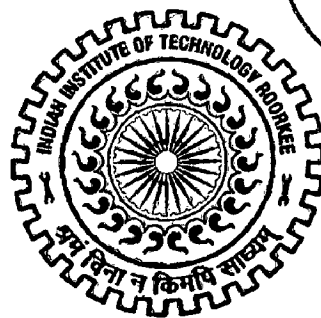
# URBAN LAND MANAGEMENT FOR SUSTAINABLE DEVELOPMENT: A CASE STUDY OF JAIPUR

## A DISSERTATION

*Submitted in partial fulfillment of the  
requirements for the award of the degree  
of*  
**MASTER OF URBAN AND RURAL PLANNING**

By

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JUNE, 2010**

## CERTIFICATE

Certified that this report entitled "**Urban Land Management for Sustainable Development: A case study of Jaipur**", which has been submitted by **Miss Pooja Nigam**, in partial fulfillment of the requirements for the award of the Degree of **Master of Urban and Rural Planning**, submitted in the Department of Architecture and Planning, **Indian Institute of Technology- Roorkee, Roorkee**, is the student's own work carried out by her my supervision and guidance. The matter presented in this dissertation has not been submitted by her for the award of any other degree of this or any other institute.

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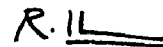
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## CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the Dissertation entitled "Urban Land Management for Sustainable Development: A case study of Jaipur", in partial fulfillment of the requirements for the award of the Degree of **Master of Urban and Rural Planning**, submitted in the Department of Architecture and Planning, **Indian Institute of Technology- Roorkee**, Roorkee, is an authentic record of my own work carried out for a period of about one year from June 2009 to June 2010, under the supervision of Dr. Nalini Singh and Prof. R. Shankar, Department of Architecture and Planning, **Indian Institute of Technology- Roorkee**, Roorkee, India.

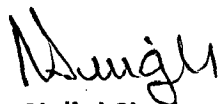
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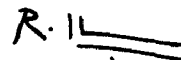
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## ABSTRACT

Land is the foundation of all forms of activity. Land management is the process whereby the resources of land are put to good effect. It includes decision making and the implementation of the decisions about land. It also includes the process whereby the land resources are allocated over space and time according to the needs, aspirations and desires within the realms of technical, political, social, institutional, legal and administrative framework.

Jaipur expanding at a very fast pace still does not has any proper planning legislation or land management model to guide the growth of the city. The present government initiatives to develop Jaipur as a world class city without any defined model for land development and management has led to huge distortions in land market. Land values have sky rocketed along with large scale conversion of agricultural land to undeveloped and unplanned residential areas. The major problems being faced are seen in a continuous increase of land prices leading to land speculation, scarcity of developed urban land particularly for housing, and proliferation of slums and extra legal settlements with little or no infrastructure services.

The study has been conducted to analyze the situation of land management and its outcome in a developing metropolis and to compare it with the successful land management model being practiced in different cities of India. The term land management in the study includes all the techniques of land assembly, development and disposal for a metropolitan city. The study also identifies the main problem areas and presents innovative solutions where such can be found. The study is limited to the selected pocket areas of the city for the study of the general problems related to land management and for the study of urban land policies the whole of city is considered.

Final outcome of the study is in terms of recommendations for a suitable land management model in order to make developed land available parallel to the development of metropolis. The recommendations are for the selected pocket areas at micro level as well as for the urban land policies at macro level, i.e., city level.

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## ABBREVIATIONS

ADB	Asian Development Bank
CAA	Constitutional Amendment Act
CDP	City Development Plan
DDA	Delhi Development Authority
EWS	Economically Weaker Section
HCS	Housing Cooperative Society
HIG	High Income Group
HUDA	Haryana Urban Development Authority
IT	Information Technology
JDA	Jaipur Development Authority
JLN Marg	Jawahar Lal Nehru Marg
JMC	Jaipur Municipal Corporation
JNN	Jaipur Nagar Nigam (same as Jaipur Municipal Corporation)
LIG	Low Income Group
MCD	Municipal Corporation of Delhi
MIG	Middle Income Group
MMRDA	Mumbai Metropolitan Region Development Authority
MNC	Multi National Company
M-NCPPC	Maryland-National Capital Park and Planning Commission
NPNL	No Profit No Loss
PDR	Purchase of Development Rights
PHED	Public Health & Engineering Department
PPH	Persons Per Hectare
PWD	Public Work Department
RDT	Rural Density Transfer
RHB	Rajasthan Housing Board
RIICO	Rajasthan State Industrial Development and Investment Corporation
RLAA	Rajasthan Land Acquisition Act
RSRTC	Rajasthan State Roadways Transport Corporation
RTDC	Rajasthan Tourism Development Corporation
RUIDP	Rajasthan Urban Infrastructure Development Project
TCPO	Town and Country Planning Organization
TDR	Transfer of Development Rights
TPS	Town Planning Scheme
UIT	Urban Improvement Trust
ULCRA	Urban Land Ceiling and Regulation

# INTRODUCTION

This chapter governs the framework of the dissertation and introduces its key components like aim and objectives. It provides the general background and overview of the topic and gives a glimpse of the relevance of the dissertation in context to the Jaipur city. In addition, the methodology followed for the study is discussed.

## 1.1 INTRODUCTION

India's urbanization is characterized by a tendency of population to concentrate in class I cities (population more than 100,000) and more so in metropolitan cities (population more than 1,000,000). Government has pursued a metropolitan decentralization policy for long without much success, and many of the existing metropolitan cities have grown so big that their management has become a challenging task for the concerned officials and organizations.

The major problems being faced by metropolis in country are seen in a *continuous increase of land prices leading to land speculation, scarcity of developed urban land particularly for housing, and proliferation of slums and extra legal settlements* with little or no infrastructure services. Urban land to meet the needs of a growing population is generated by conversion of agricultural or other land (barren land, forests, swamps, water bodies, etc) by the private owner or developer or through the process of compulsory purchase and development by the public sector or through community efforts.

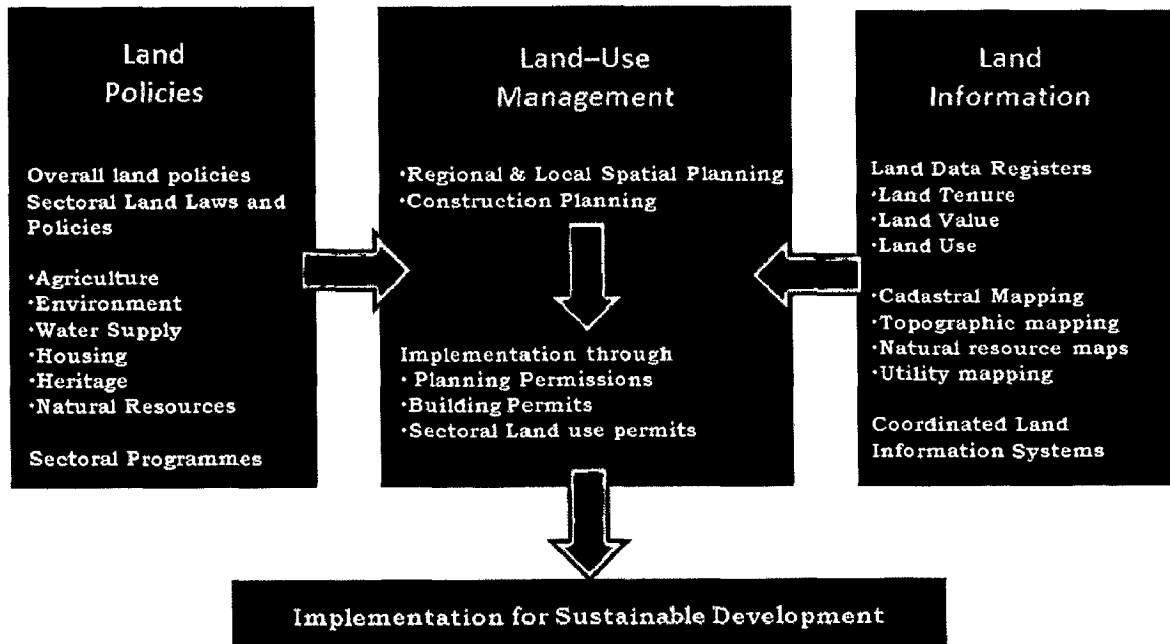
*Distortion in land market* is one of the biggest outcomes of urban land management system. Land market most directly affects the urban environment and the quality of life in cities. Efficient and equitable land market is a prerequisite for well functioning cities. However, most cities in developing countries of the region suffer from land market distortions caused by poor land development and management policies including poor planning, slow provision of infrastructure and services, poor land information systems, cumbersome and slow land

transaction procedures, as well as under regulation of private land development, leading to unplanned or ribbon/corridor development of land in the urban periphery.

It is estimated that at least for next 30 years, the urban population would grow substantially through the natural process, i.e., excess of births over death. United Nations estimates reveal that India's urban population will increase by whopping 420 million between 1990 and 2020 (United Nations, 1993:2-35). Economic liberalization policies (1992) have further catalyzed process of urbanization in India. [21]

The imprecation of the size urbanization and its rate of increase in terms of the requirements of urban population have created additional demand for urban land. On the other hand any increase in the quantum of urban land causes corresponding reduction in the land under agriculture use and such other occupations.

The fuller understanding of various problems of the urban areas having a bearing on urban land requires analysis of several relevant factors and forces affecting the scarcity and value of land. These are governed by financial, marketing and the land use processes. [26]



**Fig. 1.1: Integrated Land-Use Management for Sustainable Development**

Source: KOH, Junehwan, *A Study On The Development of Urban Land Information System for Sustainable Urban Management*, Prof., Ph.D., Korea.

## 1.2 NEED FOR STUDY

Access to serviceable land has been a major constraint in India and is reflected in the high and rapidly growing land prices in most metropolitan cities. This is because the availability and access to serviceable land is largely governed by the competitive market that sets the land prices. Such market is, however, imperfect and is subjected to a host of regulations and controls.

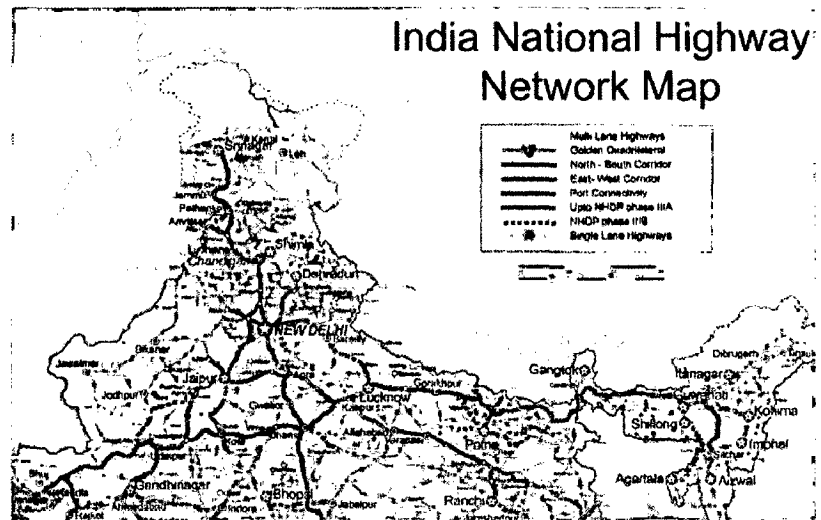
In the last three decades the predominant planning interventions in the respect of urban land have been through statutory city development plans formulated to earmark and allocate developed land and in appropriate quantities and locations to cater to various urban needs in a balanced manner. But the development plans, by itself are not an adequate instrument for the effective resolution of land issues, in particularly developing metropolitan and large city context. The major challenge faced by development authorities of fast developing metropolis is modulation of market forces and the balancing of economic and equity objectives of land development in their bid to achieve goals of planned development. There is a need of progressive and innovative strategies and role of both public and private sector to overcome these challenges.

1. Research shows that a large majority of the new urban population do not have easy access to land and that much of the new development is not adequately serviced.
2. Current practices and policies regarding urban land use, zoning and development cannot manage the situation efficiently and major efforts are required to improve land market efficiency.
3. Furthermore, there is a need to control land speculation which is rampant and to provide alternative investment opportunities.

*The purpose of this study is to analyze the situation of land management and its outcome in a developing metropolis and to compare it with the successful land management model being practiced in different cities of India. Final outcome of the study will be in terms of recommendations for a suitable land management model in order to make developed land available parallel to the development of metropolis.*

### 1.3 REASON FOR SELECTING JAIPUR

The city of Jaipur was established in 1727 as one of the few planned cities of the time by Raja Sawai Jai Singh. Till the beginning of the 20th century, it grew within the confines of its walls. In recent decades, however it has emerged as one of the fastest growing cities of India. As is



Map 1.1: Map of India

Source: [http://commons.wikimedia.org/wiki/File:India\\_roadway\\_map.png](http://commons.wikimedia.org/wiki/File:India_roadway_map.png)

evident from present trends, future urbanization would be concentrated along urban Economic Corridors. By 2025 there will be 10 mega cities (5 million +) in the country Six of these fall on Delhi - Mumbai Corridor. [17]

Jaipur is located very advantageously and presently it is emerging as a counter magnet to Delhi. (Refer Map 1.1). In future secondary metros will only dominate urban scene. Out of these secondary metros, one located in the vicinity of the mega cities are developing at a faster pace. [17]

During 1901-81 the population increased its population was 14.58 lakhs in the year 1991 which increased to 23.24 lakhs in 2001. In 1971-81 the growth rate was as high as 65%. In the same period, the urban area increased even faster by 92%. In the present master plan i.e. 1991-2011 the increase in urban area is 176% which is equivalent to the projected population growth (176%). [27] (Refer Chart 1.1)

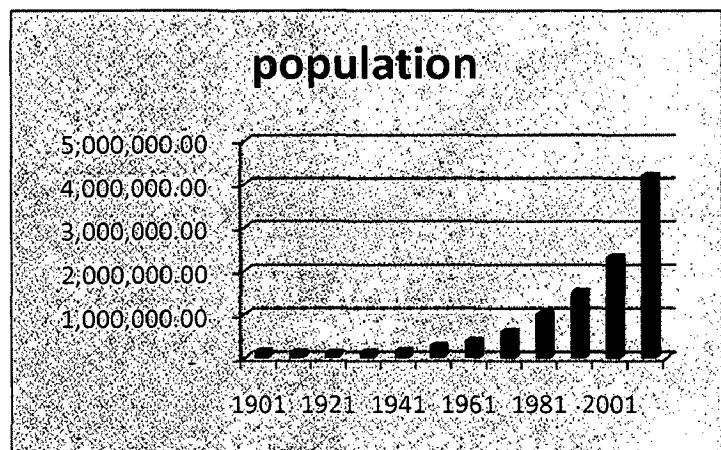


Chart 1.1: Projected Population and Growth Rate, Jaipur

Source: Master Development Plan 2011, Jaipur Region

Jaipur expanding at such a fast pace yet it does **not has any proper planning legislation or land management model to guide the growth of the city**. Jaipur development authority instituted in 1982 is the primary land control authority for the procurement of land and land use controls. Other agencies operating in the city are Jaipur Municipal Corporation, Rajasthan Housing Board, Rajasthan Industrial development and Investment Corporation. <sup>[5]</sup>

Jaipur is magnet to many from other parts of the state and outside because of the opportunities it offers and the facilities available here. The present government is trying to promote Jaipur as a world class city through its various upcoming mega projects which includes; Mahendra City (S.E.Z) on Ajmer Road (3000 Acres), World Trade Park, Hathi Gaon, Film City, IT City, Knowledge Corridor, Ring Road, Gems and Jewelry Market, Rope-Way etc. <sup>[17]</sup>

The present government initiatives to develop Jaipur as a world class city without any defined model for land development and management has led to **huge distortions in land market. Land values have sky rocketed along with large scale conversion of agricultural land to undeveloped and unplanned residential areas**. The propensity for other land uses to get converted into residential land use is very high.

#### 1.4 AIM

**To study the diverse Land Management practices adopted in various cities in the context of urban planning and development and to derive the best suitable model for Jaipur.**

#### 1.5 OBJECTIVES

1. To understand the role and relevance of land management in the planning and development process.
2. To study the current policies for land assembly, development and disposal especially for residential real estate in Jaipur.
3. To analyse the impact of land management practices on the development pattern and urban planning in Jaipur.

4. To suggest recommendations & proposal for a suitable model for land management for Jaipur city.

## **1.6 SUB-OBJECTIVES**

- 1. To understand the role and relevance of land management in the planning and development process.**
  - i. To understand the institutional framework and division of responsibilities among the different tiers of government in different cities of India.
  - ii. To study the “land management” in its most prevailing forms and the existing situation of illegal settlements.
  - iii. To study the Potentials and Demerits in these management practices.
  
- 2. To study the current policies for land assembly, development and disposal especially for residential real estate in Jaipur.**
  - i. To study the background of land management in Jaipur in the past.
  - ii. To study the current policies and prevailing practices in Jaipur.
  - iii. To study the primary problems and obstacles to efficient land management.
  
- 3. To analyse the impact of land management practices on the development pattern and urban planning in Jaipur.**
  - i. To study the Past urban growth & various factors involved in it.
  - ii. To study the Current quality of development in the area.
  - iii. To study the factors influencing the urban land market.
  - iv. To study the distortions existing in the land market (regarding land availability & land prices).
  - v. To analyze the factors responsible for these distortions in the market.
  - vi. To compare the differences between prevailing market rates & government rates in the city.

4. To suggest recommendations & proposal for a suitable model for land management for Jaipur city.
  - i. To deduct which policy tools affect the land management system the most, either beneficially or adversely.
  - ii. To give proposal regarding making effective policies & improving existing policies.
  - iii. To derive the methods for improving role of government agencies.
  - iv. To make a proposal for a land management model for Jaipur.

## 1.7 METHODOLOGY

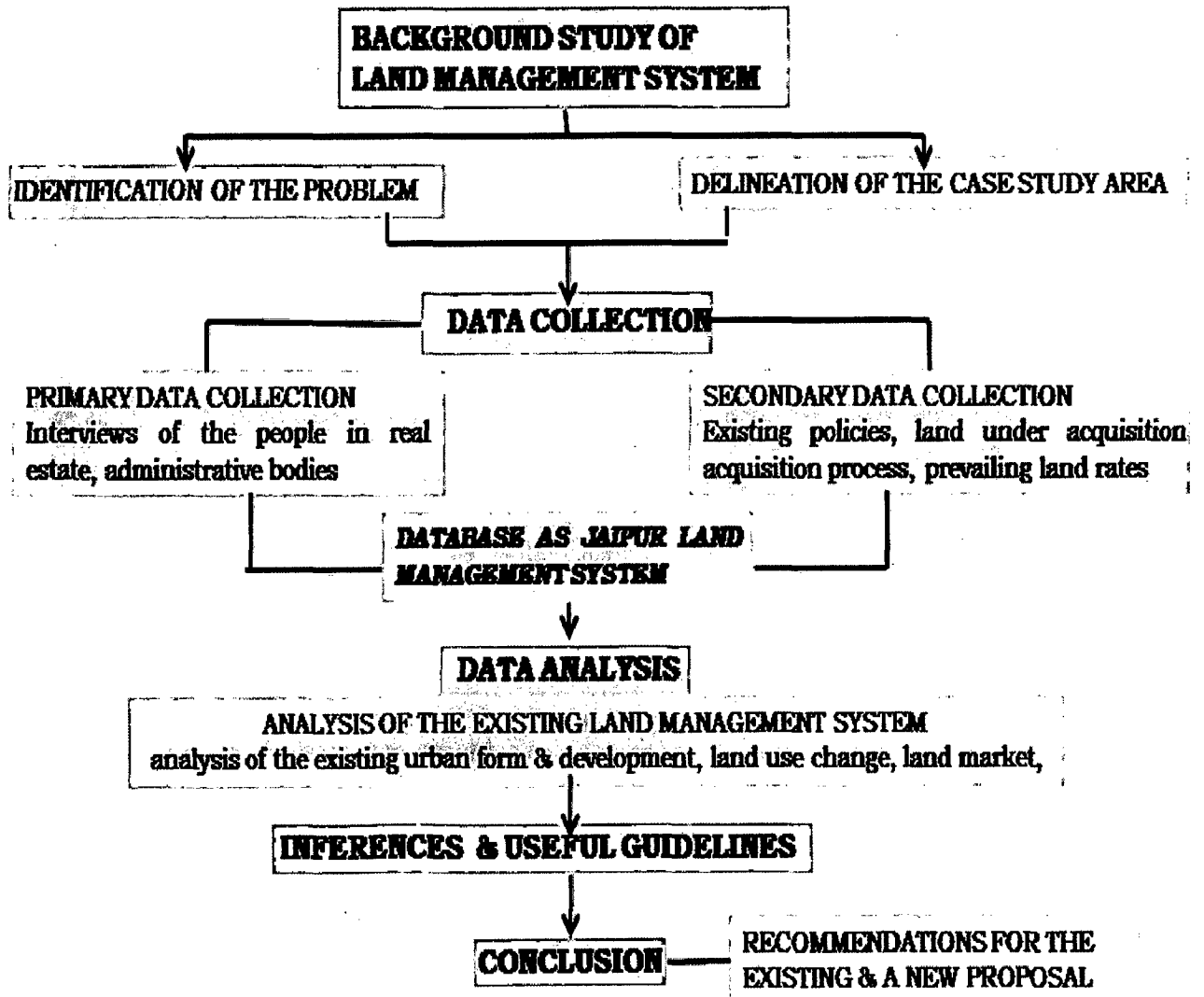
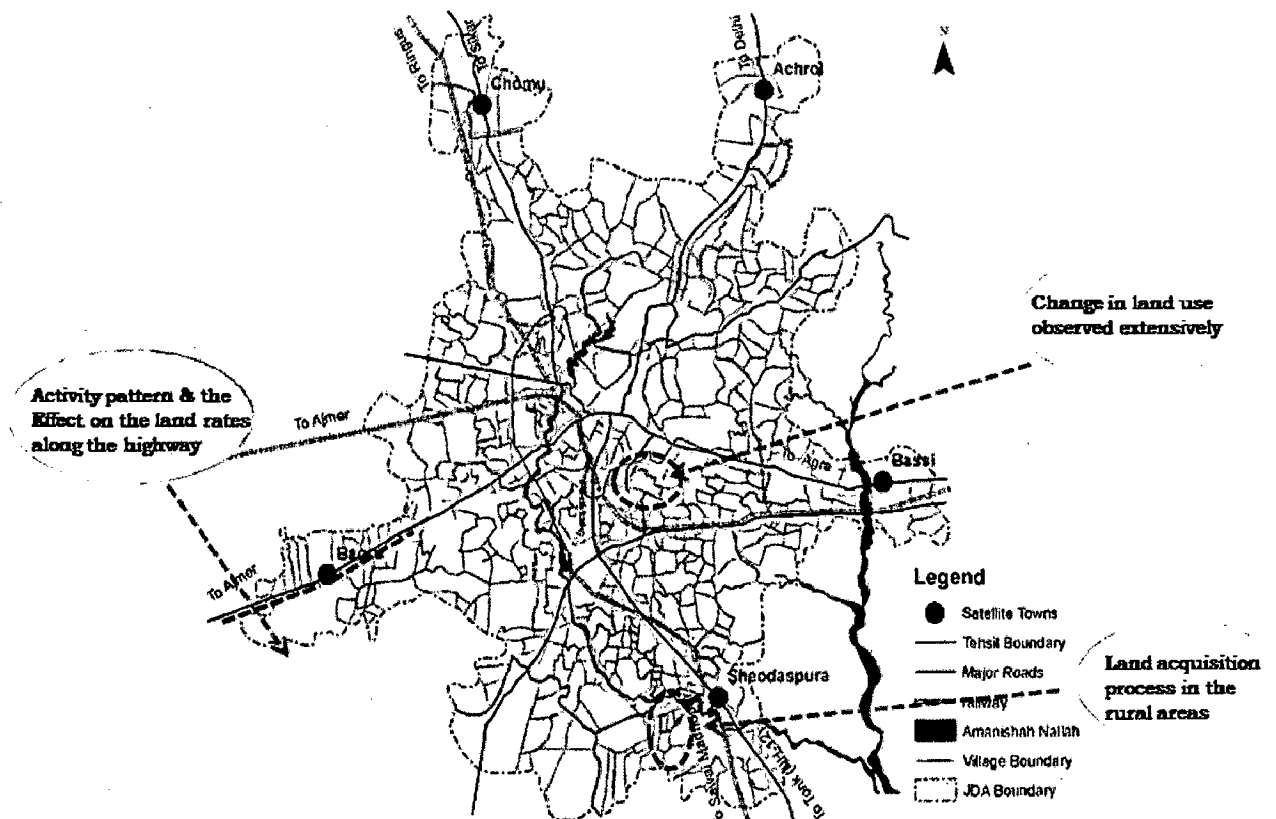


Fig. 1.2: Methodology



## 1.7 SCOPE AND LIMITATIONS

1. The term land management in the study will include all the techniques of land assembly, development and disposal for a metropolitan city.
2. The study also identifies the main problem areas and presents innovative solutions where such can be found.
3. The study will be limited to the selected pocket areas.
4. The study of the real estate will be confined to the government initiatives for real estate development in the residential.



**Fig. 1.3: Scope of the study**

*Base Map courtesy: City Development Plan, Jaipur*

# LITERATURE REVIEW

This chapter discusses the concept of land management and its different aspects like land assembly, land development, land disposal, land record and information system in a general context. An attempt has been made to study different kinds of approaches and phenomena: conventional and modern, in detail with possible potential inherited in them. A brief on the role of the legislations pertaining to land management is also discussed at the end.

## 2.1 INTRODUCTION

Definition of land management - *A set of measures to achieve the land needed for urban purposes at the right time, location, price and quantum with efficiency and economy.* [33]

Cities have so far absorbed their growing numbers in settlements with a varying quality of living mostly located in the urban fringe. However, the shortcomings of present land management systems have gradually become obvious as the urban growth has resulted in negative impacts such as *sprawling squatter settlements and traffic chaos*. Although appropriate land for housing exists, sometimes in relatively central locations, it is not accessible to vast sections of society because of factors such as *land speculation and lack of public investment in infrastructure and transport facilities*.

*Land management is the process whereby the resources of land are put to good effect. It includes decision making and the implementation of the decisions about land. It also includes the process whereby the land resources are allocated over space and time according to the needs, aspirations and desires within the realms of technical, political, social, institutional, legal and administrative framework.* [6]

The basic objectives of an effective land management system are:

1. Achieve an optimum social use of land.
2. Make land available in adequate quantity, at the right time and at reasonable prices for public

agencies and individuals.

3. Encourage cooperative community efforts and bonafide individual builders.
4. Prevent concentration of land ownership in a few hands and safeguard the interests of the poorer sections.
5. Developing a land delivery system to promote resource mobilization for urban development.
6. Influence the development pattern, which optimizes per capita production with minimal use of resources and energy consumption. [6]

The key factor intrinsic to the part of the urban problems is the failure on the part of local government to supply enough serviced urban land for housing and other requirements and ensure its optimum utilization. In most of the cities this shortcoming has led to the problems of a distorted real estate market, sky-rocketing escalation in land values, steep rise in rentals, and lack of access of the poor to affordable land shelter, congested living and excessive population pressure on the existing infrastructure. These problems are aggravated due to unregulated use of land, unauthorized developments and large scale encroachments of public land. Further the public land which normally constitutes a large proportion of developed land in major urban centers is often underutilized inspite of its acute scarcity. The land records, registration procedure and administration are also fraught with inadequacies, irregularities and malpractices.

The increasing population pressure on the urban land and the attendant problems calls for measures for ensuring proper management of land in terms of its supply, utilization and servicing.

## 2.2 MAJOR PHENOMENA AND FACTORS OF LAND MANAGEMENT

a) **Land Tenure:** The concentration of land in few private hands is the historical retrospects of the feudal and colonial administration in India. The fast increase in urban population causes higher demand for land for various purposes especially residential. Urban land becomes a very powerful potential source for money making. [11]

b) **Extravagant Use:** The extravagant use or misuse of urban land has a serious repercussion on the supply of land required to meet future urban needs. A large residential plot with a structural accommodating single or a few dwelling units is noticed in some areas in great contrast to extreme congestion in other areas. [11]

c) **Unearned increment:** Vacant lands offer highest scope for profiteering motives in real estate business in urban areas. Allowing the residential plot to remain vacant for long time within the built up area of the city or keeping a large patch of land in the fringe area as vacant or half exploited is a fairly well known mechanism adopted for deriving unearned increment from land. This practice creates serious problems of shortage in urban land thus raises the value of urban land and allows scope for personal profiteering. <sup>[11]</sup>

d) **Frequent transfers:** Frequent transfer of urban land is one of the phenomenons of real estate business that is generally noticed in large cities. A good deal of profit making as well as evading the taxation net are involved in such transactions. Taking advantage of growing demand of land unscrupulous persons make investments in land which, after a lapse of sometime, is sold at much higher prices. <sup>[11]</sup>

e) **Land use change:** The urbanization process in the country during the recent decades has created enormous demand for urban land, a part of which is met through physical expansion of urban space. In the process considerable amount of fertile agriculture land is being converted into non-agricultural uses. Anti conversion measures provided in the revenue code are extremely feeble. Similarly peripheral control acts enforced in certain urban areas have also proved inadequate to prevent these serious problems. Other land control and regulatory measures towards prevention of use conversion contained in master plans could not be enforced in right vigor partly due to lack of sharpness in legislative provisions and implications of the public acquisition of urban land. <sup>[11]</sup>

### 2.3 URBAN LAND RECORD AND INFORMATION SYSTEM

In the rural areas in India, 'patwaris'- the local revenue department functionaries keep an up-to-date record of ownership pattern of village lands in a traditional manner in the form of a map known as 'Shajra'. But in the urban areas, no consolidated system of land records has yet been established.

Urban land records are maintained in a fragmented manner by various organizations involved in urban development and maintenance. The number of such organizations may vary from city to city but generally these include municipal bodies, special purpose sectoral development agencies, and development authorities. <sup>[35]</sup>

Municipal bodies keep track of properties from point of view of collecting tax. Sectoral agencies such as industrial development corporations maintain details of the industrial units and leave out the details of undeveloped land that may lie within or around these industrial units. Similarly, the development authorities keep records of their acquired land but not of the relatively small pockets which may lie scattered amidst the boundaries of their lands and may be owned privately or by other development agencies. In this situation, whereas the privately held pockets of land become the focus of all types of unauthorized building activities, the publicly owned parcels get targeted for encroachment by unscrupulous builders or other vested groups. Local governments and land development agencies need to evolve an urban land records system for better protection of their land resources. [26]

An elaborate land records system would, however, be useful for many other purposes. For example, an up-to-date cadastral map which in essence defines boundaries of every parcel of land and is an essential component of a land titling process, if maintained properly, would be extremely helpful in efficient transaction of properties, financing its development, and determining a fair tax base of properties. Besides; such a system could be supplemented with a land information system and used for keeping complete information regarding location of all parcels of land in an area, their utilization in terms of land use type and intensity of development, and also for monitoring changes in their physical and socio-economic attributes. These informations would eventually be very helpful in the preparation of physical development/redevelopment plans. [35]

## 2.4 LAND REGISTRATION AND TRANSFER PROCESSES

The process of transacting sale/purchase of land, transferring ownership rights and getting it legally registered with the government is quite a cumbersome process. A series of restrictions have been imposed by the government on free transaction of sale/purchase of properties. If the land is of a leasehold category, permission of the lessor would also be required. As a matter of policy, when public agencies dispose off developed land parcels, they do so on perpetual or 99 year leasehold basis to retain a certain measure of control over the future use of the land, its intensity of development and transaction. [26]

For instance, in Delhi, in the perpetual lease deeds executed by the Delhi Development Authority (DDA) or the Municipal Corporation of Delhi (MCD), there is a clause enabling the lessor agencies to recover 50 per cent out of the profit accruing to the lessee due to capital appreciation. The recovery is done at the time of resale of the leased property even though it may be the first resale after the original allotment by the Authority /Corporation. The Land and

Development Office of the Delhi Government also recover 50 per cent of the profit but at the time of the second resale only. Government departments and public agencies justify their claim on sharing the profit on the ground that a substantial part of it is due to investment of public funds in infrastructure and not because of any effort on the part of the owners.

A land transfer/sale deed can be registered with the government only after various clearances have been obtained and fee for registering the sale deed and transferring ownership rights has been paid to concerned authorities. As a consequence of all these restrictions and requirements of payments to the government under various heads, sellers and purchasers of land collude to devise methods by which they can avoid the restrictions and payments. Invariably, property transactions are completed under the power of attorney arrangement. The modus operandi adopted in such cases is that the seller gives the 'right to use' tenure to the buyer. The user virtually becomes the owner and also has the option to transact the land, if necessary, to a subsequent buyer. But, in the process, the State loses the opportunity to tap unearned income which could be used for community purposes. <sup>[35]</sup>

## 2.5 LAND USE PROCESS AND METHODS TO REGULATE LAND USE

The demand for developed land in the world and more so in developing countries has now acquired such dimensions that it is plainly beyond the capacity of the governments in these countries to allocate resources which would significantly lessen the problem of increasing shortage of developed urban land. It has, therefore, become very necessary to use urban land in the most effective manner.

Yet, it is not very uncommon today to see large chunks of developed urban land being put to uneconomical uses. Examples of such developments exist in the form of old industrial complexes spreading over large areas or central jails occupying hundreds of hectares of valuable land within core areas of cities.

It is thus necessary to understand the process by which land uses get established within a city and identify the causes of such wasteful or uneconomical uses before attempting to minimize their occurrences. There are three possible channels through which land uses get determined in an area:

### a) The Owner-based Decision-making Process

Some persons own land as a status symbol to command prestige in the society, and few others may use it as an important vehicle for transfer of wealth through inheritance. An

owner thus holds land or real estate property for economic, social and psychological reasons; and it is not at all necessary that the use of a privately owned land as determined in the owner's best self-interest would also be most profitable from the point of view of society as a whole. [19]

### **b) The Urban Land Market Operations**

A very serious problem related to the free market operations in land transactions is of inequity in land tenure. This happens particularly when supply of urban land does not match with the demand, and the income distribution pattern in the society is skewed. The shortfall in supply heightens inflationary pressure in land prices, which is, in turn, aggravated by other factors. Firstly, in an inflation ridden market, speculators withhold land and worsen the gap between demand and supply. Secondly if general price index is also rising, then the people, alarmed by the associated fall in the purchasing power of the money, are lured to buy early and beat the price rise. This accentuates the demand for land. Thirdly, the investment in land is considered by the people as the best hedge against inflation and, in an inflationary economy, this behavior on the part of investors sparks a further boom in the land market. The compounded inflation in land prices due to the combined effect of all these factors prevents access of the low-income groups of population to serviced urban land. The end result is that only the rich- and the middle-income group of people can afford a foothold on serviced land through the normal market whereas the poor have to depend upon informal systems which are generally of illegal or unauthorized nature. [19]

### **c) Government Interventions**

The government interventions are most often practiced within the legal framework of a 'comprehensive' urban development plan and are enforced through the application of zoning and sub-division regulations, and building bye-laws. The government intervenes in the land market for various reasons. Firstly, it does so for elimination of market imperfections and failures to increase operating efficiencies. Then, there are egalitarian reasons, i.e., achieving equity (socialization of ownership of land), social cohesion and environmental accord. But the interventionist measures often distort the land market to such an extent that the very purpose of intervention gets defeated. [19]

For instance, Delhi Master Plan as enforced in 1962 had provided for a minimum plot size of 100 sq yd (80 sq m approximately), which was clearly unaffordable by the large majority of inhabitants. Likewise, in Uttar Pradesh, specified minimum plot size and infrastructure standards, at the levels established under the Regulation of Building Operations Act of 1958,

were affordable only by households at or above the 95th percentile of the urban income distribution.

One such example of government intervention is the Urban Land Ceiling and Regulation) Act 1976, popular known as the ULCRA. This Act was enforced for exercising social control over the scarce urban land resource, with a view to ensuring its equitable distribution amongst the various sections of society and avoiding speculative transactions relating to land in urban agglomerations. But as a result of the hurdles faced during implementation, the spirit and purpose of the Act was lost and it proved to be the principal obstacle in the operation of land market. Large chunks of urban land were entangled in legal battles and could neither be acquired nor brought into the market. The resultant restriction in supply and land prices sky rocketed and further reduced access of the poor to the developed urban land.

## 2.6 LAND ASSEMBLY PROCESSES

### 2.6.1 Land Acquisition

Public agencies have used Land Acquisition Act 1894 as the main instrument for stocking land for urban development. Further, the Act can be used to acquire land for housing, education, health and other public purpose and for registered or corporative societies. The act has been amended twice, once in 1967 and again in 1984 to make it more efficiently applicable. <sup>[31]</sup>

One of the oldest experiments in large scale acquisition was made in the development of Delhi as a national capital. In the past four decades DDA acquired substantial parcel of land, used it as land bank and made extensive use of land as a resource. <sup>[24]</sup>

The principle behind bulk acquisition is that all the land on the yet- undeveloped periphery of a growing city should be notified at an early stage and acquired by public authority at prevailing agricultural price. This would prevent the undesirable speculation in land dealings when the rural land is being converted to urban.

#### a) Merits of approach

- i. It curbs speculations of land.
- ii. It can promote orderly planning and development of the city since the public authority has control over the urban fringe land.
- iii. It can control pace of development
- iv. It helps in coordinating physical development and community facility provisions.



**b) Demerits of approach**

- i. Heavy finance is required for bulk acquisition
- ii. Agricultural value of land is lost as land remains undeveloped for a longer duration.
- iii. Amount of compensation is not adequate hence many landowners go to court.
- iv. In cases in which land acquisition policy is restricted to only a few land use purposes, the results are also restricted and policy is not able to influence the pattern of urban growth.
- v. In most cases, owing to the restricted financial means of the public authorities, the land is acquired far from the city frontiers, where it is cheap. Such land development in new areas far from city has a negative impact on the land market increasing the land prices of large areas of vacant land between the new development and those previously urbanized.
- vi. In most of the city regions, public land acquisition policy has the restricted objective of supplying land to meet the urgent needs of public housing and industrial development only. So the land use patterns in the city shows only a picture of high-rise housing, projects industrial estates and shopping centres.

**2.6.2 Land Pooling**

Land pooling is a land management technique for carrying out the unified sub division of separate landholdings for urban development. It is also known as land consolidation, land readjustment, land replotting and land redistribution. In this the landowners are not paid any compensation nor are they expected to pay incremental costs. Adjoining parcels of land held in fragmented ownership are consolidated, developed and portioned into serviced plots in a planned and rational manner.

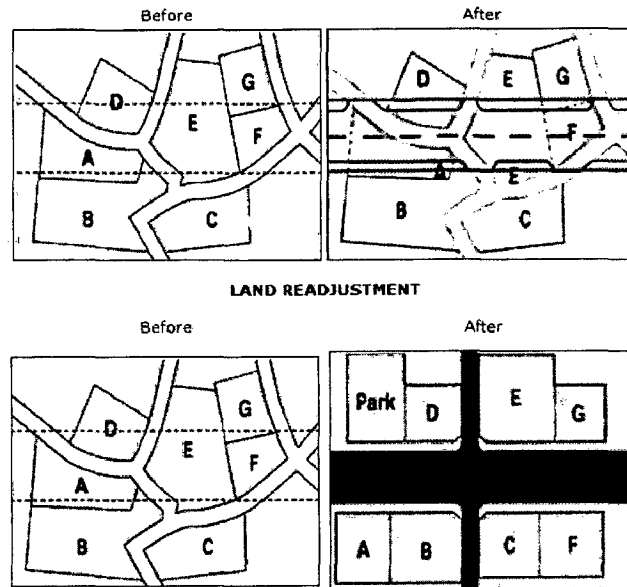
Land pooling technique for urban land management is adopted for, firstly for conversion of urban fringe land from rural to urban use and secondly, for plot reconstitution in ill-serviced and congested city areas.

**a) Potential Benefits of land Pooling**

- i. Good standards of sub-division layout and design.
- ii. Efficient and economical land development works.
- iii. Providing land for public streets and parks at no cost to government.

- iv. Cost and returns of land subdivision are shared between land owners.
- v. Cost of development is recovered from land value increase.
- vi. Site created after land pooling are with clear land titles.
- vii. Timely subdivision of urban fringe landholdings for orderly urban expansion.
- viii. Controls land speculation and ensure an adequate supply of land for new housing development.

#### b) COMPARISON BETWEEN LAND READJUSTMENT AND LAND ACQUISITION



**Fig. 2.1: Comparison between land acquisition and land pooling.**

Source: CONNELLAN, Owen, *Land Assembly for Development – The Role of Land Pooling; Land Re-adjustment and Land Consolidation United Kingdom.*

#### 2.6.3 Plot Reconstitution technique

Plot reconstitution as a tool for land assembly originated in France after the French Revolution in 1865. This legal enactment necessitated pooling of all land in a given area for development through participation of land owners. Under the act, the owner received an ownership interest on the area proportionate to the prior holding. [7]

The Plot reconstitution technique is very similar to any town Planning Scheme taken on an area basis with the aim of developing the area with provision of essential infrastructure and amenities with intentions of making them self sufficient. All the holdings are pooled and about 25-30% of the area of each holding is kept aside for provision of public amenities. [7]

The benefits of the technique to the landowners and the government have been illustrated in Fig. 2.2 and Fig. 2.3.

#### a) Potential benefits of Plot reconstitution technique

- i. Public money is not risked in land markets.

- ii. Bulk finance required for public intervention in land market could be directed towards improvement of existing assets.
- iii. Public authorities maximize gains through taxation.
- iv. The technique provides an effective means to realize public pursuit and initiation for the development.
- v. The technique can reconstitute land for public purpose at a desired location with ease and efficiency.

TO LANDOWNERS	TO GOVERNMENT
<ul style="list-style-type: none"> <li>◆ Increase Value of the land and ownership of title is guaranteed.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Realisation of plan.</li> </ul>
<ul style="list-style-type: none"> <li>◆ 'People-friendly' - involvement in planning and project implementation.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Implementation of Local Agenda 21- public involvement in the development is enhanced.</li> </ul>
<ul style="list-style-type: none"> <li>◆ Developer problem violate terms of agreement and financial problem can be avoided.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Increase in Tax collection increase impact of the increasing of land value.</li> </ul>
<ul style="list-style-type: none"> <li>◆ Direct solution of ownership and inheritance of land issue.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Avoid or minimise land acquisition</li> </ul>

Fig. 2.2: Benefits to land owners and the government.

Source: Sandhu , Kiran(2004), Exploring The Potential Of Land Pooling And Readjustment Techniques For Housing The Poor, ITPI Journal, Lecturer, Guru Ram Das School of Planning, Guru Nanak Dev University, Amritsar

**b) Constrains within the technique**

- i. The plot reconstitution technique can achieve only the quantitative aspects of urban development i.e. there is a gap in terms of time between development of land with essential infrastructure and the development of superstructure.
- ii. A desired level of infrastructure can set speculative trends in land markets, and developed land for urban use would remain much beyond the means of the larger section of the urban populative trends in land market, and developed land for urban use would remain much beyond the means of the larger section of the urban population.

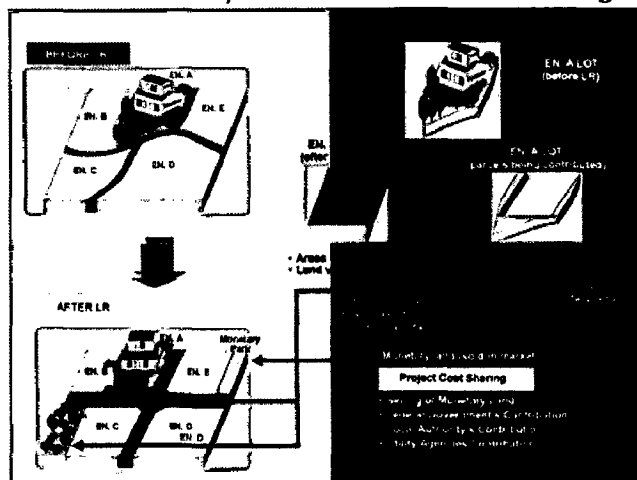


Fig. 2.3: Benefits of the Plot Reconstitution.

Source: <http://www.indiaurbanportal.in/bestpractice/bp.html>

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- iii. Public authorities maximize gains through taxation.
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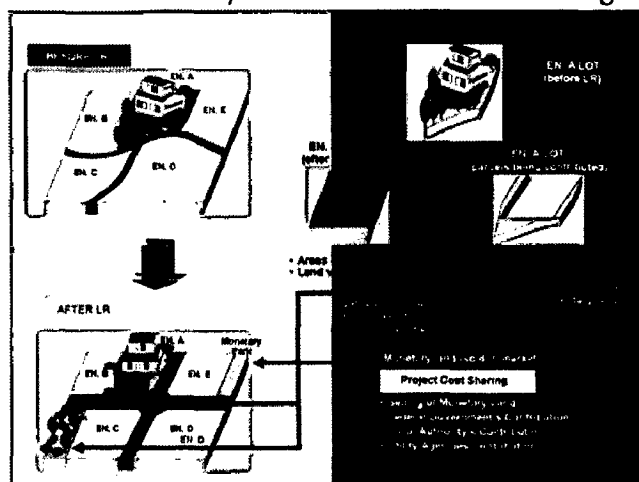


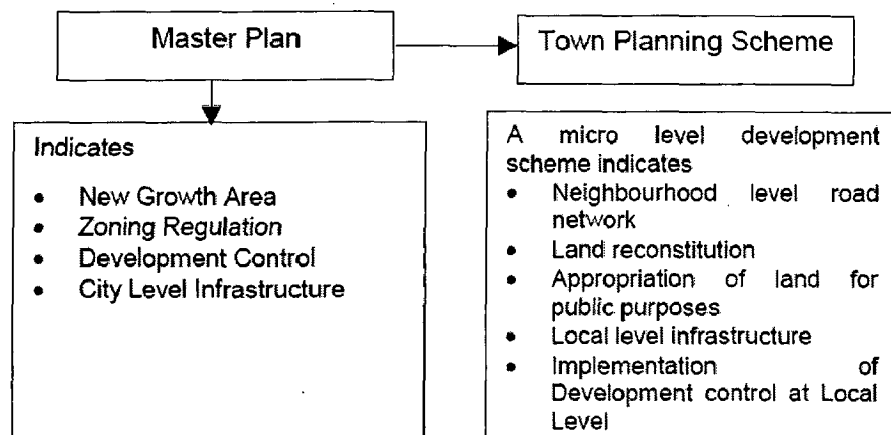
Fig. 2.3: Benefits of the Plot Reconstitution.

Source: <http://www.indiaurbanportal.in/bestpractice/bp.html>

## 2.6.4 Town Planning schemes

Town Planning Scheme mechanisms, very similar to plot reconstitution and land readjustment schemes; has been a major mode of land development in Gujarat and Maharashtra. The Bombay Town Planning Act, 1915, provided the first legal framework to undertake orderly development of outlying areas and extend infrastructure as well as services to these areas. Modelled on the British Housing and Town Planning Act of 1909 and

the German practices of town planning prevalent then, the local authorities were given powers to convert the irregular revenue



plots into appropriate shapes, lay down roads and provide

the public ownership of privately held land for community facilities and open spaces. Such land were acquired without paying actual compensation as the cost of acquisition of land was adjusted with the betterment of land and enhancement in the value of land due to public efforts.

The conventional approach to land acquisition, even for public purpose, has become a time consuming process. Sometimes it leads to unending litigation and encourage speculative tendencies. The acquisition process besides being time consuming also becomes cost prohibitive while on the other hand the owners, whose lands are acquired, feel that they have not been adequately compensated. The Town Planning Scheme is being followed as an alternative method to assemble the land for urban development activities in a faster and financially affordable manner without taking recourse to compulsory acquisition of land. (Refer Fig. 2.4). It is basically an area planning technique patterned on the concept of land re-adjustment. In the state of Maharashtra, which is a pioneer in the field of TPS it is implemented under the Maharashtra Regional and Town Planning Act, 1966. In Gujarat, it is implemented under the Gujarat Town Planning and Urban Development Act, 1976. <sup>[13]</sup>

**Fig. 2.4: Interrelationship between Master Plan and Town Planning scheme**  
 Source: Gurumukhi, K.T. (2003), *Land Pooling Technique : A tool for plan implementation - An Indian experience*, Chief Planner, Town & Country Planning Organization, Government of India, New Delhi



The corrected scheme is officially published in the Gazette for objection and suggestions to be accepted.

**Fig. 2.5: Process followed for the preparation of Town Planning scheme**

Source: Gurumukhi, K.T. (2003), *Land Pooling Technique: A tool for plan implementation - An Indian experience*, Chief Planner, Town & Country Planning Organization, Government of India, New Delhi

### 2.6.5 Negotiated Land Prices

Yet another alternative to compulsory land acquisition is negotiated land purchase as pursued by private colonizers. This was made possible for the first time in India under the Haryana Development and Regulation of Urban Areas Act 1975. The Act permits developers to negotiate direct purchases from farmers for large-scale assembly of land for urban development. These lands are generally located on the fringes of existing towns and the negotiated prices are about 3 to 6 times higher than the government rates. The owners are, therefore, much more happy selling their land to private colonizers rather than having to deal with the public agencies under the Acquisition Act. The land assembly is also completed relatively easily. [24]

The land colonizers are particularly active in Gurgaon District of Haryana State which lies contiguous to the National Capital Territory of Delhi. They are thus capitalizing on Delhi's land market and also the fact that large scale assembly of land by private developers is still prohibited in the National Capital Territory of Delhi. This approach has the potential of solving the resource crunch problem of public agencies and needs to be popularized in Delhi itself and other metropolitan cities of India. [8]

### 2.6.6 Transfer of Development Rights

Another technique which is becoming popular in the State of Maharashtra and used effectively for land management in the Greater Bombay Area is that of Transfer of Development Rights (TDR) incentives. The associated procedure is that the owner, instead of being compensated in cash, is issued a certificate of development rights equal to a floor area derived in proportion to the value of the property. The owner has the flexibility to either use the TDR for purchasing equivalent floor space in the original area after its development/redevelopment or encash it by selling it to a developer who would then use it to build equal floor area over and above the limits permitted by the ruling floor space

index. To, facilitate the application of this technique; the local body designates zones within which TDRs can be traded. [31]

**a) BENEFITS OF TDR**

- i. TDR protects farmland permanently, while keeping it in private ownership.
- ii. Participation in TDR programs is voluntary— landowners are never required to sell their development rights.
- iii. TDR promotes orderly growth by concentrating development in areas with adequate public services.
- iv. TDR programs allow landowners in agricultural protection zones to retain their equity without developing their land.
- v. TDR programs are market-driven—private parties pay to protect farmland, and more land is protected when development pressure is high.
- vi. TDR programs can accomplish multiple goals, including farmland protection, protection of environmentally sensitive areas, the development of compact urban areas, the promotion of downtown commercial growth and the preservation of historic landmarks. [2]

**b) DRAWBACKS OF TDR**

- i. TDR programs are technically complicated and require a significant investment of time and staff resources to implement.
- ii. TDR is an unfamiliar concept. A lengthy and extensive public education campaign is generally required to explain TDR to citizens.
- iii. The pace of transactions depends on the private market for development rights. If the real estate market is depressed, few rights will be sold, and little land will be protected. [2]

A comparative analysis of all the techniques have been discussed in Fig. 2.6 in terms of the kinds of developments and the amount of land to be assembled.

Development Thrust Area	Mode of Land Acquisition / Assembly	Compulsory Land Acquisition	Land Assembly / Acquisition through Land Return and Reservations	Acquisition through TDR and AR
1. Urban Extension / Greenfield Development 1.1 Facility Corridor, City Level Tpt. / PSP Facility / Recreational / Indl. / Comrl. / Utility, etc. 1.2 Residential Neighborhood (20 ha.)		Wherever Necessary	Lands above 40 ha - 50% Land Return Above 10 ha - 40 ha. - 40% Above 5 ha - 10 ha. - 30% Above 2 ha - 5 ha. - 20% Less than 2 ha. - 16.6%	As required
Redevelopment Areas / Existing Urban Area	TOD Corridor	Wherever necessary	Wherever necessary	Preferred Option
	Low Density Area			
	Special Area			
	Villages			
	Resettlement areas			
	U/A Colonies			
In-Situ Slum/JJ				

Fig. 2.6: Comparative Analysis of various Land Assembly Techniques for various kinds of Developments  
Source: Jain, A. K. (2008), Urban Land Policy and Management Reforms, ITPI Journal, Commissioner (Planning), DDA

## 2.7 LAND DEVELOPMENT AND DISPOSAL PROCESS

### 2.7.1 Land Development and Disposal by Public Agencies

Undertaking large scale land development and disposal activities has till recently been the exclusive preserve of public agencies. They adopted a land policy of bulk acquisition of agricultural lands in the fringe areas of cities. These lands were then developed, sub-divided and disposed-off at prices which supposedly included the cost of infrastructure development. However, public agencies' disposal policies have had various limitations. First of all their pricing of land has been inefficient. Often unduly large parcels are given at highly reduced rates to public sector agencies which may not eventually utilize it efficiently. The disposal policies have also resulted in substantial subsidies to middle and upper income households, who have been largely the beneficiaries of public land disposals. Many of these households took advantage of the land pricing and disposal policies by acquiring plots for speculative purposes only and later reaping rich dividends by selling the plots at inflated prices.

The other deficiency in land policy arises due to the development authorities not being able to acquire, develop and dispose-off land at a pace which would match supply with demand. On the contrary, there is the example of Delhi Development Authority (DDA)



### 2.8.2 Municipal Acts

These acts contain many provisions for controlling land development and building activities, licensing trades and factories, prohibiting public nuisance and abating pollution, demolishing unauthorized and dangerous buildings, constructing drains and carrying out other such works. Building bye-laws are also incorporated as parts of the municipal laws. Often municipalities are accused of not checking unauthorized constructions and violations of building bye-laws. After implementation of 74th Constitution Amendment Act, which has given urban local bodies a constitution status, has led to modification of municipal acts by many states.

### 2.8.3 Improvement Trust Acts

Unlike the Municipalities Act, these acts empower Improvement Trusts to have jurisdictions to include peripheral areas beyond municipal limits of a city for preparing town expansion schemes. Trusts are empowered to undertake land acquisition, development and disposal of land. The main drawback of Improvement Trust Act is that schemes framed under the act are piecemeal and do not take into consideration the integrated nature of development for a city or city region. Many other similar acts exist such as Housing Act, Slum Areas (Improvement and Clearance) Act, and Infrastructure Development Act.

### 2.8.4 Development Authorities Acts

These acts, also known as Urban Areas (Development) Act in some states, have been used to create area wide urban development authorities. These authorities have statutory powers to acquire land, prepare development schemes and implement them. Moreover, these are unified and constituted to function as agencies with access to experts in all fields related to urban development and hence are not dependent on para statal or sectoral agencies. These are generally created by abolishing improvement trusts, but sometimes exist simultaneously with them. Development authorities have jurisdiction over much larger areas as compared to improvement trusts. <sup>[33]</sup>

## 2.9 CONCLUSION

The chapter has attempted to review the urban land management techniques in India in both conceptual and operational terms in order to highlight the deficiencies in the planning and legislative process.

## CASE STUDIES

This chapter deals with the study of the various land management models and the institutional framework and division of responsibilities among the different tiers of government in different cities of India. The study of the functioning of each of these models has been carried at policy, planning and implementation level in order to determine the potential regarding the applicability of these practices and models to the case of Jaipur.

### 3.1 INTRODUCTION

In the early years after independence, in India, land was compulsorily purchased and developed by the public sector for housing and for setting up industries and industrial estates near urban areas. This source has virtually dried up because of increase in compensation to be paid as prescribed under the modified Land Acquisition Act, the linking of compensation to be paid to unrealistic values by the law courts, and application of the Urban Land Ceiling Regulation (ULCR) Act. (Ironically, the ULCR Act was to supply all the urban land needed for public use cheaply.) Secondly, the lands with the public sector have been sub-divided uneconomically at unsustainable standards except in a few cases. <sup>[31]</sup>

In present context private developers play a major role in developing land for urban use. This phenomenon is well understood by states like Maharashtra, Haryana, Uttar Pradesh, West Bengal etc., who have their land management models for controlling subdivision of land by private developers. Town Planning schemes, transfer of development rights, accommodation reservation etc have proved much effective than conventional technique of Land Acquisition for Urban Development. <sup>[31]</sup>

### 3.2 LAND MANAGEMENT IN AHMEDABAD

#### 3.2.1 Introduction

Land readjustment through the Town Planning Scheme mechanisms; has been a major mode of land development in Ahmedabad. (Refer Fig. 3.1). The Bombay Town Planning Act, 1915,

It can be concluded that the land policies and techniques followed here are having certain flaws and potentials. In India, there is a strong need to assess the existing urban land policies and management systems and reform them. These techniques should be implemented in a modified manner after rectification to suit the specific circumstances like in the case of Jaipur city from various standpoints, in order to garner maximum potential benefits and ensure planned urban growth and sustainable development without many complications in the procedure involved.

which after having created a large pool of acquired land, and notified even a larger chunk of land for acquisition, failed miserably in developing most of the acquired/notified land.

### **2.7.2 Land development and disposal by private sector**

Failure on part of public sector in providing developed land has initiated involvement of private sector in development of land in a big way. Government has now realized the importance of involving the private sector in various developmental activities. Different states have now begun to evolve policies for encouraging private developers to engage in large scale assembly, development and disposal of land so that development authorities can concentrate on their role as facilitating agencies.

Haryana is one of the states where private developers have been allowed to engage in large scale urban development projects, under the provisions of the Haryana Development and Regulation of Urban Areas Act, 1975 (and Rules 1976). According to the Act, the developer is required to provide the on-site infrastructure while Haryana Urban Development Authority (HUDA), which is the official agency for undertaking land development activities, provides off-site infrastructure in association with other development agencies in the government sector. <sup>[14]</sup>

## **2.8 LEGISLATIVE FRAMEWORK**

Like the multiplicity of authorities, many legislative measures have proliferated as instruments for providing statutory backing to various agencies involved in urban development.

Some of the legislations that can be utilized for land development and control and have lead to the multiplicity of authorities are briefly described below:

### **2.8.1 Town and Regional Planning Acts:**

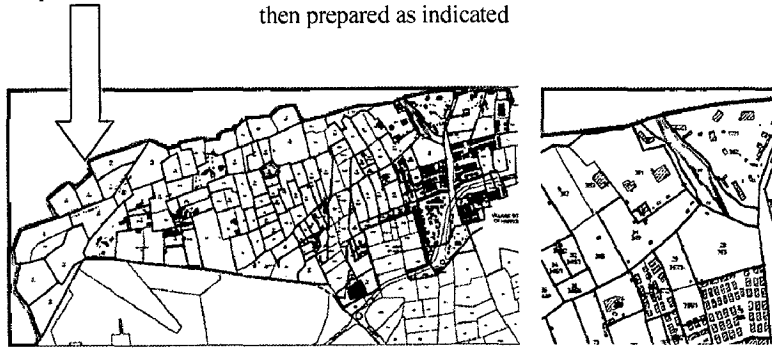
Town Planning Acts are legislated by respective governments in the states and union territories. These acts lay down procedures for preparation of master plans for towns and cities, and detailing of town planning schemes for parts thereof. Some states are now beginning to replace town planning acts by regional and town planning acts to be able to integrate planning of the city with that of its region.

**a) Merits of Town Planning schemes**

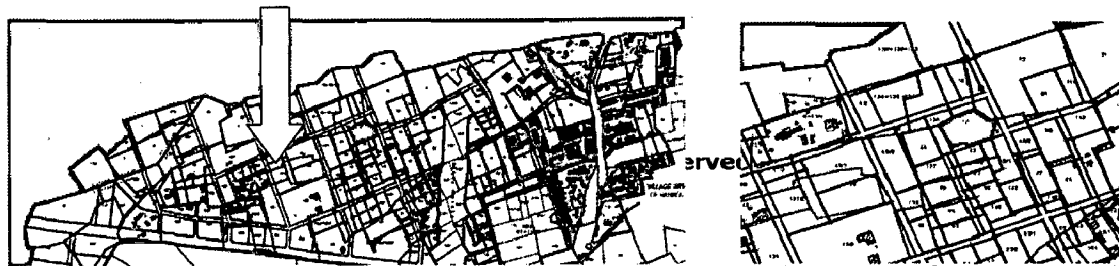
- i. There is a collaborative effort of public authorities and private land owners for sharing land, thus reducing conflicts.
- ii. Most of the land required for public purpose is made available without the lengthy land acquisition process, as per the Land Acquisition Act, 1894.
- iii. The entire scheme of land development and servicing can be self-financing.
- iv. Provisions now exist for earmarking land for economically weaker Section Housing, and thus bring about equitable distribution. [37]



A base map is prepared incorporating the proposal of Master Plan/Development Plan for the identified site of TPS. For planning purpose adjacent plot with the same owner are grouped together as one original plot. A map showing original plots is then prepared as indicated

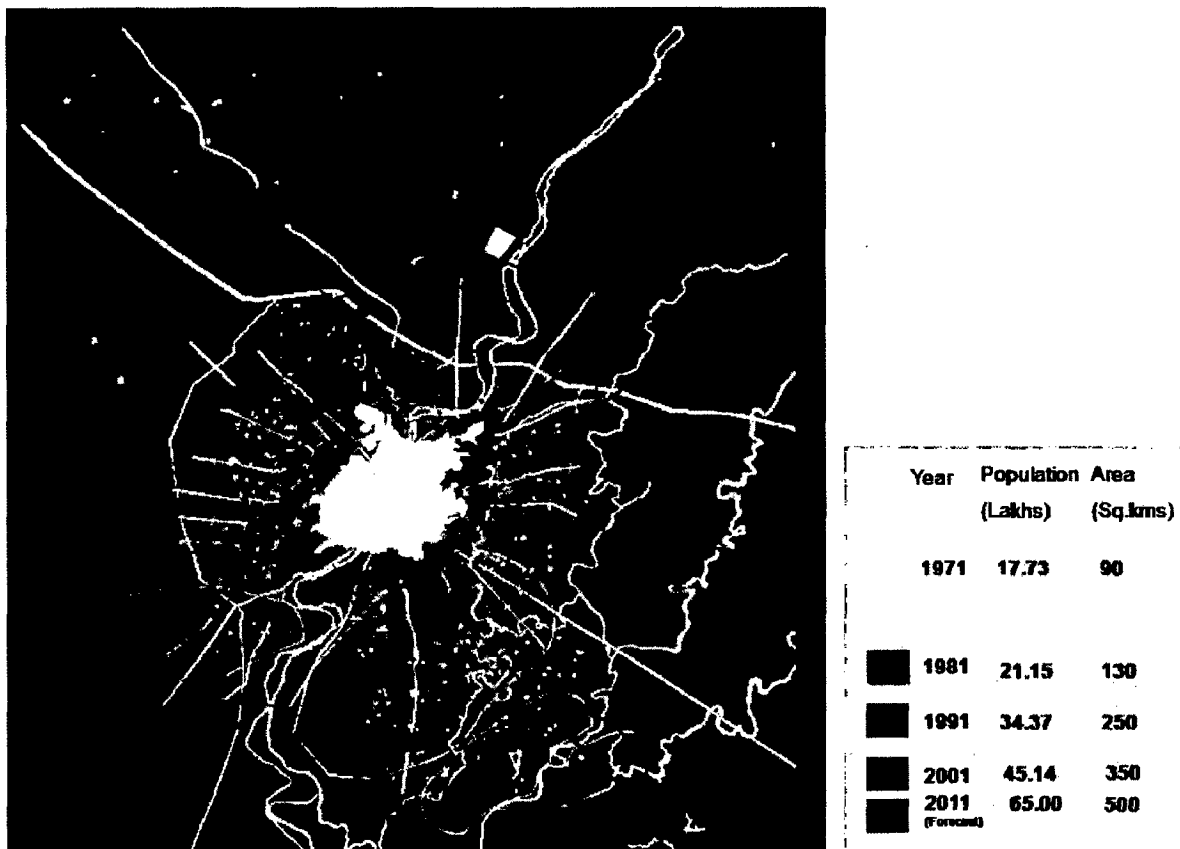


Keeping in view the proposal of the Development Plan recorded in the draft map layout plan and road network providing access to all the plots in the area is designed



The proportion of land likely to be deducted from each original plot for the provision of roads, public space, social infrastructure is worked out and the remaining area is reconstituted giving proper shape so as to locate the final plot nearer to the original plot.

provided the first legal framework to undertake orderly development of outlying areas and extend infrastructure as well as services to these areas. Modelled on the British Housing and Town Planning Act of 1909 and the German practices of town planning prevalent then, the local authorities were given powers to convert the irregular revenue plots into appropriate shapes, lay down roads and provide the public ownership of privately held land for community facilities and open spaces. Such land were acquired without paying actual compensation as the cost of acquisition of land was adjusted with the betterment of land and enhancement in the value of land due to public efforts. [18]



**Fig. 3.1: Ahmedabad City Growth Pattern over the years**

Source: *City Development Plan, Ahmedabad*

The Town Planning scheme mechanism adopted in Ahmedabad is part of process of land servicing that takes place. In Ahmedabad delivery of serviced land has been managed through a 2 step process. At the first level decadal macro level Development Plan for the entire city has been prepared. While at the second level large number of micro level Town Planning Scheme covering about 100 ha, each are prepared for the area identified for new development. Development plan indicated about 65sq.km. of land for new urban development. It also laid out the sequence in which preparation and implementation of Town Planning Scheme would be taken up in the areas demarcated as a zone for new growth. Development Plan envisaged taking up of 113 Town Planning Schemes in Ahmedabad. [18]

### 3.2.2 The Process and Content of T.P. Scheme

The T.P. Scheme process followed in Gujarat is essentially divided in five stages as described below:

1. Decision and declaration of intention to prepare a T.P Scheme:

The appropriate authority (local government or the urban development authority as the case may be) in consultation with the chief town planner of the state, has to declare the intention to prepare a TP Scheme and publish it in the official gazette. <sup>[13]</sup>

2. Preparation of Draft Scheme:

The authority prepares a draft scheme within twelve months from the date of declaration of intention to prepare a T.P. Scheme. The contents of the draft scheme include: a) identification of area, ownership and tenure of each original plot, b) layout of new roads, c) laying of or relaying of land, either vacant or already built upon, d) land development details in terms of filling up, reclamation etc., e) construction, alteration of built structures such as bridges, buildings etc., f) reservation of land for public purposes such as schools, parks, play grounds, gardens, land for roads, markets etc., g) plan showing proposed infrastructure facilities such as drainage, water supply and electricity, h) conservation of monuments if any, i) reservation for weaker section housing (upto 10 percent of area), j) development regulations and controls. The draft scheme is then kept for public notice & objections are received from the public. <sup>[13]</sup>

3. Appointment of Town Planning Officer and preparation of Preliminary Scheme:

After granting approval for the draft scheme, the state government appoints Town Planning Officer (TPO) who then has to prepare the preliminary and final schemes. In the preliminary scheme, areas allotted/reserved for public purposes or for public authority are demarcated on ground. The tenure rights for the reconstituted final plots are transferred. Also, time limit for the execution of works identified in the scheme is set. The preliminary scheme is also kept for public inspection and objections are invited. Once the preliminary scheme is sanctioned, the authority can start the process of execution while the financial component in the final scheme is in progress. <sup>[13]</sup>

4. Preparation of the Final Scheme:

In the final scheme, the town planning officer fixes the values of original and final plots, estimates the incremental value of each plot, determines the proportion of incremental contribution to be levied to meet the costs of the scheme and estimates the compensation costs due to allotment of land for, public purposes.

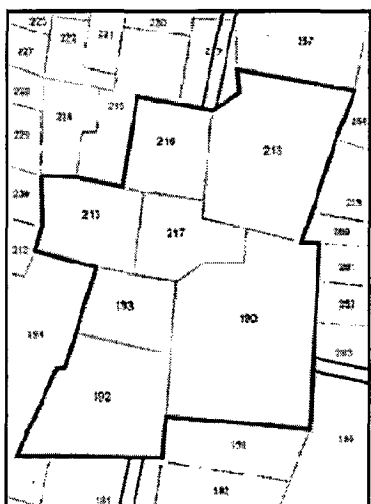
The final scheme is important as the financial details are worked out in this stage. The valuation of original and final plots is done for two purposes; Firstly for *giving compensation to the individual land owners for land lost in the scheme* and secondly to *recover the cost of infrastructure to be borne by authority as a part of the incremental value of the property.* [13]

#### 5. Implementation:

The necessary changes in the land records and title papers are also made at this stage. The actual implementation in terms of acquisition of plots and developing the proposed infrastructure is delinked from the town planning scheme process. This is done by the local or development authority, through its own budget. Often, the actual provision of infrastructure by the local authority - lags far behind and even after many years, full development as per the proposals of TP scheme. [13]

Gujarat Govt. to amend the Gujarat Urban Development and Town Planning Act, 1976 in 1999 to revitalize the TP Scheme process. An example of land pooling has been illustrated in Fig. 3.2. The modifications include:

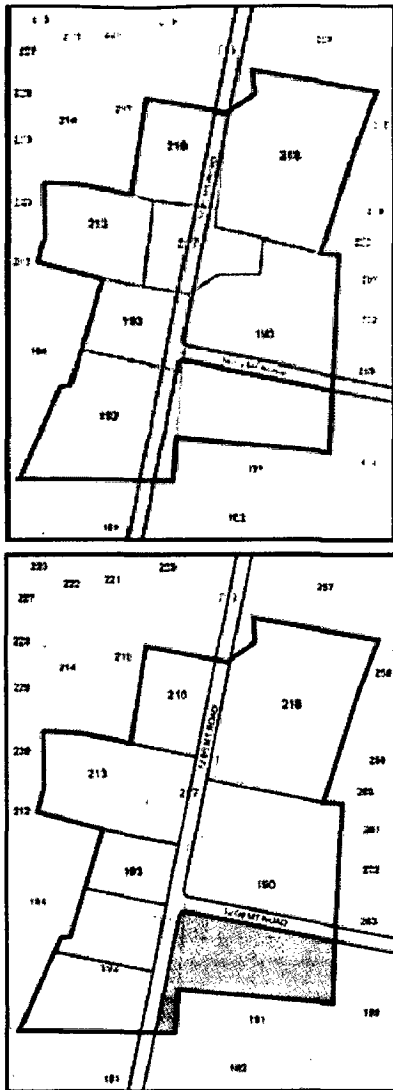
1. A provision to complete the entire process of TP Scheme preparation and finalization in a period of 27 months.
2. The possession of land for roads is enabled 15 months after the declaration of Intention to prepare the scheme is published, during which time the Draft Scheme is sanctioned. This arrests haphazard growth and allows for faster implementation of the Scheme.
3. The possibility of producing a land bank of plots for sale that are created by marginally higher deductions from original plots during the preparation of a TP Scheme, thus proceeds from the sale of which contribute to the provision of infrastructure. This has strengthened the self-financing characteristics of the TP Scheme process. [19]



**Original irregular land parcels**

No.	Survey no.	Owner's name	OP area
1	190	Bhupenbhai	19000
2	192	Bipinbhai	10600
3	193	Ramabhai	4950
4	213	Vadibhai	6700
5	216	Krishnubhai	5450
6	217	Govindbhai	5150
7	218	Chandubhai	14150
TOTAL			66000





**Original irregular land parcels with proposed roads and amenity**

No.	Survey no.	Owner's name	OP area
1	190	Bhupenbhai	19000
2	192	Bipinbhai	10600
3	193	Ramabhai	4950
4	213	Vadibhai	6700
5	216	Krishnubhai	5450
6	217	Govindbhai	5150
7	218	Chandubhai	14150
<b>TOTAL</b>			<b>66000</b>
8	Road		5400
9	Amenity		7800
Total 8+9			13200
About 20%			

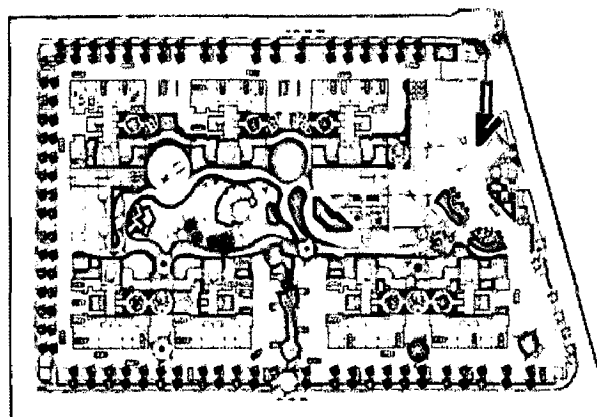
**Final regular land parcels with proposed roads and amenity**

No.	Survey no.	Owner's name	OP area	Deduction (20%)	FP area
1	190	Bhupenbhai	19000	3800	15200
2	192	Bipinbhai	10600	2120	8480
3	193	Ramabhai	4950	990	3960
4	213	Vadibhai	6700	1340	5360
5	216	Krishnubhai	5450	1090	4360
6	217	Govindbhai	5150	1030	4120
7	218	Chandubhai	14150	2830	11320
<b>TOTAL</b>			<b>66000</b>	<b>13200</b>	<b>52800</b>
8	Road		5400		5400
9	Amenity		7800		7800
Total 8+9			13200		13200
About 20%					

**Fig. 3.2: Sample of land pooling used in the Town Planning schemes in Gujarat.**  
 Source: Ballaney, S. (2008), "The Town Planning Mechanism in Gujarat, India", The International Bank for Reconstruction and Development/ The World Bank. Washington. USA.

**3.2.3 Prahlad Nagar T.P. Scheme, A success story**

Prahlad Nagar T.P. Scheme is considered as Model scheme to demonstrate the merits of the T.P. Scheme to emulate by others cities not only in Gujarat but across the country as well which are striving to provide well planned serviced land for rapid urban growth. Prahlad Nagar located in the southwest corner of Ahmedabad covers an area of



**Fig. 3.3: Prahlad Nagar Town Planning scheme plan.**  
 Source: [www.zamanzar.com/property/residential/sale/apartment/Ahmedabad/Prahlad+Nagar/951481013136.html](http://www.zamanzar.com/property/residential/sale/apartment/Ahmedabad/Prahlad+Nagar/951481013136.html)

162 hectares. (Refer Fig. 3.3). Although 4 town-planning schemes have been prepared to

cover the area for implementation purpose all the four schemes have been taken together as one project. Initially it was planned for a density of 150 persons per hectare but the density may increase to the saturation level of 400 persons per hectare by 2020 when it will accommodate about 64800 persons. The T.P. Scheme of Prahlad Nagar forms an integral part of City Development Plan. Layout Plan has provided proper hierarchy of road and street pattern and distribution of public space and community facilities as per Development Plan norms. The project area had 297 plots as original plots which have been reconstituted into 286 final

Sl. No.	Item	Percentage of land
1.	Roads	19.83
2.	Water Bodies	1.24
3.	Institutional Area	5.54
4.	Parks and gardens	4.66
5.	Housing for weaker section	7.89
6.	Reconstituted plots for original owner	48.43
7.	Residential land Bank (for Authority)	7.77
8.	Commercial land Bank (for Authority)	4.64
Total		100.00

plots. All the final plots have approximately 52% of the area of the

**Fig. 3.4: Land Use break-up of Prahlad Nagar Town Planning scheme.**  
*Source: Gurumukhi, K.T. (2003), Land Pooling Technique : A tool for plan implementation - An Indian experience, Chief Planner, Town & Country Planning Organisation, Government of India, New Delhi.*

original plots. The 48% land availed after reconstitution has been used for roads and social amenities and also used as resource to recover the cost of providing infrastructure. The breakup of the land use structure of the scheme is given below. <sup>[13]</sup> A land use break up of the Prahlad Nagar TPS is shown in Fig. 3.4.

Ahmedabad Urban Development Authority implemented Prahlad Nagar TP Scheme at a faster speed. Authority took possession of land under road with consent of land owners and constructed road with street lighting on priority. With their consent the reconstituted plots were given to the land owners and the land for the public purpose and road was taken by the Authority. On all such public purpose land Authority started development works by developing parks, gardens and community facilities and social services. In feet before approval and finalization of the scheme by the Govt. the authority has completed implementation of social and physical infrastructure. <sup>[13]</sup>

### 3.2.4 Merits of Town Planning Schemes in Ahmedabad

- **Long history:** The process has a long history—it was introduced in 1915 by legislation, and since then the legislation has been continuously improved to make the process more responsive to the changing context of development.

- Democratic and participatory: The process is democratic and participatory, with a built-in mechanism for dispute resolution—the landowners are involved in the process of planning and have ample opportunity to present their views on the proposals and place on record their objections.
- Fair: The process is fair, as all owners lose the same proportion of land.
- Equitable and inclusive development: The process facilitates equitable and inclusive development; a portion of land is appropriated for accommodating urban poor.
- Respects property rights and is non-disruptive: The process respects property rights and is non-disruptive; the landowners are not thrown off their lands and are given a better-shaped land parcel, usually very close to the original land parcel.
- Non-coercive and non-authoritarian: The process is non-coercive and non-authoritarian; the proposals are reviewed at several stages that are formally prescribed in the act.
- Win-win proposition: The process has been a “win-win” proposition for both the landowners and the planning agencies—both gain from the appreciation in the land values
- Transparent: The process is transparent: it is very clearly described in legislation, planners have mastered it, and people understand and accept it.
- Tested in law courts: It is tested in law courts; it has been challenged in law courts and has withstood the challenges successfully.
- Making development pay for the cost of infrastructure: The cost of infrastructure is in a sense paid for by the owners directly, and the planning agency and development authority is not required to make huge investments up-front.

So far in Ahmedabad city alone about 12000 hectares of land covered under T.P. scheme clearly indicate the success of land pooling technique as a tool to assemble land and accelerate development. It has facilitated implementation of Development Plan for Ahmedabad city to a great extent. [4]

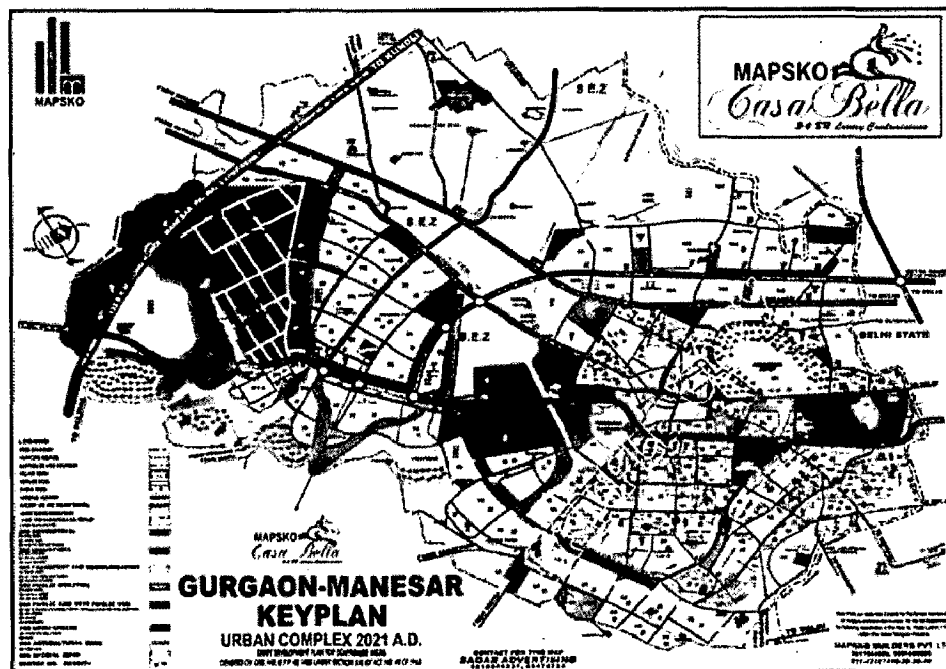
### 3.3 LAND MANAGEMENT IN GURGAON

#### 3.3.1 Introduction

Haryana took a bold initiative of enacting Haryana Urban Areas Development Act in the year 1975 with Rule 1976 to attract private participation in the development process. The first major residential colony licenses in Gurgaon given to the foremost developer was in 1981 followed by licenses to M/s Ansal Properties & Industries Ltd. in November 1982, in respect of DLF's Qutub Enclave and Ansals Palam Vihar respectively. Since then approximately around

7000 acres licenses have been granted to various colonizers, which include Group Housing colonies as well as commercial licenses. <sup>[14]</sup> (Refer Map 3.1)

Habitation in these colonies started around 1991 and the habitation level is to the tune of 20 to 35 percent. The population of Gurgaon which stood at 1.36 lacs as per 1991 census stands planned for 10 lacs as per the development plan 2001 published in January 1996. Now, being one of the fastest developing cities in the Northern India, the planned population for 2011 is stated to be 16 lacs. <sup>[14]</sup>



**Map 3.1: Master Plan of Gurgaon.**

Source: <http://huda.nic.in/> (the official website of Haryana Urban Development Authority)

### 3.3.2 Development Agencies/Process

Haryana Urban Development Authority (HUDA) and Private Developers have been the major developers involved in the process of developing almost equal areas i.e. around 7000 acres by private colonizers and 6000 acres by HUDA. Gurgaon has a clear dual mode of land assembly and development. While internal development within the residential colonies/mini cities being developed by the developers are carried out by the colonizers themselves, the external development works to various sectors as well as provision of city level facilities is being taken care of by HUDA, which has been serving the masses by allotting residential plots on No Profit No Loss basis. Private colonizers are providing 55% of the developed plots in their colonies/mini cities at market rates with a net profit margin of up to 15%, as permissible by the license conditions imposed by the Haryana Govt. <sup>[29]</sup>

The private developers purchases lands from farmers within the stipulated residential zones of master plan by paying the prevalent market rates, prepares their schemes of development and procures licenses from Town & Country Planning Department, after meeting with the laid down parameters and other conditions stipulated in the Act, rules, Bye-laws and Policies. This also involves payments to the Haryana Govt. towards License fees, Scrutiny fees, CLU charges which totals to on an average of Rs. 6.5 Lacs per acre, which is variable and is based on whether the colony abuts National Highways, State Highways or other roads. <sup>[14]</sup>

### 3.3.3 Guiding Parameters

- The colonies are developed as mini cities having all the infrastructure and community facilities needed and based on the size of the colony/population planned therein. A minimum contiguous area of 100 acres is needed for a plotted colony license, 10 acres for Independent Group Housing and 5 acres for Group Housing forming part of plotted colony.
- A minimum of 45% of the area has to be left for parks, open spaces, roads and community sites which include Schools, Dispensaries, Community Centres, Crèches, Religious Buildings, Police Posts, Telephone Exchanges, and Post Offices etc.
- 20% of the total number of plots carved out in the colony has to be earmarked and allotted to EWS category of society. This helps a social cause to a great extent. The allotments have to be made at rates determined by the Director, Town & Country Planning, Haryana, which have been varying from Rs. 1007/- per sq. yd to Rs. 500/-per sq. yd. during the last two decades.
- The number and size of Community sites to be provided by the colonizer in the colony as license conditions, is based on the population catered e.g. 1 Nursery School for 2500 population and 1 High School for 10 to 15000 populations etc.
- Upto 4% area of the colony is permissible Commercial development.
- The design of all services like Water supply, Sewerage, Drainage are scrutinized by the Chief Engineer, HUDA & approved the Director, Town & Country Planning accordingly. <sup>[3]</sup>

### 3.3.4 Controls are exercised by the Director, Town & Country Planning (Haryana)

- a) Ensuring planned development as per Sanctioned Layout Plans.
- b) Laying down zoning parameters in the approved zoning plan.
- c) Sanctioning of each building plan to ensure conformity to laid down building bye-laws.
- d) Issuance of Occupation Permissions to ensure proper construction, besides checking the building.

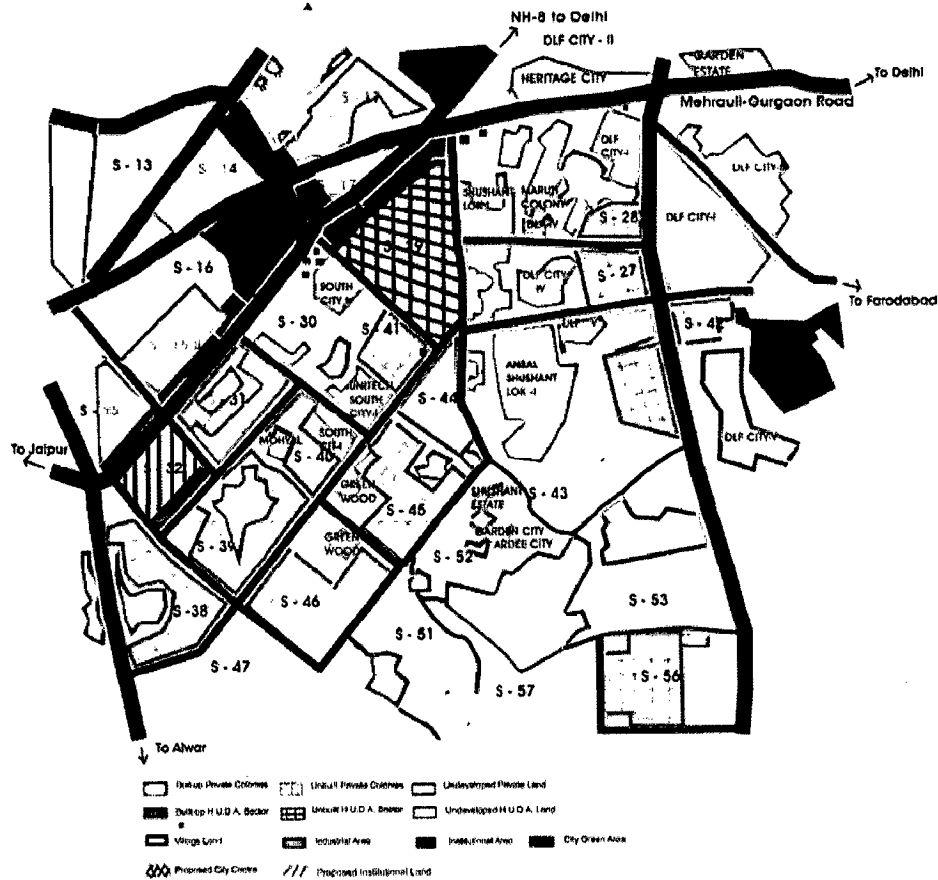
- e) Issuance of License completions after site check of all internal development of the colony
- f) Keeping of Bank Guarantee equal to 25% of the development cost to safe guard the development interests of allottees.
- g) Collecting External Development charges to ensure well co-ordinate infrastructure development in respect of various sectors/colonies. [3]

### 3.3.5 Merits of Model

- Development of the region without costing a single penny to the exchequer.
- Faster achieving of National Housing targets.
- Higher generation of State revenue, which starts with the stamp duty on land purchase followed by much higher stamp duty involved in sale/resale of developed plots.
- License fees, scrutiny fees, services charges also provide good revenue to the State exchequer.
- Also the major development works of bringing canal water and providing city level facilities as well as infrastructure are met out of external development charges collected from colonizers.
- It greatly helps in well planned development instead of haphazard unauthorized constructions, which are bound to come with the population explosion in our country.
  
- The contribution of private developers in Gurgaon has led to provide:-
  - Over 500 school sites in various colonies.
  - Around 40 dispensary site.
  - Around 45 clubs/community sites.
  - Around 22 Health Centres sites.
  - Over 11000 EWS Plots.
  - Around 13000 NPNL Plots.
  - Plotted/flatted accommodation catering to requirement of around 7 lac population.
  - World class constructions which includes many sky scrapers, land mark commercial buildings housing Multi National companies like Pepsi, besides many software Technology Oriented companies, and International quality Malls.
  - I.T. Parks.

### 3.3.6 Demerits of the scheme

- Social Housing suffer with Profit-making Objective: The housing market developed by the private developers in Gurgaon tend to attract the upper middle income group buyers,



**Fig. 3.5: Disjointed and irregular patterns of land development across Planned Gurgaon**

Source: <http://huda.nic.in/> (the official website of Haryana Urban Development Authority)

especially the young high-salaried executives of the many MNCs and IT based companies operating in the area. While the law imposes the requirement of providing 20% of their stock as low-income housing for the EWS, it usually requires a close monitoring, and often, reprimands on the part of the authority to the private players to force them to abide by the provision. [14]

- **Disjointed Private Colonization and Mis-match with City's Spatial Plan:** The master plan of Gurgaon aims towards spatially integrated development for its entire future urbanisable area using land use zoning, modular spatial pattern with development of residential sectors, hierarchical networks of roads and commercial and institutional nodes and temporal phasing of development. The difference between the pace of private developments and the pace of extension of city infrastructure by the public agencies aggravates the problem of disjointed growth. Also, the disjointed spatial pattern gets multiplied when many private developers assemble and develop lands at different locations at different points of time. Another factor is the relative smallness of the minimum required size of private land assembly under the law – only 100 acres (45 Hectares), compared to say, the average size of HUDA's residential sectors) – which

encourages the growth of small colonies at random in different locations. <sup>[14]</sup> (Refer Fig. 3.5)

### 3.4 LAND MANAGEMENT IN MARYLAND, USA

#### 3.4.1 Introduction

Montgomery County, Maryland lies immediately northwest of Washington, D.C. between the Potomac and Patuxent Rivers. (Refer Map 3.2). As of 2006, Maryland has an estimated population of 5,615,727, which is an increase of 26,128, or 0.5%, from the prior year and an increase of 319,221, or 6.0%, since the year 2000. The Maryland Agricultural Land Preservation Foundation is created; leading to the preservation of almost 270,000 acres through 2008. Since 1992 the State of Maryland has adopted a variety of Smart Growth laws and policies. Many of these laws and policies have been administered by the Maryland Department of Planning. <sup>[1]</sup>



**Map 3.2: Location of Maryland in USA**

Source: [http://www.netstate.com/states/geography/md\\_geography.htm](http://www.netstate.com/states/geography/md_geography.htm)

Montgomery County was the first county in Maryland and one of the first counties in the nation to respond to sprawl. After witnessing the loss of productive farmland during the 1950s and 1960s in the southeastern part of the county, elected officials decided to protect the remaining farmland in the northwestern section. <sup>[1]</sup>

In response, the county appointed a task force to consider tools to stem farmland loss. The task force considered strengthening its zoning, creating a purchase of development rights



(PDR) program, and transfer of development rights (TDR) program. Task force members, however, concluded that PDR was too expensive. They also were concerned about adopting restrictive zoning without compensating landowners. As a result, the group recommended a combination of agricultural protection zoning and TDR. <sup>[1]</sup>

In 1980, the County Council adopted a functional master plan entitled Preservation of Agriculture and Rural Open Space. To implement the plan the county designated an 89,000-acre Agricultural Reserve and rezoned this area as the Rural Density Transfer (RDT) zone. In the reserve, residential development was decreased from one unit per five acres to one unit per 25 acres. The downzoning was based on a county study that found that this was the minimum acreage that could support a farm family on a cash crop, direct market basis. The Agricultural Reserve became the designated "sending area." Landowners in the sending area would have the right to sell their development rights for use in designated "receiving areas."<sup>[1]</sup>

The purpose of Montgomery County's TDR program is to preserve farmland and rural open space in the Agricultural Reserve.

#### **3.4.2 Administration**

Two public entities play a role in administering the TDR program. The Maryland-National Capital Park and Planning Commission (M-NCPPC) is a bi-county agency that serves as the planning agency for Montgomery and Prince George's counties. Staff develop master plans for each of the county's 21 planning areas that identify land for inclusion Agricultural Reserve and / or additional receiving areas; review preliminary subdivision plans and site plans that propose the use of TDRs; monitor the capacity of receiving areas; and enforce the zoning in the RDT. Montgomery County's TDR program falls under the jurisdiction of the "rural" team within M-NCPPC's Community-based Planning Division.

The Agricultural Services Division is a unit within the county's Office of Economic Development that administers the county's farmland protection programs. Division staff educates farmers in the Agricultural Reserve about this farmland protection option and help monitor the effectiveness of the program. <sup>[1]</sup>

### 3.4.3 Public Education

In the early 1980s planning staff held a series of public meetings in both sending area and receiving area communities to educate landowners about the TDR program. The planning board also published *Plowing New Ground*, a series of questions and answers to explain the county's TDR program. Staffs in the rural team of the Community-based Planning Division respond to requests from landowners and the general public. The Agricultural Services Division also works to educate landowners and the general public about the TDR program. [1]

### 3.4.4 Program Procedures

#### Transfer Process

Farmland owners sell TDRs or options to buy TDRs to interested buyers. To use TDRs, buyers file preliminary subdivision plans for the receiving site property with the Montgomery County Planning Board (i.e., M-NCPPC). Once the preliminary plans are approved, applicants file a site plan. The site plan must show the total number of dwelling units including TDRs and affordable housing units. Montgomery County requires site plan approval of receiving site projects to ensure that the transferred density does not overwhelm the receiving site or cause problems for adjacent properties. Upon site plan approval, the buyer submits a Record Plat of Subdivision to the M-NCPPC for final approval. Once the applicant has received final planning board approval, the record plat is recorded in the Office of Land Records with an extinguishment document that certifies that the TDRs are no longer available for transfer. At this point, the applicant is eligible for a building permit. The time to process an "application" or proposal for use of the TDRs is comparable to the normal subdivision review process. [1]

#### Sending areas

Potential sending sites are located in the Rural Density Transfer (RDT) zone. However, a development right must be reserved for every permanent dwelling on the sending site, regardless of whether the units were built before or after the RDT rezoning. [1]

### Receiving areas

Montgomery County has identified receiving areas in 15 of the county's 21 planning areas. The Maryland Court of Appeals ruled that the designation of TDR receiving sites should appear in the zoning code. TDR receiving zones in those communities ought to be marked with TDR receiving areas in their master plans. [1]

### Allocation of rights

In general, landowners in the sending area are awarded one development right for every five acres regardless of the physical limitations of the land that might have prevented development. [1]

### How rights are applied

TDRs are used to increase residential density in established receiving areas. Zoning districts in receiving areas contain two separate density limits. A baseline limit sets the density maximum for projects in which developers choose not to use TDRs. A higher limit is permitted for projects that use TDRs. The developer is not guaranteed the density allowed by either limit. The actual density may be less than the maximum allowable density due to various site constraints and environmental limitations. [1]

#### **3.4.5 Advantages**

- It is also the most important farmland preservation program in the county, accounting for 75 percent of all preserved agricultural land.
- Because the program is fully private, the savings in public expenditures for the amount of land preserved is quite significant.
- It continues to have a relatively strong farm economy despite its proximity to a major metropolitan area. The number of farms in the county has even increased since about 1997, mostly in the small farm category. [38]

#### **3.4.6 Disadvantages**

- One of the main problems in the program is an insufficient number of receiving areas. Individual planning areas have a great deal of latitude in determining the number and location for TDRs.

- Most jurisdictions have been reluctant to absorb additional density.
- Developers often do not use TDRs in these designated zones at all, and, in those subdivisions where they are allowed, on average only about 50 percent of allowable TDRs are used.
- There is problem of the remaining development rights to develop 1 unit on 25 acres in the rural density transfer zones. [38]

### 3.5 CONCLUSION

It can be seen that the alternative approaches other than conventional land acquisition technique has contributed in a better planned development in the case of city like Ahmedabad. The public authorities have succeeded in gaining the trust of the common people so that the people themselves come forward and contribute their land without much hesitation. In case of Gurgaon, private sector has done a tremendous work regarding the housing and infrastructure but this has degraded the planned development and the concept of social equitability.

As far as Maryland is concerned, the government is not only applying the techniques which are quite feasible and market oriented, but also educating the common people about its complications to make it socially acceptable.

This has lead to the conclusion that a strong coordination between the private and public sector is required for the smooth functioning of the planning process in context of land management. And all this should be feasible and economically viable so that it is readily accepted by the people. As in case of Jaipur city, public private partnership model exists, but neither the public agencies are working, efficiently nor they are able to manage and control private development active in the Jaipur region. Moreover, these techniques are found to be compatible with Jaipur too because of their quality of being self-sustaining and commercially viable or market oriented at the same.

### 3.5 COMPARATIVE STUDY OF THE CASE STUDIES

A comparative study of all the case studies has been made in terms of their potentials and benefits. This analysis is done in order to find out which and in what context, these land management techniques are suitable for the Jaipur city specifically.

Factors	Ahmedabad (Land Pooling)	Gurgaon (Negotiated Land Prices)	Maryland, USA (Transfer of Development Rights)
1. Planned development	√	X	X
2. Less time consuming	X	√	X
3. Discourages land speculation	√	X	√
4. Less investment	√	√	X
5. Fair and socially equitable	√	X	√
6. Financial viability	√	X	√
7. User satisfaction	X	√	√
8. Less complexity/ easy to understand	√	√	X
9. Market oriented	X	X	√
10. Public involvement	√	X	√
11. Check rising land price	X	X	√
12. Guarantee of standard infrastructure	√	X	X

## CITY PROFILE

This chapter contains the detailed profile of the study area i.e. Jaipur region including the geographic and demographic profile, institutional framework, etc, especially the urban growth and various factors involved in it. These details are significant for the study of land management of any city, though related indirectly. The information needed to understand the basic characteristics of the city are discussed below.

### 4.1 DEMOGRAPHIC PROFILE OF JAIPUR

#### 4.1.1 Introduction

Jaipur is known as one of the first planned cities of India. Until the eighteenth century, Amber served as the capital and was ruled by the Kachwaha clan of the Rajputs. However, due to its inaccessible tract on the Aravali hills, it was unable to meet the demands of a growing population. Sawai Jai Singh in 1727 decided to move his capital to the plains, 11 km south of Amber. Jaipur City was not only planned but its execution was also coordinated by Sawai Jai Singh II, in such a manner that a substantial part of the city developed up within seven years of its foundation. His reign was probably the most glorious phase in the growth of the city.

The municipality was reorganized in 1926 and a new municipal act was prepared in 1929. Post independence, planned development of the city was taken up after the city became the capital of Rajasthan. [5]

#### 4.1.2 Location

Jaipur city, capital of Rajasthan state is situated amidst the Aravali hill ranges at an altitude of about 430 meters above the mean sea level and lies on 26°54' N latitude and 75°49' E longitudes. [5]

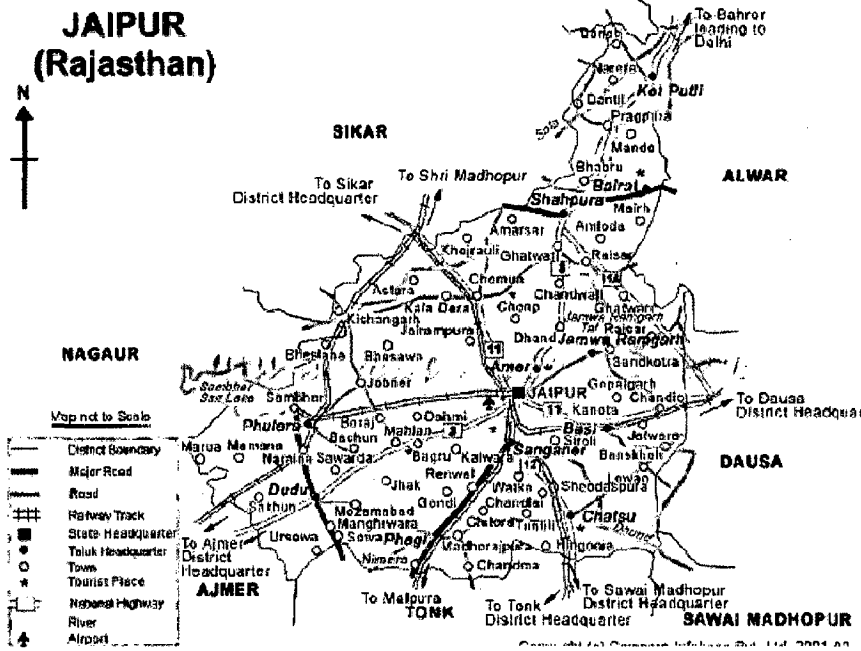
#### 4.1.3 Regional linkages

The city is a part of Jaipur district situated in northeastern part of Rajasthan, which is surrounded, by the districts of Alwar in the north, Sikar in the north-west and Bharatpur and Dausa in the East. Ajmer, Sikar, Alwar, Kotaputli, Bandikuli and Tonk cities around

Jaipur have a role to play in the development process of Jaipur in the regional setting. (Refer Fig. 4.1).

Immediate influence zone of Jaipur city extends to cities and towns of Dausa, Lalsot, Niwai, Phagi, Dudu, Phulera, Renwal, Reengus and Shahpura. (Refer Map 4.1).

Jaipur is well linked by roads, railways and airways to the rest of the country. The city lies on Delhi-Ahmedabad rail route of the western railways. The NH 8 and NH 11 intersect at Jaipur and NH 12 leading to Jabalpur starts from Jaipur. Jaipur lies at a distance of about 260 Kms from Delhi, 138 Kms from Ajmer, 225 Kms from Agra, and 245 Kms from Kota. The city is well connected by air with its airport at Sanganer located towards south of the city. [5]



Map 4.1: Regional setting of Jaipur city  
 Source: <http://www.mapsofindia.com/jaipur/>

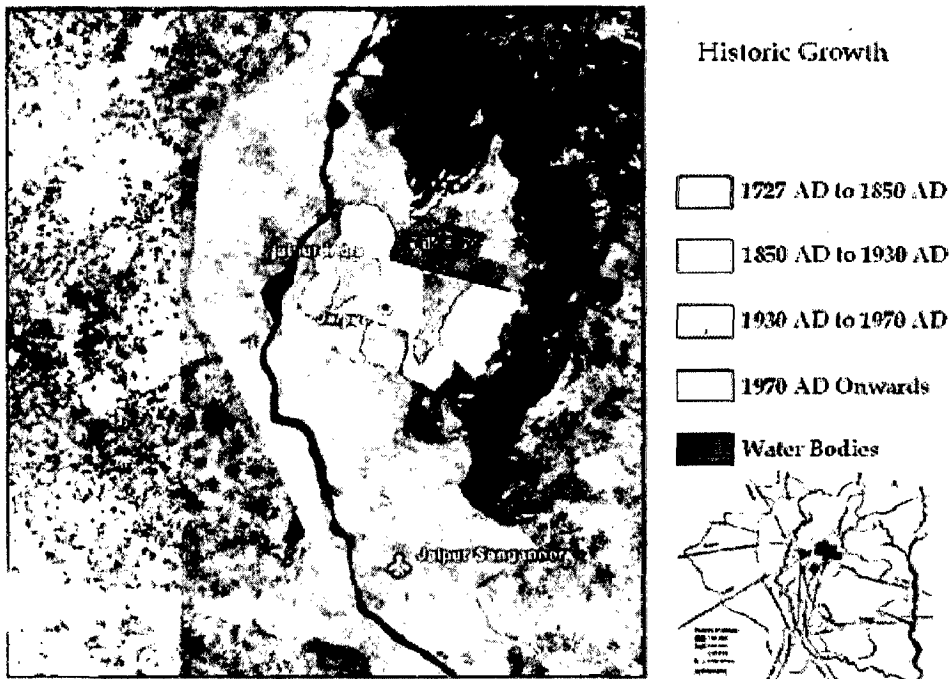


Fig. 4.1: Urban Growth Trend of Jaipur city  
 Source: City Development Plan, Jaipur

#### 4.1.4 Demographic Trends

The Jaipur region/JDA area has an extent of 1438 Sq. Km and comprises the following spatial units:

- The Jaipur Municipal Corporation (JMC) that includes the walled city and the rest of JMC
- Rest of JDA area that includes the satellite towns and the villages

The population of Jaipur region is 2.7 Million as per 2001 census and has shown a consistent increase in the past 50 years. In fact, in the last decade, the population has increased by 8 lakhs. The area of Jaipur Municipal Corporation has grown from 200 sq. km in 1981 to 218 sq. km in 1991 to 288 sq. km in 2001. The increase in area in 1991 was a result of addition of Sanganer and Amber tehsils and in 2001 due to the addition of Bagru, Bassi and Chomu tehsils in the municipal area. The area under the jurisdiction of JDA has remained same since 1991. <sup>[5]</sup> (Refer Table 4.1).

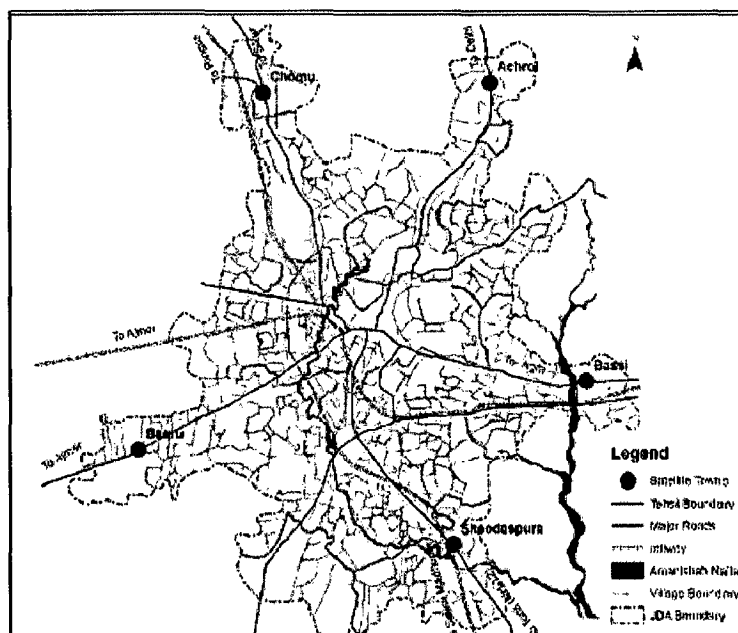
**Table. 4.1: Area and Population of Jaipur region (2001)**

Source: Census of India- 1991 and 2001

S.No.	Area	Total Area (Sq. Km.)		Total Population (Million)		Percentage Population	
		1991	2001	1991	2001	1991	2001
1.	JMC	218.3	288.4	1.52	2.32	81.4	86.8
1.a.	Walled City	6.7	6.7	0.5	0.4	26.4	15.0
1.b.	Rest of JMC	192.3	281.7	1.02	1.92	54.7	71.8
2.	Rest of JDA	1220	1149.9	0.35	0.36	18.6	13.2
3.	Total JDA	1438.3	1438.3	1.87	2.68	100	100

In terms of share, 87% of the total population lives in the JMC area, of which 7% lives in the walled city. While the proportion of population living within the JMC has increased (primarily due to expansion in area), the proportion of population in the walled city has declined. This can be regarded as positive phenomena as the walled City is already very densely populated. (Refer Map 4.2).

The Walled City has a spatial extent of only 6.7 sq.km but houses nearly four lakh people. The 2001 census shows that the population of the Walled City has declined from 1991. The reason



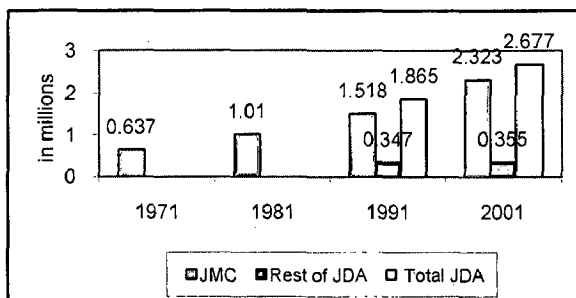
**Map 4.2: Map showing Jaipur region and satellite towns**

Source: City Development Plan, Jaipur

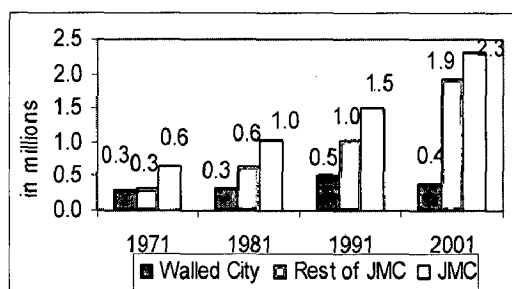


for this is out movement of inhabitants from the area to new residential colonies being developed in the periphery in want of better living environment.

The population in the rest of the JDA area does not show much growth from 0.347 million in 1991 to 0.355 million in 2001. Rest of JDA area accounted only for 18 % in 1991 and 13.2% in 2001 of the total population. Decrease in population of the rest of the JDA area in 2001 is due to the reconstitution of the municipal boundaries. [5] (Refer Chart 4.1 and Chart 4.2).



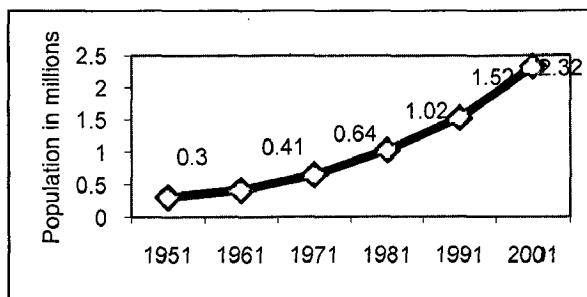
**Chart 4.1: Decadal population of areas**  
Source: City Development Plan, Jaipur



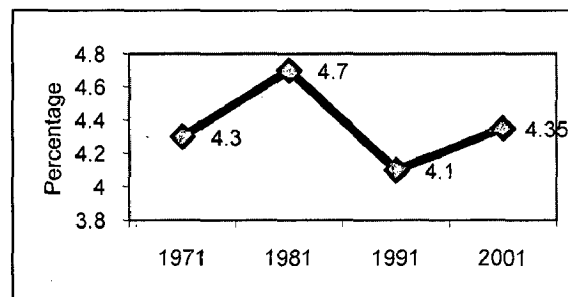
**Chart 4.2: Population of JMC area**  
Source: City Development Plan, Jaipur

#### 4.1.5 Population Growth Rate

The population of Jaipur city was only 0.3 millions in 1951 but in 2001 it has reached 2.3 Million. The annual average growth rate from 1971 to 2001 has been in the range of 4.1 to 4.7. The population growth rate was highest in the year 1981 but declined sharply by 0.6 % in 1991 and it grew again by 0.2 % in 2001. (Refer Chart 4.3).



**Chart 4.3: Population growth rate- JMC area**  
Source: City Development Plan, Jaipur



**Chart 4.4: Population growth rate- Jaipur city**  
Source: City Development Plan, Jaipur

Within the JMC, the major growth has occurred outside the walled city area. The population growth within the walled city was nearly equal to that of the rest of the JMC area during 1981-91. However, during 1991-2001, the walled city has witnessed a decline in population. On the contrary, the population growth rate in JMC area has increased partly due to migration and also due to expansion in the JMC area. [5] (Refer Chart 4.4).

#### 4.1.6 Jaipur and Major Cities of Country

Amongst all the mega cities of the country, Jaipur ranks 11th with a total population of 2.3 million. It is one of the fastest growing mega cities of the country with an annual average growth rate of 4.5% whereas the national urban growth rate is only 2%. (Refer Table 4.1). With its current growth trend, it is likely to supersede many other cities. Jaipur is thus a vibrant city. [5]

**Table. 4.1: Population- Million cities (2001)**

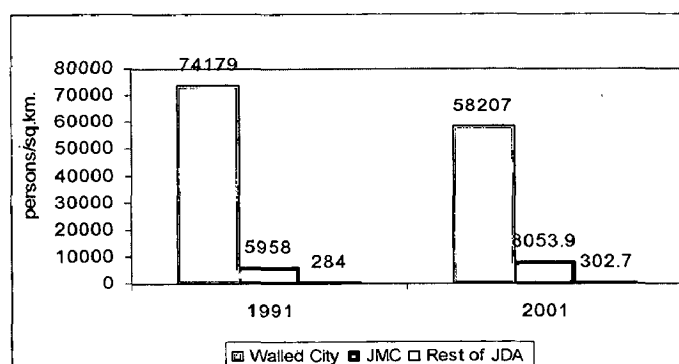
Source: Census of India- 2001

S. No.	Urban Agglomerations	Population 2001
1.	Greater Mumbai	16368084
2.	Kolkata	13,216,546
3.	Delhi	12,791,458
4.	Chennai	6,424,624
5.	Bangalore	5,686,844
6.	Hyderabad	5,533,640
7.	Ahmedabad	4,519,278
8.	Pune	3,755,525
9.	Surat	2,811,466
10.	Kanpur	2,690,486
11.	Jaipur	2,324,319
12.	Lucknow	2,266,933
13.	Nagpur	2,122,965

#### 4.1.7 Population Density

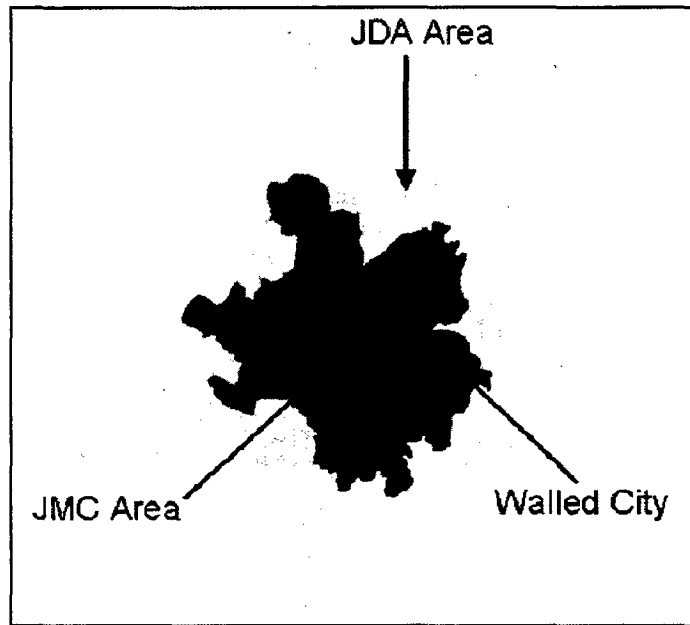
The walled city has the highest population density in the city at 58207 persons/sq km. This is despite the fact that the density has declined from 1991 (74,000 persons per sq.km). The population density of JMC is higher in 2001 than 1991 and has increased by nearly 3000 persons sq. km in spite of expansion of municipal boundary. (Refer Chart 4.5).

It is evident that the JDA has the lowest density with JMC at the second place and the walled city with maximum concentration of population. (Refer Map 4.3).



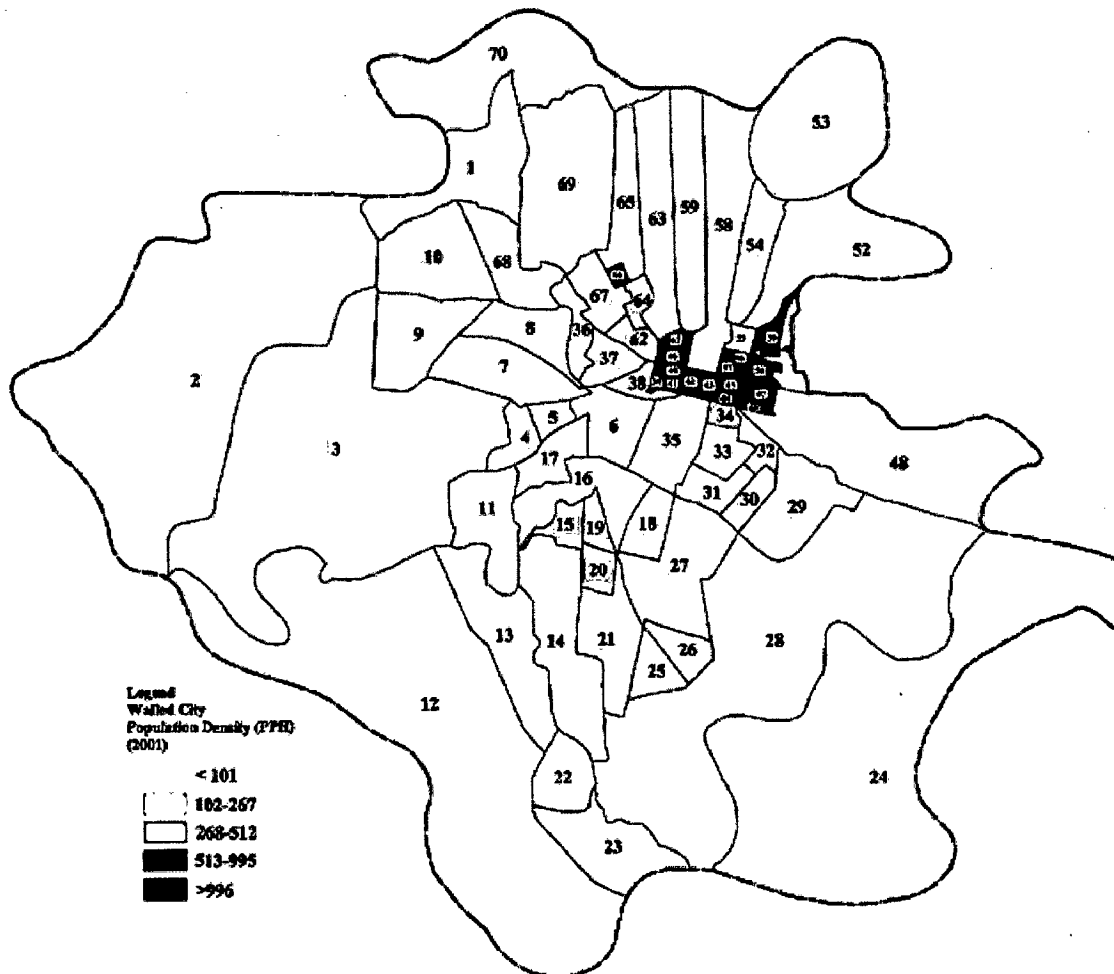
**Chart 4.5: Population Density- Jaipur region**

Source: Census of India- 1991 and 2001



**Map 4.3: Population Density- Jaipur region**  
 Source: City Development Plan, Jaipur

The density in the JMC area range from 100 persons per hectare (PPH) nearly 1000 PPH. However, the density is high only in the walled city. In the rest of JMC area, the density ranges from 100 PPH to 550 PPH. <sup>[5]</sup> (Refer Map 4.4).



**Map 4.4: Population Density of JMC area**  
 Source: Jaipur Municipal Corporation

## 4.2 URBAN GROWTH MANAGEMENT

### 4.2.1 Urban Sprawl and Settlement Pattern

In the Jaipur region, the urban sprawl of Jaipur city has registered the fastest growth and most of the increases besides the ribbon development have been along the highways corridors. The satellite towns and rural settlement have not enlarged much in physical terms. The various transportation nodes between Jaipur city and satellite towns indicate potential of emergence as important nodes for economic activities. Sectoral investment at various location in the region specially development of facilities areas by Rajasthan state Industrial Development & Investment Corporation (RIICO) without providing the rest of the urban infrastructural facilities which are otherwise essential and incidental to principal activity have resulted in haphazard growth of these activities around the industrial estates developed by RIICO. <sup>[5]</sup>

### 4.2.2 Efforts for Planned Development

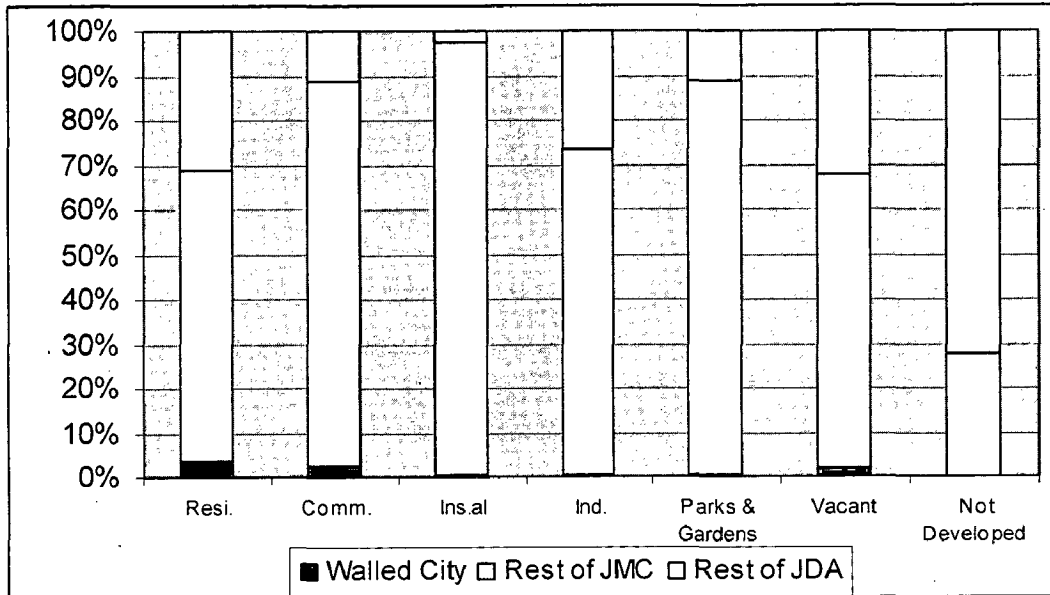
In order to encourage planned development in the city, the JDA prepared master plans for the JDA Area. Two master plans have been prepared till now. The first master plan for 1971-1991 came into effect in May 1976. It planned for 125 revenue villages along with the Jaipur Core city. The Master Plan defined goals and objectives for the comprehensive development of the city. Jaipur was envisaged as a principal administrative, commercial and distribution center of the state. It was proposed to be developed as a major tourist destination area. The second master plan was conceived for 2011 for the Jaipur Region. The Master Plan 2011 is proposed to be revised for the year 2021. <sup>[5]</sup> (Refer Table 4.3).

**Table. 4.3: Land use of JDA Constituents (percentage)-1996**

*Source: JDA unpublished Maps as quoted in Population, Urban Development and Water Demand of Jaipur City, Jaipur Water Supply and Sanitation Project, Draft Final Report, Appendix I, Volume 1 of 2, 1998.*

Landuse Type	Walled City	Rest of JMC	Rest of JDA
Residential	67.3	26.6	10
Commercial – Private services	4.2	2.6	0.3
Institutional	1.5	9.2	0.2
Industry	1	3.1	0.9
Parks & Gardens	1.1	2.7	0.3
Vacant (streets etc.)	25	15.6	6
Not developed (incl. Agri.)	0	40.2	82.3
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

The largest proportion of all the developed land uses is concentrated in the JMC area. It is interesting to note that virtually there are no parks and institutional areas within the walled city. This is despite the fact that the walled city originally had open spaces for recreation. A large proportion of the undeveloped land is in the rest of JDA area. (Refer Chart 4.6).



**Chart 4.6: Distribution of Land use-JDA Constituents**

*Source: Master Development Plan 2011, Jaipur region.*

#### 4.2.3 Master Plan 2011

The Master Plan 2011 was prepared by Jaipur Development Authority in 1995 and came into effect from 1998. The entire Jaipur region was demarcated as the planning area. The Jaipur region includes Chomu, Bagru, Bassi, Sheodaspura, Achrol and Jamwaramgarh as satellite towns along with the Jaipur city. The area of the Jaipur region is 1438.3 sq.km. It was also proposed to develop inner ring towns between Jaipur city and the satellite towns.

The population of Jaipur region was expected to reach 42.2 lakhs by 2011. The population of Jaipur city is assigned at 35 lakhs for the year 2011. The spill over of 7.2 lakhs population was proposed to be diverted to the satellite towns. The satellite towns are proposed to be developed as counter-magnets for the city of Jaipur.

The area under residential land use is proposed to be 44.8% in 2011 while the area under commercial is proposed to be 6.7%. The area under industrial land use is planned to be 6% and that of public-semi public is 10.5%. Area under recreational land use is proposed to increase to 11.3%. The area under Government use and circulation is proposed to be 2% and 15.4% respectively in 2011 (Refer Table 4.4). <sup>[5]</sup>

**Table. 4.4: Land use analysis 2011***Source: Master Development Plan 2011, Jaipur region.*

S. No.	Land Use	Area (in hectares)	% of total area
1.	<b>Residential</b>	13825	44.8
2.	<b>Commercial</b>		
a)	Retail Commercial & general business	1165	3.8
b)	Whole sale business, ware housing & godowns	654	2.1
c)	Specialised Markets	245	0.8
3.	<b>Industrial</b>		
	Manufacturing	1862	6.0
4.	<b>Mixed Landuse</b>	1034	3.3
5.	<b>Governmental</b>		
	Govt. & Semi Govt. offices	602	2.0
6.	<b>Public &amp; Semi public</b>		
a)	General Inst. Education, Medical	2453	8.0
b)	Social, Cultural, Religious & Historical Monument	198	0.6
c)	Other Community Facilities	77	0.2
d)	Public Utilities	448	1.5
e)	Cremation & Burial Ground	65	0.2
7.	<b>Recreational</b>		
	Park, Open spaces & Play ground / Recreational and Stadium	3461	11.3
8.	<b>Circulation</b>		
a)	Railway Station & Yards	174	0.6
b)	Bus and Truck Terminals	198	0.6
c)	Roads	3580	11.6
d)	Air port	789	2.6
	<b>Total Developed Area</b>	<b>30830</b>	<b>100.0</b>
	Nurseries & Orchards	142	
	Govt. Reserved Areas	627	
	Water Bodies	701	
	Regional Park	358	
	<b>Urbanisable Area</b>	<b>32658</b>	

However, this proposal is not in tune with the trends in land use development during 1971-91. The residential area is proposed to go down. This is not practical especially in the light of the fact that the area under residential land use is continuously going up. In addition, the government's proposed land bank scheme proposes the development of several new housing projects. Commercial area is also proposed to be increased by only 3% that is quite low considering the demand for commercial spaces in the city. <sup>[5]</sup>

(Refer Fig. 4.3).

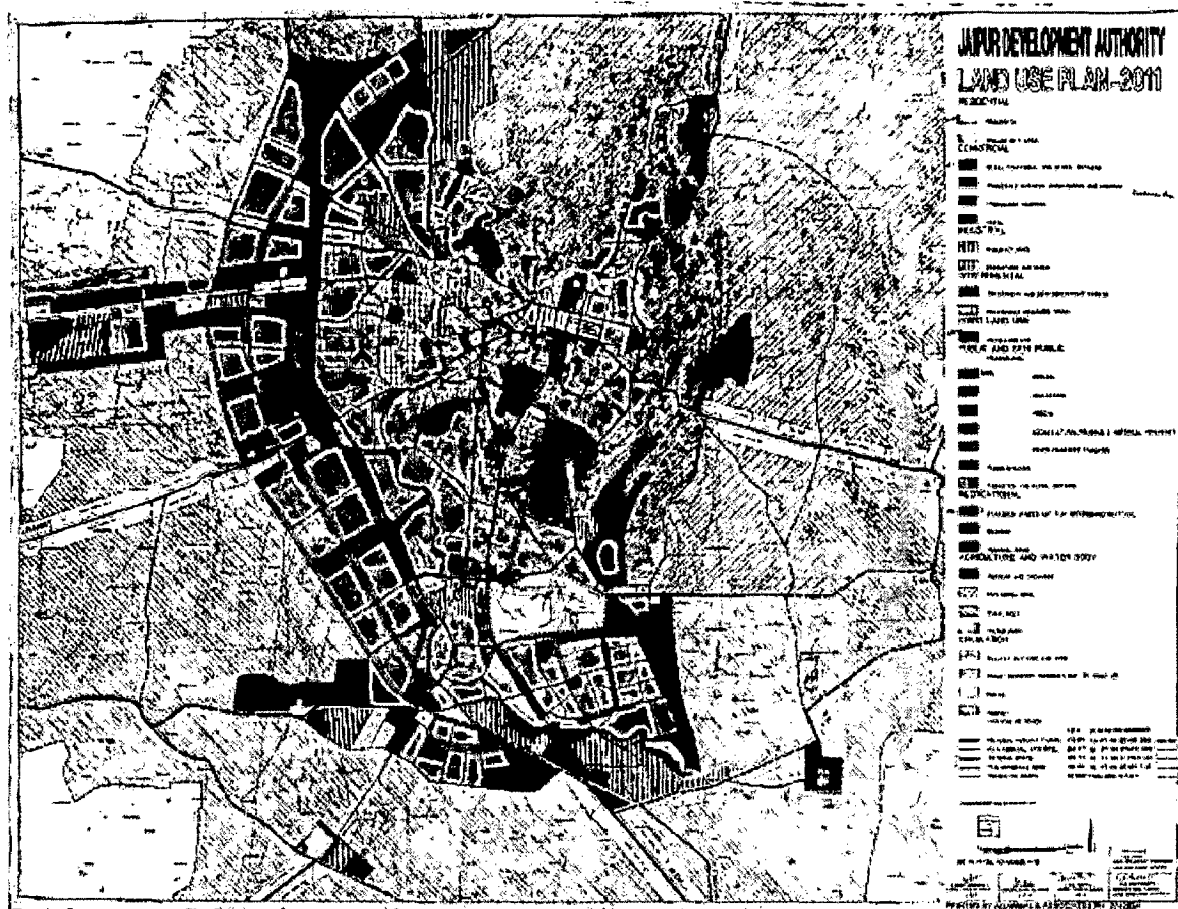


Fig. 4.2: Proposed Land use- Jaipur Development Area (2011)

Source: Master Development Plan 2011, Jaipur region.

#### 4.2.4 Proposed Land utilization -1991-2011

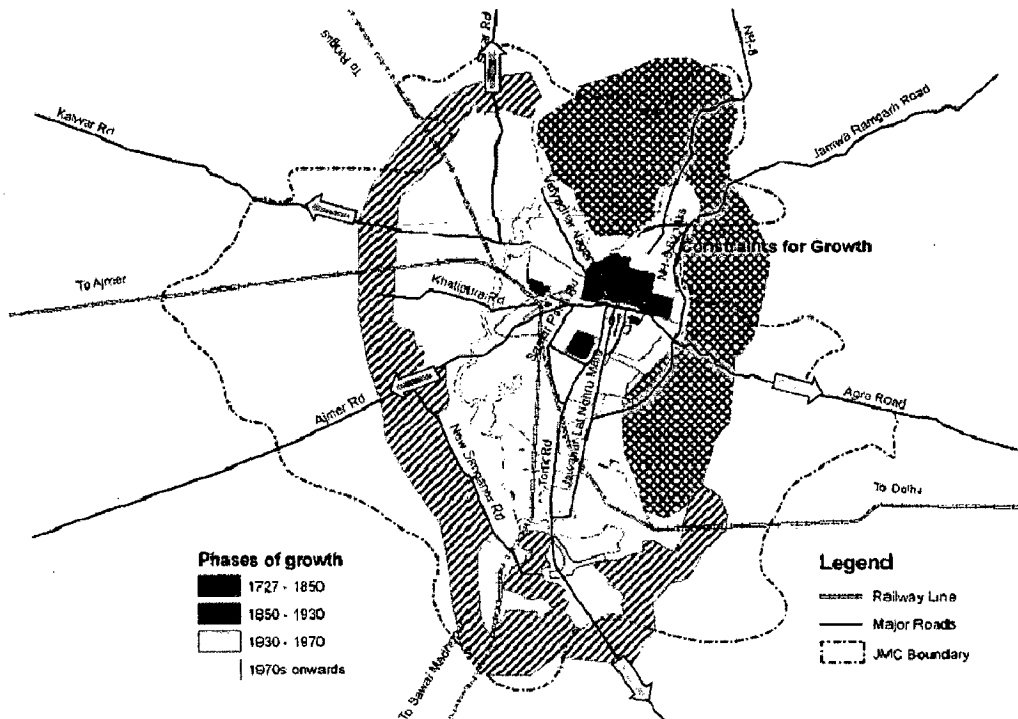
Jaipur region is divided into 3 broad categories by the Master Plan. They are:

- **Rural Area:** The rural area is proposed to cater to the predominantly agriculture-based rural economy. The various settlements in this area will have scope for expansion for their natural growth and their related economic functions.
- **Ecological Zone:** This zone includes the hill ranges, forest covers, water bodies, settlements etc. Functions and activities that are eco-friendly and occupy minimum built up area for incidental use are proposed for this zone. The area of the ecological zone is 481 sq.km.
- **Urbanizable Area:** The urbanizable area caters to concentrated form of urban activities. These areas have been equally distributed in the region taking into account the potentials of existing settlements, land classifications and areas sustainable to urbanization, directions of growth, available physical infrastructure, contiguity of urban areas, planning concepts, feasibility of development etc. The overall unrealizable area is around 391 sq.km. [5]

## 4.2.5 Future Growth of Jaipur

### 4.2.5.1 Physical Constraints for Growth

As already discussed in the sections above, the growth of the city is not possible on the north and the east. This is due to the presence of hills and designated reserve forests. These have been identified as the constraints for urban growth. The development of the city has been envisaged mainly towards western, northwestern and southern directions in a contiguous and compact manner. [5] (Refer Fig. 4.3).



**Fig. 4.3: Physical Growth direction of Jaipur city**

Source: City Development Plan, Jaipur.

### 4.2.5.2 Future Direction of Growth

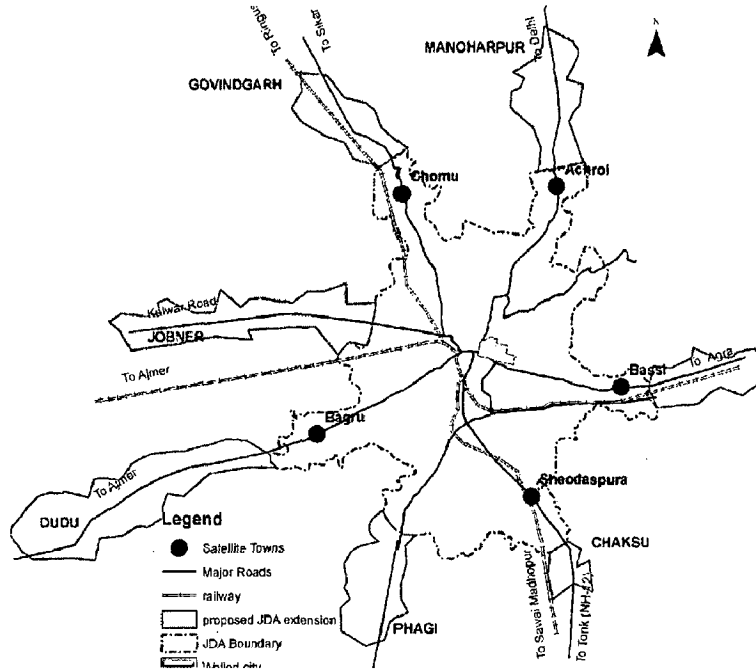
The future direction of growth has been envisaged based on the existing growth pattern. The past trends of development show growth in south and east direction.

The JDA has proposed extension of its area based on existing trends. The extension is mainly along the highways. There are 18 villages with area of 70 sq.km has been added along NH-8 (Delhi Road) and 19 villages with area of 150 sq.km has been added along Ajmer Road. Along with 21 villages have been added along Agra Road covering an area of 88 sq.km while 5 villages have been added along Tonk Road with an area of 20 sq.km. 10 villages have been added in the proposed extension on Phagi Road (128sq.km), 6 villages on Sikar Road (45 sq.km) and 28 villages on Kalwar Road (109 sq.km).

Also several industrial activities have been proposed around Sangar that are likely to give boost to urban growth in these areas. The future growth direction has been



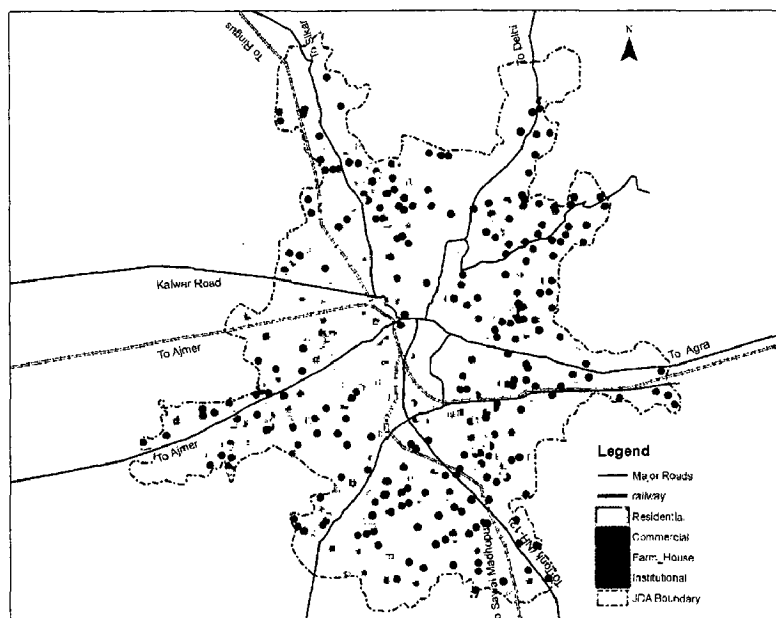
discussed with respect to four aspects that include the proposed urban growth nodes, the transportation nodes and lines, JDA land bank proposals and the proposed economic activities. [5] (Refer Fig. 4.4).



**Fig. 4.4: Proposed extension of Jaipur region**  
 Source: City Development Plan, Jaipur.

#### 4.2.6 JDA Land Bank Land use

JDA has recommended a particular use for a parcel of land in their land bank. JDA has over 50,000.ha of land in its land bank. The proposed land uses for these parcels of land will be of great significance in generating activity nodes in the future. These have been shown in Fig. 4.5.



**Fig. 4.5: JDA Land Bank Land use**  
 Source: City Development Plan, Jaipur.

#### 4.2.7 Issues

The issues related to urban growth and land management in the city are manifold that need a quick intervention. These issues are discussed below.

- The city has an uneven distribution of population. The walled city despite the lowest area has the largest density of population. Similarly, the JMC area is showing trends of densification that might lead to high level of burden on the infrastructure. Infrastructure provision becomes a crucial concern in the high density areas
- The population of the city is in a dynamic stage i.e., it is expected to grow further in the coming decades. Planning for infrastructure especially housing, water supply and sanitation would be crucial.
- Jaipur attracts migrants only from the neighbouring districts. Although the proportion of migrants from other states has increased, the city is yet to become an attractive destination for migrants.
- Due to the increasing demand of housing, rampant growth of colonies has begun. These are developed by the Cooperative Housing Societies. The colonies have been developed without development of basic infrastructure.
- Private developers for housing development are buying land in rural areas. The villagers too for better price and a faster transaction compared to government agencies sell their land to these developers. This is resulting in speculation by creating a false escalation in demand and price of land.
- The propensity for other land uses to get converted into residential land use is very high.
- Development is being promoted towards the south and southwest of the city. <sup>[5]</sup>

### 4.3 INSTITUTIONAL ARRANGEMENT – JAIPUR REGION

#### 4.3.1 Institutional Arrangement – Jaipur Region

Jaipur was under the municipal administration well before Rajasthan enacted “Rajasthan Municipalities Act” in 1959. Jaipur got the status of Municipal Council under this act. After the 74<sup>th</sup> Constitution Amendment Act, through Rajasthan municipalities act, Jaipur Municipal Council’s status was changed to Jaipur Municipal Council. The line departments played an important role in the delivery of services and infrastructure till 1982. This is when Jaipur development authority act was enacted creating JDA, with which all the powers of line departments were vested. At the same time, the Rajasthan Housing board (RHB) was also created.

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Today JDA is the authority for planning and implementation of the city development plans and infrastructure for the notified JDA area, which also includes the Jaipur Nagar Nigam (JNN) area. JNN is responsible for planning, operation and maintenance of selected infrastructure. Although JNN area is far beyond the walled city, its operations are limited to the walled city and its immediate periphery. The line departments like the PHED still play an important role in delivery of services and urban management.

JDA notified area has both rural and urban characteristics and therefore, involves both urban and rural development agencies. There is plethora of agencies responsible for city management.

There is a Jaipur Nagar Nigam (JNN), a development authority (JDA), Public Health Engineering Department (PHED), Public Works Department (PWD), Rajasthan Housing Board (RHB), Rajasthan State Roadways Transport Corporation (RSRTC), Forest department, Tourism department, devasthan department, and archeology department. Rajasthan Urban Infrastructure Development Project (RUIDP), Asian Development Bank (ADB) funded project is also involved in provision of basic infrastructure, urban development and heritage conservation in the city. <sup>[5]</sup>

**Table 4.5: Institutional responsibility matrix, Jaipur region**

Source: City Development Plan, Jaipur.

Sector	Planning	Implementation	Operation and Maintenance
Land use / Master Plan/ Building Byelaws	JDA	JDA, JNN	JDA, JNN
Water Supply	JDA, PHED, JNN, RUIDP, RHB, PriDev	JDA, PHED, JNN, RUIDP, RHB, PriDev	JDA, PHED, JNN, RHB, PriDev
Sewerage	JDA, PHED, JNN, RUIDP, RHB, PriDev	JDA, PHED, JNN, RUIDP, RHB, PriDev	JDA, PHED, JNN, RHB, PriDev
Roads/ Bridges/ flyovers/ RoB/Multilevel Parking	JDA, JNN, RHB, PWD, RUIDP, NHAI	JDA, JNN, RHB, PWD, RUIDP, NHAI	JDA, JNN, RHB, PWD, NHAI
Traffic Control and Management Systems	JDA (JTB), JP, RTO	JDA (JTB), JP, RTO	JDA (JTB), JP, RTO
City Public Transportation	RSRTC, PriOper	RSRTC, PriOper	RSRTC, PriOper
Street Lighting	JDA, JNN, RHB, PWD, RUIDP	JDA, JNN, RHB, PWD, RUIDP	JDA, JNN, RHB, PWD
Storm Water	JDA, JNN, RHB, ID,	JDA, JNN, RHB, ID,	JDA, JNN, RHB, ID,

Sector	Planning	Implementation	Operation and Maintenance
Drainage	RUIDP	RUIDP	
Solid Waste Management	JNN, RHB	JNN, RHB	JNN, RHB
Parks / Playground/ golf course/ beautification of road intersections/ urban forest	JDA, JNN, ID, FD	JDA, JNN, ID, FD	JDA, JNN, ID, FD
Air, water and noise pollution Control	JNN, RSPCB, PHED,	JNN, RSPCB, PHED,	JNN, RSPCB, PHED,
Slum Development	JNN, JDA	JNN, JDA	JNN, JDA
Urban Poverty Programme	JNN	JNN	JNN
Housing for EWS	JNN, JDA, RHB	JNN, JDA, RHB	JNN, JDA, RHB
Public Conveyance	JDA, JNN	JDA, JNN	JDA, JNN
Heritage Building Conservation	JDA, JNN, RUIDP, AD, PHED, DD, PriOwn	JDA, JNN, RUIDP, AD, PHED, DD, PriOwn, SpSo	JDA, JNN, AD, PHED, DD, PriOwn, SpSo

JDA: Jaipur Development Authority, JNN : Jaipur Nagar Nigam, RHB: Rajasthan Housing Board, PHED: Public Health Engineering Department, PWD: Public Works Department, RUIDP: Rajasthan Urban Infrastructure Development Project, RSRTC: Rajasthan State Roadways Transport Corporation, RSPCB: Rajasthan state pollution control board, NHAI: National Highway Authority, India, ID: Irrigation Department, FD: Forest Department, JTB: Jaipur Traffic Board, RTO: Regional Transport Office, JP: Jaipur Traffic Police, DD: Devesthan Department, PriDev: Private Developer, PriOwn: Private Owner, SpSo: Special Societies, PriOper: Private Operator

### 4.3.2 Jaipur Development Authority

#### 4.3.2.1 Constitutional Framework

The Jaipur development authority was created in 1982, under the Jaipur Development Authority Act, 1982, with an objective "to plan, coordinate and supervise the proper, orderly and rapid development of the Jaipur region". [5]

#### 4.3.2.2 Functions

The authority functions and executes its power under following acts:

- Jaipur Development Authority Act, 1982
- Notifications on delegation of powers to officers of the Authority

- The Rajasthan Urban areas (sub divisions reconstitution and improvement of plots) rules 1975
- Rajasthan Land Revenue (Conversion of Agricultural Land for Non-Agricultural Purposes in Rural areas) Rules 1992
- Notifications on transfer of developed areas under JDA to Jaipur Nagar Nigam
- Rajasthan Municipalities (Change of Land use) rules 2000
- JDA (Small Townships and Residential Colonies by Private Developers) Amendment Act, 1998
- JDA (Constitution of Committees) Amendment Act, 2001
- JDA (Regularization of Illegal Construction) Amendment Act, 1989 <sup>[5]</sup>

### **4.3.3 Jaipur Nagar Nigam (Jaipur Municipal Corporation)**

#### **4.3.3.1 Constitutional Framework**

The Jaipur Nagar Nigam functions under the “the Rajasthan Municipalities Act, 1959” and further amendments to it. The act fall short to fulfill the spirit of 74<sup>th</sup> CAA, as JNN still has to seek approval from Directorate of Local Bodies. <sup>[5]</sup>

#### **4.3.3.2 Functions**

The functions of JNN are listed in sections 98 and 101 of the Act. Section 98 provides for mandatory functions and section 101 provides for discretionary functions of JNN. The major function of JNN are: city cleanliness, solid waste management, maintenance of gardens/dividers/circles, street light, bio-medical waste, slaughter house, fire fighting, flood control, encroachment removal, stray cattle management, community toilets, community halls, sewer maintenance, parking lots, development works, advertisement, sale of land, house tax, and licensing. <sup>[5]</sup>

### **4.3.4 Rajasthan Housing Board (RHB)**

#### **4.3.4.1 Constitutional Framework**

The Rajasthan Housing Board was created under “the Rajasthan Housing Board Act, 1970”, with an objective “To provide housing for all” in urban areas. The board of directors oversees the functions of (RHB). <sup>[5]</sup>

#### **4.3.4.2 Functions**

The main function of the RHB is to provide housing. This includes housing for poor, housing for EWS and housing for all class. The functions also include provision, operation and maintenance of infrastructure facilities provided by the board. <sup>[5]</sup>

#### 4.3.4.3 Issues

The RHB develops residential colonies within and outside the JNN area. Physical infrastructure like roads, streetlight, water supply, sewerage, sanitation, solid waste management and open spaces are provided. These facilities are initially shall be managed by RHB, and are required to be transferred to JNN and respective departments. Transfers of services to JNN are delayed due to number of reasons. Delay in transfer affects the delivery of services, as JNN due to legal aspect cannot provide services to these areas, resulting to no proper clearance of waste, poor maintenance of roads and streetlights, open spaces and public facilities. [5]

#### 4.3.5 Public Health Engineering Department (PHED)

##### 4.3.5.1 Constitutional Framework

The PHED is the line department of the State Government of Rajasthan. It is a functional arm of the government for provision of water supply through out the state including urban water supply. [5]

##### 4.3.5.2 Functions

The PHED is responsible for provision of safe drinking water supply to city. This includes securing water sources, treatment of water, transmission and distribution of water, providing water connections, billing of water charges, disconnections of water charges, repair of damages etc.

Implementation of urban and rural water supply projects, Operation and maintenance of urban and rural water supply projects, and water quality testing and monitoring. The Department is also responsible for management of Dam's marked for drinking water purpose and rainwater harvesting and creating water awareness. [5]

##### 4.3.5.3 Jurisdiction and coverage

PHED is responsible for water supply production distribution to Jaipur city (JNN area). In these area also PHED role is limited to transmission of water though main lines. Rest area is covered by JDA or RHB. With respect to total number of households and connected households, the PHED covers 68% of JMC area. The coverage is likely to increase with commissioning of Bisalpur water supply project.

#### 4.3.6 Public Works Department (PWD)

##### 4.3.6.1 Constitutional Framework

The PWD is the line department of the State Government of Rajasthan. It is a functional arm of the government for providing road infrastructure (roads, bridges, flyover,

underpass, pathways, road over bridge etc), departmental building works, conservation of historical monuments and buildings.

#### 4.3.6.2 Functions

PWD (Jaipur) is responsible for maintenance and construction of State Highways, District Roads, other district roads and village roads within JDA region.

#### 4.3.6.3 Issues

The PWD jurisdiction is limited to walled city area and some major roads; adding one more agency responsible for maintenance of roads in JNN and JDA area. The PWD lacks of know how towards restoration work, which is reducing the architectural value and is increasing structural instability of the monuments and buildings. <sup>[5]</sup>

## 4.4 CONCLUSION

It is clearly evident that the efforts for the planned development by the planning agencies have failed miserably. The existing development on ground is far different from what was envisaged in the previous master development plan proposals. The master plan proposals worked out by the agencies are not in tune with the trends in land use development. The planning agencies have been unable to deal with the problem of urban sprawl especially in the south, west and south-west directions. The unplanned development in the fringe areas is also a major hurdle which is also lacking a certain standard infrastructure provisions.

In addition to this, government institutions are not functioning efficiently regarding the implementation. Their framework is not effective and strong enough to regulate and control the development. Their functions are not clearly defined and sometimes seem to overlap in many cases in the same jurisdiction area. Moreover, there seems to be lack of coordination among all these agencies which hampers the smooth functioning of the land administrative system for the agencies as well as the common people.



## LAND MANAGEMENT IN JAIPUR

This chapter discusses the land management model of Jaipur in the past and the current scenario including the prevailing land management practices, the legislations, land policies regarding land assembly, development and disposal, etc. A study of the current quality of the development has been made through the selected field case studies in a few pocket areas of Jaipur. The distortions in the land market of Jaipur have been studied to understand the dynamics of land management.

### 5.1 BACKGROUND

Housing co-operatives were functioning in Jaipur city since 1945, though the scale of their activities was rather limited. The societies used to purchase agricultural lands on the fringes of the city, subdivide it into residential plots and sell them to their members. These societies were registered with the Registrar of Co-operative Societies. The only preconditions for registration were that the society should have a minimum of 15 members and that it should be in possession of a piece of land.

However, after the institution of Urban Improvement Trust (UIT) in Jaipur in 1959, an additional condition was imposed on co-operatives that they should obtain a certificate from the UIT assuring allotment of land, effectively stopping them from purchasing land directly from owners of agricultural land. But the UIT was unable to allot land to co-operatives till 1968. Meanwhile, due to mounting pressure of demand for residential plots, co-operatives resorted to conversion of surrounding agricultural lands without the permission of the Revenue Department. The Revenue Department intervened by framing Land Conversion Rules in 1971, which put a general ban on the sale of agricultural lands to co-operatives. Around the same time government banned registration of new cooperative societies, with the result that the premium on the land owned by existing societies increased, and many societies registered by socially weaker groups were sold out to resourceful outsiders.

Meanwhile the demand for serviced land kept on rising steeply as the city was growing at a rapid rate. But the imposition of Urban Land Ceiling and Regulation Act (ULCRA) 1976 made the supply position even more restricted. Rajasthan Housing Board (RHB) was set-up in 1970 to provide housing for different income groups and the Jaipur Development Authority (JDA) was instituted in 1982, whose main objective was to accelerate the process of land development for implementation of the Master Plan for Jaipur city. But the effort put-up by UIT, RHB, and JDA together fell far short of the level required to match the accelerating demand for serviced plots.

The existing societies thus kept on acquiring, sub-dividing and selling land illegally on a large scale in various parts of the city. Forced by these circumstances, the Government of Rajasthan had to frame new conversion rules in 1981 and had to regularize the areas developed illegally by cooperative societies. But again it was not a regular process; hence the entire development plan of the city was vitiated.

Due to all the unplanned growth being promoted by cooperative housing societies, the state government had put a ban on registration of cooperative societies in 1991. [27]

## 5.2 AGENCIES IN LAND MANAGEMENT IN JAIPUR

In Jaipur there are presently four agencies dealing in Land Management issues, Jaipur Development Authority (JDA), Jaipur Municipal Corporation (JMC), Rajasthan Industrial Development and Investment Corporation (RIICO) and Rajasthan Housing Board (RHB).

JDA was constituted under Jaipur Development Act, 1982 to look into various aspects of planned development of Jaipur. Before that there was Urban Improvement Trust formed under Urban Improvement Act 1982. Preparation of Master Plan and its implementation is one of the functions carried out by JDA. At the same time JDA is also looking into development of residential, commercial and recreational areas in JDA region. [5]

JMC was constituted under Rajasthan municipalities Act, 1974. Its prime function is maintenance of physical infrastructure in Jaipur. Colonies developed by JDA and RHB are later on transferred to JMC for maintenance of infrastructure and cleanliness.

Rajasthan Industrial Development and Investment Corporation was Incorporated as RIMDC on 28th March, 1969 & changed to RIICO on 1st January, 1980. [5]

RIICO- since its inception in 1969 has emerged as a multi-faceted and dynamic institution. RIICO is also the sole government agency in the State involved in development of land for industrial enterprises. Large, medium and small scale projects get an easy access to a ready -to- use base with supportive infrastructure facilities in the industrial areas, developed and managed by RIICO. The financial and vital infrastructural facilities provided by RIICO has contributed to promoting accelerated growth of industrial sector in the State Rajasthan Housing Board is the only government agency other than JDA which is dealing in providing housing for the all class of people. [5]

### 5.3 LEGISLATIONS PERTAINING TO LAND MANAGEMENT IN JAIPUR

There are different acts pertaining to various issues of Land Management like Land Acquisition, development and disposal. Jaipur Development Authority Act is the major one amongst all which guides the urban form and planned development of the city. The major methods used regarding the land management in Jaipur are:

#### 5.3.1 Policy for land acquisition

1. Compulsory Acquisition through LAA, 1894
2. Acquisition through negotiation
  - i. Negotiation in fixing land value of the acquired land
  - ii. 25% of the developed land is given as award if the owner willingly surrenders his land. [15]

#### 5.3.2 Policy for development and disposal of land

- 1 Rajasthan Industrial Area Allotment rules, 1959.
  - For allotment of land to industrial and tourism department.
  - Land to be allotted for on lease hold basis for a period of 99years.
  - RIICO or RTDC can further sub-lease the leased land or part thereof.
  - Allotment of land by RIICO and RTDC. ("RIICO disposal of land rules, 1979") [15]
- 2 Rajasthan Municipalities (Disposal of Urban Land) Rules, 1974.

### 3 Rajasthan Urban Area (subdivision Reconstitution and development of plots) rules, 1975

- No minimum size of the plot for subdivision
- Plot size 100- 1500 Sq. Yds. <sup>[15]</sup>

#### 5.3.3 Policies for Change in Land Use

##### 1 Rajasthan municipality (change in land use, rules 2000)

##### 2 JDA Act, 1972, Sec 25(2)

- No criteria fixed
- Politically dominated
- Failure of Master Plan <sup>[15]</sup>

#### 5.3.4 Regularisation of Agriculture land to Residential or commercial purpose

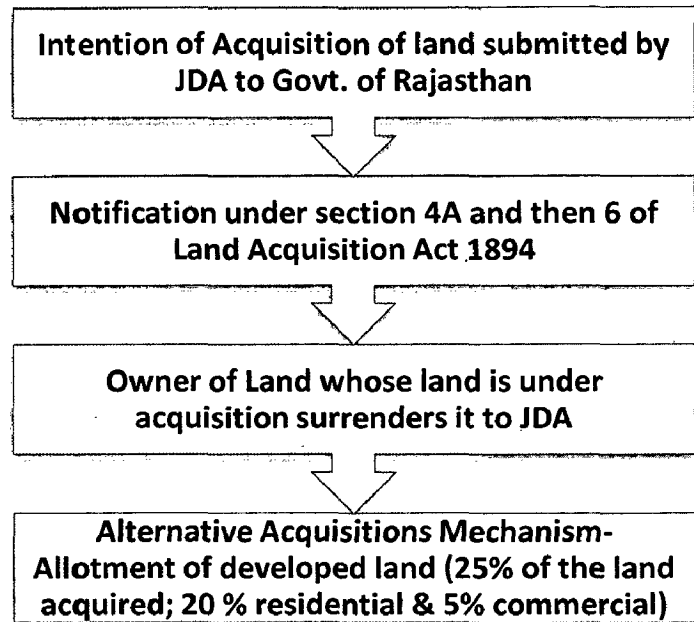
##### 1 Section 90-B Land Revenue Code

- Developers prepare a plotted housing scheme and surrender the ownership rights of the land to the development agency.
- Land is surrendered to development agency which in lue of some charge gives free hold right of the individual plots to the owner.
- No criteria for the minimum plot sizes.
- JDA presently is regularising all the housing schemes in the area which is beyond the urbanisable limits of Master plan 2011. <sup>[15]</sup>

## 5.4 LAND ACQUISITION IN JDA REGION

JDA Act, 1982 sec 45, enables state government to acquire any land in the Jaipur region on behalf of authority. After the land is acquired by Govt., its possession is given to the authority to carry out proposed development works or projects. JDA can any time dispose of the land, developed or undeveloped as per the act. Act enables JDA to allot the land under its possession to Nagar Nigam or RIICO or RHB for carrying out development works. <sup>[5]</sup> Land Acquisition under compulsory acquisition has always been a difficult task for Public agencies. The process is very slow because a number of public litigations are in the court of law against acquisition, filed by the individuals whose land is under acquisition. Also the award of compensation against the land acquired is 4-5 times less than the prevailing market rates. The

Ministry of Urban Development has passed a Notification for award of developed land against land acquired under Land Acquisition Act, 1894. <sup>[10]</sup> This notification has been passed to facilitate the process of land acquisition by Alternative Acquisitions Mechanism allotting 25% (20% residential and 5% commercial), {15% from 2001 to 2005 and 12% prior to 2001} of the total land acquired in the project area or in a close proximity to the project area. Most of the people prefer to take compensation instead of developed land. The procedure for land acquisition followed by JDA is shown in Fig. 5.1.



**Fig. 5.1: Land acquisition process followed in Jaipur**  
 Source: Land Acquisition Department, JDA

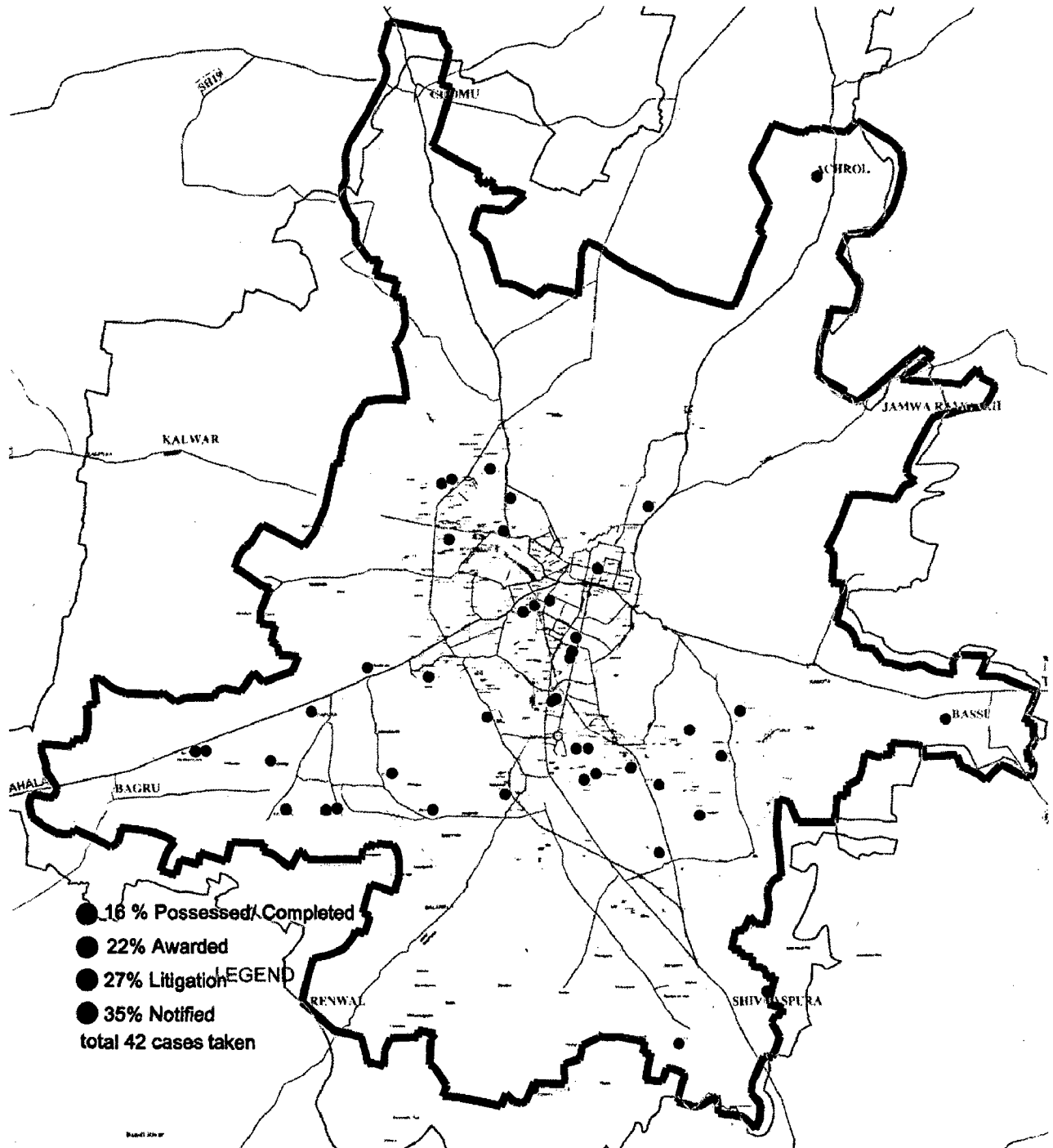
Others states have also followed similar

mechanism to ease the process of land acquisition. In Gujarat under TP schemes 45- 50% of developed land is allotted back to the owner whose land comes under TP scheme. Development charges in terms of betterment charges are charged from the owner of the land. [22]

One major lacuna in this method is that the parameters like the market value, location of the land and the loss of income suffered by the land owner and availability of basic amenities such as water and electricity are not considered. Also, there must be fair and equitable return to all the land owners/ farmers without any discrimination due to assigned land use / planning; which is not there. The compensation rates for the same land by different authorities vary considerably, leading to dissatisfaction among the land owners. For example for the same piece of land, if the JDA is providing Rs. 1 lakh as compensation, it may vary upto 1.5 lakhs in RIICO, as it considers industrial land use.

Since, the day of its formation in 1982, JDA has acquired huge amount of land ranging from a very small land plot to large chunks of land for public developmental works, various residential schemes, etc. Due to the conventional land technique in the past, the time taken for the acquisition generally ranged from 5-8 years. Although the conditions have improved, but still

the present technique is time consuming and is not able to gain the trust of the people. The current status of acquisition is depicted in the Map 5.1 and the table 5.1. It is clearly evident that most of the cases are stuck in litigation, which is an evidence of the failure of the land acquisition procedure of the city.



**Map 5.1: Current Land Acquisition status in Jaipur**  
 Base Map: Courtesy Jaipur Development Authority

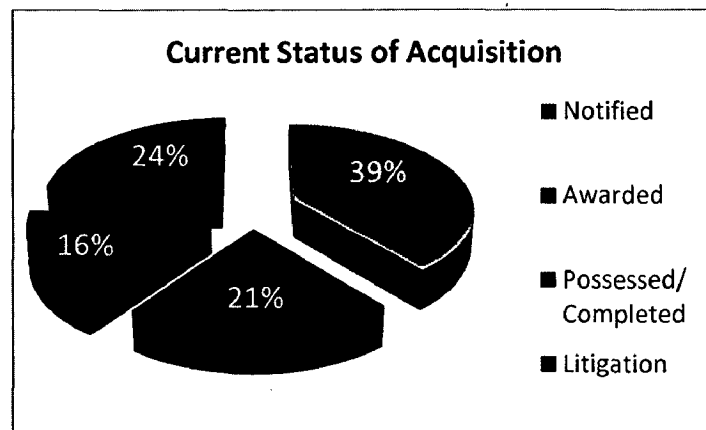
**Table 5.1: Details of current status of land acquisition in Jaipur region by JDA***Source: Land Acquisition Department, JDA*

S. No.	Particulars of Land	Location of the land	Current Status (Possessed/ Awarded/ Litigation/ Notified)	Time Taken
1	For road widening from Rambagh circle to Indira circle	Bapu Nagar	Notified	0 yr 3 months
2	Remaining khasra in the Sanganer slip lane	Sanganer	Possessed/ Completed	3yr 0 months
3	200 ft. from Jawahar Circle towards Aerodrome in the Airport Development Plan	Surajpura	Possessed/ Completed	3 yr 0 months
4	Ring Road Phase I from Ajmer Road to Tonk Road	Bhankrota, Mahapura, etc.	Notified	1 yr 1 month
5	Remaining khasra in the previous acquisition proposals for Ring Road, on Ajmer Road	Pipla	Litigation	1 yr 9 months
6	Ring road Phase II Tonk Road to Agra Road	Shivdaspura	Awarded	1 yr 10 months
7	NRI 160 ft	Buddhasinghpura, Getor	Awarded	2 yr 0 months
8	Truck terminal on Ajmer road	Keshopura	Possessed/ Completed	4 yr 8 months
9	100 ft road from railway station to Dadi ka Phatak	Nangal Jaisal Bohra	Possessed/ Completed	3 yr 8 months
10	For widening of 200 ft road near Sanganer Airport	Buddhasinghpura	Possessed/ Completed	4 yr 3 months
11	Central Spine Project, Jagatpura	Mahal	Awarded	3 yr 8 months
12	Approach roads for SEZ	Muhana	Awarded	1 yr 6 months
13	Remaining Khasra in SEZ	Bhamboriya	Awarded	1 yr 4 months
14	Remaining Khasra in previous notice of SEZ and its approach roads	Newata	Litigation	1 yr 0 months
15	400 ft approach road on Jaipur Ajmer NH	Mahapura	Awarded	2 yr 0 months
16	160 ft and 80-80 ft corridor for joining Ajmer road to Western part of SEZ	Devaliya	Litigation	0 yr 7 months
17	Remaining Khasra in notice on 20.12.05 regarding SEZ	Bhamboriya	Litigation	0 yr 4 months
18	200 ft approach road to SEZ from Ring Road	Newata	Litigation	1 yr 4 months
19	Residential Scheme	Murlipura	Awarded	3 yr 7

				months
20	Sports City	Achrol	Notified	2 yr 4 months
21	Remaining land in Jal Mahal Project	Vijay mahal	Awarded	2 yr 4 months
22	Slip lane for AIR Jaipur	Hathroi	Notified	4 yr 0 months
23	Road Joining Vidyadhar Nagar located Khandelwal Tower to Sikar Road	Parasrampura	Litigation	3 yr 10 months
24	For joining Ranger Basti to Niwaru road	Jhotwara	Awarded	2 yr 0 months
25	Film City	Jaisinghpura	Notified	1 yr 4 months
26	Slip lane on Gopalpura	Manpur Devari	Litigation	0 yr 2 months
27	Gopalpura flyover	Manpur Devari	Litigation	0 yr 2 months
28	Widening of road from Civil lines to Jaipur railway station	Hathroi	Partly Possessed/ Litigation	0 yr 6 months
29	Proposed residential scheme	Devaliya	Notified	0 yr 8 months
30	Rifle shooting range	Todeermajanipura	Possessed/ Completed	0 yr 3 months
31	Rifle shooting range	Todeermajanipura	Litigation	0 yr 2 months
32	NRI scheme	Shri rampura	Notified	1 yr 3 months
33	Remaining khasra in previous acquisition of 200 ft Airport road under 90 B code	Buddhasinghpura	Litigation	1 yr 2 months
34	160 ft road for joining Pratap Nagar to Shikarpura	Sanganer	Notified	1 yr 4 months
35	Link road from Bassi to Jagatpura	Govindpura	Notified	0 yr 8 months
36	For widening of 40 ft road to 60 ft	Bassi	Notified	1 yr 6 months
37	For widening of 60 ft road to 80 ft	Khatipura	Notified	0 yr 10 months
38	Corporate Park	Mahapura	Notified	0 yr 1 month
39	Road for joining residential scheme to NH 11	Kanota	Notified	0 yr 7 months
40	Hotel and transit facilities for passengers of new terminal for International Airport	Getor	Notified	0 yr 1 month



41	200 ft road from Shivdaspura to Railway line	Chandlai	Notified	1 yr 4 months
42	Widening of 100 road from Banade railway line to Dadi ka Phatak	Nangal Jaisal Bohra	Notified	0 yr 8 months



**Chart 5.1: Percentage share of acquisition cases according to their present status by JDA**

*Source: Analysis from Table 5.1*

From the analysis of the above table and figures, it can be inferred that the most of the cases i.e. 24%, are stuck in litigation which shows the dissatisfaction of the people from the present land acquisition technique. (Refer Fig. 4.3). The people file a case against the authority as soon as the acquisition is notified, and then the legal procedure keeps delaying the acquisition for years. On the government's part, the procedures are also delayed due to the inefficient working of the acquisition authorities, like delay in the notification for acquisition or award, etc.

## 5.5 LAND DEVELOPMENT IN JDA REGION IN PAST DECADES

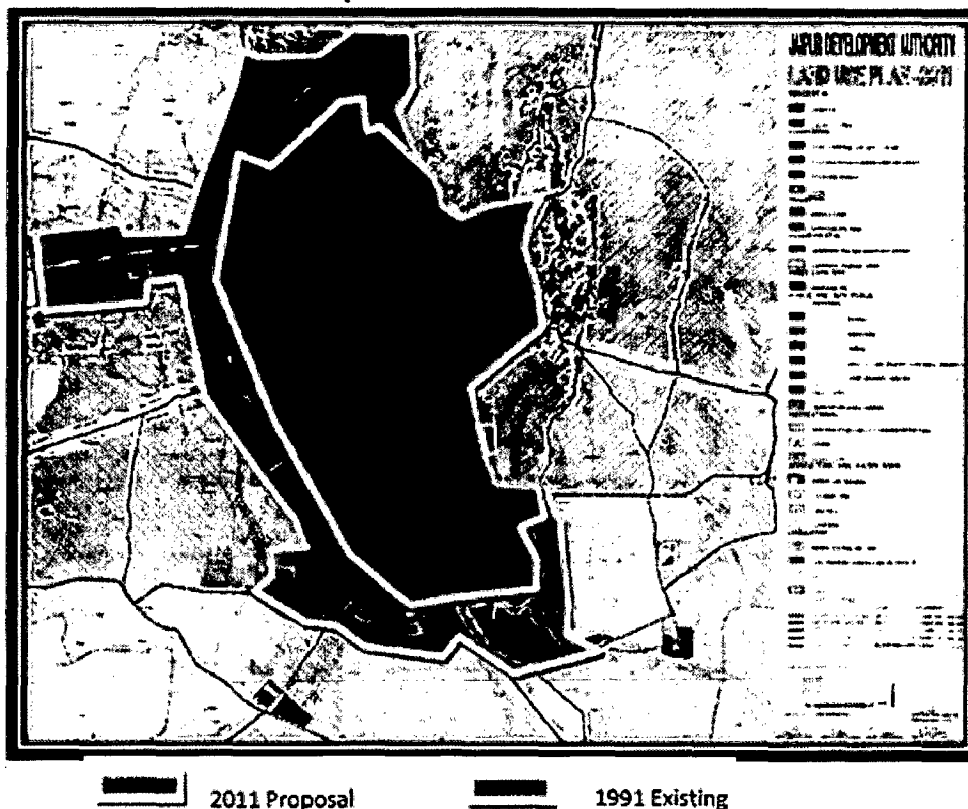
### 5.5.1 Analysis of the earlier Master Plan proposals

The transformation of land use has an adverse impact on the physical development of the whole of Jaipur region, the city as well as the surrounding rural areas. The transformation has been studied under two levels:

- i. Macro level through considering the whole of Jaipur Region.
- ii. Micro level for detailed study of specific areas.

**Proposals for 2011:**

As per Master Development Plan 2011, the footprint for development covered an area of 326 sq km and 207 sq.km of the area is actually developed. Due to pressures on land, redirected demand for developments and fast paced

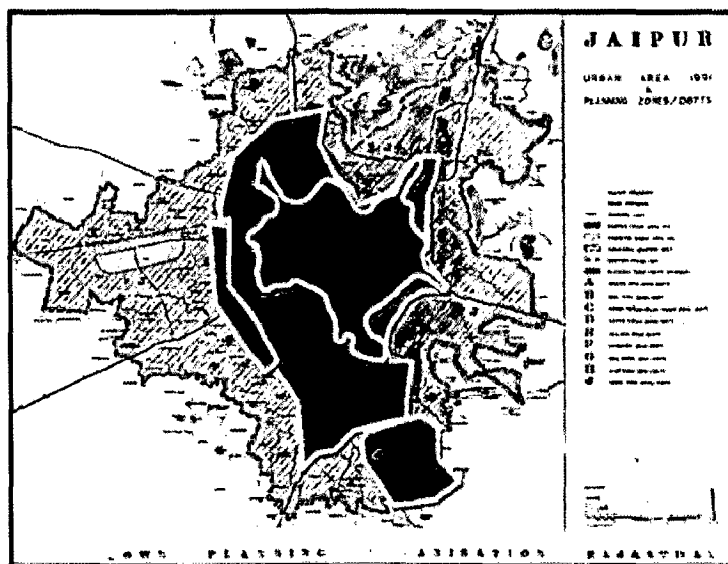


conversions, the development area

**Fig. 5.3: Comparison of the 2011 proposal with the 1991 existing development**  
 Source: Planning Cell, Jaipur Development Authority

expanded by 215 sq km with planned interventions in the form of sector plans to regulate growth. The present urbanisable area within the Region covers an area of 541 sq km (other than the satellite towns). This is depicted in the fig. 5.3. This also includes the sectors which have been planned and approved. However, dense built up area currently works out to be an area of 207 sq km only. [9]

The first Master plan prepared in 1971 envisaged a development area of 156 sq km. However, new areas were developed including Prithviraj Nagar, Pratap Nagar, Sitapura and South of Jaipur. (Refer fig. 5.4).



**Fig. 5.4: Deviations in the Proposal for 1991**  
 Source: Planning Cell, JDA

The area including deviations amounted to

around 190 sq kms with a % increase of 21.80%. These deviations were not recorded in 2011 during preparation of Master Development Plan-2011 which was again planned considering an ideal population for an area of 326 sq km which should have actually been around 400 sq km. As a result, when haphazard developments took place, planned interventions were made through sector planning to bring about an order in the development process. Although, the plan period upto 2011 envisaged 326 sq kms, the development area today stands at 600 sq km with a percentage deviation of 84.05%. The deviations in the master plan proposals have been summarized in the Table comparing the area proposed with the area developed. <sup>[9]</sup> (Refer Table 5.2).

**Table 5.2: Deviations in the Master Plan Proposals**

*Source: Draft Master Plan 2025- Jaipur region*

Year	Area Envisaged (sq km)	Deviations	Approximate Developed Area(sq km)	% increase in area against planned (sq km)	Area if % growth maintained (sq km)
1971	-	-	60	-	-
1991	156	Areas developed which were not envisaged: PRN, Pratap Nagar, Sitapura, South of Jaipur(approx. 58 sq km)	214	37.18%	-
2011	326	Planned interventions in terms of new sectors, NRI colony, Jagatpura, etc.	600 (as of 2009)	84.05%	400
2025	-	Ring Road has been proposed with a developmental corridor, change in land uses have been proposed in many villages, plenty of new township approvals based in the region.	-	84.05%	1104

In 1971, the percentage of land under residential land use was 51% that increased to 62% in 1991. The area under circulation decreased from 17% in 1971 to 12% in 1991. This is primarily due to an expansion of the city without the corresponding development of road networks. The area under semi public use also decreased from 17% in 1971 to 8% in 1991. The proportion of

area under recreational use was already quite low that further decreased by 1% between 1971 to 1991. Only the area under governmental sector was constant. The area under industrial land use witnessed a rise from 7% to 10% in 1991. The area under commercial use also witnessed an increase of 1%. [27]

The table 5.2 clearly indicates that the growth of the population of the city of Jaipur was far more than that envisaged. However, the development that took place by the end of the year 1991 was far less as compared to that envisaged for in the 1971-91 master plan.

A comparative analysis of actual development under various land uses as per the 1991 survey and the development as envisaged in master plan notified in 1976 is given in table 5.3.

**Table 5.3: Master plan proposal 1991 vs. Actual development 1991 (area in acres)**

Source: Jaipur Master Development Plan for Jaipur Region 2011

Land use	Master plan proposals 1991			Actual 1991		
	Existing 1971	Proposed	Total area of development	Total Development	Development in right places	Development in wrong places
Residential	5000	12200	17200	15880	12014	3866
Commercial	340	1250	1600	950	684	266
Industrial	710	3750	4460	2490	1767	723
Govt.	210	230	440	390	287	103
Recreational	330	670	1000	530	487	43
Public & semi public	1680	900	2580	2120	1751	369
Tourist facilities		200	200			
Circulation	1730	4290	6020	2910	2909	1
Total	10000	23490	33500	25270	19899	5371

- One of the major reasons of large scale violations in 1991 Master Plan was that land needed for development could not be acquired in time and thus new residential and other schemes could not be developed.
- An area of 4460 acre of land has been reserved for industrial purposes. However 2490 acres could be developed for this purpose, the rest of area has been occupied as residential areas. [27] (Refer Chart 5.5 and Chart 5.6).

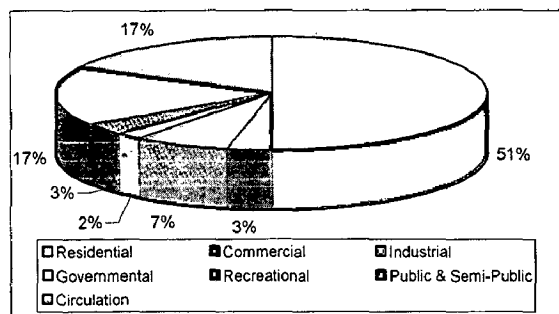


Chart 5.2 Landuse-1971

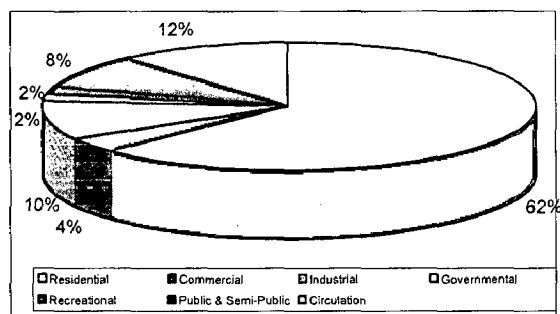


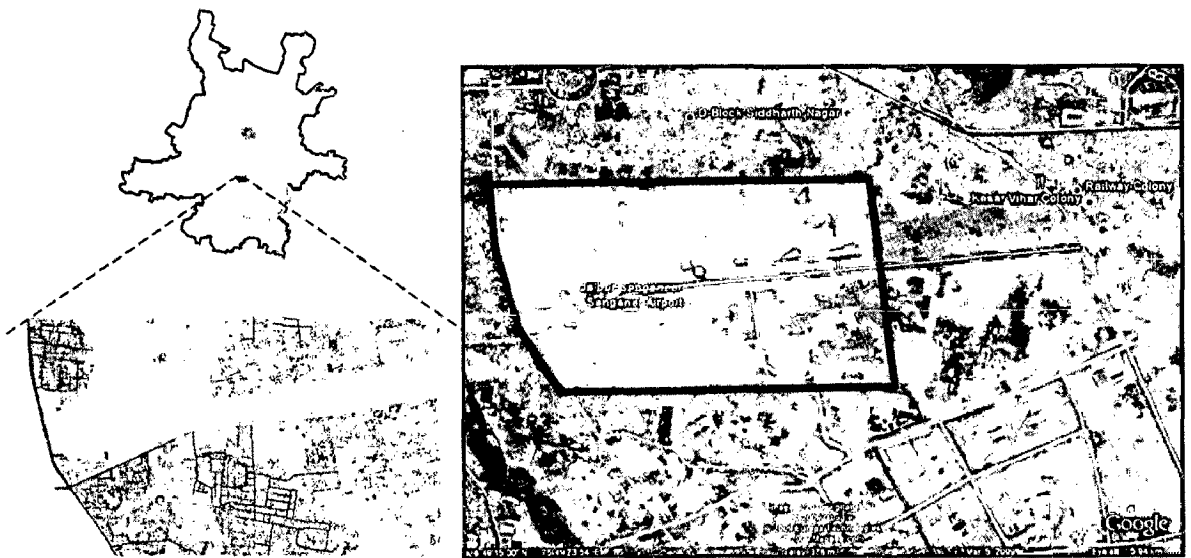
Chart 5.3 Landuse-1991

Source: Jaipur Master Development Plan for Jaipur Region 2011

### 5.5.2 Field Case Studies of the selected pocket areas

#### 1) the case of area near Jaipur Airport

The study area is 2.4 km long stretch with width around 1.7 km. (Refer Fig. 5.5). It is predominantly a residential area. It was beyond the Urbanisable limits of the Master Plan 1991. As it was basically a farmlands area, it was proposed as a green/ agricultural belt for the city area. But as the time proceeded, the area got occupied by unauthorized and unplanned colonies to meet the growing housing demand. There was a proposal for the expansion of the aerodrome area in the Master Plan 2011 proposal, for which there was a need to acquire the land and hand over it to the Airports Authority of India. In the current situation, the area has been stuck in the dispute between the JDA and the land owners, as the people living there are not ready to give up the land. Various details regarding the case study area are given in Table 5.4. and Table 5.5.



**Fig. 5.5: Selected area near Airport for study**  
Source: Google Earth

**Table 5.4: Details of the case study area I**  
Source: Field Survey by the Author

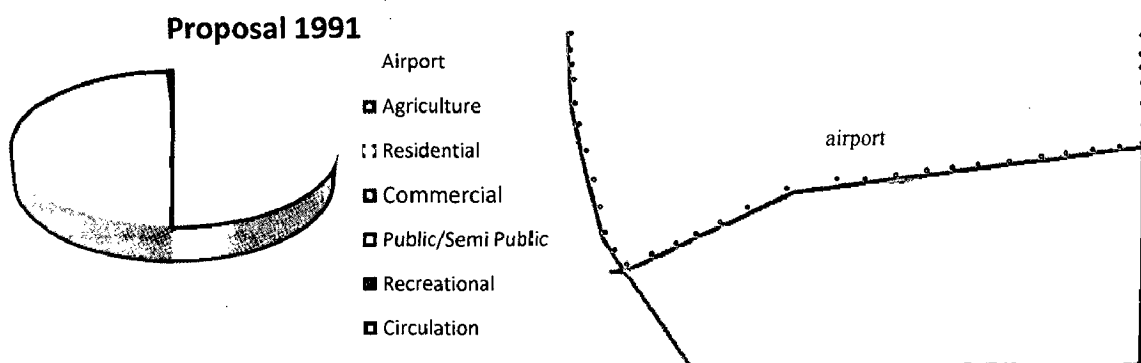
Area	5.06 km <sup>2</sup>
Land use	Predominantly residential
Development Authority	Jaipur Development Authority

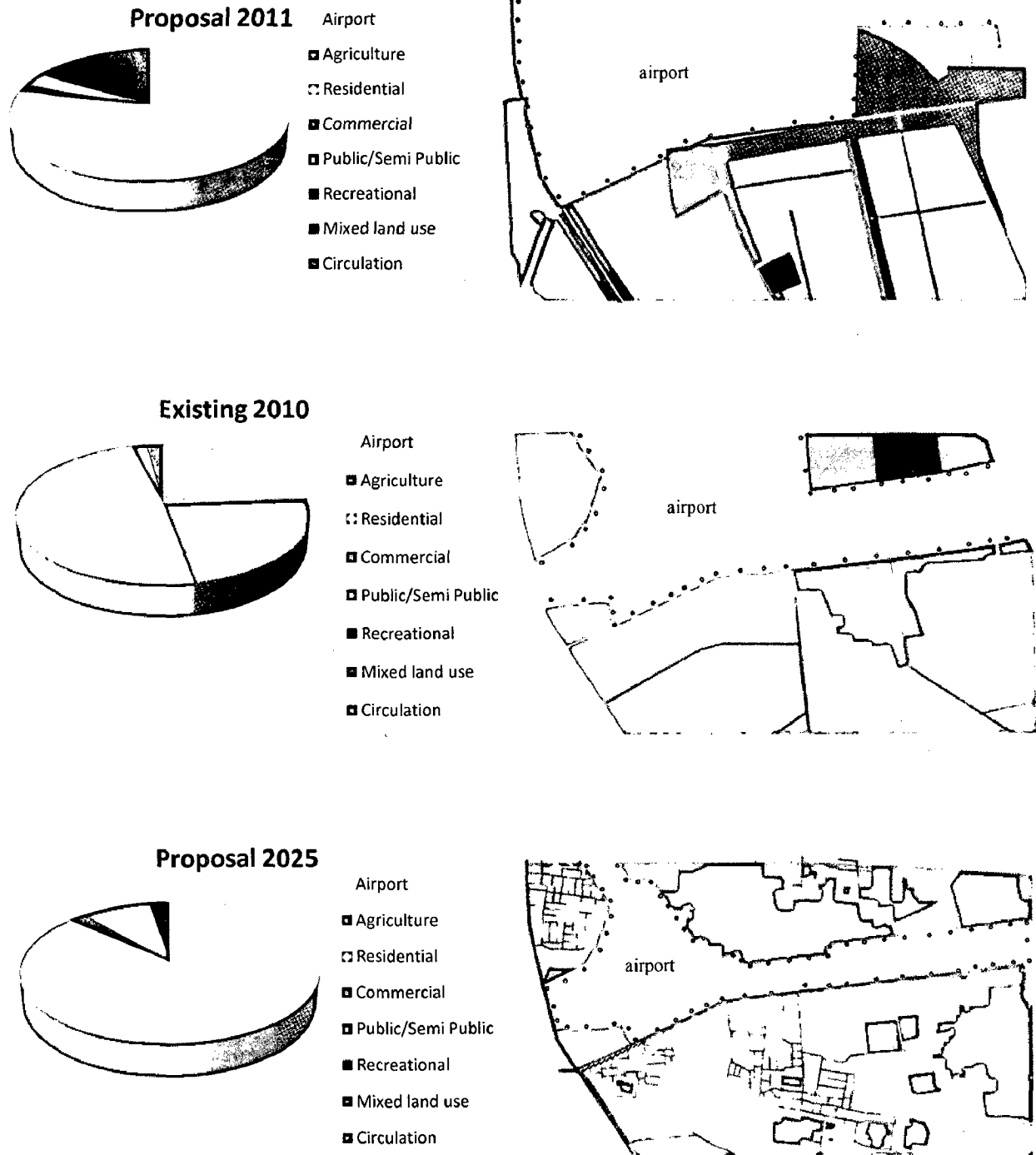
Developed by	Self owned
Present Density	102-267 pph
Income Group	Low income group
Present land cost	Rs. 16250/ sq m
Average household tax	Rs. 200
Built Up Area	8%

**Table 5.5: Change in the Land use in the Master Plan proposals**

Source: Field Survey by the Author and Master Plan Proposals- 1991, 2011, 2025, Jaipur Region

Land Use	Proposal 1991	Proposal 2011	Existing 2010	Proposal 2025
Airport	50.10%	36.04%	23.90%	39.30%
Agriculture	48.87%	0.00%	23.10%	0.00%
Residential	0.00%	42.64%	48.74%	47.44%
Commercial	0.00%	2.04%	0.20%	2.26%
Public	0.00%	2.90%	1.60%	8.40%
Recreational	0.00%	9.68%	0.00%	0.00%
Mixed land use	0.00%	3.91%	0.00%	0.00%
Circulation	1.03%	2.79%	2.10%	2.60%





**Chart 5.4: Percentage share change in the Land use in the Master Plan proposals**

Source: Analysis from the Table 5.5

**Conclusions:**

- This area has witnessed a great transition from basically a farmland to unplanned residential colonies in the past few decades. (Refer Chart 5.4)

- The failure of the public authority regarding the acquisition of land has led to the change in the proposal of expansion of aerodrome area.
- There has been no commercial or any other kind of additional construction in the last years in the area, due to the fear of action by JDA to remove these unauthorized colonies, leaving the area under developed.
- Most of the housing is self owned, since the land is originally the farmland owned by the farmers.
- Since these are unplanned and unauthorized colonies, the level of social and physical infrastructure in these colonies is really poor especially the water supply and sewerage, drainage, etc.
- The urban development tax raised by these colonies is very low, which is not good as far as municipal finances are concerned.

## II) The case of Jawaharlal Lal Nehru Marg

Another area of study is the JLN Marg, around 2.0 km long and 0.9 km wide, which has witnessed the highest increase in land value in the past few years. (Refer Fig. 5.6). The main reason that can be contributed to continuous increase in the land values is increase in private sector participation in the supply of urban land. The proposals for an industrial land use in Master Plan 1991 and public land use in Master Plan 2011 could not be achieved, as most of the land strips are sold to the private developers for commercial projects like World Trade Park, commercial complexes, etc. Though, the residential colonies in the interiors are very well planned by Housing Board, JDA and private developers. So the development in this area is contributed both by private and public authorities equally. Various details regarding the case study area are given in Table 5.6 and Table 5.7.





**Fig. 5.6: Selected area of Jawaharlal Nehru Marg for study**

*Source: Google Earth*

**Table 5.6: Details of the case study area II**

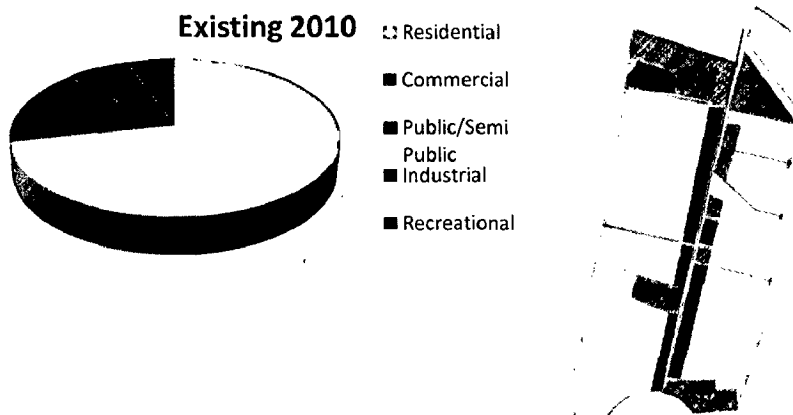
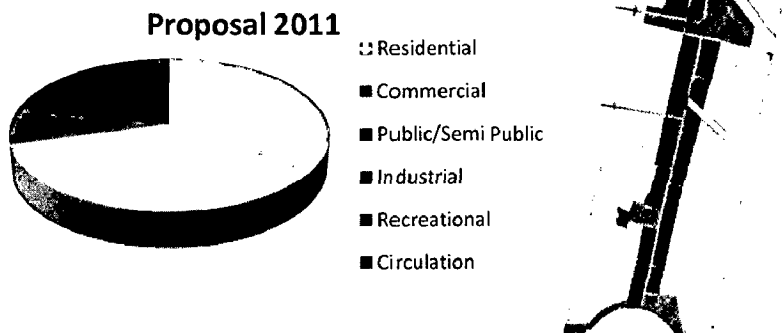
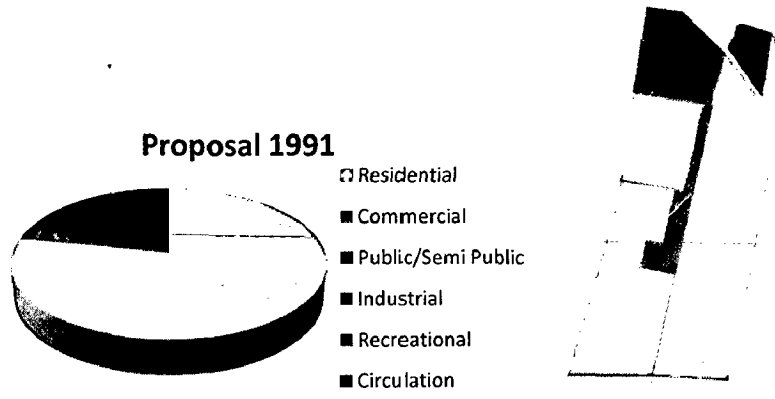
*Source: Field Survey by the Author*

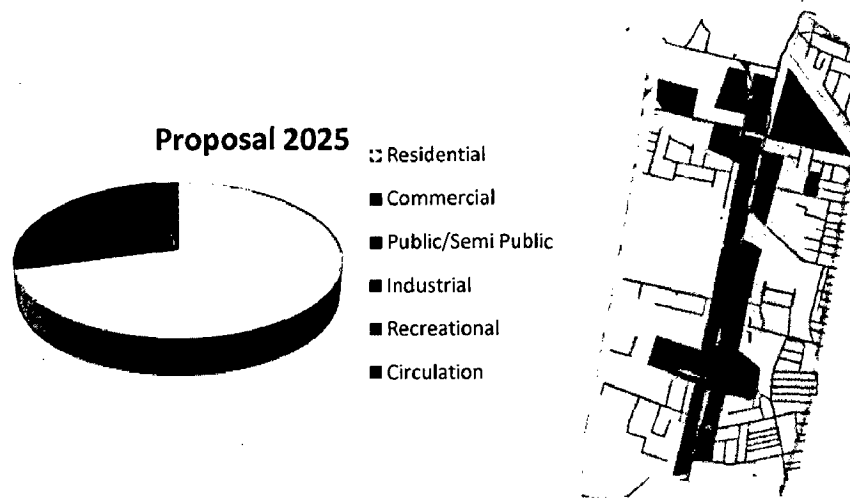
Area	1.8 km <sup>2</sup>
Land use	Predominantly residential
Development Authority	Jaipur Development Authority
Developed by	Private Developers, Rajasthan Housing Board
Present Density	102-267 pph
Income Group	Higher income group
Present land cost	Rs. 22500/ sq m
Average household tax	Rs. 736
Built Up Area	5%

**Table 5.7: Change in the Land use in the Master Plan proposals**

Source: Field Survey by the Author and Master Plan Proposals- 1991, 2011, 2025, Jaipur Region

Land Use	Proposal 1991	Proposal 2011	Proposal 2025
Residential	78.06%	70.70%	70.80%
Commercial	5.10%	8.10%	15.88%
Public	3.57%	18.80%	9.80%
Industrial	12.24%	1.20%	0.00%
Recreational	0.00%	0.00%	1.70%
Circulation	1.03%	1.20%	5.29%





**Chart 5.5: Percentage share change in the Land use in the Master Plan proposals**

*Source: Analysis from the Table 5.7*

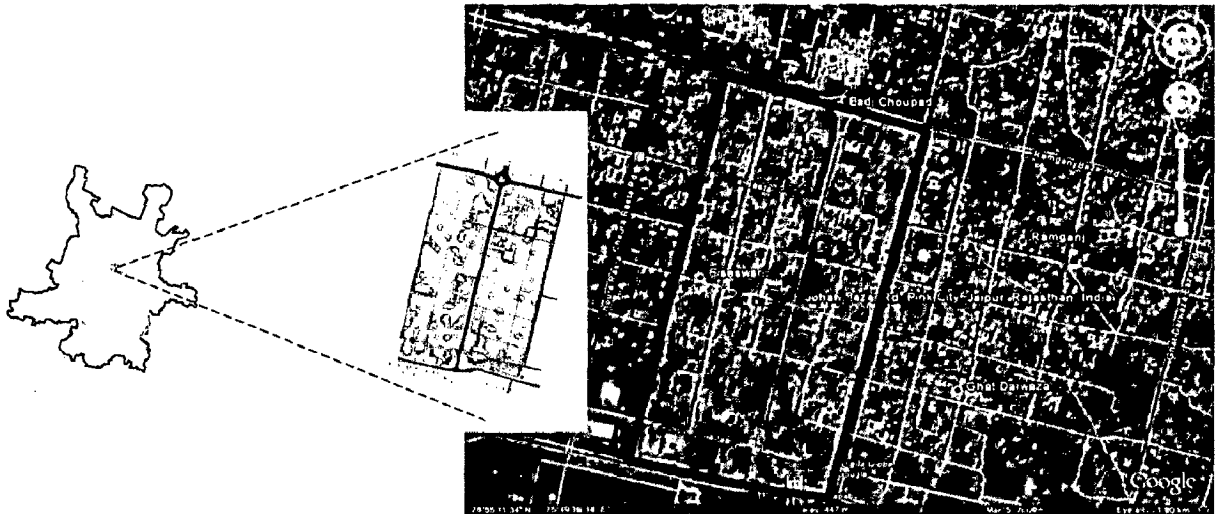
### Conclusions:

- Most of the housing is developed by RHB and the commercial development by the private developers, which has led to a good balance between the public and the private. The development is also very well planned and maintained with a good standard of infrastructure facilities.
- The urban development tax raised by this area is quite high because of the higher income groups inhabited by these colonies.
- This area has witnessed the highest increase in land value in the past few years because of the increase in the land values is increase in private sector participation in the supply of urban land. (Refer Chart 5.5)
- Though still the major portion of this area is still undeveloped, the hike in the land prices has made this area out of the reach of the lower income people.

### **III) The case of Johari Bazaar in the walled city area**

Area of Johari Bazaar was traditionally occupied by prosperous merchants and jewelers, who were settled there by the then king Sawai Raja Jai Singh. They built large havelis with a courtyard with well articulated interiors. Till 1985, in the selected case study area which is 0.9 km long and 0.6 km wide, the commercial shops were restricted to the front strip of the main road. (Refer Fig. 5.7) The area has undergone tremendous change. A large number of havelis have been subdivided into two or three properties resulting into conversion as residential and commercial complexes, and the front rooms on secondary roads are being converted into retail shops, private offices etc.

Excessive, uncontrolled and unchecked commercialization of the inner streets in the walled city has led to problems such as traffic congestion during the peak hours. Haphazard construction of shops has spoiled the cultural fabric of the city. Due to rise in the land prices and lack of infrastructure facilities especially the water supply people from walled city are moving out to the outskirts resulting into conversion of vacant houses into commercial areas. Various details regarding the case study area are given in Table 5.8 and Table 5.9.



**Fig. 5.7: Selected area of Johari Bazar for study**  
Source: Google Earth

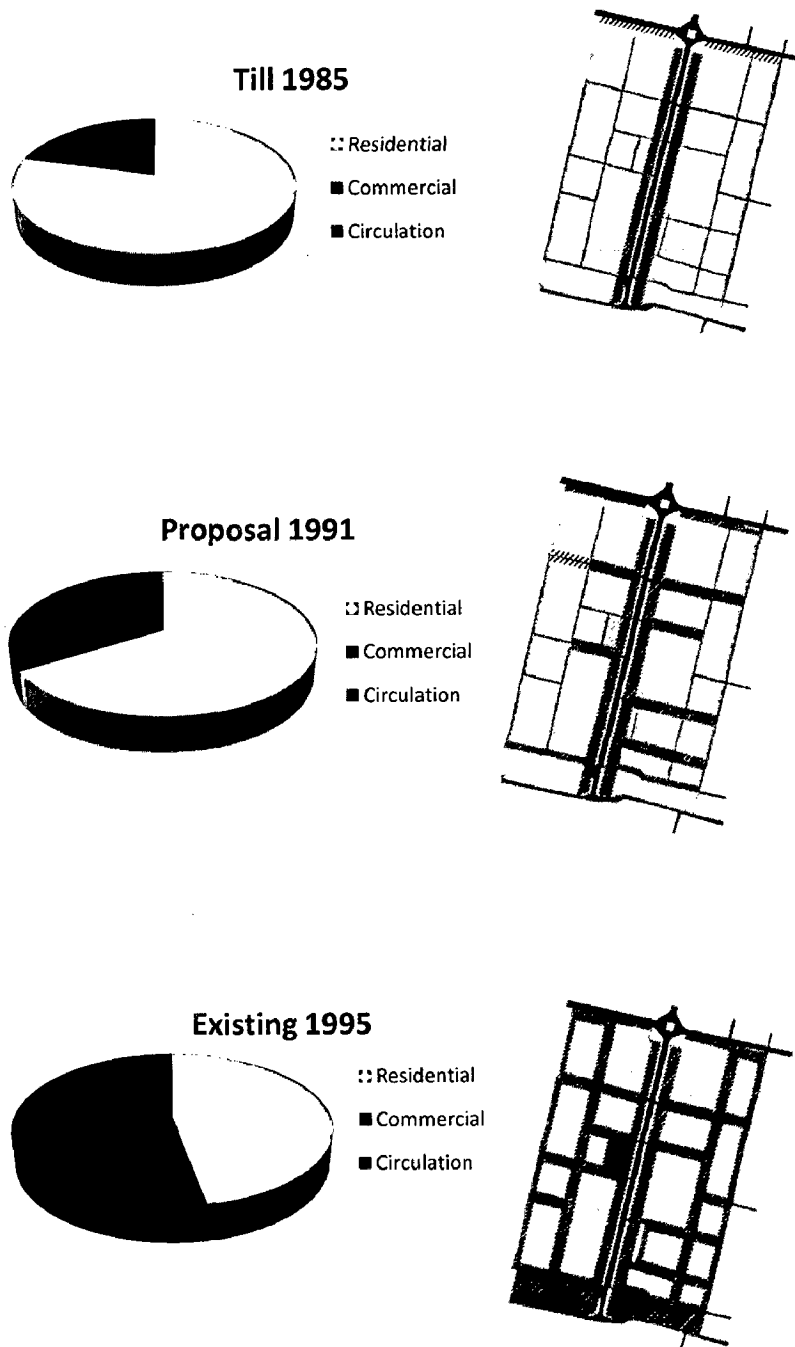
**Table 5.8: Details of the case study area III**  
Source: Field Survey by the Author

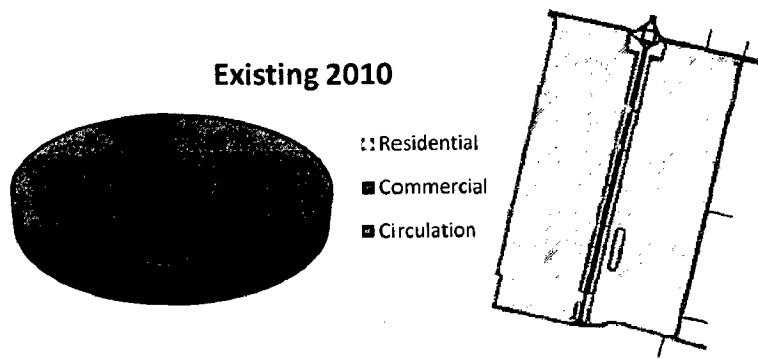
Area	0.54 km <sup>2</sup>
Land use	Residential converted to Commercial
Authority	Privately owned & Rented by JMC
Present Density	513-995 pph, >996 pph
Income Group	Middle income group
Present land cost	Rs. 11250/ sq m
Average household tax	Rs. 348
Built Up Area	58%

**Table 5.9: Change in the Land use in the Master Plan proposals**

Source: Field Survey by the Author and Master Plan Proposals- 1991, 2011, 2025, Jaipur Region

Land Use	Till 1985	Proposal 1991	Existing 1995	Existing 2010
Residential	79.29%	66.30%	47.10%	0.00%
Commercial	11.11%	24.10%	43.30%	90.40%
Circulation	9.60%	9.60%	9.60%	9.60%





**Chart 5.6: Percentage share change in the Land use in the Master Plan proposals**

*Source: Analysis from the Table 5.9.*

**Conclusions:**

- All the houses were privately owned and are now converted into shopping complexes or shops. (Refer Chart 5.6).
- The extreme high density and uncontrolled commercialization has led to congestion and degradation in the infrastructure facilities. There is hardly any open space left in this area.
- The people residing here have moved to fringes and other areas due to the poor infrastructure facilities and rising land prices.
- The urban development tax raised by this area is low than the expected, because there is a dispute between the shop keepers of the JMC rented shops and the JMC regarding the rent.































**IV) Infrastructure in the Study Areas**

**a) Infrastructural Analysis: Social Infrastructure**




**Table 5.10: Comparative Analysis of the Infrastructure Provisions of the selected case study areas.**
















Source: Field Survey by the Author

Sufficient       Insufficient   
 Good       Poor 

	I Area near Airport		II JLN Marg		III Johari Bazaar	
	Quantity	Quality	Quantity	Quality	Quantity	Quality
Education						
Medical facilities						
Bank						
Housing						
Shops						

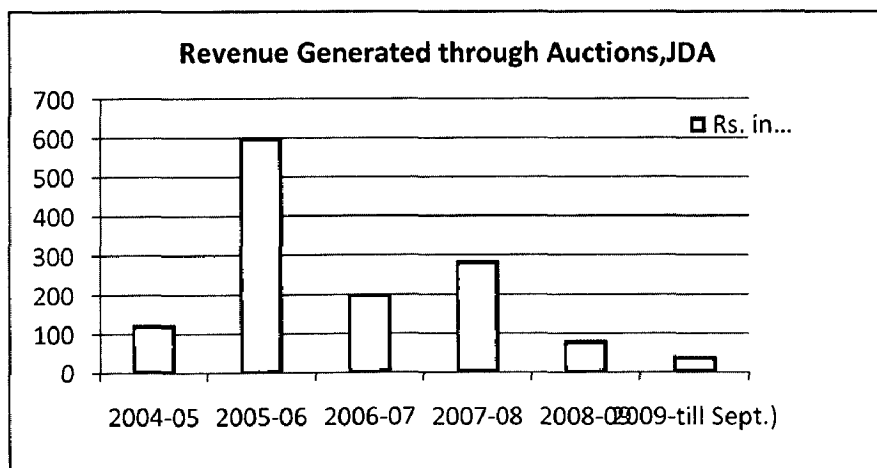
**b) Infrastructural Analysis: Physical Infrastructure**

Good       Sufficient       Poor 

	I Area near Airport	II JLN Marg	III Johari Bazaar
Road condition			
Water Supply			
Sewerage			
Solid waste disposal			
Drainage			

## 5.6 LAND DISPOSAL BY JDA

Land disposal by JDA is done under Section 54 of JDA Act, 1982 by means of Allotment, Auctions and Regularisation. JDA under JDA Act, 1982 develops residential / commercial schemes on JDA land or land acquired for the purpose of scheme. It allots developed land through a lottery system in different



**Chart 5.7: Revenue Generated through Auctions, JDA**

Source: Directorate of Revenue, Jaipur Development Authority

categories of societies (HIG, MIG, LIG and EWS). Vidyadhar Nagar was first JDA also auctions prime plots in all its scheme and also auctions government land for residential/ commercial use. [5] In past five years the total land being auctioned has increased drastically. Positive aspect of disposal of land by means of public auctions is that JDA is getting benefited in terms of revenue generated. (Refer Chart 5.7). The revenue generated is being invested in development of infrastructure facilities in Jaipur. JDA is able to both identify plots with large market demand and transforms that demand to extract the full financial benefit.

But this method for disposal of developed land has serious impacts on land markets. The land values have gone north since JDA has started massive disposal of land through public auctions. This is also helping private sector in developing a monopoly in land markets.

Under Regularisation, JDA regularizes unplanned residential colonies developed under Cooperative schemes. Till year 2005, 1044 colonies comprising of 7340 dwelling units had already been regularized by JDA. These colonies lack in basic social and physical infrastructure facilities and public amenities. [5]

### 5.6.1 Disposal of urban land through regularisation under 90-B

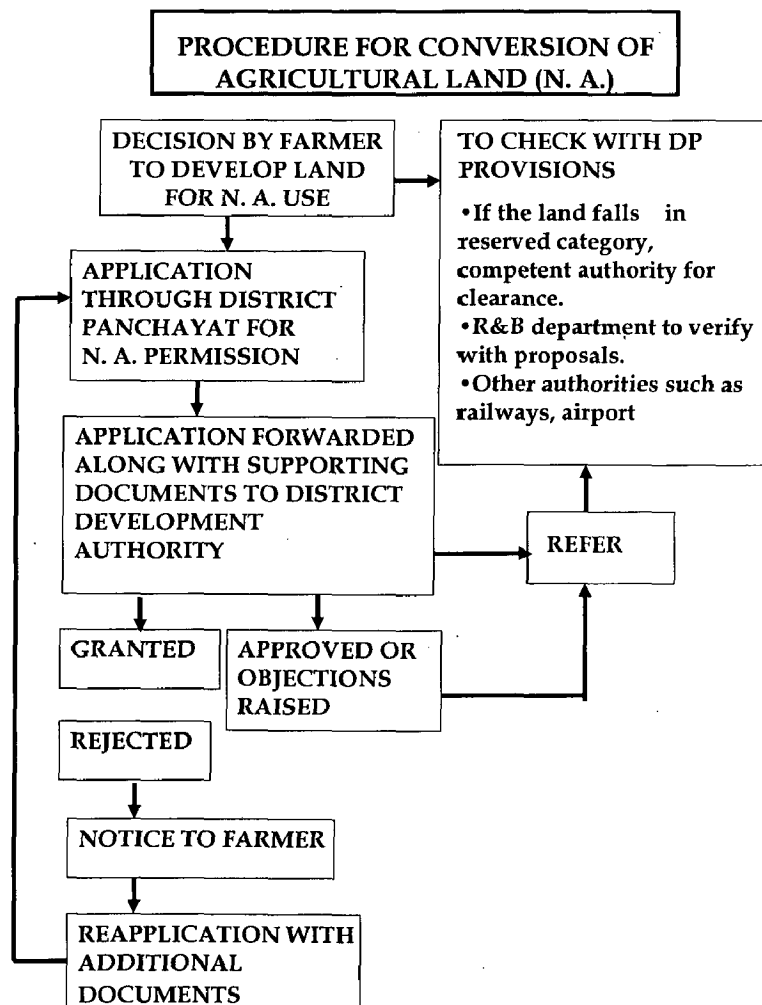
Rajasthan Land revenue code 1956 is the guiding act of the Rajasthan Government for Allotment, Conversion and Regularisation of agriculture land to residential commercial and public utility purpose in urban areas. The law restricts conversion of agriculture land to the proposed use does not conform to the land use indicated in the Master Plan of the area. In



such circumstances permission of change in land use has to be accorded from the competent authority, in this case it is JDA. [27]

Once a private developer plans to subdivide any parcel of land, he has to surrender the land to JDA. JDA after receiving the amount for regularizing the proposed scheme allots individual pattas (ownership right) to the individuals who have their land in the scheme.

Initially in master plan Jaipur urbanisable area was divided in 32 zones for sake of preparation of zonal plans. No criteria have been given in master plan for size or population of a planning unit. Presently JDA has divided Jaipur urbanisable area (2011) and areas surrounding it into 55 sectors and 12 Zones. These sectors are beyond the urbanisable limits specified in master plan 2011. Large scale conversion of agriculture land into private housing scheme under 90-B (Land Revenue Code) is taking place in these sectors. 90-B does not specify minimum plot size for land sub division. Subdivisions are approved by JDA under the Rajasthan Urban Areas Rules, 1975. There are presently no norms for reservation of social infrastructure areas and recreational areas in these sectors. (Refer Fig. 5.8).



**Fig. 5.8: Procedure for conversion of agriculture land to non-agriculture**  
Source: Office of Zone 11 and Zone 12, JDA

The regularization is predominantly in Zone 11 and 12 of JDA region of JDA Region, since these are the zones that comprise of the rural belt in the region.

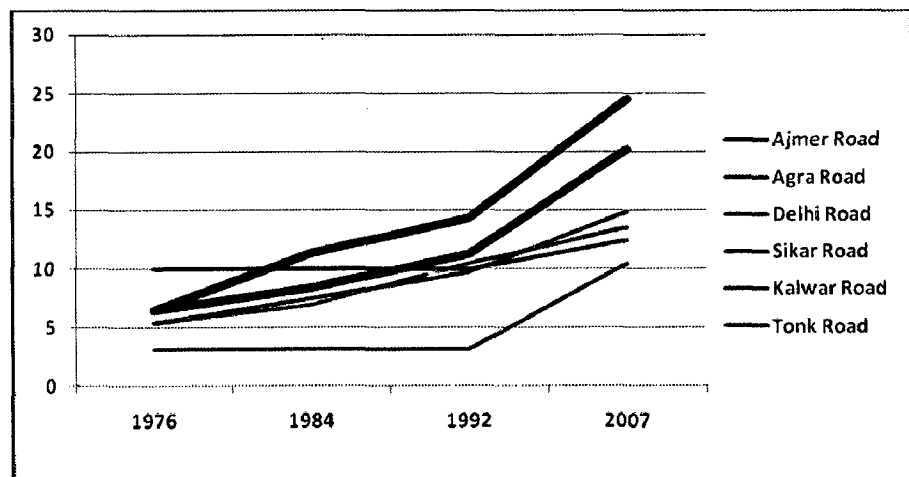
Total area converted from agricultural to residential land use under 90-B in Zone 11 and 12 = 6785 Ha in the past 5 years. Analyzing this situation the results that are achieved are:

- Total area converted= 6785 Ha.
- Total population (gross density 130p/ Ha, as proposed in 2011 Master Plan) = 8,82,050
- Average size of plot approved for subdivision= 16.75 or 17 Ha approx. which serves 2210 persons of population per sub division.
- All these areas were approved without taking care of any social or physical infrastructure.

## 5.7 LAND MARKET IN JAIPUR

There has been a steep rise in land values in the Jaipur city after 2001. Average residential land value in Jaipur in 1998 was Rs. 3000/ Sq. m. But in last five years land values have increased more than double. The average residential value in Jaipur nowadays is around Rs. 7000/ sq m.

The main reason that can be contributed to continuous increase in land values is increase in private sector participation in supply of urban land. As already stated that land



regularization under section 90 B has promoted

**Chart 5.14: Growth from the City Centre along Major Roads over the Years in km**

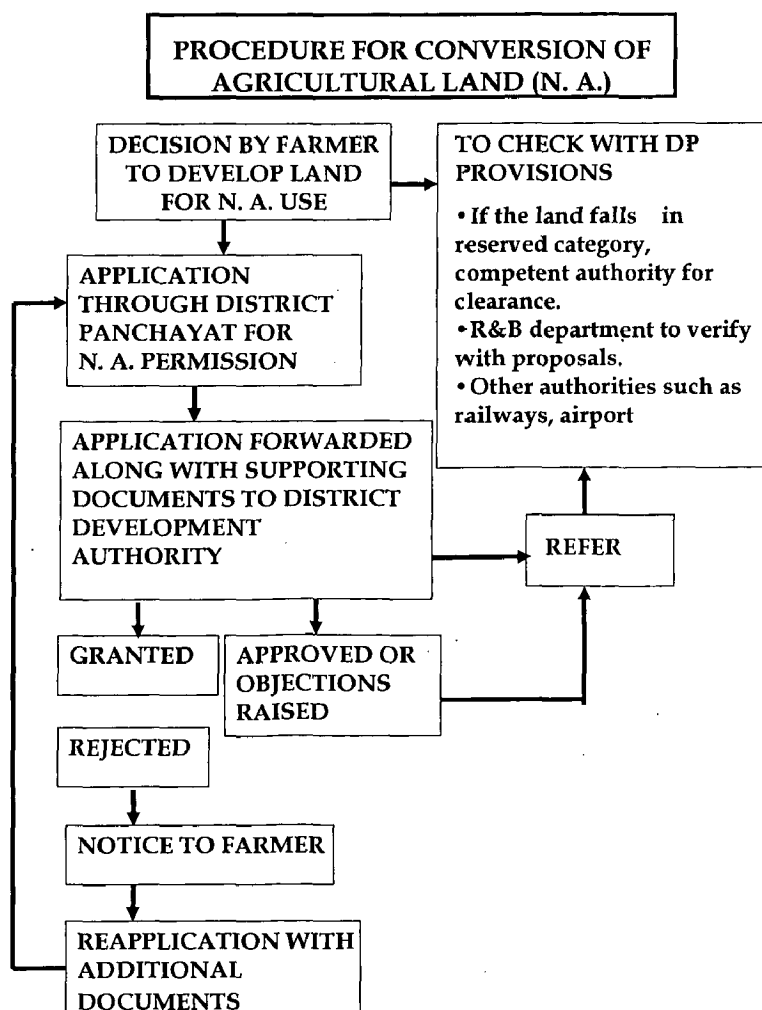
Source: Draft Master Development Plan 2025, Jaipur Region

conversion of agriculture land into residential/ commercial land, this has lead to uncontrolled expansions of urban areas. The highways are the lifelines or attracting developments. (Refer Chart 5.14).

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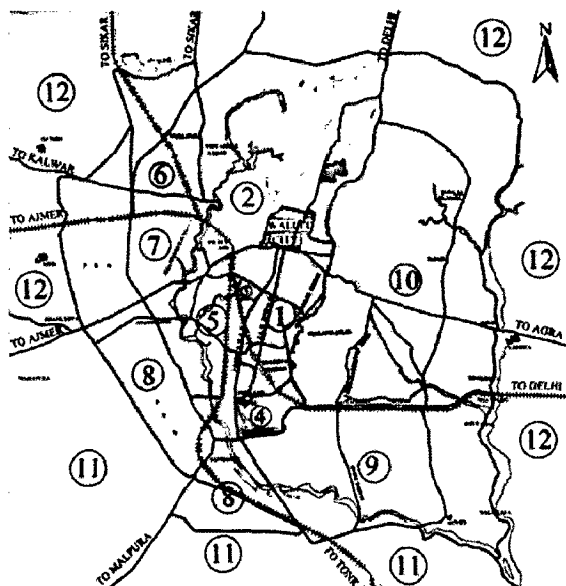
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**Fig. 5.8: Procedure for conversion of agriculture land to non-agriculture**

Source: Office of Zone 11 and Zone 12, JDA

The impact of the 90-B on the overall development scenario is that private sector is now a major component in supply of serviced land in Jaipur. Since the 90-B Act came into enforcement, there has been a large scale residential development in the areas in and around the urbanisable limits. An illustration of this activity is shown through Table 5.11. A Zonal Plan of Jaipur is shown in Map 5.2.



Map 5.2: Zonal Plan of Jaipur

Source: <http://www.jaipurjda.org/>

Table 5.11: Land Regularized under 90 B (Land Revenue Code), Zone 11 and 12

Source: Office of Zone 11 and Zone 12, JDA

Land Regularized under 90 B (Land Revenue Code) Zone 11 and 12				
Year	Area in Hectare		No. of permissions	
	Zone 11	Zone 12	Zone 11	Zone 12
2004	1.03	NA	3	NA
2005	847.15	102.22	87	1
2006	264.59	413.6906	53	10
2007	341.26	2770.36	129	13
2008	234.54	102.07	102	7
Total	1688.60	5096.29	374	31
	3.4% of total area of the area of Zone 11	10.2% of the total area of Zone 12		

Total area zone 11= 48796 hectares

Total area zone 12= 50205 hectares

The regularization is predominantly in Zone 11 and 12 of JDA region of JDA Region, since these are the zones that comprise of the rural belt in the region.

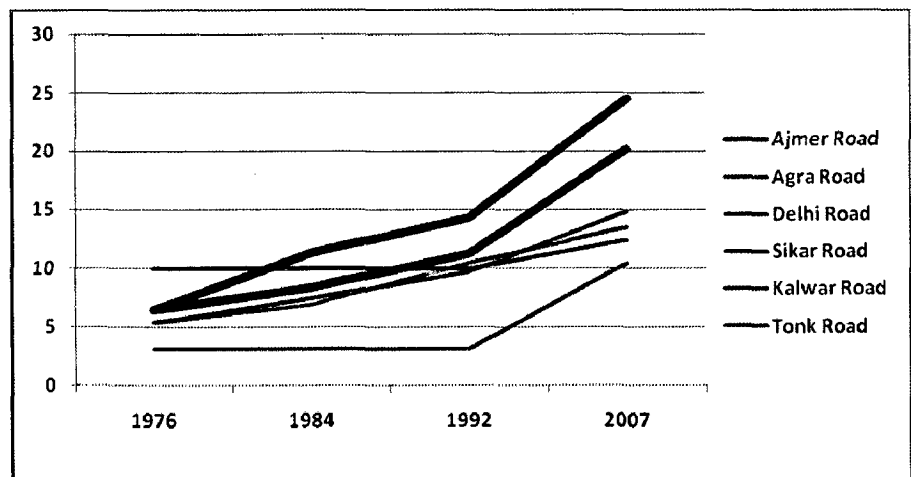
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Source: Draft Master Development Plan 2025, Jaipur Region

conversion of agriculture land into residential/ commercial land, this has lead to uncontrolled expansions of urban areas. The highways are the lifelines or attracting developments. (Refer Chart 5.14).

Hence, the major areas that have witnessed conversion of land use are the areas along major transport corridors. Land value on the south western parts of Jaipur i.e. along the Ajmer road has increased to 200%-300% since 2001. Within the city, JLN Marg and the walled city have witnessed highest increase in land value. In Jaipur city area, presently one Sq. m. land costs at least between 5,000/- to 7,000/-. (Refer Table 5.12). One main reason that can be attributed for this sudden hike in land values is involvement of real estate developers in providing developed land.

Since 2002, numbers of private townships have come up in Jaipur. They are mainly along Ajmer Road, Kalwar Road, Kota Road and Sikar Road. Private townships (OMAX, VATIKA) and Mahindra SEZ are acting as a catalyst in land market.

**Table No. 5.12: Residential Land Rates in selected locations of Jaipur**

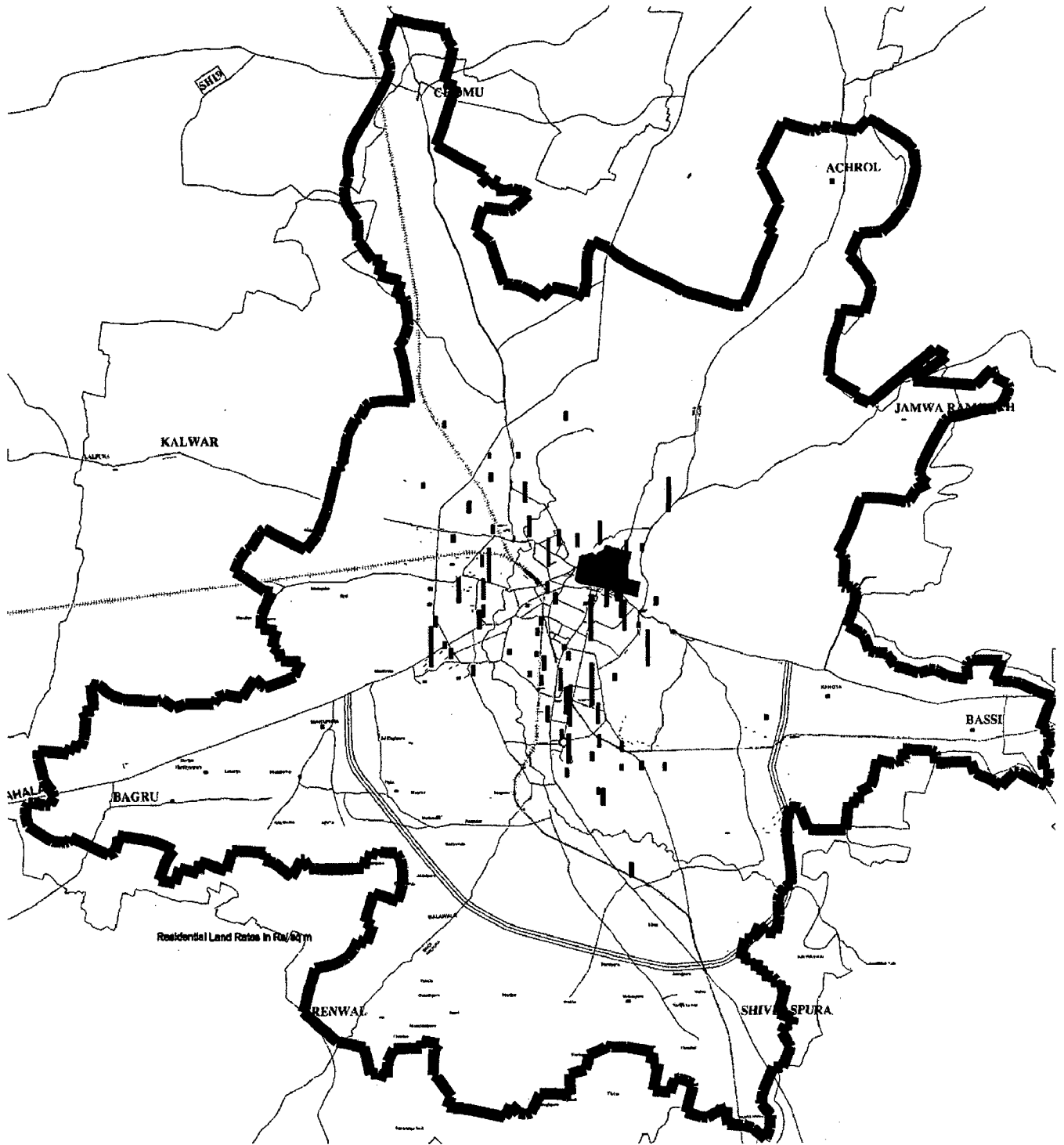
Source: DLC Rates, Registration and Stamps Department, Government of Rajasthan

	LOCATION	Residential Land Rates in Rs./ m <sup>2</sup>						
		2003	2004	2005	2006	2007	2008	2009
1	Ashok Nagar	500	1200	1200	1200	1320	1600	2000
2	Lakshmi Nagar	1000	1100	1100	1100	1210	1500	1880
3	Nahargarh	12000	12000	12000	12000	12000	12000	12380
4	Udyog Nagar	1500	1500	2000	2000	2200	2650	3320
5	Suraj Nagar	1500	1800	1800	1800	1980	2400	3000
6	Sindhi Colony	1500	1600	1600	1600	1760	2200	2750
7	Agrasen Nagar	2000	2000	3000	5500	6000	6600	8250
8	Rajendra Nagar	700	750	750	750	850	1200	1500
9	Ajmer Road(Vaishali Nagar)	3000	7000	7000	8000	8800	11000	13750
10	Amba bari	7000	5000	7000	7000	7700	9250	11570
11	Chomu House	3000	3200	4000	4000	4400	5000	6250
12	Johari Bazar	5700	5700	6500	7000	7700	9000	11250
13	Ramganj Bazar	10000	11000	13000	13000	14300	18000	22500
14	City Palace	2500	2500	2700	3500	3850	4500	5630
15	Adinath Nagar (JLN Marg)					14300	18000	22500
16	Transport Nagar	2000	2000	2500	3500	3850	3850	4820
17	Hanuman Nagar	2500	2500	6000	7000	7700	9500	11800
18	Bais Godam Katchi Basti	2000	2000	2000	2500	2750	3300	4130
19	Doctor's Colony	2500	5500	5500	5500	6050	7300	9130
20	Malviya Nagar		5500	5500	9000	9000	9000	11250
21	Govind Nagar	2000	2000	2200	2200	2200	2200	3750
22	Shastri Nagar	4000	4500	4500	5500	6050	7250	9070
23	Vidyadhar Nagar	3000	3000	4500	7000	7700	9250	11570
24	Ambedkar Nagar	2000	2500	2500	3200	3850	3850	4820

25	Pratap Nagar	2700	2700	4000	5000	5500	6600	8250
26	Bagru					1125	1125	1410
27	Achrol	600	600	900	900	900	2050	2600
28	Jamwaramgarh					380	540	690
29	Bassi					1320	1320	1650
30	Kanota					1200	1200	1500
31	Murlipura					720	720	900
32	Renwal					530	640	800

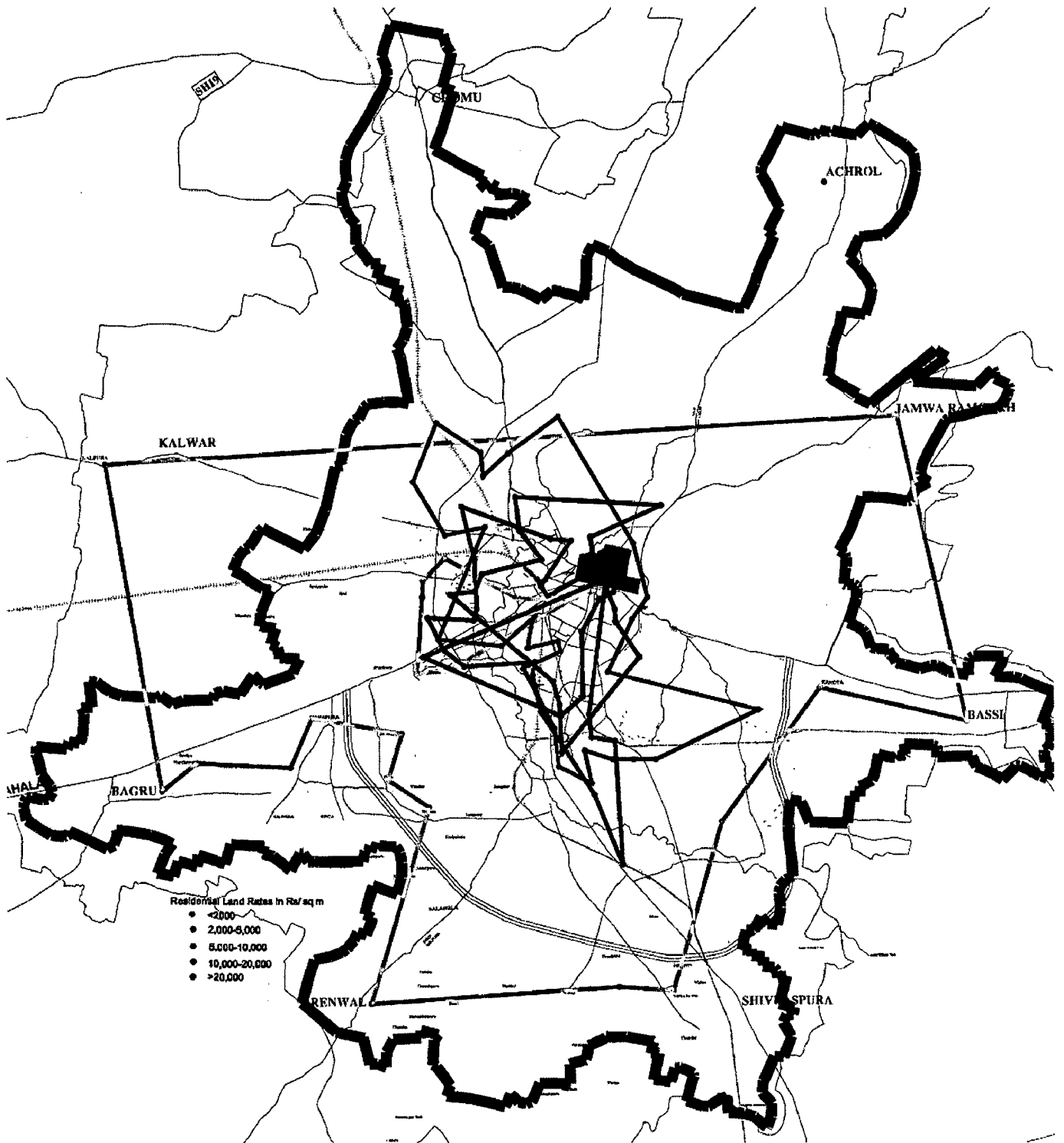
A study of the land rates in the Jaipur has been made to analyze the land rates pattern in the entire region. In total, 94 locations are chosen and marked on the map in five different ranges of residential land values ranging from Rs.700 per sq m to Rs. 28000 per sq m. (Refer Map 5.3 and Map 5.4). The factors responsible for the variation in the land markets have been studied and are summarized below:

- The land rates keep increasing concentrically as we move towards the centre or core area of the city.
- The land rates in and around the walled city area are quite high (more than Rs. 20,000 per sq m) because of the excessive commercialization and its role as the Central Business District of Jaipur city, though this area is over congested and lacks in infrastructure facilities.
- The area where the private developers are active for residential development in the form of townships or other schemes, have either the highest or very close to the highest land prices (ranging between Rs.10,000 per sq m and Rs. 20,000 per sq m). For eg. JLN Marg where major projects like World Trade Park is proposed or the area towards the south of Jaipur city, where maximum number of private township projects are proposed.
- The areas along major transport corridors, national highways and proposed ring road also have high land rates.
- The satellite towns are having the lowest land prices (less than Rs. 2000 per sq m), except Achrol where a major project of Sports city has been proposed.
- The areas having high land rates also have sudden drop- off in the rates at specific locations due to the formation of slums and Katchi basties.
- The areas where land has been auctioned, have witnessed a major hike in the land prices.



**Map 5.3: Land Rates Pattern (Residential) of selected 94 locations of Jaipur**  
*Base Map: Courtesy Jaipur Development Authority*





**Map 5.4: Land Rates Pattern (Residential) among the selected 94 locations of Jaipur**  
*Base Map: Courtesy Jaipur Development Authority*

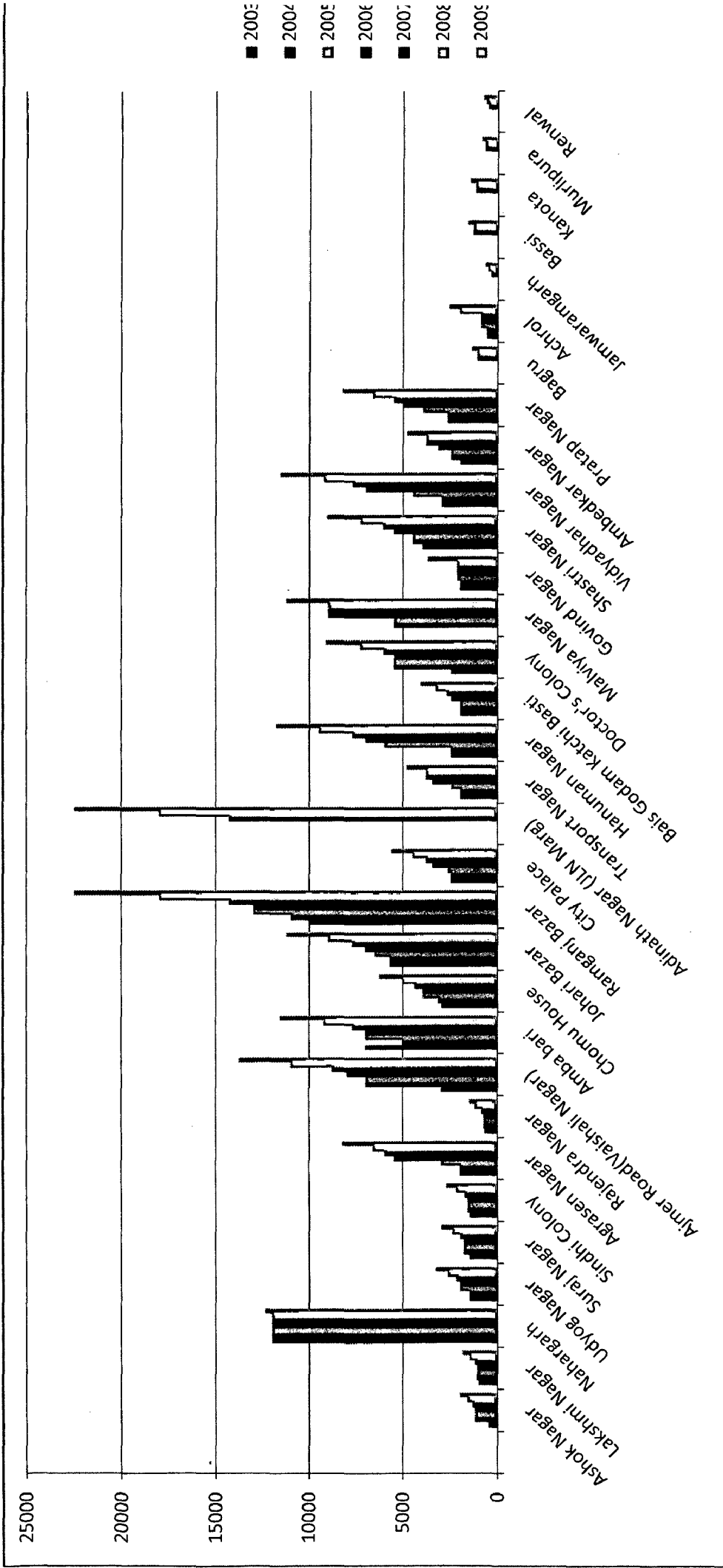


Chart 5.15: Change in the Residential Land Rates in selected locations of Jaipur in the past years  
 Source: DLC Rates, Registration and Stamps Department, Government of Rajasthan

## **5.8 LAND DEVELOPMENT IN JAIPUR- RESIDENTIAL SECTOR**

### **5.8.1 Public Sector**

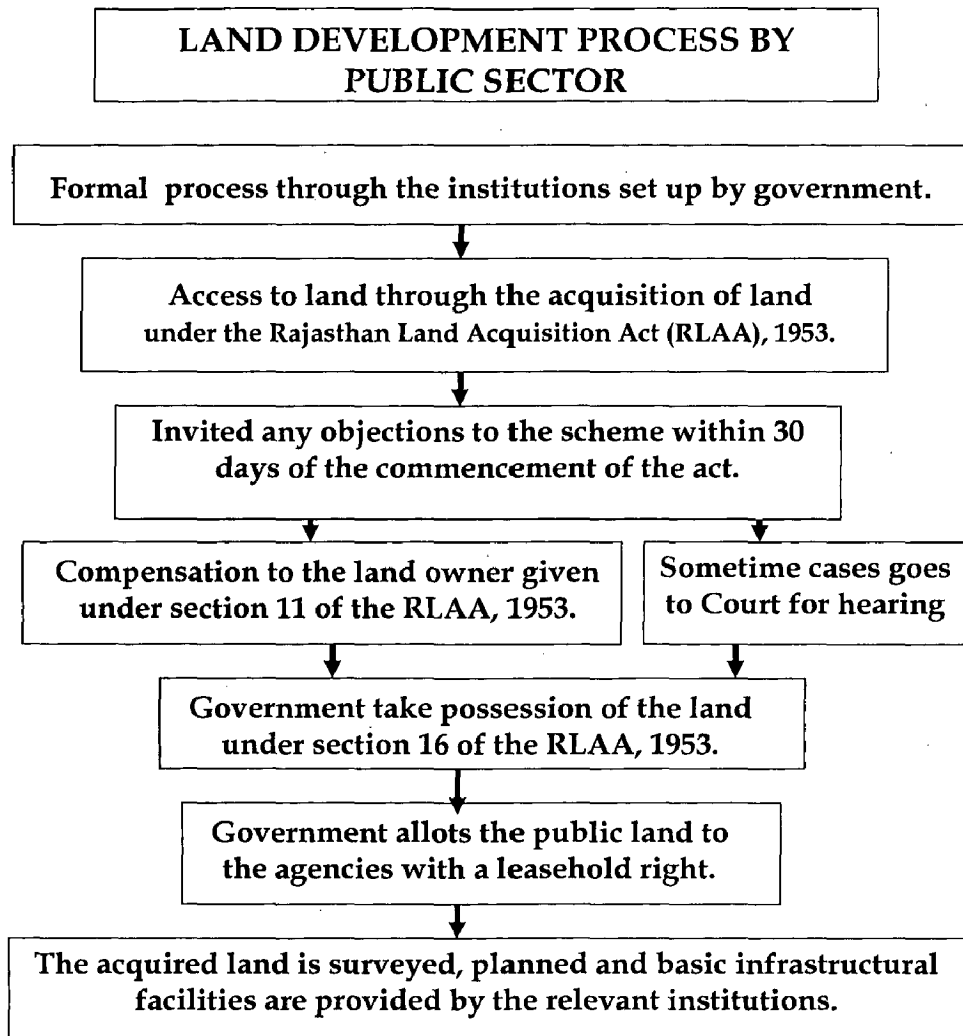
Public control on urban land is required for following purpose

- To make land available for public purposes like roads, parks and open spaces and community facilities
- For orderly development of a city as it expands
- To have access to land for shelter and employment for various income categories

The process is formal in nature and is carried out through the institutions set up by the Government. This sector has been responsible for the development and control of land up to the time of partition but in the following period, the sector could not cope with the rapid urban growth and was able to provide only 1/5th of the required dwelling units. The processes of all public agencies or institutions are similar in nature. <sup>[9]</sup>

The process starts with the establishment of the institutions to do the assigned task. Access is made to land through the acquisition of land with notification as per the concerned agencies statutory provision and under the Rajasthan Land Acquisition Act (RLAA), 1953.

When the access to land for the relevant public institution is made through allotment, the process is easier, the Government allots the public land "Abadi / Nazool" to the agencies with a leasehold right. The acquired land is surveyed, planned and basic infrastructural facilities are provided by the relevant institutions. A detailed site plan is prepared for construction and the civic amenities. In each activity, numbers of agents are all seen to be following the process lawfully. (Refer Fig. 5.10).

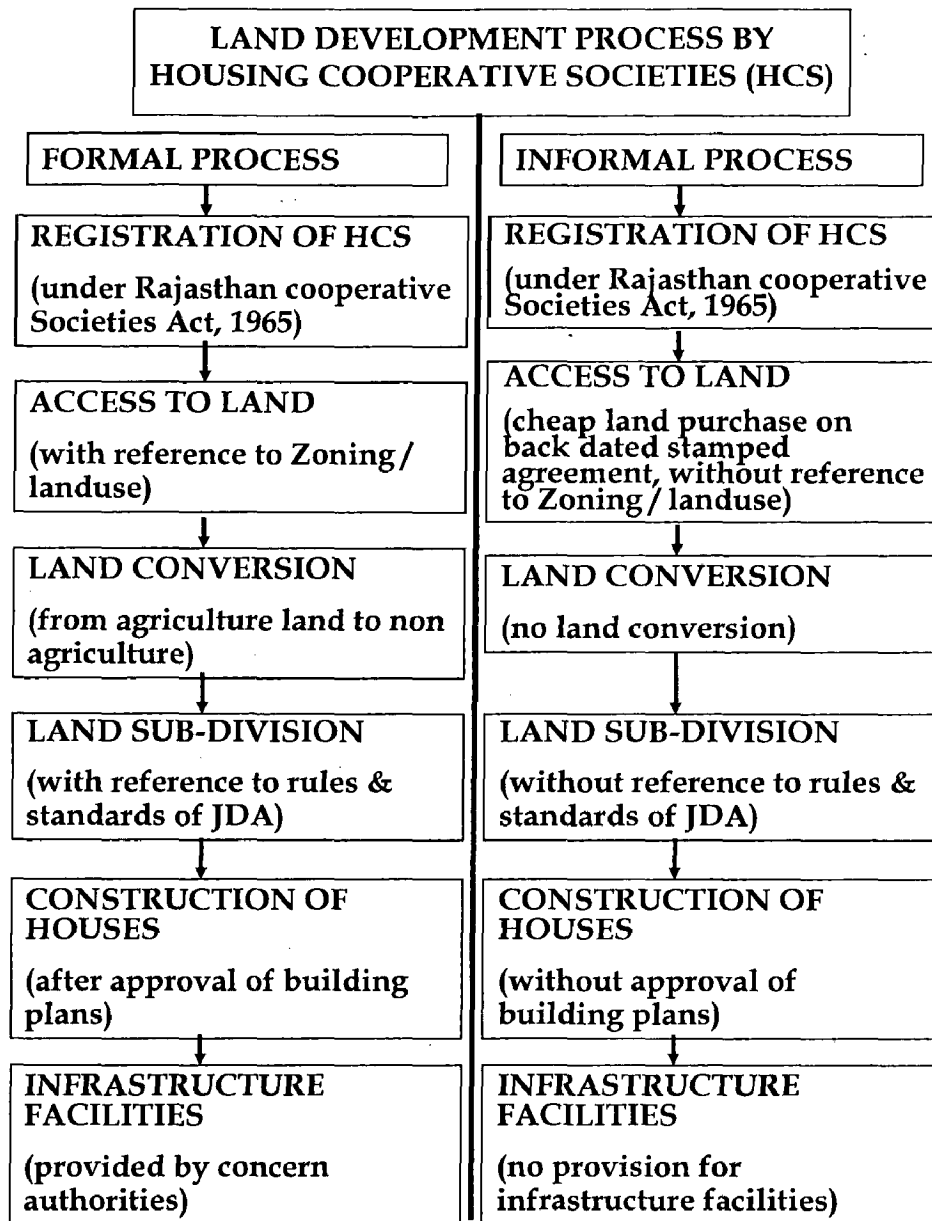


**Fig. 5.10: Land Development Process by the Public Sector**  
 Source: Jaipur Development Authority

### 5.8.2 Cooperative Sector

Since the last 60 years, the Government has promoted the cooperative movement through statutory enactments. The objectives of the movement have been to encourage thrift, self-help and cooperation. The first act was passed on March 25, 1904. It was followed by the 1912 Act of cooperatives, which provided a legal base to formulate urban as well as service cooperative societies. In Rajasthan, the first cooperative Act was enacted in 1953, following the objectives of the Central Cooperative Acts of 1904 and 1912, which was amended in 1965. The cooperative movement is based on 'welfare' and 'self-help' principles as embodied in the slogan "We for all-all for us". However, in Jaipur in the name of the movement many groups have taken an unfair advantage to further them. (Refer Fig. 5.11).

The Housing Cooperative Societies (H.C.S.) since 1953 have sub-divided about 16,800 acres of land equal to half of total developed land of the metropolis. [27]



**Fig. 5.11: Land Development Process by Cooperative Societies**

Source: Primary Survey

The private developments in the form of Kachhi Basties as well as Housing co-operative societies contribute to about 40% of the housing stock; having poor quality of housing. However, the colonies developed by the RHB, UIT, JDA as well as government agencies have good quality of housing supply in Jaipur mainly includes traditional housing of old city, colonies of JDA/UIT/RHB, private developers co-operative housing societies and slums. [9]

### 5.8.3 Housing Supply

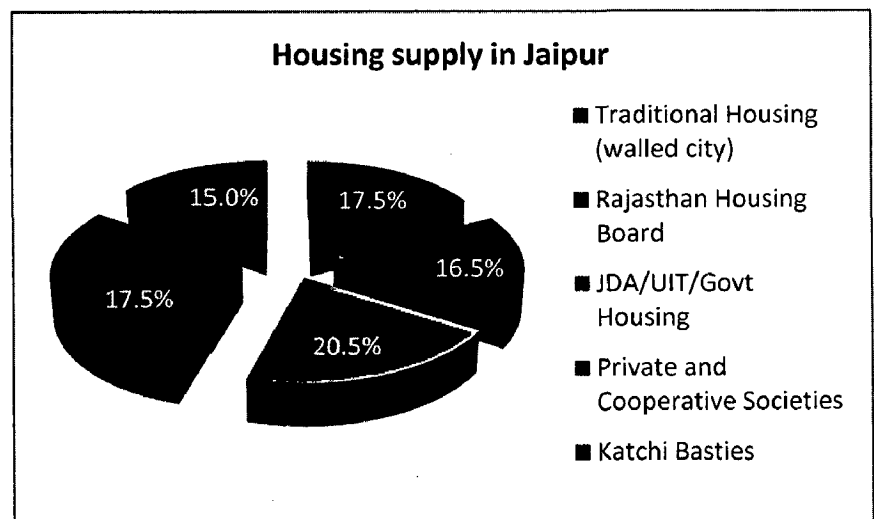
In Jaipur RHB has already developed seven major colonies providing about 61,385 houses to various income groups; out of the above 26.6% houses were for EWS, 21.83% for LIG, 42.12% for MIG and 9.45% for HIG people. The total housing stock provided by UIT upto 1981 was 23020 and afterwards JDA has taken up its schemes namely Vaishali Nagar, Vidhyadhar Nagar, Lalkothi Scheme, Muralipura Scheme, Malaviya Nagar Scheme, and Triveni Nagar Scheme. The housing co-operative societies had purchased most of the urban land and have sold out flats to the people. Due to this JDA could not acquire land for taking up many more schemes.

The private speculators have purchased agricultural land and sub divided it into residential plots without approval from planning authority. The layout plans are just prepared without any planning norms having narrow lanes and lack of space for community facilities. More than 1500 housing schemes / colonies have been registered by the co-operative societies providing more than 1.50 lakhs plots. These societies have not only swallowed the urban area but a large part of green belt of the Master Plan proposals. <sup>[9]</sup> (Refer Chart 5.11).

The housing shortage for 2001 is 144,042 and is expected to reach 2, 78,412 by 2025. The city has a slum population of 3, 68,670 persons accounting for 15.87% of the total population. The city slum population when compared to Rajasthan population shows that the 28.48 percent of the state slum

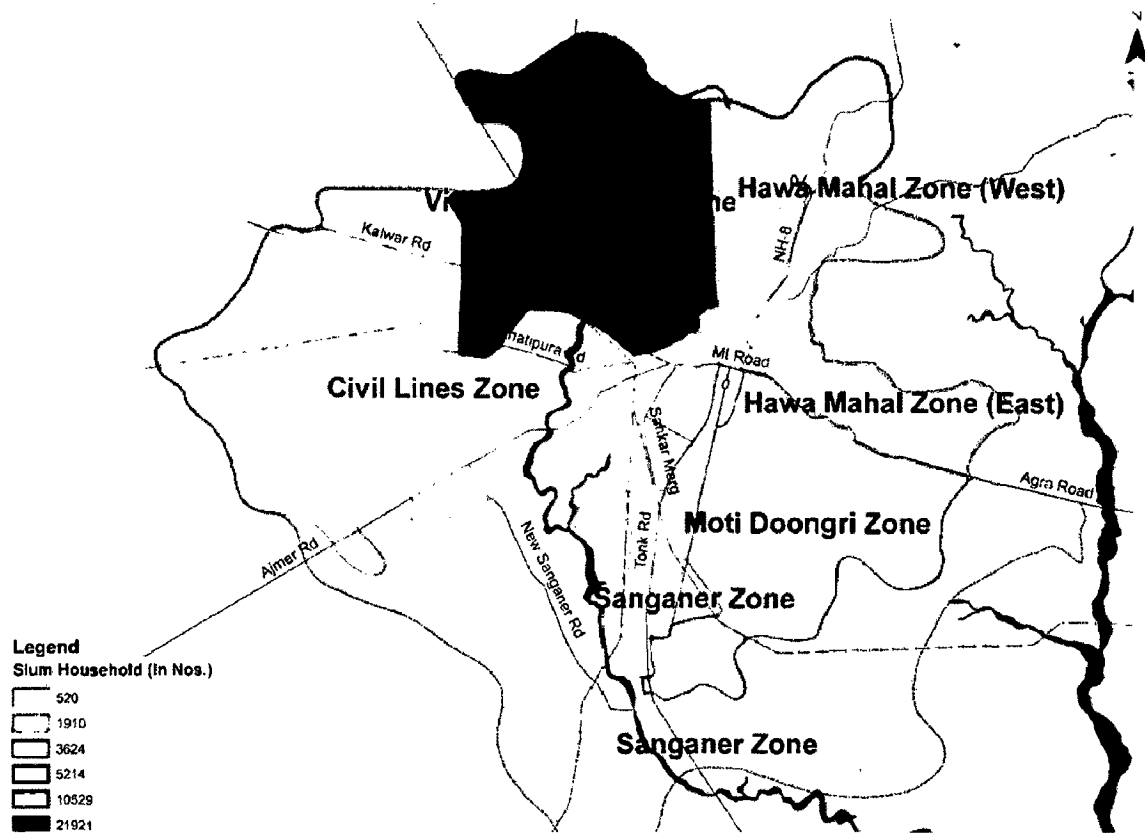
dwellers are residing in Jaipur. The fig. no 5.17 represents the slum

density of the Jaipur Municipal Corporation area. The largest proportion of slum dwellers is in Vidyadhar Nagar Zone followed by Hawa Mahal East (that includes the walled city). Refer Fig. 5.12.



**Chart 5.11: Percentage share of various agencies in housing supply in Jaipur**

Source: Census of India, 2001



**Fig. 5.12: Slum Density in Jaipur Municipal Corporation area**  
Source: City Development Plan

## 5.9 CONCLUSION

The land development has never been in accordance with the master plan. The problem of unplanned growth and urban sprawl has always interfered with the successful implementation of the master plan. In addition the master plans have never been worked out in much detail so as to give clear directions for future growth at micro level.

Acquisition of Land has not been a success story till date in Jaipur. The process of land acquisition is long and invites for more litigation because of low compensation being paid. The new approach Acquired Acquisitions Mechanism, which deals with providing 25% of developed land against the award, is also low. The techniques need to be worked out considering the market value of the land and the loss which is being acquired.

In Jaipur private sector has contributed maximum in terms of supply of developed land. The private sector is acting as a major market force. The section 90B on one hand has facilitated supply of urban land but at the same time has proved to be a big failure in terms of a

sustainable and planned development. This has come out as a major bypass to the existing master plan for Jaipur. No provisions of city level infrastructure facilities have been kept while giving permission for development under 90B.

Land auctioning has also proved to be beneficial in increasing revenue of Jaipur Development Authority. But this also has drastically affected the urban land market scenario. The study reveals that areas where land has been auctioned the land values have increased manifolds.



## ISSUES AND POTENTIALS

The entire analysis can be summarized in terms of certain issues related to land management and the merits and demerits pertaining to these issues.

### 6.1 LARGE SCALE CONVERSION OF AGRICULTURAL LAND TO RESIDENTIAL / COMMERCIAL LAND WITHIN AND OUTSIDE URBANIZABLE AREA.

After formation of the JDA the Master Plan has become a document deemed to be prepared under the JDA Act. In the JDA act there are specific provisions regarding change in land use after approval plan comes in force. A large number of land use changes have been made by JDA under these provisions.

#### 6.1.1 Merits

1. Increase in investment from private developers.

Since getting land use conversion is very easy in JDA region, a number of private developers have invested heavily in land markets. This has turned the entire land market of Jaipur into a very profitable investment. This has also attracted developers from outside the state. (Refer 4.2.7, 5.7)

2. Availability of developed land in land market.

Involvement of Private sector in Land market has increased developed land available in Jaipur. As we have already seen that public agencies pertaining to availability of developed land for residential and commercial development have failed miserably in meeting the demand for land. (Refer 5.7)

3. Involvement of private developer reduces compulsory Acquisition of land for housing.

Compulsory acquisition through Land Acquisition Act. 1892, has always been a very cumbersome process. Public litigations causes delay in project thereby causing increase in project costs. At the same time the person whose land is acquired is always at the losing end. In Jaipur, private sector is very actively involved in land acquisition through

negotiations with the farmers. In this process there are apparently no litigations and availability of serviced land also matches with the demand. (Refer 5.4, 5.8.1 and 5.8.3)

### 6.1.2 Demerits

1. Rapid increase in urban area of Jaipur.

Large scale conversion of land use has led to rapid increase in urbanized area of Jaipur. Since the conversion of land use is not confined within the urbanisable limits of Jaipur city, the entire Master Plan has failed miserably. In terms of residential or infrastructure facilities in these areas, there is hardly any development. (Refer 4.2.1 and 4.2.7)

2. Land speculation.

Private developers for housing development are buying land in rural areas. The villagers too for better price and a faster transaction compared to government agencies sell their land to these developers. This is resulting in speculation by creating a false escalation in demand and price of land. (Refer 4.2.7)

3. Developmental activities concentrated in and around Jaipur.

Conversion of land use norms has invited large scale development in Jaipur but all the development activities are confined within the existing city within a specific radius. There is hardly any development in the other towns in the region. The entire region lacks in an integrated development approach. (Refer 4.2.5 and 5.6.1)

4. Haphazard and unplanned growth.

Development in the areas beyond Master Plan boundary is not bound by any development control regulations. In terms of provision of basic infrastructure facilities and social infrastructure, there are hardly any. The entire growth is a haphazard development. While giving permissions for conversion of land use no detailed guidelines are issued for development of the entire area in a sustainable manner. (Refer 5.6.1)

5. Bypassing of master plan

The entire process of conversion of land use has diluted the authoritative power of Master Plan. Conversion of Land use is a direct bypassing of legal framework of Master Plan for an integrated development of Jaipur. (Refer 5.5.1 and 5.6.1)

## 6.2 REGULARISATION OF PRIVATE HOUSING SCHEMES UNDER 90-B OF RAJASTHAN LAND REVENUE CODE.

Rajasthan Land Revenue Code, Section 90-B facilitates private developers to assemble land, subdivide it and get it regularized it by JDA on payment of certain charges.

### 6.2.1 Merits

#### 1. Increase in investment from private developers.

This process of subdividing land and getting it regularized has invited large scale development of housing schemes within and outside Master Plan boundary. There has been huge investment from private sector in development of such housing schemes. (Refer 5.6.1)

#### 2. Availability of housing plots

The process of getting approval of housing schemes under 90-B has substantially increased supply of housing. Residential plots are easily available within a radius of 25kms from Jaipur core city. (Refer 5.6 and 5.7)

### 6.2.2 Demerits

#### 1. No provision of city level social infrastructure, public and semi public areas and recreational areas.

This section of land revenue code does not give detailed guidelines for development of housing schemes. All the plots brought in by private sector for regularization to JDA are treated as isolated units for getting approval.

JDA has divided its Zones into number of sectors. Residential colonies in these sector are being approved under 90-B. Each sector is supposed to cater to a population of 1.5-3 lakhs (considering a gross density of 130Ha.). But there are no provisions kept for city level infrastructure in these sectors. (Refer 5.6.1)

#### 2. Bypassing of Master plan.

As already mentioned this act is also a direct bypassing of legal authority of Master Plan. (Refer 5.6.1)

#### 3. Investment driven land market rather than end user market.

The entire land market in Jaipur is a Capital and an investment driven market rather than an end user market. People are investing in land not to construct a house but to maximize their returns on the investment.

4. Occupancy hardly 1% in fringes

There is hardly any agriculture land left in the fringe areas at some distance from urbanisable limits in the south and west of Jaipur city. The entire land has been converted into residential areas/ commercial areas. But in terms of development on the ground there is hardly any. Occupancy rate is not more than 1 % in these areas.

(Refer 4.1.7)

5. Haphazard development as mentioned earlier.

### 6.3 AUCTIONING OF PLOTS AS A PART OF LAND DISPOSAL POLICY OF JDA UNDER THE JDA ACT, 1982.

A large part of land in the JDA area has been procured from the agricultural land owners under the land bank scheme. This land is auctioned by JDA at competitive prices as a profit venture.

#### 6.3.1 Merits

1. Biggest source of income for JDA.

JDA is making huge profits by auctioning government land under Land disposal policy of JDA Act, 1982. This money can be invested in various development works and provision of infrastructure. (Refer 5.6)

2. Identification of market demand.

JDA is able to identify plots with large market demand and transforms that demand to extract the full financial demand. (Refer 5.6)

#### 6.3.2 Demerits

1. Adverse effects on land markets. Sky rocketing of land values.

Disposal of land through auctioning has an adverse effect on land markets. The plots are generally auctioned at a price more than the existing land values in the area. But after the auctioning prices of land in the entire area shoots up. This has caused the market to change from an end user land market to a capital land market. (Refer 5.6 and 5.7)

2. Monopoly of private developers in land market.

By auctioning of plots the entire land market is governed by private real estate developers. (Refer 5.6)

3. Entire government land will be auctioned out in a span of few years leaving no land for future development.

Under the land bank scheme recently launched by JDA, all the government land has been identified in the JDA region. JDA intends to auction out this entire land in a span of two years. This will affect the growth and development of Jaipur in near future. The land auctioned to private developers will govern the entire growth of region. There will be hardly any role of JDA and other public agencies left out in land management issues.

4. Social housing suffers.

Since, the private developers and upper income class people manage to bag most of the land; people of lower income class and economically weaker section don't get benefitted by this policy. (Refer 5.6 and 5.8)

#### **6.4 ALTERNATIVE ACQUISITIONS MECHANISM, i.e., 25% OF DEVELOPED LAND AGAINST THE AWARD PAID FOR COMPENSATION.**

To facilitate the process of acquisition of land for development works Rajasthan Government has proposes a draft scheme for acquisition under which the owner whose land comes under acquisition plan will be given 25% of developed land in the same scheme or in close vicinity.

##### **6.4.1 Merits**

1. Reduce in time for acquiring of land for development works due to less of litigation.

In any acquisition process maximum time is consumed in getting litigations cleared from the court of law. This proposal intends to cut short time wasted in getting litigations cleared. (Refer 5.4)

2. The affected person can get land against the acquisition in the same area or in close proximity from the JDA land bank.

This proposal will be a beneficial tool in resettlement and rehabilitation of project affected families. It proposes to rehabilitate the families whose land is acquired in the close proximity of the area they were previously residing before acquisition. (Refer 5.4)

### 6.4.2 Demerits

1. 25% of land i.e.5%commercial and 20% residential is less as compared to 45-50% in case of TP schemes in Gujarat and Maharashtra.

The land that is allotted against compensation is only 25% of the land that is acquired. This is very less as compared to the acquisition policies being followed in other states. In Maharashtra under town planning schemes the person gets back 45-50% of the developed land. (Refer 5.4)

2. No consideration to the value of the goods attached to the land acquired.

This proposal does not provide for any compensation for the other entities that are attached to the land like constructed house, cattle's, crops etc. (Refer 5.4)

3. No consideration to the specific parameters.

The compensation provided is merely based on the JDA reserved prices or DLC rates in Jaipur, the other parameters like the market value, location of the land and the loss of income suffered by the land owner and availability of basic amenities such as water and electricity are not considered. (Refer 5.4)

4. 25% compensation model in case of road development converting all streets as commercial streets.

In case of land plots adjacent to the road, the 5% part of the land is utilized always on the road side to extract the full benefits, which in turn converts the roads into commercial streets. (Refer 5.4)

## 6.5 INVOLVEMENT OF PRIVATE DEVELOPERS IN DEVELOPMENT OF LAND.

Land development in Jaipur is being carried out by both, private sector as well as public sector. Jaipur has promoted a varying degree of private sector participation in urban planning and development process. But, the role of this sector is not yet clearly defined and there is a lack of proper control and operational mechanism.

### 6.5.1 Merits

1. Sufficient land at supply side.

As mentioned earlier

2. Fast pace of development.

As mentioned earlier

**6.5.2 Demerits**

1. Concentration of land in private hands(Land speculation).

In case of Jaipur supply of land from private sector is much more than the land that is being supplied by the public sector. This has lead to concentration of land in private hands and monopoly of private real estate developers in the entire land market. (Refer 5.6)

2. Uncontrolled hike in Land Markets.

As mentioned above excess involvement of private sector in land markets has lead to uncontrolled price hike of land under all type of uses. (Refer 5.7)

3. Lack of Infrastructure facilities.

There are no strict guidelines for provision of social and physical infrastructure in the development being carried out by private developers. (Refer 5.6)

## RECOMMENDATIONS

The guidelines for the urban land management of Jaipur city has been divided into two parts viz. general guidelines which though based on the experiences of Jaipur city can be applied to other similar cities and specific guidelines for the selected areas which have been recommended to overcome some of the most prevalent problems of Jaipur city.

### 7.1 RECOMMENDATIONS AT CITY LEVEL

After looking into the issues that have emerged out of the entire analysis, there is a need of intervention at three levels for an effective land management model for Jaipur region. Interventions are thus proposed at Policy Level, Planning Level and at Implementation Level. (Refer Table 7.1). Also recommendations are given to strengthen public private partnership model to strengthen supply of serviced urban land.

**Table 7.1: Matrix showing Interventions at various levels.**

	Policy Level	Planning Level	Implementation Level
City level	√	√	√
Local level	X	√	√

#### 7.1.1 Intervention at Policy Level

Issues	Recommendations
1. Different Acts related to land and urban development diluting the	JDA Act to be made powerful enough and to be above all the acts related to Urban



effectiveness of Master Plan.	Development. Enforcement of Ribbon Development Prevention Act to avoid urban sprawl.
2. Unplanned growth completely missing social and physical infrastructure propelled by section 90-B of Rajasthan Land Revenue Code.	Section 90-B to be amended or to be omitted from Land Revenue Code.
3. Speculation of land in few hands.	Imposition of an appropriate policy of land tax, which includes charging higher rate on vacant land and lower on agricultural land. This will stop speculation of land and will encourage agricultural production in peri-urban areas of Jaipur.  Separate policy for Private Township which should include all the details for different land uses as per UDPFI guidelines.  Rules for subdivision of plots to be incorporated in JDA act and should include details of all facility areas to be provided.
4. Large scale conversion of Agriculture land to urban land.	Imposition of all taxes such as property, water, sanitation, road to the inhabitants of the peri-urban areas, with a view to augment the revenue income of local bodies to enable them to provide necessary infrastructure facilities in the peri-urban areas for the inhabitants.

### 7.1.2 Intervention at Planning Level

Issues	Recommendations
1. Ineffectiveness of Master Plan.	Master Plan to be amended and detailed zoning regulation to be incorporated which should be based on ideal population

	<p>size for a planning unit.</p> <p>Master Plan should give clear direction of growth considering 'integrated development' of entire region.</p> <p>Town Planning schemes should be considered in the periphery areas, to combat the problem of urban sprawl.</p>
2. Poorly laid out zoning regulations.	Single window approach for colonizers, builders the procedure for issuing license, registration, granting NOC etc.
3. All the agencies (JDA, RHB, RIICO) working in isolation and inhabited with problems of corruption.	<p>Master Plan should incorporate inputs from all the three agencies and the development of individual areas should also be as per master plan.</p> <p>Regrouping of multifarious urban local bodies and Panchayati Raj Authorities to eradicate the conflicts of jurisdiction and coordination problems.</p>

### 7.1.3 Intervention at implementation Level

Issues	Recommendations
1. Cumbersome and time consuming land acquisition process.	<p>25% of developed land against land acquired to be reinvestigated considering scope of increasing the share of developed land.</p> <p>Other options such as Land Pooling, TDR and Accommodation Reservation and</p>

	should be used in the areas as per the requirement.
2. No planned phasing.	<p>A Phased Land Management Model to be prepared considering development of the entire region rather than going on expanding urban limits of Jaipur.</p> <p>For implementation, a five year programme should be prepared annually, as a rolling plan, i.e., each year refinement would be made and the programme extended by one year to include new housing/ pooling projects.</p>
3. No component of Financial Mobilization for Land Management in any Act or Master Plan.	Development charges can be charged for supplying developed land.

#### 7.1.4 Proposals for Public Private Partnership for an effective Land Management Model

Presently JDA is involved in preparing the detailed land use for the sector plans. There are 55 sectors of the JDA existing as of date and considering the developments and growth potential of certain areas, further sectors have been proposed for developments. These sectors will be zoned for particular uses based on its potentials and investments proposed within these areas.

1. These sectors should be based on an effective population size calculated by considering gross density as defined in master plan or equivalent.
2. The sectors should be further detailed out at neighborhood level and community level.
3. Land should be kept reserved for all type of social and physical infrastructure as per UDPFI guidelines.
4. Private developer should be allowed to assemble land in the sector.

5. The size of plot to be assembled by developer and put for subdivided for housing or any other scheme has not to be less than 100 acres. (Gross density=50P/acre and minimum planning unit being community level i.e.5000 p.)
6. JDA should act as facilitator in assembling land.
7. Person whose land is acquired should be allotted land in the same area or near to the area. This will reduce development time which generally gets extended due to a number of litigation against acquisition.

#### **7.1.5 Development Nodes**

1. Activity nodes should be developed along the State Highway and National Highway in order to concentrate and discourage the haphazard growth of commercial establishments, repair and service activities. Within 3-4 sectors one development node should be planned to cater for city level infrastructure. One sector of JDA is catering to approx 1 lakh of population.
2. Land for the development node should be kept reserved and should be developed by JDA itself.
3. Institutional plots and commercial plots can then be auctioned by JDA to derive cost for development of these nodes.
4. Provision of proper infrastructure in the left out wedges of land in between roads to encourage continuous growth.

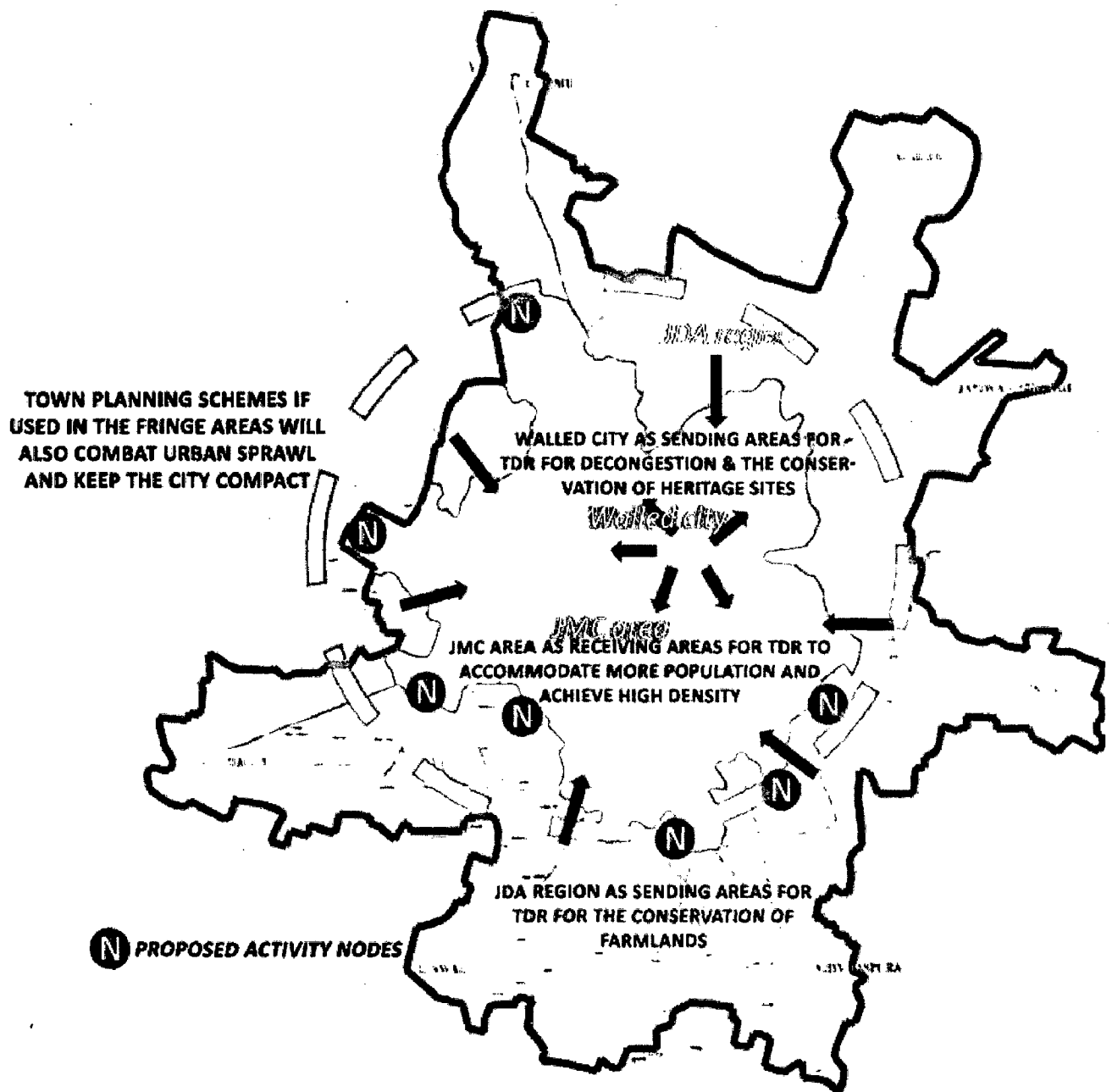
#### **7.1.6 Involvement of Other Agencies**

1. In every sector and Node some land should be allotted to RHB and RIICO for development.
2. This will prevent monopoly of private developers in land market.
3. Land supply by private sector should be equal to land supply by Govt. agencies.

#### **7.1.7 Densification of the region**

1. Increasing the tax on the vacant land, especially on the fringe areas.
2. Minimum FAR to be built and the minimum number of dwelling units per plot should be specified. Penalty of more tax if the above conditions are not followed.

3. Provide incentives to private house owners for additions in form of another floor. Incentives can be in the form of reduced taxes for further construction and easy access to loans.
4. Social and physical infrastructure facilities to attract further population should be brought to the low density areas.



Map 7.1: Proposed development pattern in Jaipur

Base Map: Courtesy JDA

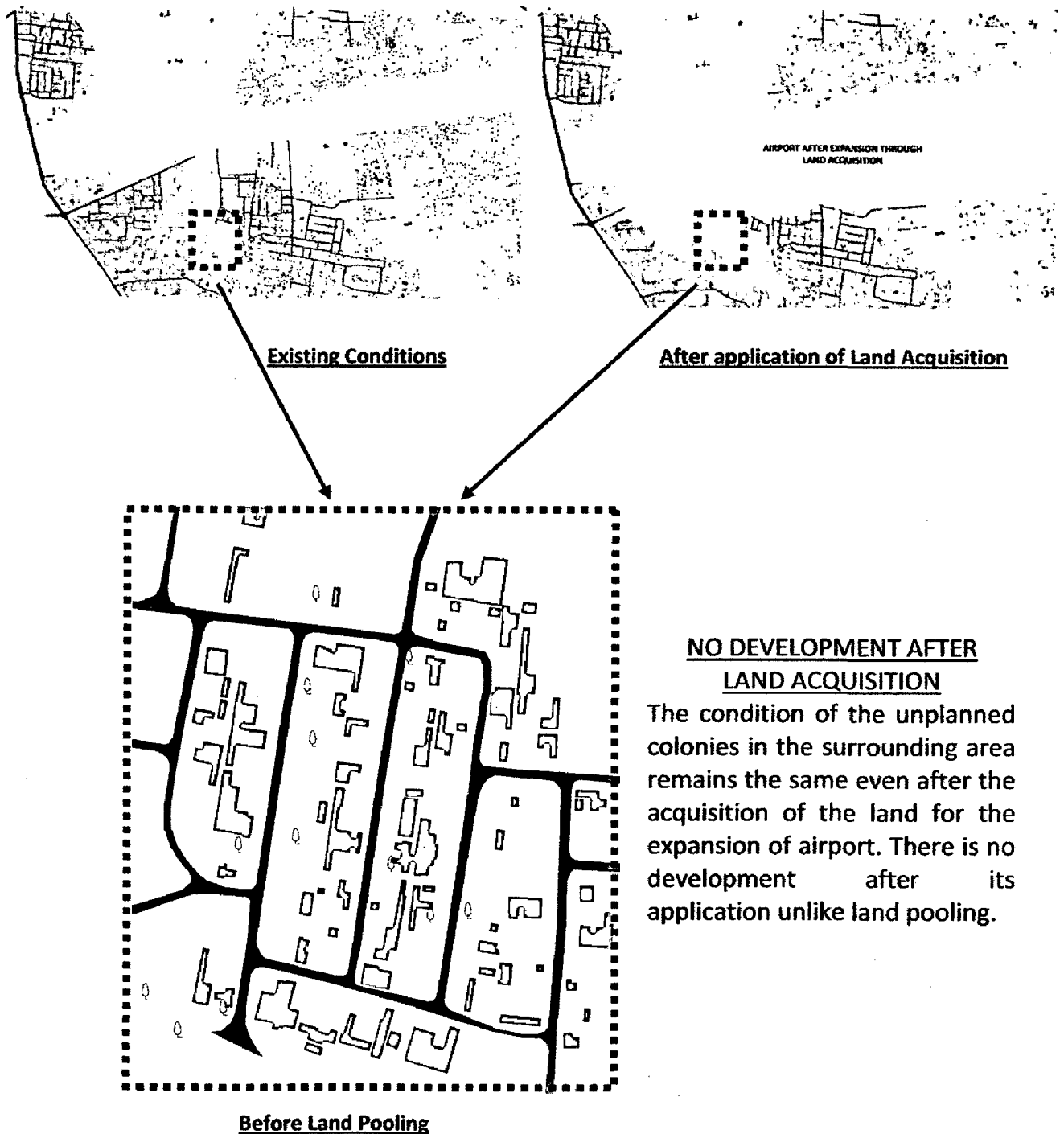
## 7.2 RECOMMENDATIONS FOR SELECTED CASE STUDY AREAS

### 7.2.1 The case of area near Jaipur Airport

Issues	Recommendations
<p>1. Failure of the government agency to acquire land for developmental purpose.</p>	<p>Land pooling schemes can be introduced instead of trying to acquire land by bulk acquisition by JDA. This will result into not only a planned and compact development, but also raise the funds generated for the local bodies.</p> <p>Either the farmers can be provided some agricultural land in the rural belt zone or in this very same area.</p>
<p>2. Unplanned and haphazard development.</p>	<p>Some area can be handed over to private developers to enhance the quality of development.</p>
<p>3. Poor infrastructure facilities even in the regularized colonies.</p>	<p>The colonies and housing infrastructure should be provided proper infrastructure by working in coordination with the other urban local bodies.</p>
<p>4. Extreme low density and built up area.</p>	<p>FAR should be increased to a certain standard to achieve a high density within the zone.</p> <p>Some of the plots can be marked as the receiving land parcels for the transfer of development rights, so that the extremely congested areas of the other areas of the city can be decongested and the population be brought to this area.</p>



**Fig. 7.1: Existing and the Proposed Land Use**  
*Source: Field Survey, Draft Master Plan 2025 Jaipur Region*



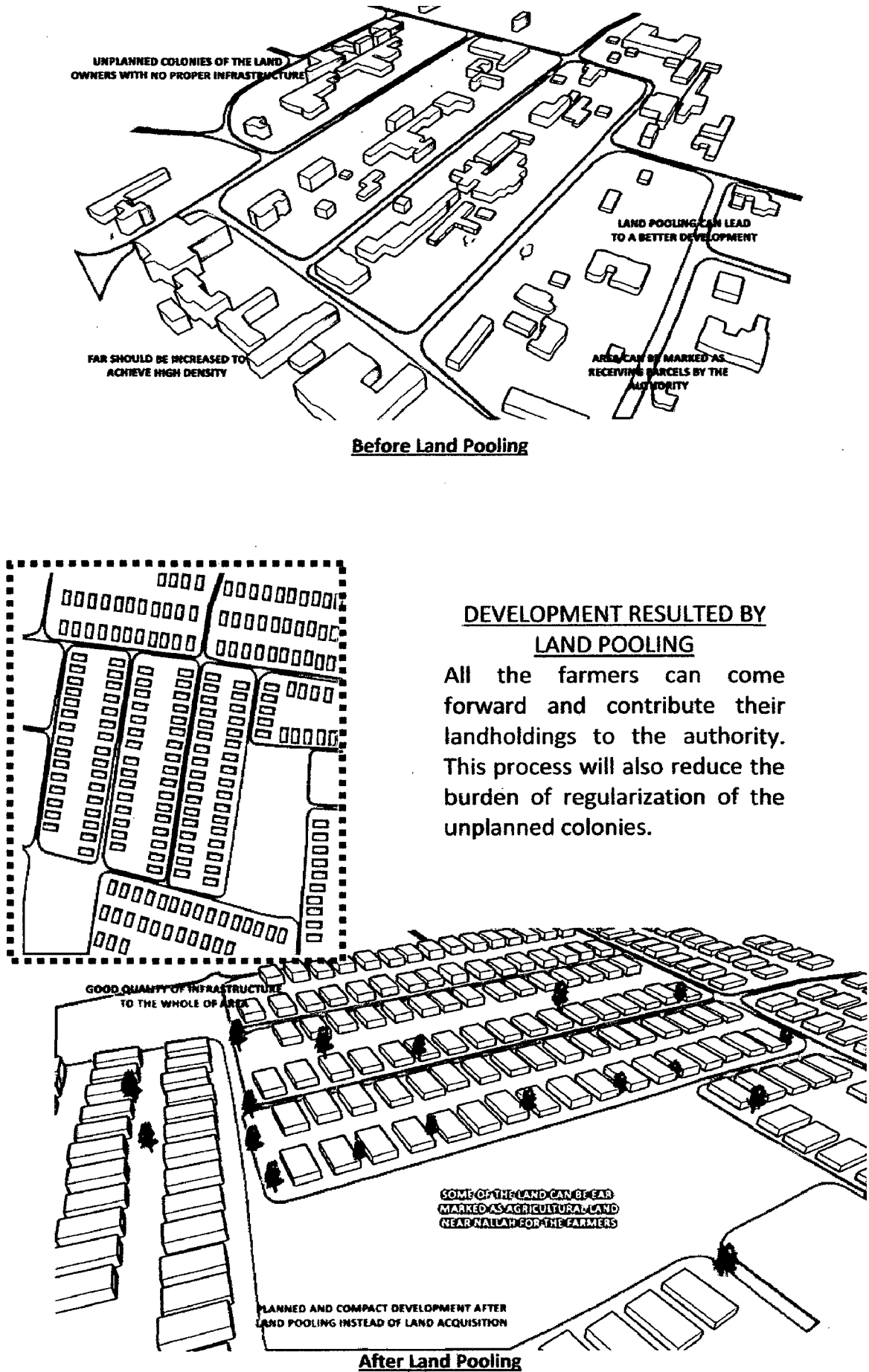
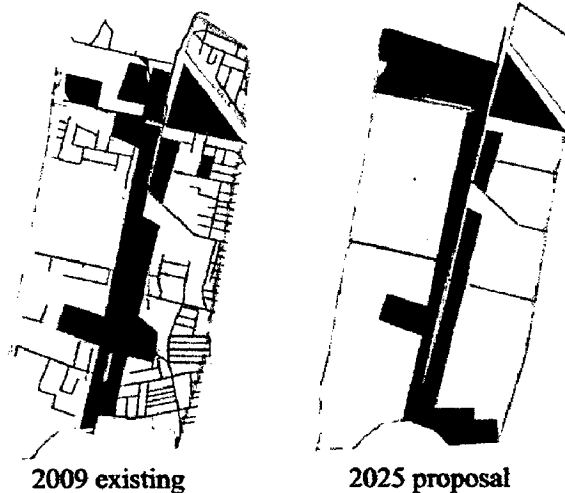


Fig. 7.2: Existing vs the proposed development pattern



**7.2.2 The case of Jawaharlal Lal Nehru Marg**

Issues	Recommendations
1. Land lying vacant and still not developed.	Tax can be increased on the vacant lands lying idle.
2. Well planned development and good quality of infrastructure facilities.	The development technique should be applied to the other areas of the city.
3. Sky-rocketing of land values after involvement of private sector in the development.	<p>Some areas can be earmarked specifically for the lower income group people in the areas intended for development of housing colonies so as to control the hike in the land values.</p> <p>Pricing of the vacant plots to be in such a way that the cross- subsidy to be provided to the LIG and also to give a percentage of profit to the land owners, while disposing the land.</p>



**Fig. 7.3: Existing and the Proposed Land Use**  
 Source: Field Survey, Draft Master Plan 2025 Jaipur Region

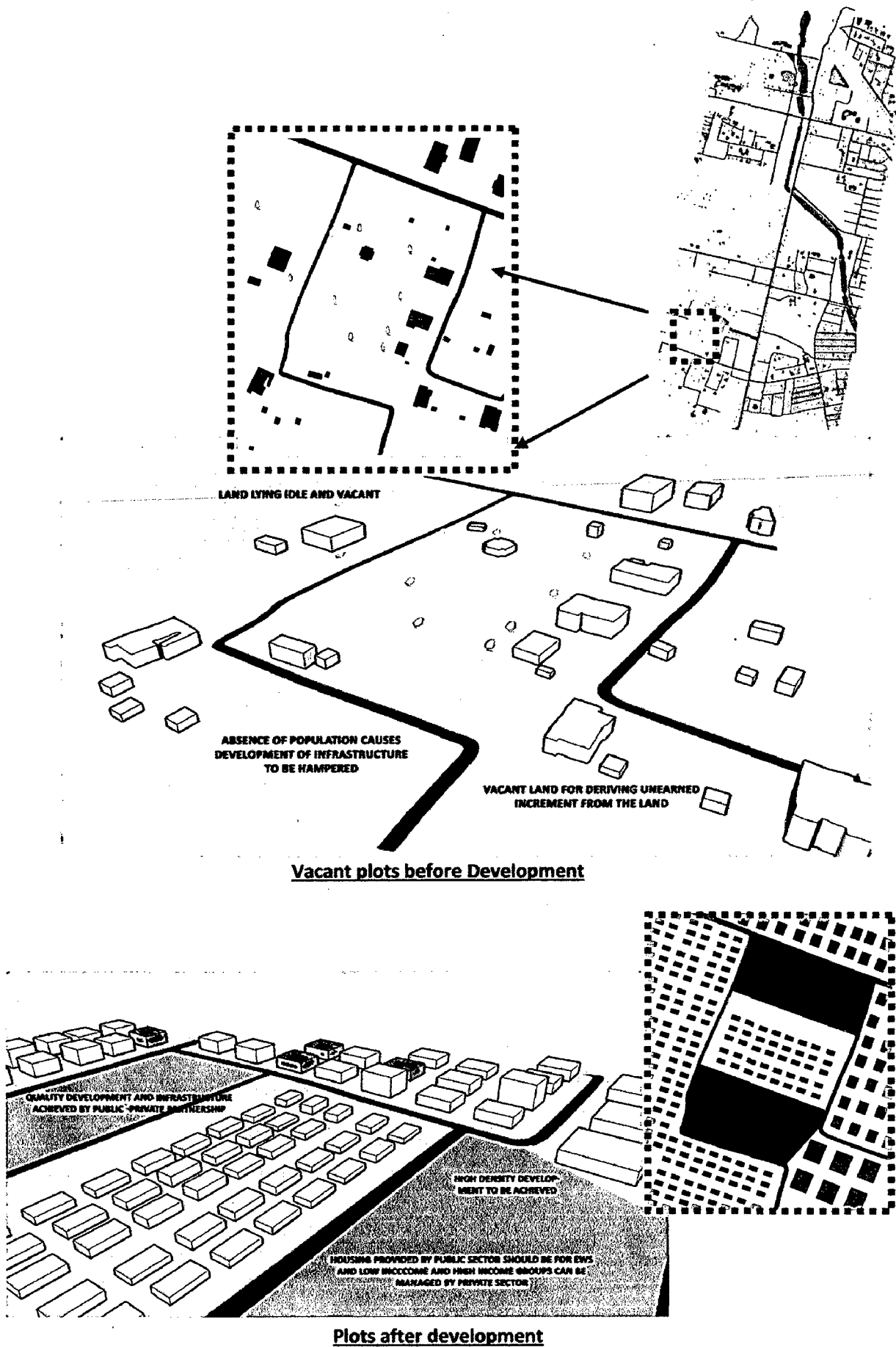
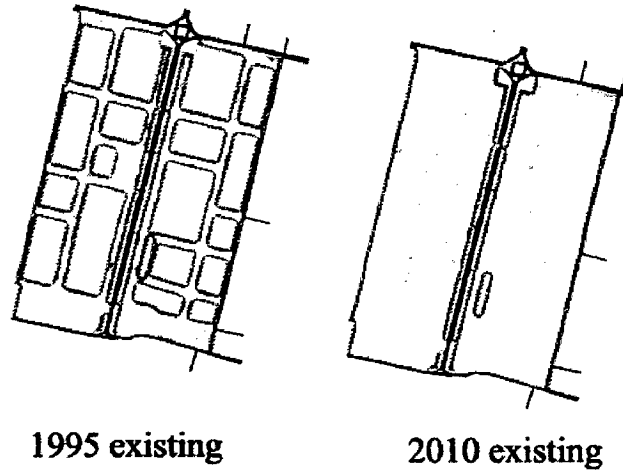


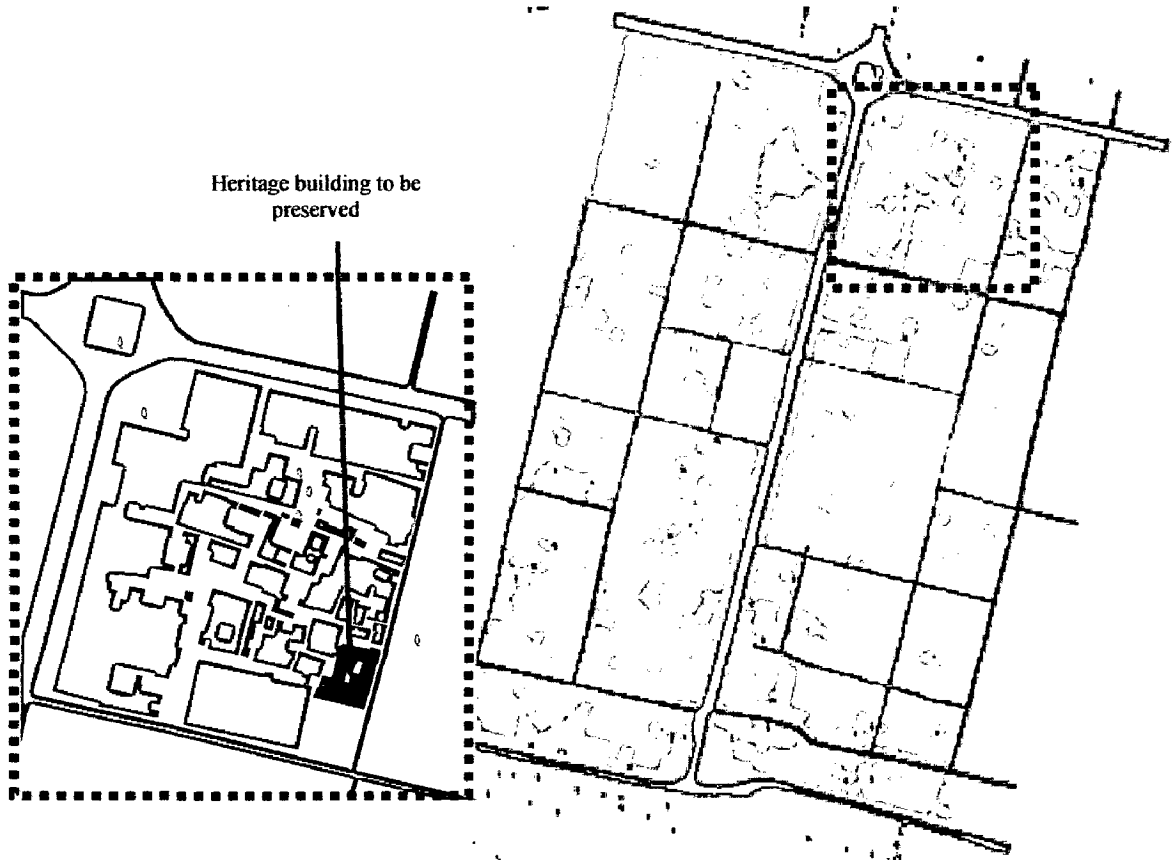
Fig. 7.4: Existing vs the proposed development pattern

### 7.2.3 The case of Johari Bazaar in the walled city area

Issues	Recommendations
1. Excessive commercialization.	<p>People willing to commercialize the area should be handed over development rights in the other low densified areas, if possibly in the development nodes for reduce its use as the central business district of Jaipur.</p> <p>No permission should be granted by the JMC to build new shopping complexes and high end retail shops.</p>
2. Extreme congestion, hardly any open space left.	<p>The transfer of development rights is the best way to control the density in an area by marking them as the 'sending zones'.</p> <p>Pedestrianization of the inner streets and they should be converted into "No Traffic Zone".</p> <p>Keeping the original courtyard of the havelis should be made obligatory. In case of demolition and reconstruction, it is advisable to insert courtyards in the new buildings.</p>
3. Difficulty faced in the preservation of heritage sites.	<p>The transfer of development rights can also be used for the preservation of historical heritage sites.</p>
4. Poor infrastructure facilities.	<p>Direct subsidies from authorities to owners (50 % of the restoration costs). The subsidy can be proportionate to the owner's resources; can encourage owners who occupy their property or owners who rent to tenants.</p>



**Fig. 7.5: Change in the Land Use**  
*Source: Field Survey*



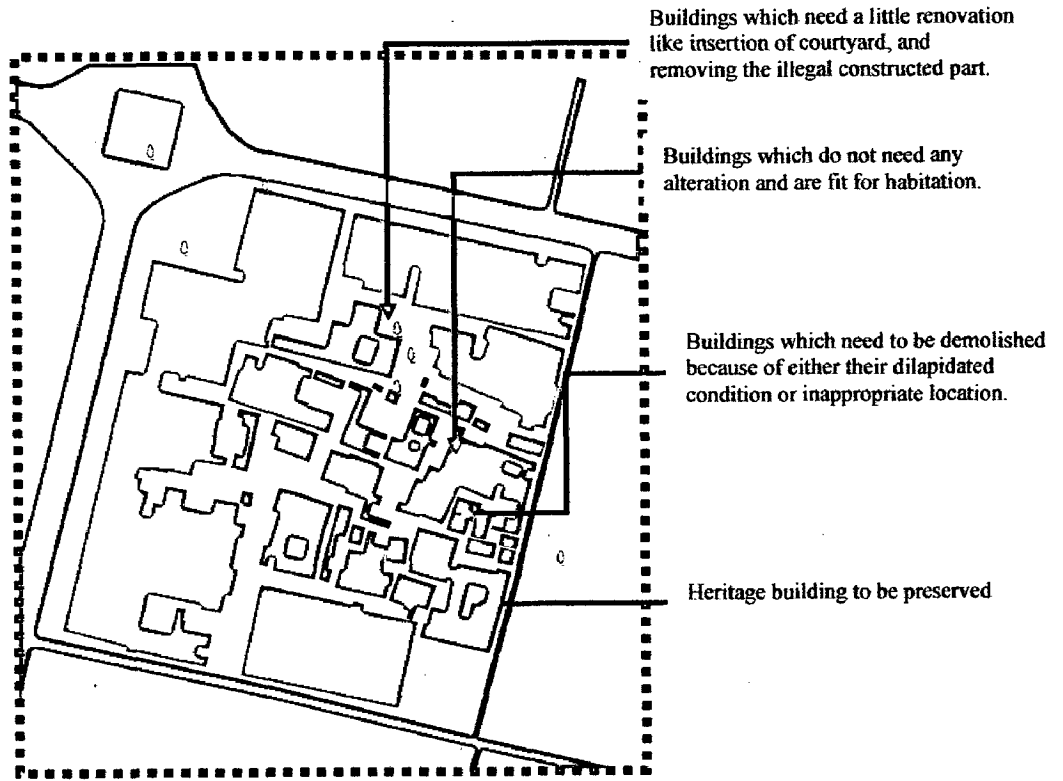


Fig. 7.6: Alterations and modifications needed to be done in the selected area

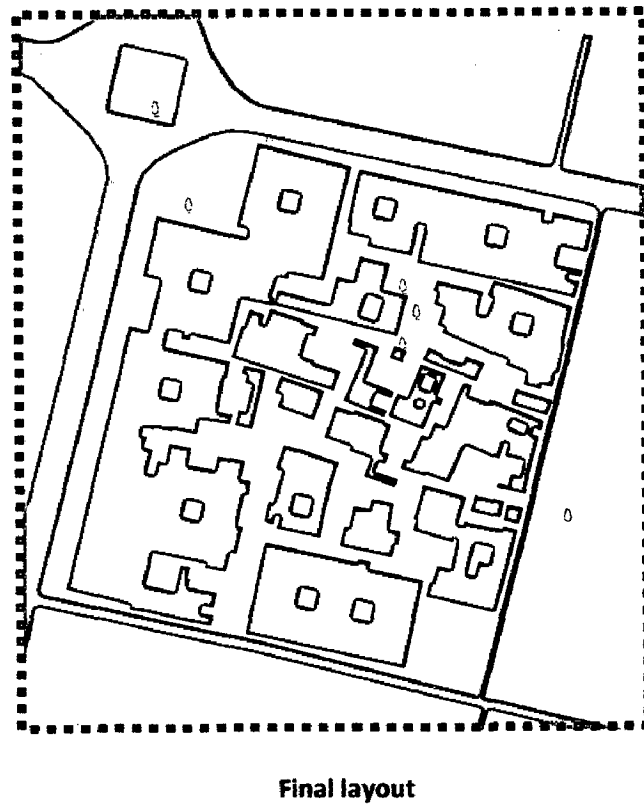


Fig. 7.7: Existing vs the proposed development pattern

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**ANNEXURE I****WARD WISE POPULATION OF JAIPUR MUNICIPAL CORPORATION**

(As per Census 2001)

Ward No.	Population
1	75165
2	29220
3	90497
4	39171
5	34219
6	23420
7	26640
8	23533
9	52604
10	41915
11	36184
12	45386
13	85546
14	49233
15	31005
16	38998
17	33256
18	20956
19	24273
20	23110
21	29928
22	48171
23	41151
24	41473

Ward No.	Population
25	29500
26	29151
27	33769
28	79598
29	35674
30	22041
31	20717
32	24198
33	20154
34	29964
35	20779
36	29097
37	20498
38	24812
39	31502
40	14322
41	16850
42	18917
43	20227
44	25232
45	15341
46	32324
47	36290

Ward No.	Population
48	87718
49	29122
50	35183
51	32890
52	44479
53	32026
54	41306
55	26364
56	18146
57	25309
58	26142
59	28480
60	23808
61	27283
62	32102
63	29141
64	37821
65	37449
66	24041
67	18203
68	29139
69	44141
70	36271

**TOTAL - 23, 22,575**

**ANNEXURE II****STATEMENT OF AUCTIONS (PROPERTIES) BY JDA  
(Upto 30.09.2009)**

Name of Month	Financial Year (Rupees in Crores)					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
April	0.96	1.23	44.77	46.81	13.03	3.05
May	0.86	4.86	3.13	69.44	1.64	-
June	4.66	1.54	2.38	16.40	12.68	3.65
July	6.75	19.73	16.39	7.64	0.99	4.70
August	1.22	13.64	4.66	37.99	29.11	4.53
September	6.12	37.70	51.23	25.30	1.99	24.03
October	11.68	73.37	10.56	11.31	9.68	
November	0.70	30.65	14.99	10.92	1.39	
December	2.06	44.28	4.16	11.48	1.29	
January	2.62	83.59	12.83	17.69	2.35	
February	12.25	196.26	23.23	17.69	2.35	
March	73.53	96.68	7.41	27.5	3.81	
<b>Total Auction</b>	<b>123.41</b>	<b>603.53</b>	<b>195.74</b>	<b>287.16</b>	<b>80.68</b>	<b>39.96</b>

**ANNEXURE III****URBAN DEVELOPMENT TAX ZONE, WARD WISE DUE & RECEIPT  
(Year 2008-2009)**

Zone	Ward	No. of Prop	Due + Penalty	Recpt	
Moti Dungri	18	1058	11087359	1650099	
	26	1399	6783454	987226	
	27	553	10634098	484595	
	28	1607	11956909	530107	
	29	81	1716649	0	
	30	554	7242993	693444	
	31	1839	17856320	1863216	
	32	995	8034153	604109	
	33	1333	10912205	1428899	
	34	311	6334817	821770	
	35	1592	45167771	6880560	
			<b>11322</b>	<b>137726278</b>	<b>15944025</b>
	Hawa Mahal (West)	39	400	2139160	4750
40		387	2481537	38599	
41		2078	8215720	57797	
42		1289	16703606	1326079	
43		1928	34551073	613967	
58		751	8684511	122203	
59		219	1517518	25310	
60		498	4126755	47339	

	61	131	1024221	4956
		<b>7681</b>	<b>79444101</b>	<b>2241000</b>
Hawa Mahal (East)	44	482	6598255	102085
	45	1070	7968688	549089
	46	251	992762	0
	47	343	1224802	8019
	48	2152	12534840	874239
	49	275	1111307	22461
	50	480	1882764	8711
	51	386	1432121	0
	55	269	1741242	128923
	56	90	354745	3564
	57	266	2062679	88445
		<b>6064</b>	<b>37904205</b>	<b>1785536</b>
Vidyadhar Nagar	1	3966	11436826	66612
	8	366	9110472	108376
	9	3456	7291510	143496
	10	2231	9420545	78902
	36	1768	16247465	1585912
	37	1915	26701763	1041648
	62	716	4877333	107808
	63	100	267023	14753
	64	102	475141	42491
	65	30	168276	0
	66	137	1188415	27253
	67	822	6263678	359971

	68	1604	7952792	418221
	69	6992	31088416	286162
	70	3987	31251799	51539
		<b>28192</b>	<b>163741454</b>	<b>4333574</b>
Civil Lines	2	2603	6036236	28293
	3	14625	159258638	46717801
	4	760	3695619	48989
	5	338	6965664	718862
	6	3742	73792578	8766038
	7	569	3023377	26110
	15	1073	3434393	107068
	16	2298	22366734	8932045
	17	2024	24849445	873824
	19	618	1959475	78980
	20	979	4075116	286284
	38	3068	39411642	1783816
		<b>32697</b>	<b>348859917</b>	<b>68302711</b>
Sanganer	22	2526	14225890	182062
	23	2222	10078643	155493
	24	4252	94001613	32934
	25	3248	23996364	3024866
		<b>12248</b>	<b>142302510</b>	<b>3395355</b>
Mansarovar	11	2327	1830076	662189
	12	7884	20606390	907703
	13	1820	26943156	2550001
	14	2663	11527729	437465

	21	2724	27882925	1473625
		<b>17418</b>	<b>105260976</b>	<b>6030983</b>
Amer	52	1319	5579438	43348
	53	1644	7123748	298510
	54	700	5267562	645884
		<b>3663</b>	<b>17970748</b>	<b>987742</b>
<b>Total</b>		<b>119285</b>	<b>1033210637</b>	<b>103020926</b>