

EXISTING PROFILE

Jaipur District

Jaipur Region

Jaipur City



JAIPUR DEVELOPMENT AUTHORITY

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PREFACE

Jaipur is probably the first planned city of Modern India. Its features of beautiful Architecture, planned growth and cosmopolitan character have endowed it with uniqueness in India's urban setting. Jaipur being capital of Rajasthan is the focus of the socio-economic and political life of State. It witnessed fast growth both physical and demographic i.e.,. With 2001 population at 23.23 lakhs, the city is likely to attain a population 64.95 lakhs by the year 2025 with 5.3% annual growth rate.

Strategically located, with the capital of India, Delhi at 258 kilometers and Agra at 232 kilometers, the city forms part of the famous Golden Triangle. It is also located on the golden quadrilateral of NHDP. The locational advantage of the city as also it being a famous tourist destination, has boosted the growth of the city over the years with many new developments and projects coming all over.

Apart from critical issues such as land, physical infrastructure, transport, ecology and environment, housing, socio-cultural and other institutional facilities, the cornerstone for making Jaipur a world-class city is the planning process itself and related aspects of governance and management. For achieving a coveted goal, co-ordinated and integrated approach amongst several agencies involved with urban services and development along with a participatory planning process at local levels, has been envisaged.

Growing at an unprecedented pace, the city needs to imbibe and integrate its elegant past as well as the modern developments into an organic whole, which may involve a purposeful transformation of the socio-economic, natural and built environment. The city will be a prime mover and nerve centre of ideas and actions, the seat of State governance and a centre of business, culture, education, sports and host of other things.

The image, Jaipur city offers, at national and international levels, needs a special attention at planning front to make it a world class city. An inclusive planning, up gradation of physical infrastructure, provision of basic amenities, various housing options and preservation of natural environs, will help Jaipur to portray a world class image in the coming years.

VISION - MDP2025 JAIPUR REGION

Vision-2025 is to position Jaipur a global metropolis and a world class city, where all the people would be engaged in productive work with a better quality of life, living in a sustainable environment. This necessitate planning and action to meet the challenge of:

- population growth and in-migration to Jaipur;
- provision of adequate housing, specially for the weaker sections of the society;
- addressing the problems of small enterprises, particularly in the unorganized informal sector; dealing with the issue of slums ;
- up-gradation of old and dilapidated areas of the city;
- provision of adequate infrastructure services;
- conservation of the natural environment;
- conservation of Jaipur's heritage and blending it with new and complex modern patterns of development.

It is drawn within a framework of sustainable development, Public private and community participation and a spirit of ownership and sense of belonging among its citizens.

REVIEW OF PAST EXPERIENCE

The walled city of Jaipur is the living example of excellent city planning of older times, the new concept and the process of planned development of the Jaipur has started with the enactment of the Rajasthan Urban Improvement Act, 1959. The first Master plan prepared under Urban Improvement Act, 1959 by Town Planning Department, GOR for the horizon year 1991 and it was extended up to 1996. The second master plan prepared, under J.D.A Act 1982, for the horizon year 2011 and came into force w.e.f. 1.9.98.

The Jaipur Development Authority (JDA) was established on 5th August 1982, under the JDA Act. The authority was established for the purposes of Planning, coordinating and supervising the proper, orderly and rapid development of Jaipur region formed by inclusion of Jaipur city and contiguous areas, and was entrusted with the task of preparing the Master Development Plan. The JDA Act provides that the authority shall prepare a Master Development Plan for Jaipur Region, with a view to securing planned integrated development and use of land. Thus, now the Master plans are to be prepared under the JDA Act, 1982.

- 1976 - 1st Master Development Plan for 1991 made and approved under U.I.T. Act and extended up to 1998;
- 1982 - Jaipur Development Authority Constituted
- 1998 - 2nd Master Development Plan for 2011 approved
- 2009 - 3rd Master Development Plan for 2025 prepared
- 2011 - Master Development Plan-2025 approved and enforced.

Master Plan 1976-91: The Master plan 1976-91 had an integrated approach to city's development. It defined goals & objectives for the comprehensive development of the city. It was envisaged that Jaipur would continue to be the Principal administrative, commercial and distribution centre of the State. It would be developed as a major tourist destination. This plan was mainly growth oriented plan. A functional relationship was aimed at among the numerous areas of urban growth, to help develop the city in a balanced manner and to keep the urbanization process under effective control.

In this Master Plan, planning principles envisaged could not be adhered to. During the plan period all areas could not be developed, as envisaged. The proposals of bulk acquisition of land have been unsuccessful inviting legal wrangles, in many cases. The follow up actions such as preparation of **Functional plans, Zonal Development Plans, Zoning regulations** after the finalisation of the Master plan, were not undertaken. This resulted into interpretation of Land use from Master Plan level directly to plot level, which led to many distortions.

There were large scale deviations as the land needed for development could not be acquired in time and thus new residential schemes could not be developed by the than UIT or JDA. The agricultural land conversion rules facilitated the housing cooperative societies to sub-divide agricultural lands into plots. This way cooperative society schemes came up all around the city every where in a big way in violation of the land use provisions of the Master plan, and also these development violated all norms of planned urban development, such as Land use, Density, Provision for Community facilities, Utility services, Sub-division rules and environmental aspects etc.

Master Plan 1998-2011: This Master Plan was prepared to meet the future requirement of the city and the region and also to tackle the day to day problem of the city. The Land Use Plan along with zoning code also introduced to facilitate easy implementation of the Master Plan proposals. The Master Plan preparation also accommodated the satellite towns of Jaipur region. Suitable regulations were made to encourage private developers to undertake development activities of residential and other schemes. Master plan 2011 had three physical planning component i.e., Urban, Rural & Ecological with three tiers of development.

The first Master plan prepared in 1971 envisaged a development area of 156 sq.km. However, new areas were developed including Prithviraj Nagar (PRN), Pratapnagar, Sitapura and South of Jaipur. The area including diversions 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. Though 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%. This plan lacked follow up actions such as preparation of **Functional plans, Zonal Development Plans, Zoning regulations** after the finalisation of the Master plan.

Master Development Plan 2009-2025: The Draft Master Development Plan - 2025, prepared under the JDA Act, envelopes 2940 square kilometres consisting 725 villages, one Municipal Corporation and 2 Municipal Councils. The Master Development Plan has been prepared using state of the art technology using GIS. The Base map has been prepared using satellite images, enabling a plan that is up to date. The Master Plan is based upon an in-depth study done at the district level, regional level and the city level.

PLAN PREPARATION

As the city has outgrown its 2011 Master Plan boundary in terms of commitments, the new Master Development Plan for 2025 is being prepared under the JDA Act. The DMDP prepared by JDA was approved in the 57th meeting of the Authority dated 14.10.09. The approved draft was published for objections/suggestions for 30 days vide notification number JDA/STP(MP) 2009 -10 /D-312 on 6.11.09 which was extended time to time by following notifications :_

JDA/STP(MP)2009-10/D- 348 dated 3-12-09 (for 30 days)

JDA/STP(MP)2009-10/D- 5 dated 4-1-10 (for 30 days)

JDA/STP(MP)2009-10/D- 41 dated 2-2-10 (for 30 days)

JDA/STP(MP)2009-10/D- 92 dated 3-3-10 (for 30 days)

JDA/STP(MP)2009-10/D- 119 dated 4-4-10 (for 30 days)

The last date for submitting objections/suggestions was 04-5-2010. In all 180 days was given for public to file their objections and suggestions.

The Government vide its order no.F3 (43) UDD/3/09 dated 25.01.10. Constituted a Committee to go through DMDP-2025 document as well as objections /suggestions filed by the public and to suggest suitable modification in the Draft Master plan Jaipur Region-2025. The committee consisted of the following:

- 1. Sh. R. K. Sharma, Retd. Chief Town Planner, Govt. of Rajasthan - Chairman**
- 2. Sh. A. K. Jain Retd. Commissioner (Planning), Delhi Development Authority, Delhi - Member**
- 3. Sh. V.N. Saxena Retd. Chief Engineer, PWD, Jaipur - Member**
- 4. Sh. H.S. Sancheti, Director (Town Planning), JDA, Jaipur - Member**
- 5. Sh. P.Arvind, STP(MP), JDA and Member Secretary.**

The Committee commenced its sittings on 23-2-2010 with the planning team and went through the process of finalising the Draft Master Development Plan 2025.

The Committee did an in-depth study of the concepts introduced in the new master plan. The Committee appreciated the endeavour of the Master Plan Cell of JDA in the preparation of a pragmatic Master Plan with greater vision. In order to make the document more reader friendly, various improvements were introduced in the document and maps.

During the objection/suggestion period, 677 objections/suggestions were received. The objections and the suggestions received are as under:-

- Objections/Suggestion related to Administrative Zones (1 to 14) of JDA, in total 558(S.N. 1to 558)
- General objections/suggestions related to Master Plan, in total 119(S.N. 559 to 677)
- Objections /suggestions received after due date, in total 359
- All 1036 objection / suggestions were considered which were received till 30.08.2011.

The committee organized the hearings on the objections/suggestions, zone wise. A notification regarding hearing of objections/suggestions was published in the news papers and posted on the JDA's website.

In continuation, an opportunity was also given to the general public who had filed the objections / suggestions during the period 4-4-10 to 4-5-10 on dated 31.5.10 and another chance of hearing to all applicants on 1.06.10.

The Committee has gone through the Draft Master Development Plan 2025 and the objections /suggestions received to this effect after the publication. The committee has also extended the hearing opportunity to the public who have filed their objections /suggestions after due date i.e. 4.5.2010.

The committee, after going through the objections /suggestions, has made an analysis of outcome of every objections /suggestions. The report submitted to the 58th Authority meeting for finalisation of the Master plan as per requirement of JDA Act, 1982.

- In continuation of the same, interactive sessions were held on Draft Master Development Plan 2025 on 5-6-2010. In the forenoon session professional bodies of Institute of Town Planners, Institute of Architecture and Institute of Engineers was held (11.00 A.M.to 1.00 P.M.) and Builders Association of Rajasthan, Township Developers Association of Rajasthan (TODAR), Confederation of Indian Industries (CII) Jaipur chapter during second session (2.00 P.M. - 4.00 P.M.).
- During discussion with fellow technical experts, the Committee observed that there was general consensus to make Jaipur a world class city. In the second session, which constituted the developer bodies, they were impressed that their inspirations for sharing their significant role in evolving the city as a planned city have been taken into consideration.

The JDA in addition to convening meetings in JDA also visited Nagar palikas and Village Panchayats to provide information to local public on which Draft Master Development Plan prepared for satellite towns as well as growth centers.

SI	Name of Town and Growth Centre	Date
1	Kalwad	24.2.2011
2	Jahota	24.2.2011
3	Chomu	24.2.2011
4	Kookas	24.2.2011
5	Bhanpur Kala	24.2.2011
6	Chonp	24.2.2011
7	Bagwada	24.2.2011
8	Bagur	25.2.2011
9	Shivdaspura, Chandlai	25.2.2011
10	Vatika	25.2.2011
11	Bassi	25.2.2011
12	Kanota	25.2.2011
13	Jamwaramgarh	25.2.2011
14	Pachar	28.2.2011
15	Achrol	28.2.2011

A detailed calendar was published by JDA to seek inputs from the stake holders as well as the Government agencies.

SI	Department/Institution/Representative	Date
1	CII, Fortis, TODAR, Builders Association	17.5.2011& 18.5.2011
2	All the Nodal officers of Govt. Department/Local Bodies/Board/Nigam	19.5.2011 &20.5.2011
3	Institute of Town Planner, Institute of Architects, Institute of Engineers	21.5.2011
4	Officers and Parshads of Jaipur Nagar Nigam	23-24-2011 & 26-5-2011
5	Members and representatives of Panchayat samities and villages of Sanganer, Chaksu, Phagi Tehsil	25.5.2011
6	Members and representatives of Panchayat samities and villages of Bassi, Jamwaramgarh and Amer Tehsil	26.5.2011
7	Members and representatives of Panchayat samities and villages of Bassi, Jamwaramgarh and Amer Tehsil	27.5.2011
8	Public representative and officers of satellite towns of Jaipur City ; Kalwad, jahota, Achrol, Bhanpur Kalan, Kookas, Bassi, Kanota, Vatika, Jamwaramgarh, Chonp, Bagwada, Pachar, Shivdaspura and chandlai.	30.5.2011
9	Representatives of Town Planning and Architecture institutions	2.6.2011
10	Public Representative & officers of Bagru Municipal Corporation	6.6.2011
11	Public Representative & officers of Chomu Municipal Corporation	7.6.2011
12	Local public/ NGO	9-10.6.2011
13	Reporters	14.6.2011 & 25.6.2011

The JDA organized the series of meetings with hon'ble MP's and MLA's to elicit their inputs into the Draft Master Development Plan 2025.

During the month of May, 2011 efforts were made to seek the valuable suggestions on Draft Master Development Plan-2025 from different departments.

The Committee has gone through the Draft Master Development Plan 2025 and the objections/suggestions received to this effect after the publication.

In addition to this Committee, the State Government vide it's order sought services of the following:

1. **Dr. D.S. Meshram**, Ex-chairman, ITPI, New Delhi.
2. **Sh. S.P. Bansal**, Additional Commissioner (Planning) Delhi Development Authority, New Delhi.
3. **Sh. J.B. Sheersagar**, Chairman, Town & Country Planning Department, New Delhi.
4. **Prof. Dr. Sanjay Gupta**, Head of the Department (Traffic & Transportation), SPA, New Delhi.

This Committee has convened two sittings to garner inputs with national perspective on the draft.

The document envisages five volumes.

- Volume I: Introduction and Existing profile.
- Volume II: Development plan
- Volume III: Satellite towns and Growth Centres
- Volume IV: Development Controls and Regulations.
- Volume V : Map Book

In all, its preparation, the bold, innovative and flexible ingredients of the plan, will sure by, usher in a new era. It is a bold attempt to meet the requirements of all the Government agencies and public at large and will pave the way for easy implementation.

MAJOR HIGHLIGHTS OF THE PLAN

- MDP has 5 volumes for Introduction & existing profile, Development plan, Satellite town/Growth centres, Development promotion & control regulations and map book.
- MDP 2025 for Jaipur region analysis, encompass details at five levels which is Unique in itself
 - District Level Study: Comprises of the Jaipur district
 - Jaipur Region (JDA Region-2025)
 - City Master Plan
 - Zonal Development Plans
 - Village Development Plans
- Maps in MDP are GIS based having very effective means for graphically conveying complex information.
- Settlements are classified in MDP, based on the population and facilities, to reduce the urbanization pressure on the infrastructure of the city. These settlements are clearly tabulated for easy understanding.
- Development guidelines are formulated for permissible activities in U2 & U3 area and the places where U2 & U3 area are conflicting with Eco sensitive area are designated as Low intensity zone with limited activities.
- Provision of **River front development** along Amanishah Nallah and Dhund river, Detailed report to be prepared by Local Authority.
- Provision for **afforestation and Landscaping** on Rock cut/hilly areas to increase green cover- G3 Space per person increased from 8Sqm/person.
- Provision for taking measures to **reduce the GHG emission** and Global warming to increase energy efficiency and promote sustainable development in Jaipur region.
- Provision of ring road circumventing U1 area and other major roads to segregate heavy and light traffic and reduce congestion from city.
- Development of vegetable clusters, mega food park schemes in rural/agriculture areas to generate employment as well as potential of market for agricultural produce.
- 4 broad Land use categories with distinctive sub-divisions which are unique in itself and derived after a profound research and discussion.
- Urbanised area is divided in to three parts U1, U2 & U3. U1 area is the existing city area while U2 area is continuum to U1 area and U3 area is transport corridor.
- Downstream projects are identified for further development.
- Development Promotion and control regulation are formulated for Horizon year-2025 to control the growth & development
- Zonal Development plans and Villages development plans initiated with completing of MDP-2025

The following critical areas have been the focal points of the Plan:

(a) Land Utilization: The JDA region have 3 physical planning components with Land utilisation category:

- **Jaipur City Urbanisable area**
 - **Urban area (U1) :** Existing use zones such as residential, including Satellite towns and committed projects
 - **Urban area (U2) :** Immediate influence area of U3 with a 3km buffer following development trend
 - **Transportation development area (U3):** Influence area of NH, SH, Ring road, Bye pass, Industrial corridor etc.
 - **Ecological Zone**
 - **Eco-Sensitive area (G1):** all the Bio-diverse areas like hills, rivers, reserve forest, protected forest, wetlands, conservation area etc.
 - **Green Zone -2 (G2) :** Buffer area to promote a continuum to G1
 - **Ecological Area :** Agriculture land and other eco sensitive areas
 - **Rural Area :** Existing Rural and agricultural belt

Development guidelines are formulated for permissible activities in U2 & U3 area and the places where U2 & U3 area are conflicting with Eco sensitive area are designated as Low intensity zone with limited activities.

(b) Integrated Land use

The land use plan along with Development Promotion and Control Regulation usher a flexible approach in attending to the growing needs of the citizens. Each use zone have provisions to accommodate the required utilities and facilities.

(C) Green/Ecological areas and Landscaping:

- Eco-sensitive area like reserve/protected forest, drains/rivers, hills and agriculture area are given extra care while planning the development area.
- MDP 2025 plans to develop Rock cut area in Jaipur region. These Rock cut areas in Eco sensitive zone are lying unused which can be developed and landscaped as rock garden, botanical garden for both educational and entertainment purposes.
- MDP prescribes to develop all surface water bodies like Amanishah nallah and Dhund River for river front development.
- Other than this Green Spaces are provided at various level viz;
 - Central Park : 6
 - District Park : 1

(d) Commercial areas: Hierarchy of Commercial Spaces are also provided at various level viz;

- Sub city Centre 1
- District Center - 9

(e) Bus Terminals: Transportation became easier with provision of Bus terminals (5) at regular interval namely:

- Bus terminal on south of Niwaru Road at the periphery.
- Bus terminal on South of Kalwar Road at the periphery.
- Bus terminal at the extended Sirsi road near Nimera
- Bus terminal south Delhi Railway Line near Khatipura Railway Station.
- Bus terminal at the intersection of Jawahar Nagar Bypass with Shanti path is proposed.

(f) MRTS & BRTS: Provision of Metro and BRTS to encourage public transportation and improve accessibility while reducing time and cost expanses.

(g) Ring road: The ring road development corridor is a visionary plan to create infrastructure through public participation to meet the rapid growth and better connectivity bypassing the heavy traffic coming into the city.

The project involves development of a 360 m wide corridor, with expressway, service roads and a public transportation route along with area for P.A.P. (Projected affected persons). It includes two alignments covering Jaipur urban area i.e., Northern alignment and southern alignment.

(h) Ghat ki Guni Tunnel:

Ghat-ki-Guni with heritage rich buildings on both sides, is the only eastern entry/exit of Jaipur. It is accident prone. Traffic pollution is damaging the heritage in 2km serpentine length of congested route with steep gradient. This is of concern both to govt. of India and govt. of Rajasthan and this road is declared as Heritage Road (Transport Nagar Junction to Chulgiri crossing).

In order to protect this area being used as main thoroughfare, JDA embarked on a project of a Tunnel to route all heavy and light vehicles with Length of 2800 M including 858 M Twin Tube Tunnel, interconnected at two locations.

(I) Urban Design : Emphasis on Urban design and visual integration of various components of city viz; walled city, District centers, Historical Monuments and Gardens, Exhibition grounds, Zoo, religious places, transport corridors etc. Signages to be provided on junctions, near schools. All the traffic signs would be facilitated as per the guidelines provided in IRC.

(j) Heritage Conservation

- Identification of heritage zones and Development proposals.
- **Special area plan** envisaged for Heritage and Conservation like Walled City, Jaipur, Sanganer, Amber development Area, and Ghat ki guni, to be prepared by Local Authority or any other body or Authority authorised to do so in accordance with law.

(k) Special area plan

- **Special area plan for Degraded/Redevelopment** industrial area in Jaipur region
- **Specific Development area plan** for Green City and Heritage City in New Jaipur Area

(l) Public Participation and Plan Implementation:

- Decentralised local area planning by participatory approach;
- Performance oriented planning and development, with focus on implementation and monitoring.

(m) Informal Sector:

The informal and organised sector is a major source of employment in the economic fabric of the city for which the following approach is proposed:

- Proper planning with space management to accommodate these vendors while maintaining a healthy and hygienic environment.
- Hawker's zone needs to be provided at scheme level.
- Adherence to the new township policy provision for space for Kiosk in each scheme.
- Ending zone policy of the State Govt. to be executed in letter and spirit, such accommodations to be construed as provisions of Master plan.
- Provision of common basic services like toilets, water points, etc.

(n) Disaster Management:

- Clear **depiction of Geological features** like fault line, Lineament, Ridge line, seismic zone, etc., to make public understand the situation of their land and to come out with geo-technical measures while going for multi-storeyed construction.
- Efforts have been made to address such situations and accordingly propose these areas under low intensity development.
- Building regulations for safety of structures as per seismic zone.

(O) Sustainable Development

- **Green spaces:** A world class green spaces including various ecological areas/nature surrounds residential and commercial areas, making life on the greens a reality. The green activities are linked to the promotion of sustainable development, surrounding the built up area and acting as interface between the city and its bio region.
- **Water harvesting :** To recharge ground water and increase water table, JDA has made various efforts viz; Mandatory provision of Rain water harvesting in plots more than 300 sqm area, All big parks will have treatment plant for recycling of waste water for horticulture use. Provision of drip irrigation in all big parks to reduce water consumption and reduce grass cover by planting more trees.
- **Water shed Management:** The MDP also emphasis on water shed management, as it deserves priority in the development and preservation of any area. All the old water bodies which are dried up due to lack of maintenance shall be regenerated.
- **Environment protection :** "MDP emphasis on making efforts to reduce the effect of air and noise pollution due to urban transport and to protect the environment for a sustainable development.

(P) Satellite towns/Growth centre

In order to have balanced regional development, Master plan is prepared for 11 satellite towns and 4 growth centres within the Jaipur region. These satellite towns will help in reducing migration and urban infrastructural pressure to the mother city. Development of these towns will encourage economic development thereby creating job opportunities for the town and the villages in the vicinity.

(q) Quality of Life:

The Master Plan takes into account local living and work practices together with an analysis of the current state of the region's infrastructure. It also visions an intense and close relationship between the city area and the rural areas including the green belt which will be synergic nature, thus reducing the urban and rural divide that has crept in to planning so far and encouraging a rural-urban continuum. The approach of master plan is to establish that economic and human intellectual resources which, normally gravitate to urban areas, can be effectively used to plan development more evenly and to create an equitable and economical sound society.

MASTER PLAN TEAM

PLANNING TEAM

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(GIS Associate)

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AJAY SAINI

(Auto Cad Operator)

RAJESH SHARMA

(Auto Cad Operator)

ASHISH CHOUDHARY

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HARSHITA MATHUR (Operator)

Tania Chopra, Arpit Sancheti, Arvind Kanawat, Sasanka Rath, Aakriti Sexena, Sunil Chauhan have also contributed in finalization of the plan in the initial stages.

CHAPTER

1

INTRODUCTION



1.1 Background

Jaipur region is situated in north eastern part of Rajasthan. Jaipur region comprising of area under Jaipur Development Authority includes Jaipur city, Amber, Sanganer and towns and settlements of Bassi, Shivdaspura & Chandlai, Bagru, Chomu, Achrol, Jamwa Ramgarh and Contiguous areas.

The present Jaipur region, for the preparation of the Master Development Plan 2025, covers the villages included in the Schedule I of JDA Act 1982, as per notifications listed below:

- Urban area notification issued under Raj. U.I. Act-1959 vide notification F1 (6) TP/72 dated 9.10.1972 covering 132 revenue villages, including Jaipur city into notified urban area limit.
- The Jaipur Development Authority was established with Jaipur city, Sanganer, Amber, Bagru, Chomu, Bassi and 335 villages of Jaipur, Sanganer, Amber, Jamwa Ramgarh, Bassi and Chaksu Tehsils vide notification dt. 12.10.1982.
- 153 villages were included in the Jaipur Region vide notification F7 (22) UDH/3/87 dated 25.10.1997 and 17 villages were included being nonexistent vide notification F7 (22) UDH/3/87 dated 12.9.1996
- 247 villages were included in the Jaipur region vide notification F7 (22) UDH/3/87 dated 1.10.2007.

1.2 Hierarchy of planning

The Master Development Plan for Jaipur Region 2025 has been envisaged at five levels

- District Level Study: Comprises of the Jaipur District
- Jaipur Region -2025
- City Master Plan with Master plans for satellite towns/Growth centers
- Zonal Development Plans
- Village Development Plans



"MDP-2025 foresees five levels of planning i.e District, Region, City, Zones and Villages"

1.3 Vision - MDP 2025

Vision-2025 is to make Jaipur a global metropolis and a world class city, where all the people would be engaged in productive work with a better quality of life, living in a sustainable environment. This necessitate planning and action to meet the challenge of:

- population growth and in-migration to Jaipur;
- provision of adequate housing, specially for the weaker sections of the society;
- addressing the problems of small enterprises, particularly in the unorganized informal sector, dealing with the issue of slums;
- up-gradation of old and dilapidated areas of the city;
- provision of adequate infrastructure services;
- conservation of the natural environment;
- conservation of Jaipur's heritage and blending it with new and complex modern patterns of development.

It is drawn within a framework of sustainable development, Public private and community participation and a spirit of ownership and sense of belonging among its citizens.

1.4 Objectives

- **The Jaipur needs to be prepared and positioned for a mega city generator of economic momentum for global exchange through quality services and infrastructure.**
- Jaipur instead of remaining, just a State hub of economic activities, should become a national hub of economic activities, to enable it to play its due role as a national city and help the State of Rajasthan to position it as globally competitive State.
- Jaipur in the process should be able to siphon off some of the economic activities from global city net work.
- It is not just preparation of Master Development Plan, but to develop a global brand value for Jaipur through an implementable & pragametic plan with a long-term perspective, phased development and coordination of dedicated budgets are imperative.
- The Jaipur should take advantage of its architectural and cultural heritage to place it on global map as a world class tourism destination. A world class city vision would be part of this plan.



1.4.1 Jaipur District:-

- Study of Jaipur District in the context of the Region
- Study District with respect to its influence on Jaipur Region
- Address the issues pertaining to resources available in Jaipur and its environs
- Achieve balanced regional growth and integrate development of Jaipur Region with the other parts of Jaipur District.
- To draw conclusions from Jaipur District Study to arrive at developmental direction for Jaipur region.

1.4.2 Jaipur Region- 2025:-

- The Region Plan is to be prepared keeping in view the developmental inputs of the District.
- Address broad land utilization of region within the jurisdiction of Jaipur Development Authority
- The land utilization to be mapped based on the inputs of Geo-environmental assessment.
- Delineate the development area extent required for Master Development Plan-2025 along with broad land utilization.
- Balanced development of the Region with sufficient physical and social infrastructure.
- Integration of the development inputs of the urban & rural areas of Jaipur Region to promote Balanced and Planned growth of the Region.
- Identify, protect and preserve eco-sensitive areas in the region for controlled development outskirts of urbanisable area.

1.4.3 City Master Plan with Satellite towns and Growth centers:-

- To achieve balanced & planned physical development of the Jaipur city and Satellite towns/Growth centers.
- To prepare the integrated broad land use plan for the Urbanisable Area i.e. U1
- To envisage opportunities by encouraging safe, distractive educational, cultural, commerce, leisure and entertainment to enliven city and towns
- To promote development that do not disturb the environment fabric
- To reclarify zoning modules that segregate certain uses from others to effect minimization of negative externalities
- To strike balance between private and public transportation systems with home-work relationship
- To promote development on the desired lines of the people with the desired character of the city
- To usher density development pattern
- To encourage development with developer friendly environment
- To support development that promises growth of educational, cultural, entertainment recreation, retail business and employment activities.
- To influence development to conserve and enhance the architectural and heritage grandeur of the city.



"The objective of MDP 2025 is to make Jaipur a global destination in terms of economy , infrastructure and tourism"

1.4.4 Zonal Development Plan

- To divide the region in to planning zones.
- To prepare detailed zonal development plans to achieve equitable distribution of social and physical infrastructure and to establish hierarchy of roads.
- To attempt self contained zones along with interdependency of various facilities by bridging existing gaps amongst planning zones, including already developed areas.
- The zonal development plans basically to cater to the local needs
- Development promotion control regulations to further strengthen the use premises interpretation in the Zonal development plans.

1.4.5 Village Development Plan

Rural development is one of the important missions for transforming Jaipur into balance development area of region. The Aim is to prepare the Village Development Plan which will fulfil the spatial, economic and socio-cultural needs of the Village in a sustainable manner. The main objectives of Village Development Plan are:

- to study, analyze, assess the existing situation of village;
- to create data base bank using GIS enabled click information about Village;
- to achieve good hygienic environment by providing sewerage and drainage network;
- to achieve balanced and sustainable development including social, economic, physical & cultural aspects;
- protection of natural resources including habitat, vegetation, sensitive areas;
- to highlight local needs and aspiration through public participation.



1.5 Scope & Limitations

The scope is to prepare a document which would translate the economics and balanced growth concept for the Jaipur Region. The base for the analysis of the Region is mainly the Census information of India-2001. The map used is as per Quick bird images with the outer areas mapped through cartosat images. All physical data is limited to the quantitative inputs for the villages. The extents of the villages are limited to the mapping of village maps developed by DoIT, Jaipur. This however, may do not correlate correctly to the khasra maps of the villages.

The various boundaries are defined as per these village boundaries for study purposes as they are not Geo referenced. Thus in this context, it is limited. Though the maps are correctly geo-referenced, their actual positions on the ground may still vary, and need verification while attending to use zones and use premises for practical purposes. In some cases in the outer areas, the use is contiguous to the indicated use in the vicinity.



CHAPTER

2

JAIPUR

DISTRICT

JAIPUR DISTRICT



2.1 Introduction

2.1.1 Jaipur District

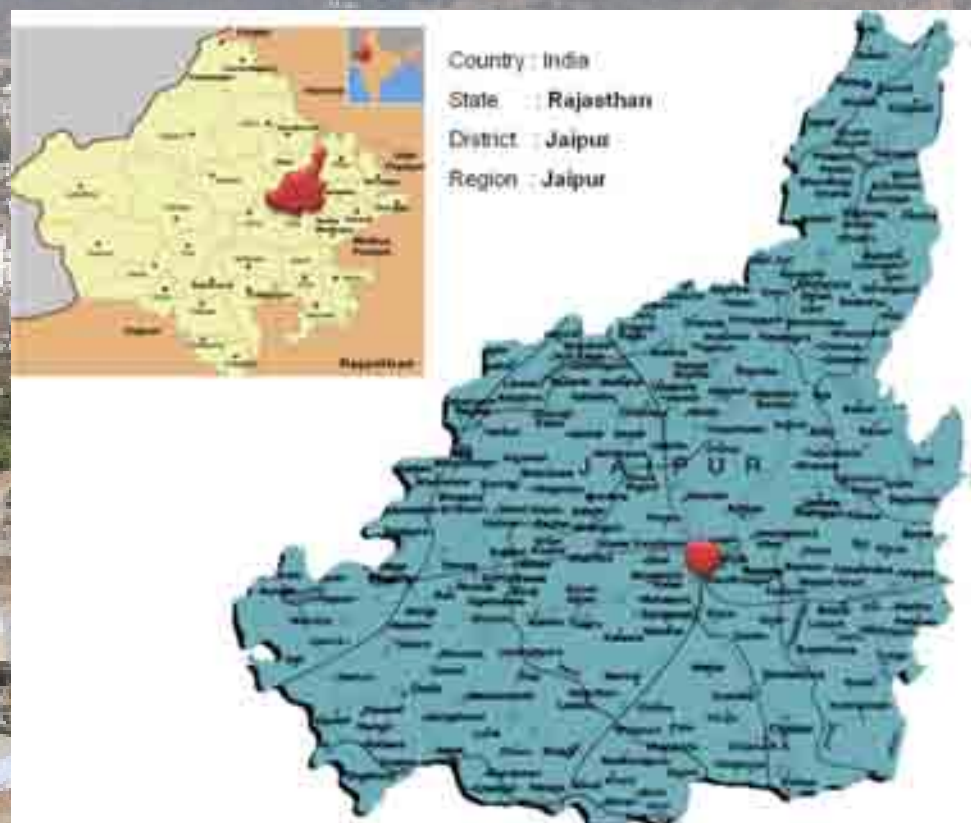
Jaipur District is one of the 32 districts in the State of Rajasthan in western India. The city of Jaipur, which is Rajasthan's capital and largest city, is also the district headquarters.

The district is situated in the North Eastern part of Rajasthan State. It is located between the North latitudes of 26°-23' N to 27°-51' N and East longitudes 74°-55' E to 76°-50' E. It is bounded by Sikar district in North-West, Alwar district in the North East, Dausa in East, Tonk in South, Ajmer in South West and Nagaur in West.

The district has an area of 11151 Sq.Km. and occupies 3.3% area of the state. It ranks 9th in comparison to the other districts of the Rajasthan in terms of the area.

The district imbibes 2131 villages, of which 2077 are inhabited and 57 are uninhabited.

Map 2-1 Location of Jaipur District



2.1.2 Administrative Set-up

Administratively, Jaipur district is a part of Jaipur division. The district is divided into 13 tehsils namely, Amber, Chomu, Jamwa Ramgarh, Shahpura, Viratnagar, Kotputli, Dudu, Phagi, Phulera, Bassi, Chaksu, Sanganer and Jaipur.

It also comprises an equal number of development blocks. As the district has a State capital, hence Jaipur has the Legislative Assembly, Secretariat, State level offices of maximum Government departments along with divisional and district level offices.

Map 2-2 Block Map Jaipur District



2.1.3 Approach:-

The district plan needs to imbibe the developmental inputs to usher balanced development of the district. In order to have an insight into the plan preparation the following were studied:

(i.) Economist's approach

Subdividing the district into Economic areas / Mandi areas. Its basic premises involve that a district plan document is not to be mere setting out targets and financial allocations but the document to imbibe logical relations between sectoral departmental plans and various economic areas to determine the chronological order to implement the schemes for implementation;

(ii.) Gadgils approach

District do not, necessarily, coincide with economic regions and hence divide them into small homogenous units capable of being treated as an integral economic unit for the purposes of planning. These sub-units of districts are not, blocks or villages, but Mandi areas;

(iii.) Planning commission guidelines of 1969

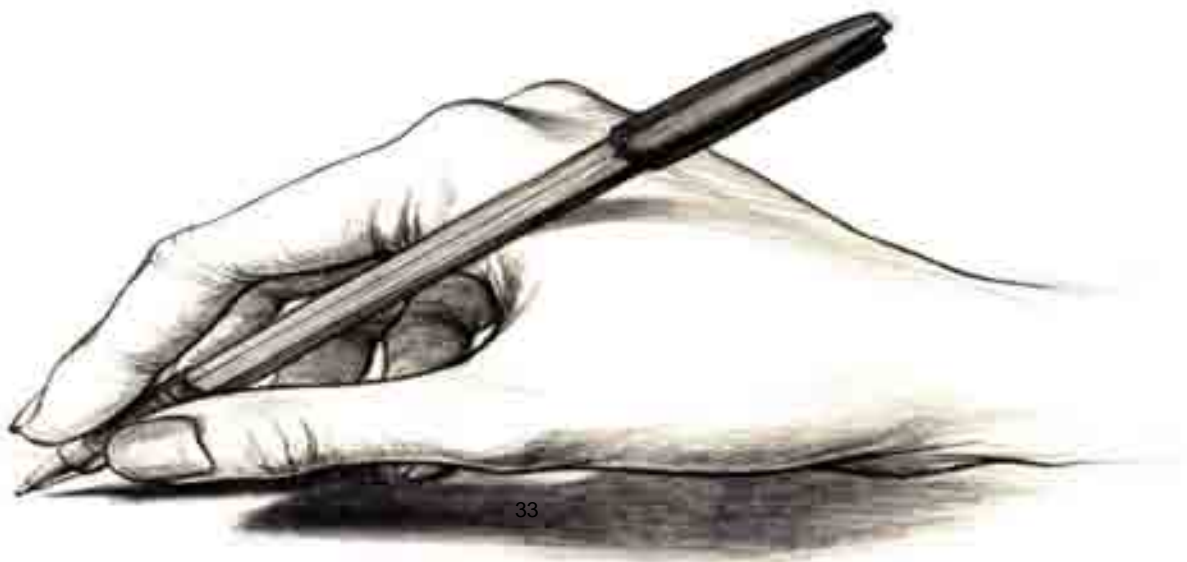
The Planning Commission issued Guidelines in 1969 for better District planning; however, there were certain constraints. In this model officials of different department were to be responsible for the preparation of schemes for inclusion in the district plan;

(iv.) Growth centre approach

It envisages clustering of villages in a district and identification of suitable locations for deployment of services and facilities in the cluster of villages;

(v.) Action oriented approach

This approach was developed by Misra et al (R.P. MISRA & K.V. SUNDARAM). This approach focuses on the human resources of the area and stresses on developing and upgradation of skills and development of people as against the conventional approach of developing the areas; and



(vi.) Working group report

The report by Hanumantha Rao, District planning is approached as integrated area planning with a sub-system of a multilevel planning framework. The development scenario so evolved at the district level is consistent with specific needs of the people, the growth potentials of the area, and available budgetary allocations. It has been, further, suggested that all the planning activities at district should vest with a single planning body.

All the above approaches profess differently the emphasis is primarily on decentralized area planning.

The scope and methodology of the working group report 1984 is considered comprehensive and elaborate and based on these attempts have been made to prepare the district plan as a supporting document for Jaipur Master Development Plan 2025.

1. To take Jaipur district as foot print to arrive at:-

- **growth potentials**
- **growth direction**
- **growth mechanism**

2. To understand the district development mechanism so as to draw the corridors of development.

3. To identify the areas of imbalance/ growth potentials.

In order to arrive at the same, three indicators have been considered. These indicators are as follows:

1. Economic indicators:

The economic indicator comprise of the commodities manufactured in each of the village i.e. the number one commodity, number two commodity, and the number three commodity manufactured as per 2001 census. In addition to it, it includes the mineral type and the small scale industry present in the village.

2. Facility indicators:

The Facility indicators to arrive at by assigning values to indicators like infrastructure, facility, services, population and distance to nearest town.



3. Transport Indicators:

Connectivity plays a vital role in the growth of any settlement. The well connectivity of a settlement has a direct impact on the basic infrastructure and its economy. Connectivity has been measured in terms of road network and the rail network. The villages have been assigned weightage depending upon its connectivity to the one or more than one connectivity to any of the National Highway; State Highway, Major District Road, Other District Road and Village Road.

In Jaipur district, an addition to the rail network is the development of DMIC along the Dedicated Freight Corridor (DFC). The 1483-km long DFC Project of which Rajasthan accounts for 39% length of the freight corridor will be commissioned in 2012.

DMIC will have an influence on the entire district, thus giving an impetus to the economic activity of the villages lying near to the corridor. Thus, all the settlements falling under the influence at a regular interval of 5km each from the freight corridor have been given weightage.

4. To collage all the above inputs to draw

- **Development mechanism**
- **Development directions**
- **Development areas**

The study that has been carried out, as enumerated is the following chapters is directional in nature to arrive at developmental directions for Jaipur region is due for it's preparedness for the horizon year 2025.



2.2

Climate and Physical Characteristics

A large part of Jaipur district is covered by thick mantle of soil, brown sand, and alluvium in eastern and northern area is occupied by hilly range areas and which belong to Aravalli Range and is known in different names at different places, the longest range starting from Sambhar lake in this district crosses over up to Singhana in the district of Jhunjhunu.

2.2.1 Climate

The district has a dry climate with a hot season. Generally cold season starts from December and lasts till February followed by hot season which continues up to middle of June. The period from mid-June to mid-September is of the south-west monsoon, next remaining period till winter is post monsoon season. Maximum, minimum and mean temperature recorded are 37°C, 6°C and 25.5°C respectively. The normal annual rainfall is 638.4mm.

Jaipur district enjoys two pre-dominant seasons-hot dry summer and cold winter with mean maximum temperature of 45°C and the mean minimum temperature of 5°C. The average annual rainfall is 595.3 mm.

2.2.2 Agro climatic zones

The Rajasthan state can be divided into following zones and Jaipur falls under the Semi Arid eastern plain.



Table 2-1 Agro climatic zones

Agro -climatic Zone	Regions	Districts
IA- Arid Western	Jodhpur	Jodhpur(Jodhpur, Phalodi, Shergarh, Osian)
		Barmer
IB- Irrigated North Western Plain	Ganganagar	Ganganagar
		Hanumangarh
IC- Hyper Arid Irrigated Western Plain Partially	Ganganagar Jodhpur	Jaisalmer
		Jodhpur
		Churu (Sujargarh, Ratangarh, Sardarshahar, Dungargarh)
IIA- Transitional Plain of inland drainage	Jodhpur	Nagaur
		Sikar
		Jhunjhunu
		Churu (Taranagar, Churu, Rajgarh)
IIB- Transitional Plain of Luni Basin	Jodhpur	Pali
		Jalore
		Jodhpur(Bilara, Bhopalgarh, Reodhar, Sirohi, Shivganj)
IIIA- Semi arid Eastern Plain	Jaipur Kota	Ajmer
		Jaipur
		Dausa
		Tonk
IIIB- Flood Prone Eastern Plain	Bharatpur	Alwar
		Bharatpur
		Dholpur
		Karoli (TodaBhim, Karoli, Nadauti, Sapotara, Hindaun)
		Sawai Madhopur (Bamanwas, Bauli, Gangapur)
IVA- Sub humid Southern Plain	Bhilwara Udaipur Jodhpur	Rajsamand
		Bhilwara
		Chittorgarh (except Bari Sadari, Pratapgarh, Arnod, Choti Sadari)
		Udaipur (except Dhariyabad, Salumber, Sarada)
		Sirohi (Abu Road, Pindwara)
IVB- Humid southern	Udaipur	Dungarpur
		Banswara
		Bhilwara
		Udaipur (Dharyabad, Salumber, Sarada)
		Chittorgarh (Bari Sadari, Pratapgarh, Arnod, Choti Sadari)
V- Humid Southern Eastern Plain	Kota	Jhalawar
		Kota
		Bundi
		Baran
		Sawai Madhopur
		Bharatpur
		Sawai Madhopur(Khandar, Sawai Madhopur)

2.2.3 Geomorphology

Geomorphologically, district **Jaipur** is classified into fifteen geomorphic units, spread over district namely, alluvial plain, alluvial plain(sandy), valley fill, palaeochannel, Salt encrustation/Playa, Ravine, flood plain, Pediment, Buried Pediment, Intermontane valley, Sandy plain, Eolian plain, Denudational hill, Structural hill and Linear ridge. Location of these units are as follows:

Table 2-2: Geomorphology Occurrence in Jaipur District

Landform Units	Occurrence in district
Fluvial Origin	Entire southern boundry, north of Bassi, surrounding Chomu, Shahpura & Kotputli town, west of Kanota village i.e. along river Dhundh.
Alluvial Plain	
Alluvial Plain (Sandy)	Mainly concentrated in central and western part of district.
Valley Fill	Marginally in eastern part between hills.
Salt Encrustation/Playa	South of Sambhar lake.
Palaeochannel	West of Chomu town & north of Sabrampura.
Ravine	Wind water side of hills in eastern part, south east of phulera town.
Flood plain	Along rivers Dhund & Mendha.
Denudational Origin	Along hills in eastern and northern part of district also west of Sanganer town.
Pediment	
Buried Pediment	Mainly scattered in north and north east.
Intermontane Valley	Marginally in between hills near Benrath village.
Eolian Origin	
Sandy plain	South of Sambhar lake, east of Hingonia Sagar.
Eolian plain	South of Kotputli town.
Hills	
Denudational Hill	East & north east of Jaipur city, around of Jamwa Ramgarh lake.
Structural Hill	Scattered in northern and eastern part.
Linear Ridge	Scattered in eastern part.

2.2.4 Geohydrology

Jaipur district is divided into four hydrological domains- Quaternary formations-younger alluvium and Quaternary formations- Older alluvium, quartzite (Delhi Super Group) and Phyllite and Schist, Granite Gneiss (Bhilwara Super Group).

Table 2-3: Geohydrology Occurrence in Jaipur District

Geohydrology Unit	Characteristic	Occurrence
Younger Alluvium (Quaternary)	It mainly includes wind blown sand, talus and scree deposits along drainage channels. Alluvium is composed of fine to medium grained sand, silt, clay and kanker in varying proportions. The deposits on the flank of hills is consisted of fine to coarse grained sand and angular fragments of rocks. Thickness of alluvium varies considerably. It generally increases northward and in major part of the area noticed less than 100 m.	The litho unit, leaving aside some southern peripheral blocks like Chaksu, Phagi, Dudu and part of Sambhar block, occupies major part of the area.
Older alluvium (Quaternary)	It includes fine to medium grained sand, silt, clay and kankar in varying proportions. Thickness of alluvium generally encountered less than 50 m.	The litho unit covers entire Sanganer block and spreads in major part of Sambhar, Phagi, Dudu, Chaksu and Bassi blocks.
Quartzite (Delhi Super Group)	The litho unit is generally of grey colour but fawn, buff and white colours have also been found in the area. Quartzite is medium to coarse grained and varies from feldspathic grit to sericitic quartzite.	The litho unit occurs as small localized pocket in Amber, Bairath, Bassi, Jamwa Ramgarh and Kotputli blocks.
Phyllite and Schist, Granite Gneiss (Bhilwara Super Group).	Phyllite and schist included argillaceous meta sediments. Granite and gneiss characteristically have gneissic structure comprising light coloured feldspathic and dark ferromagnesian minerals.	Phyllite and Schist occupy small area in southern peripheral part in Dudu, Jamwa Ramgarh and phagi blocks. Granite and Gneiss cover extensive area in Dudu blocks and extends in western peripheral part of Phagi block.

2.2.5 Relief

Jaipur has an average elevation of 432 metres (1417 ft). Hill ranges, isolated peaks with relative height of over 200 M, which belong to the Aravalli hill system, occupy areas to the East and North of Jaipur. The longest range known as Puranaghat and Nahargarh in Jaipur tehsil, as Bairath in Kotputli and so on. To the west lies the Torawati hill. Major part of the district has an elevation between 300-450m.

2.2.6 Slope

The slope of land in the Jaipur district varies from less than 10 metres/kilometre to 300 metres /kilometre. The district is distinctively divided diagonally. The lower part of it has a slope less than 10 metres /kilometre and the higher part has 10-20 metres /kilometre. The top most part of the district has a slope again below 10 metres /kilometre.

The waste lands in Jaipur district are sparse and are not consolidated but are spread over the arable unirrigated areas of the district.

2.2.7 Soil Types

The soils of district Jaipur are greyish brown to brown and yellowish brown, light to medium textured and deep to very deep. These soils can be classified in Entisols order by 7th approximation classification. Some soils belong to Ardisols order.

2.2.8 Surface Water Use

To provide drinking water to old city in Jaipur district there is Ramgarh dam on Ban Ganga river. There is a single natural lake named Sambhar lake, the water of which is salty and is the largest source of good quality salt in India. Other important water bodies in Jaipur district are Chaparwara, Kalakh, Hingonia, Buchara and Mansagar. All the rivers in the district of Jaipur are non-perennial in nature and run only in the rainy season.

2.2.9 Ground Water Use

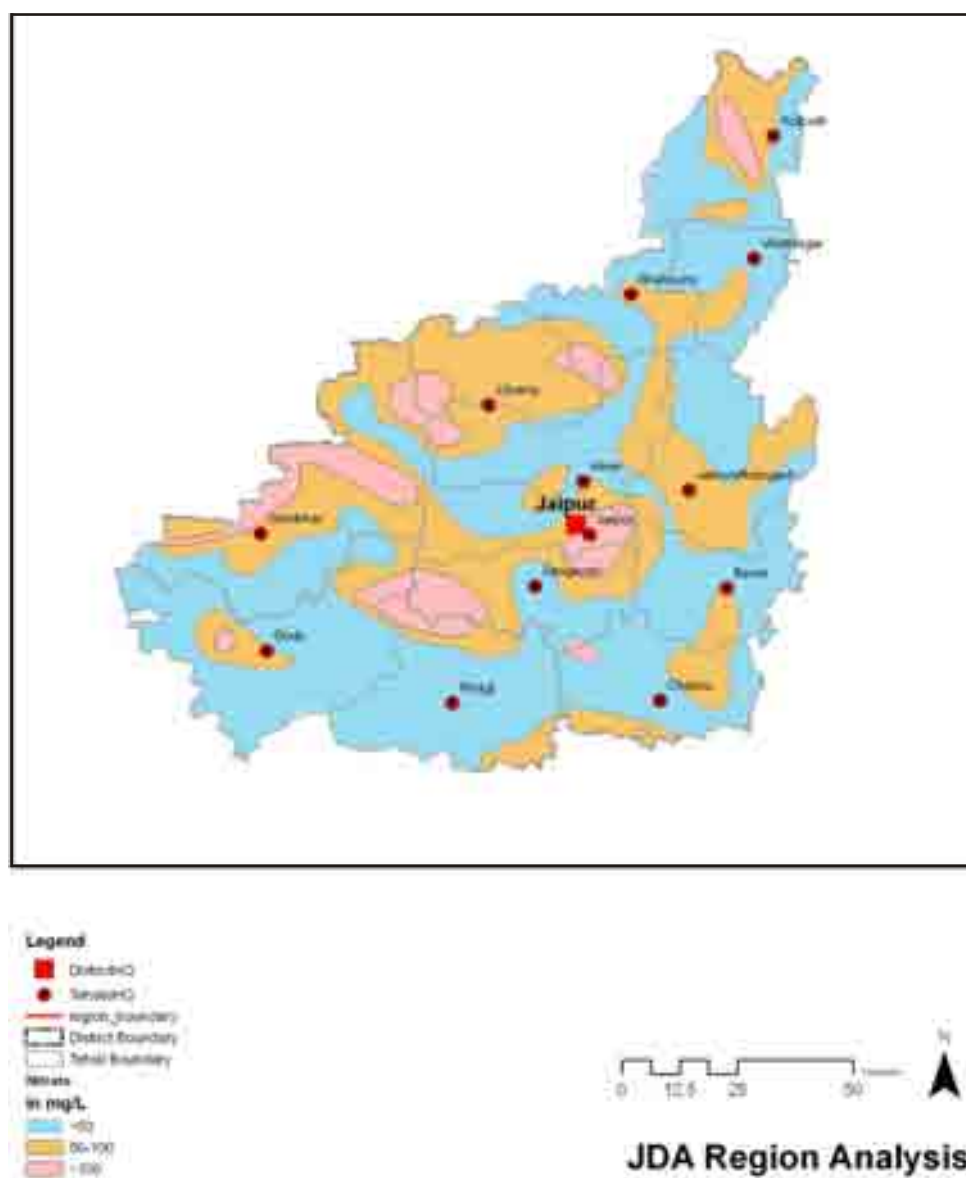
The main source of irrigation in district Jaipur is wells. Almost 95% of irrigation is through ground water. The ground water in Jaipur district is mostly bicarbonate in nature with low to medium density. However fresh water is available in most parts of the district and is potable. The northern part of the district comprising Kotputli block, lower parts of Shahpura, northwest area between Sambhar and Govindgarh, and south west covering Dudu, Sambhar and Sanganer and central part of Jamwa Ramgarh is not suitable for drinking.



(i.) Nitrate

The map of nitrate distribution in Jaipur district shows that higher concentration of nitrate i.e. more than 100mg/L is mostly observed in northern part of the district including Kotputli block and two patches in Govindgarh block. Other places where such quality of water is encountered in the district are around villages Manda, Hingonia, Gadota, Untirampura and Bagru near Jaipur. The area in southwest around Dudu, in eastern side around village Nithara, Saiwad and Shahpura in Shahpura block, Bhanpurakallan, Andhi, Bhoojdhanlu, Rasala in Jamwa Ramgarh and in southeastern part in Bassi and Chaksu block is having nitrate in the range 51-100 mg/L. Water with nitrate concentration 0-50 mg/L is found in rest of the district. The distribution pattern of nitrate concentration shows that 7% samples fall in 0-50 mg/L range, 42% in 51-100 mg/L range and rest 21 % samples fall in more than 100 mg/L of nitrate. The maximum nitrate value is observed at village Rampura Unti (2640 mg/L) in Sanganer block.

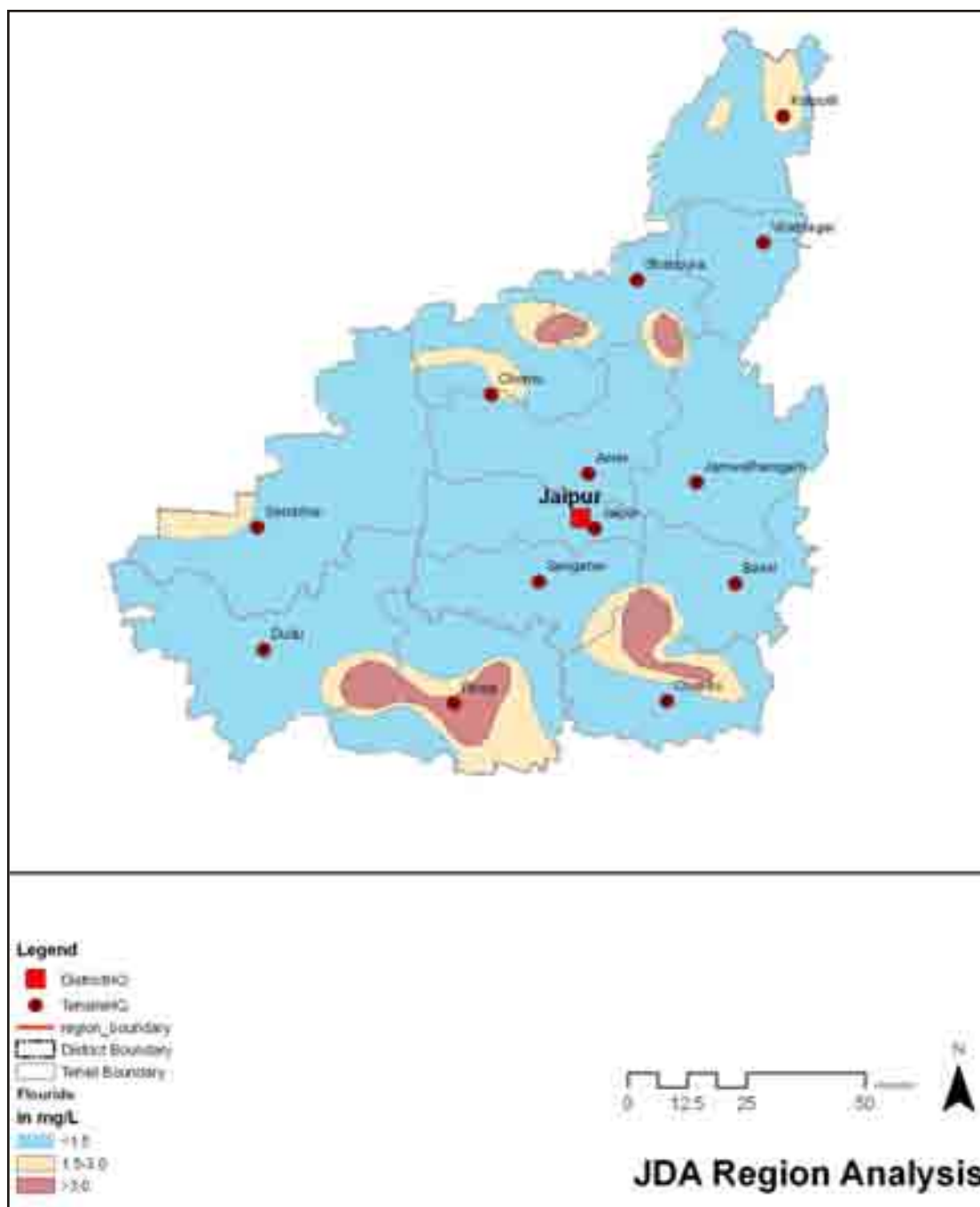
Map 2-3 Ground Water Quality - Nitrate



(ii.) Fluoride

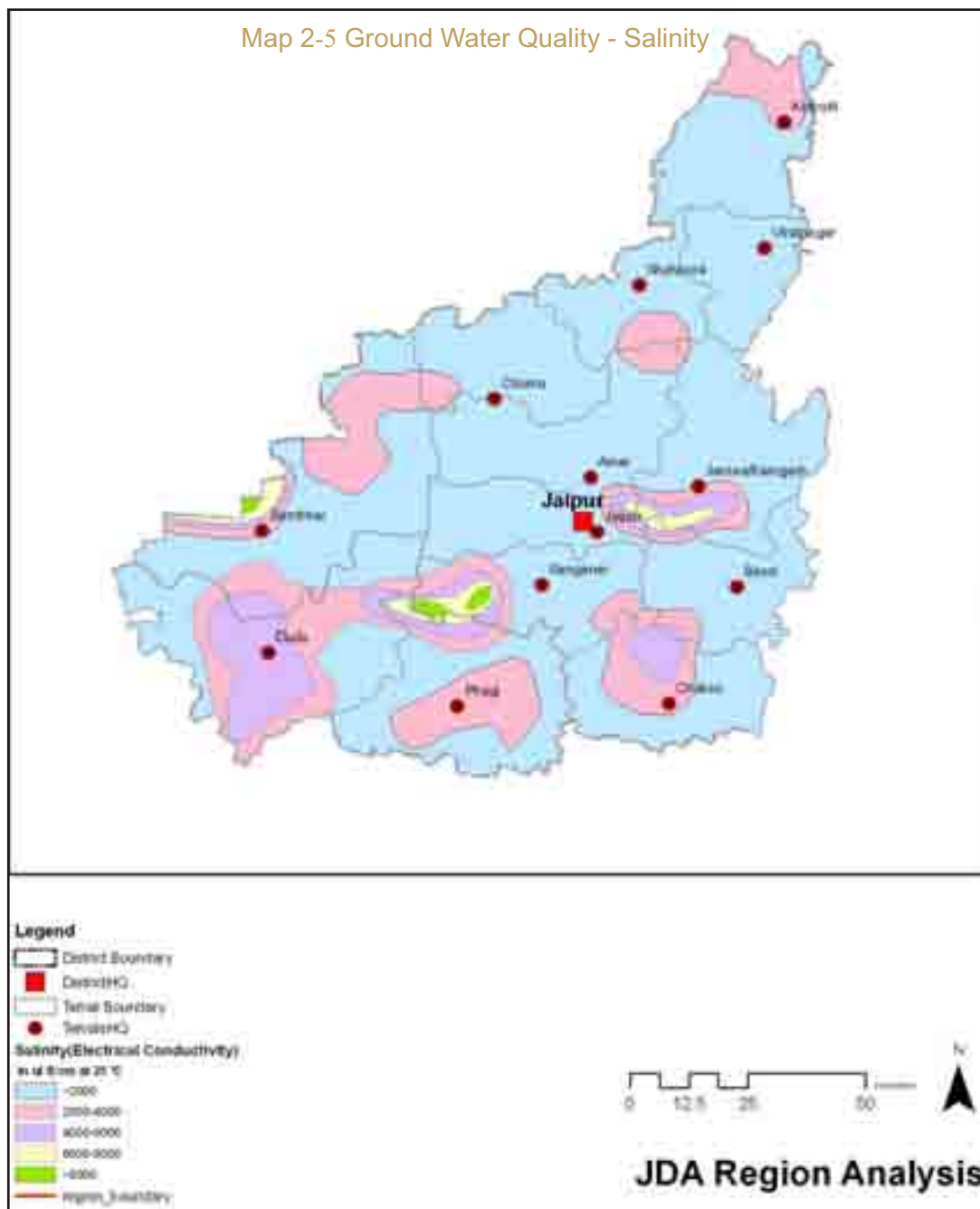
The fluoride concentration in Jaipur district is below 1.5 mg/L in most part of the district. The north part of the district in Kotputli block, area between Amber and Shahpura, northwest part in Govindgarh and southern part in Dudu and Phagi blocks are having fluoride concentration in the range 1.5 to 3.0 mg/L. The villages Goqera, Ponyala, Putli, Chaturbhuj in Kotputli, Mohanpura in Shahpura block, Tigria in Govindgarh block, Dhamana, Korsina, Sarwad, Chatyali, Phagi, Choru in Phagi block, Kadera, Kohlye, Shivdaspora in Chaksu block are having fluoride concentration more than 3.0 mg/L.

Map 2-4 Ground Water Quality - Fluoride



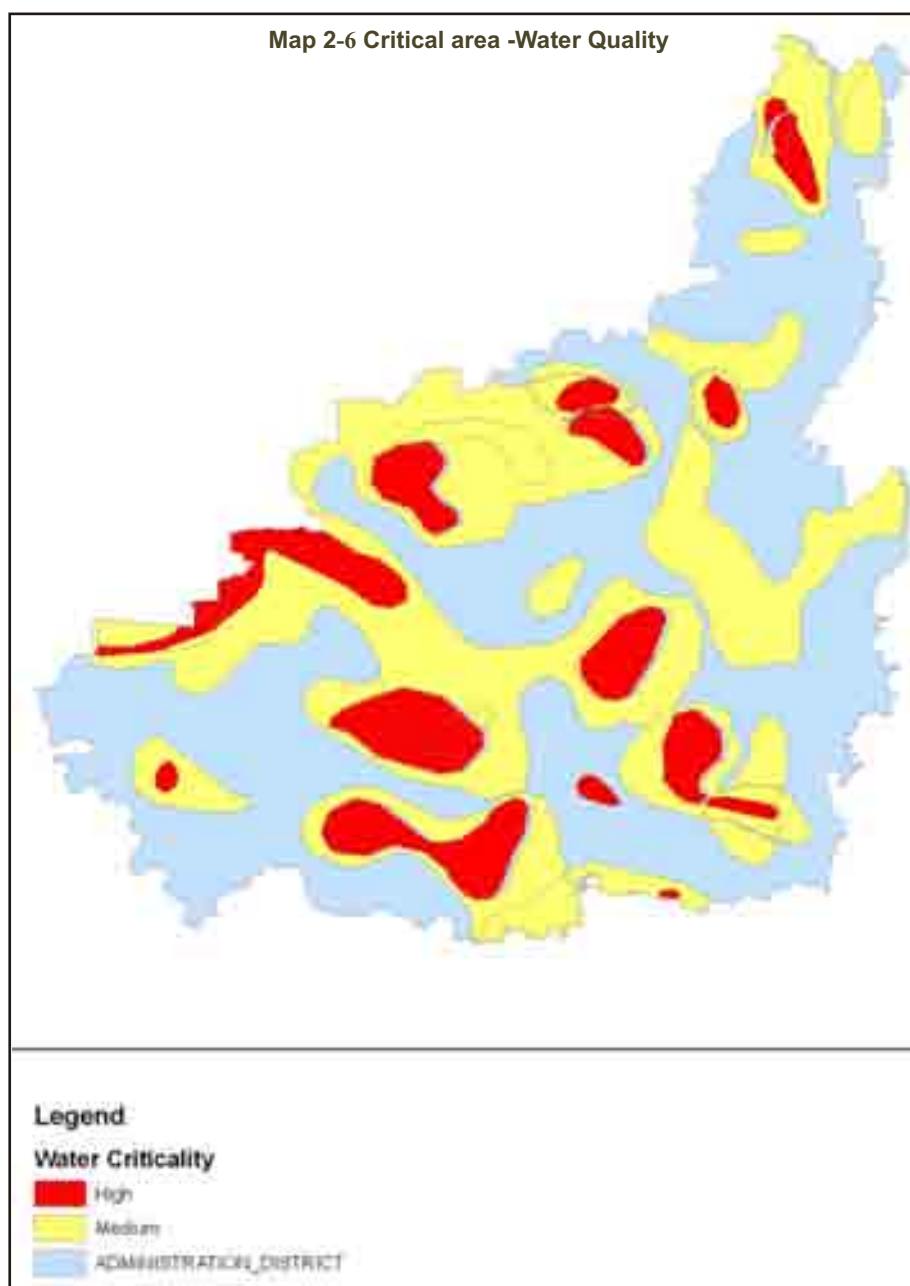
(iii) Salinity

Salinity analysis of Jaipur district shows that groundwater in 0-2000 $\mu\text{S}/\text{cm}$ range is available in 80% in Amber, 84% in Bairath, 100% in Bassi, 73% in Chaksu, 50% in Dudu, 92% in Govindgarh, 60% in Jamwa Ramgarh, 70% in Jhotwara, 48% in Kotputli, 71% in Phagi, 84% in Sambhar, 50% in Sanganer and 92% in Shahpura block and is characterised as fresh to slightly saline water. The next range of moderately saline water i.e. EC 2000-4000 $\mu\text{S}/\text{cm}$ is represented by 20% in Amber, 6% in Bairath, 13% in Chaksu, 15% in Dudu, 8% in Govindgarh, 10% in Jamwa Ramgarh, 52% in Kotputli, 29% in Phagi, 31% in Sambhar, 25% in Sanganer and 8% in Shahpura blocks. EC 4000 and above is represented by 13% in Chaksu, 35% in Dudu, 30% each in Jamwa Ramgarh and Jhotwara, 15% in Sambhar and 25% in Sanganer block



In order to achieve the water criticality all the above three layers, like Salinity, Flouride and Nitrate collaged with values and the following areas have been identified, ;

- High level criticality
- Moderate level criticality
- Low level criticality



Generally the criticalities are attended to by filtration methods. These methods reduce the critical levels moderately. However, the areas with High levels needed attention and these are spread in the entire district in one form or the other. The following map indicate the criticality spread in the district pointing to attention. The priority is to make the district as flourosis-free.



2.2.10 Biological Diversity

There are a number of wetlands and sanctuaries in Jaipur and Dausa district which are rich in biodiversity. There are however very small in size ranging to a maximum of 6 sq.km area. They do play a vital role in retaining the biodiversity, flora and fauna of the region. The prominent ones are:

Sainthal in Jaipur district: It is a notified WL 3 sq km. closed area where poaching is prohibited. It is situated close to Sariska Tiger Reserve on Gola ka bas Dausa road.

Mahala in Jaipur district: 3 sq.km in area. It is situated at about 25kms. From Jaipur City on Jaipur-Ajmer route. In winter large congregations of water fowls are seen.

Jamwaramgarh Sanctuary in Jaipur district: 300 sq.km in area containing some rare species of animals.

Nahargarh Sanctuary in Jaipur district: 50sq.km in area containing interesting species of animals. This sanctuary has been closed now.



2.2.11 Incompatible Land Use

These are the areas, which are sensitive to development owing to their ecological, historical or cultural importance. Incompatible land use also includes water supply areas.

Table 2-4: Incompatible land use, Jaipur district

S. N o.	Name of Tourist Place/Spot	Location	Type(Scenic Areas tourism Areas /Hill resorts/Religious Places, Pilgrim Centers	General Description
1	Sambhar Lake	Jaipur	Wetland-site Ramsar	Sambhar Lake is the most expensive inland saline depression in India. The lake receives run off from a catchment area of about 7560 sq.km. And has not outlet. Four main streams feed Sambhar. Roopan, Mendha, Kharian and Chandelle. Low hill and fossil dunes surround Sambhar, with Sambhar town being located on one such dune. About 7800 ha. Of the eastern part of Sambhar Lake, north and west of Sambhar town is devoted to salt production by Sambhar Salts Ltd., a Govt.of India company. Forest Department of Rajasthan is working on a project to treat the catchment area in order to check further siltation of the lake.
2	Sainthal	Jaipur	Wetland	It is a notified WL 3 sq km. closed area where poaching is prohibited. It is situated close to Sariska Tiger Reserve on Gola ka bas Dausa road.
3	Man Sagar (Jal Mahal Lake)	Jaipur	Wetland, tourist spot	1.5 sq.km area. It is situated within the Jaipur township. A Lake Palace is also located inside this water body. In winter bird watch festival is held every year on this lake.
4	Mahala	Jaipur	Wetland	3 sq.km in area. It is situated at about 25kms. From Jaipur City on Jaipur-Ajmer route. In winter large congregations of water fowls are seen.
5	Jamwa Ramgarh	Jaipur	Wetland, drinking water source, picnic spot	3 sq.km in area. It is one of the prime sources of drinking water supply to Jaipur city. In 1982 Asiad Boating competitions were organized in this lake. A favorite picnic spot of people of Jaipur.
6	Jamwa Ramgarh Sanctuary	Jaipur	Sanctuary, tourist place	300 sq.km in area containing some rare species of animals.
7	Nahargarh Sanctuary	Jaipur	Sanctuary, closed area.	50sq.km in area containing interesting species of animals. This sanctuary has been closed now.
8	Nahargarh	Jaipur	Biological park	Formation under progress- 6 sq.km in area, About 8 kms from Jaipur city on Jaipur-Delhi highway. It would contain animal species like Hyena, jackal, Blue bull, Panther, Jungle cat, Monitor Lizard

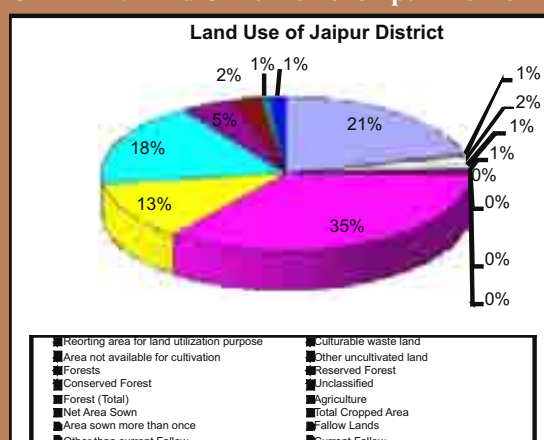
2.3 Land Utilization

The land use gives vital information regarding areas under different uses viz. reserved/ open & dense/ degraded forests, plantation, water bodies, waste land, etc. The land utilisation of the district is as follows:-

Table 2-5: Land Utilization of Jaipur District

S.No	Land Use Category	Area(In Hectare)
1	Reporting area for land utilization purpose	1105559
2	Culturable waste land	30103
3	Area not available for cultivation	81123
4	Other uncultivated land	48326
5	Forests	79333
6	Reserved Forest	677.73
7	Conserved Forest	254.92
8	Unclassified	11.87
9	Forest (Total)	944.52
10	Agriculture	1855798
11	Net Area Sown	666305
12	Total Cropped Area	927899
13	Area sown more than once	261594
14	Fallow Lands	120988
15	Other than current Fallow	51361
16	Current Fallow	69627

Chart 2-1: Land Utilisation of Jaipur District



The land utilisation of the district as depicted below indicates that major utilisation of the land in Jaipur is as agricultural area followed by sown area followed by a large percentage of cropped land and an equally large percentage of area for Utilisation purposes.

In order to get the accurate data models of land utilization in the villages of Jaipur district the land use as per the census 2001 has been used. Following are the uses covered:

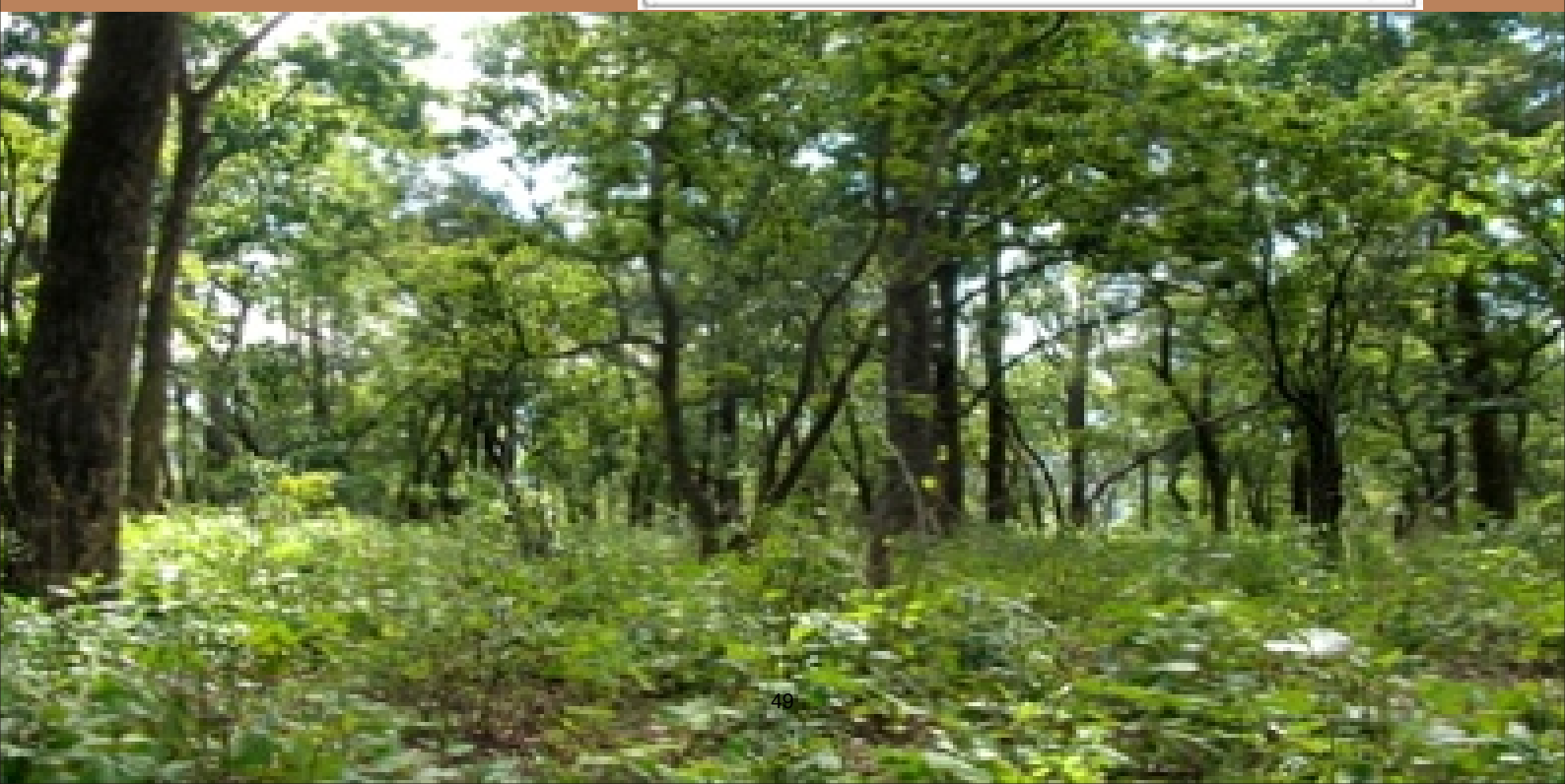
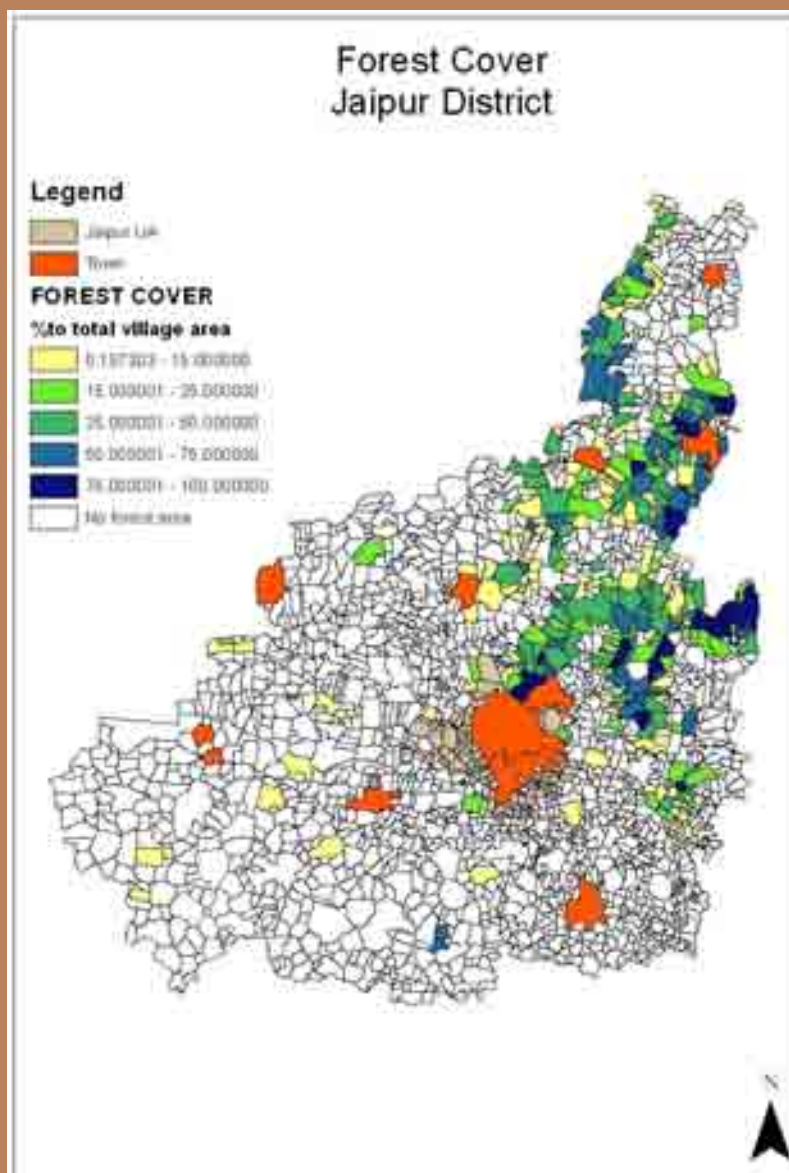
1. Forest cover
2. Total irrigated area
3. Unirrigated area
4. Culturable waste
5. Area not available for cultivation

2.3.1 Forest Cover

This includes all lands classed as forest under any legal enactment dealing with forests or administered as forests, whether state-owned or private, and whether wooded or maintained as potential forest land. The area of crops raised in the forest and grazing lands or areas open for grazing within the forests remain included under the forest area.

District of Jaipur has 355 villages which have some forest cover. Out of these villages, 69 villages have forest cover greater than 50% of the total village area. There are 23 villages with forest area more than 75% of the village areas. The map indicates the villages having forest cover. The darker shade has shows the maximum forest area in the village and the lighter the shade lesser the forest area.

Map 2-7 Forest Cover



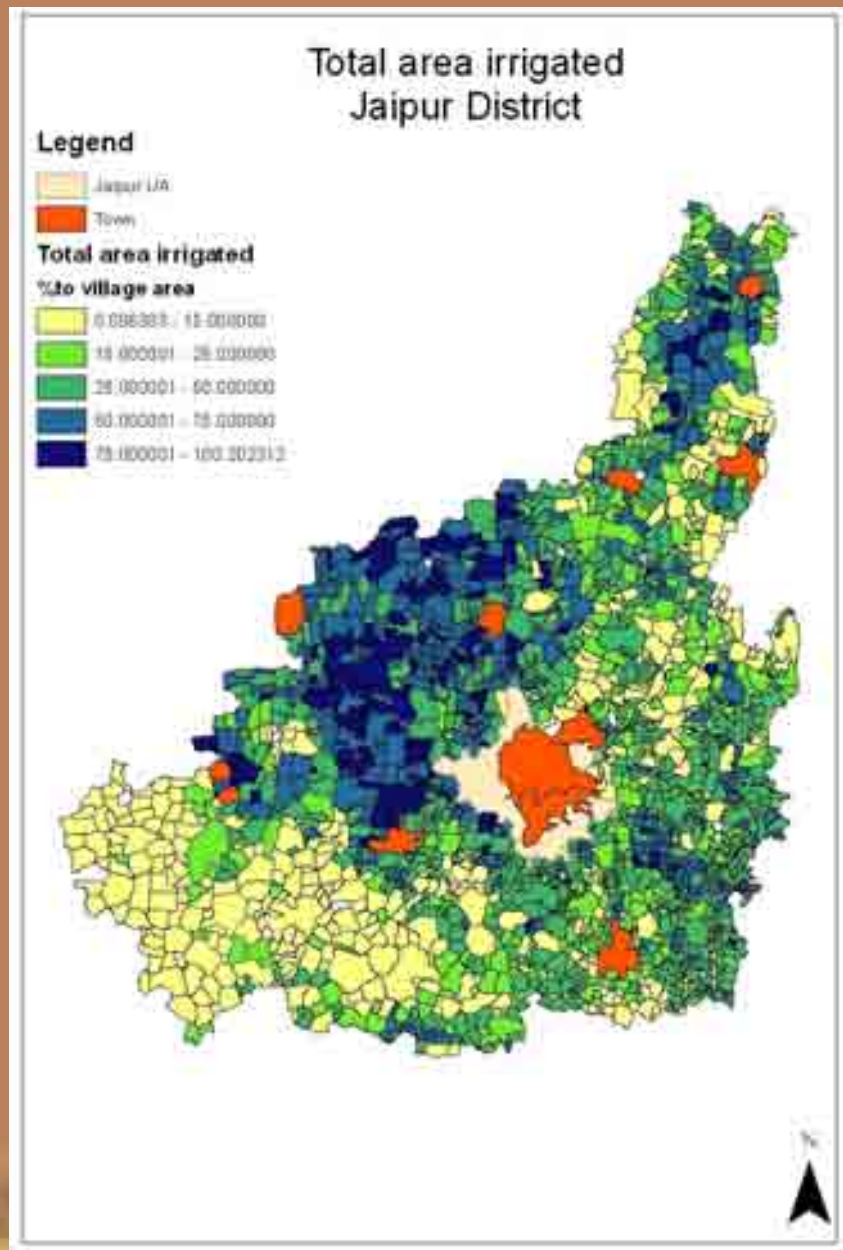
Map 2-8 Total Area Irrigated

2.3.2 Total irrigated area

Multiple farming and multiple cropping need irrigation. The total area irrigated under all crops represents the gross irrigated area which represents the gross irrigated area, which comprises the net irrigated area plus the area on which two crops are grown and irrigated during the same agricultural year.

In the district, of 2131 villages, 2096 villages are the villages in which irrigation is done. Of these villages, there are 658 villages where more than 50% of the area is under irrigation. There are 199 villages where the irrigation is more than 75% of the village area. These villages lie on the eastern and north eastern part of the district. It becomes an important indicator in assessing the zoning.

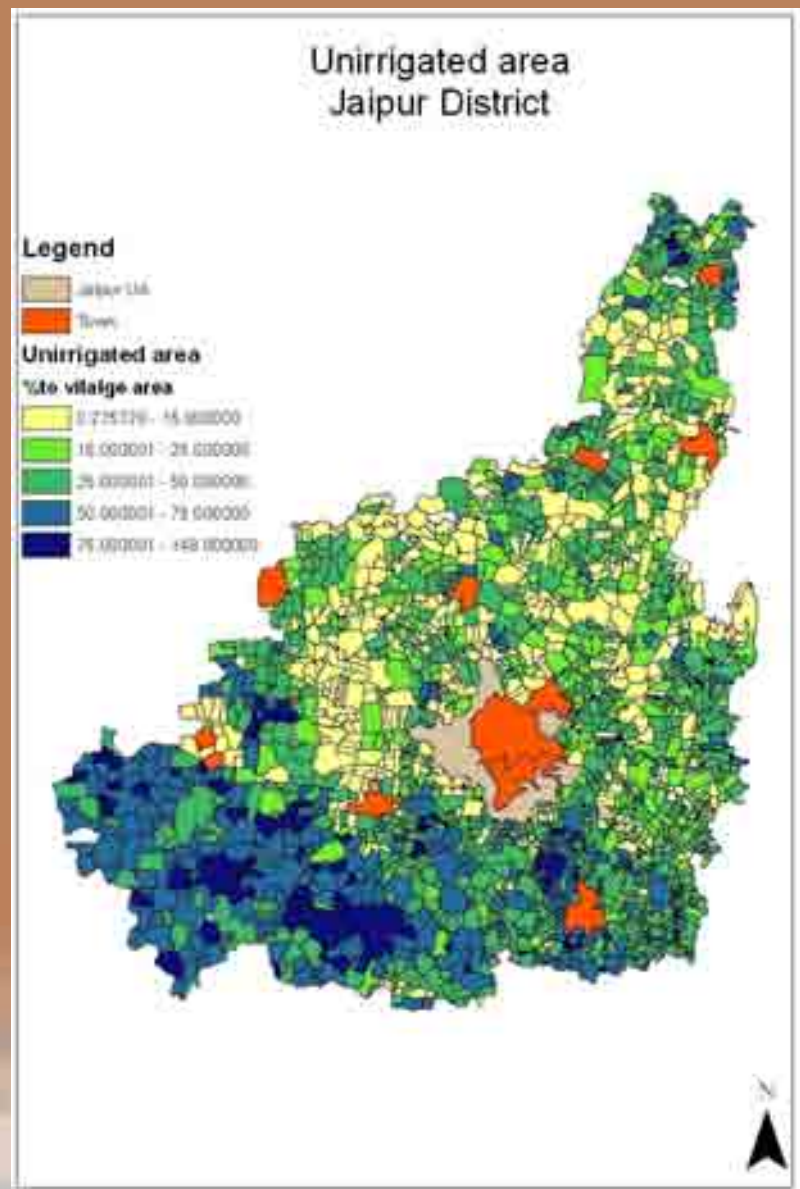
The map gives the representation of the villages with the %of village area under irrigation.



Map 2-9 Unirrigated Area

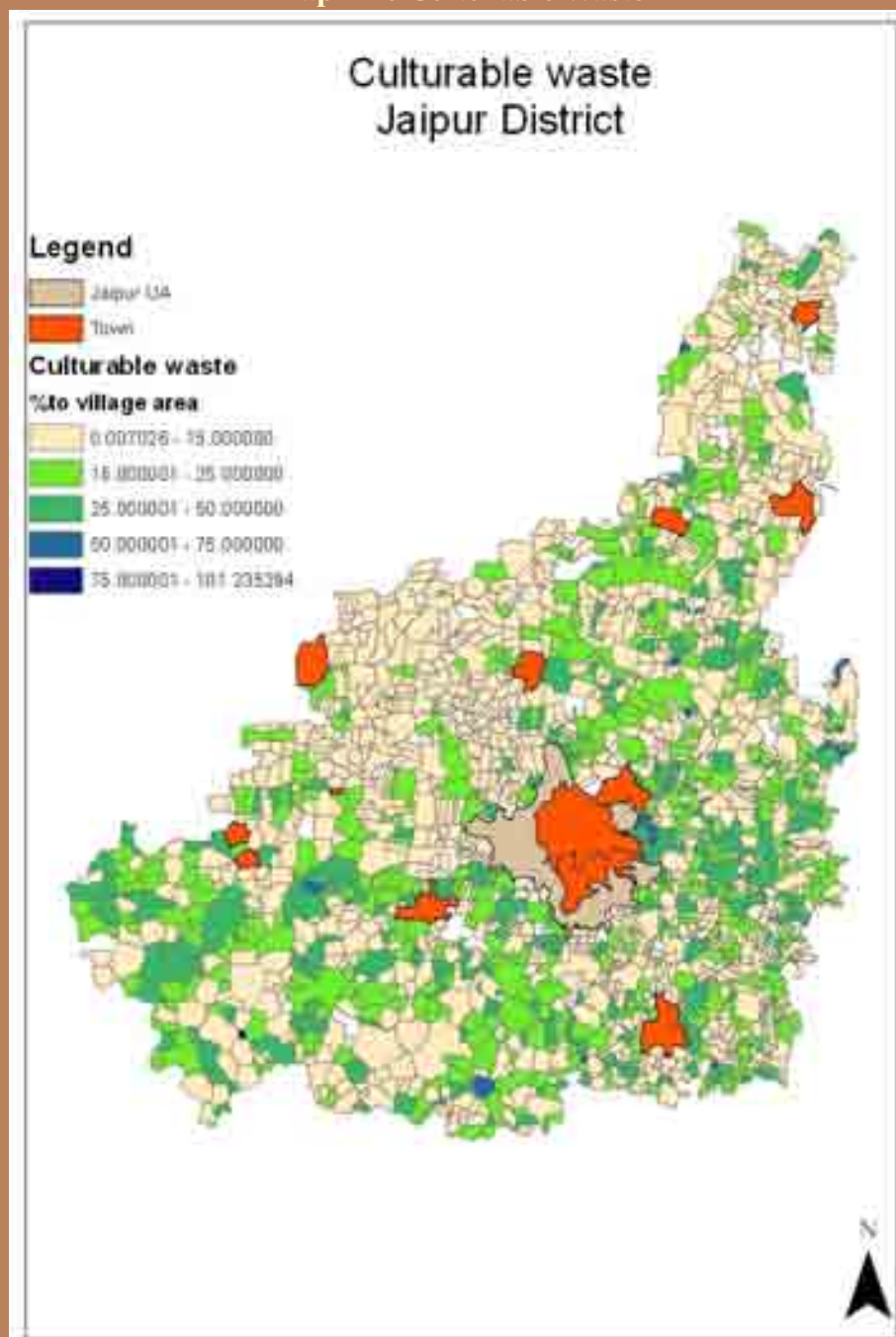
2.3.3 Unirrigated area

There are 482 villages where the un-irrigated land to the total village area is greater than 50% and 89 villages with un-irrigated area more than 75%. These villages lie towards the south of the district. The following map represents the same.



2.3.4 Culturable waste

Map 2-10 Culturable Waste



This includes lands available for cultivation, whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and the last five years or more in succession for one reason or other. Such lands may be either fallow or covered with shrubs and jungles which are not put to any use. They may be assessed or unassessed and may lie in isolated blocks or within cultivated holdings. Land once cultivated but not cultivated for five years in succession is also included in this category at the end of the five years. From the map it can be seen that in the Jaipur district cultural waste is spread throughout the district, except in some eastern part where the Culturable waste is very less.

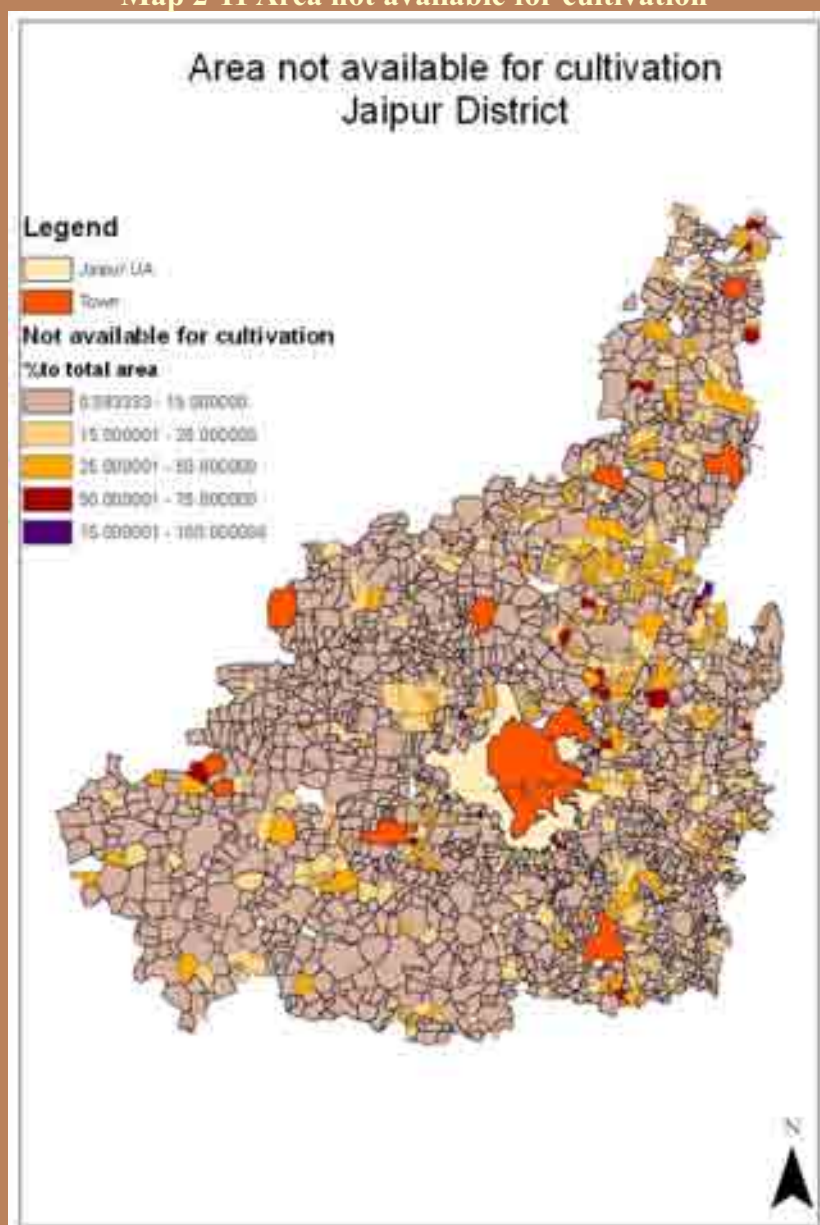
2.3.5 Area not available for cultivation

This would include Forest area under non-agricultural use, barren and uncultivable land. As area under forests has been covered, thus area under non agricultural use, barren and uncultivated land has been used.

- i) Area under Non-Agricultural Use: All lands occupied by buildings or ponds or lands put to use other than agriculture will be included in this category. Only such lands within the cultivated holding should be covered in the Census.
- ii) Barren and Uncultivable Land: All barren and uncultivable land within the cultivated holding.

From the map it can be seen that towards North and North East part more of land not available under cultivation is there.

Map 2-11 Area not available for cultivation



2.4

Socio-economic Profile

2.4.1 Demography (i.) Decadal Growth

Jaipur district has shown an increase in the population over the past decades. In the last decade there was a growth of +39.51%, which has fallen to +35.06, this decade.

Table 2-6: Decadal population Growth of Jaipur District

Year	Population	Population Increase	Decadal Growth Rate
1961	1522591	-	-
1971	1993463	+470872	+30.93
1981	2786816	+793353	+39.80
1991	3887895	+1101079	+39.51
2001	5251071	+1363176	+35.06

Source: Derived from Census of India

The above table shows the decadal growth trend of the district. In 1961, the population of the district was 15.2 lakh which is now 52.5 lakh. The decadal growth rate of population ranges between 30.9% to 39.8%, with an average annual growth rate of 3.6%.



(ii) Rural - Urban Population growth in the District

Table 2-7: Decadal population Growth of Rural and Urban- Jaipur district

Year	Total Population	Rural population	Decadal Growth Rate	Urban population	Decadal Growth Rate
1961	1522591	1033914	-	488677	-
1971	1993463	1279664	+23.77	713799	+46.07
1981	2786816	1606778	+25.56	1180038	+65.32
1991	3887895	2113412	+31.53	1774483	+50.38
2001	5251071	2659004	+25.82	2592067	+46.07

Source: Derived from Census of India

The rural- urban decadal percentage of growth shows that the ratio of Rural to the Urban is continuously changing. There has been increased urbanisation over the decades with agriculture on the decline and increase in service sector.

(iii.) Growth in Urbanisation

Table 2-8: Decadal population Growth of Jaipur District

Year	Rural (%)	Urban (%)
1961	67.90*	32.10*
1971	64.19*	35.81*
1981	57.66*	42.34*
1991	54.36*	45.64*
2001	50.64	49.36

* excluding District Dausa. In 1992, Jaipur was then re-constituted with the creation of Dausa district .

In 1961, the level of Urbanisation was 32% which has increased to 49% in 2001. The national average of urbanisation is 32%. The increased level of urbanisation in the district is on account of the Jaipur city which is a primate city and also the major employment provider for the State of Rajasthan, besides, the Jaipur region covers almost 1/3 part of the district.

(iv) Age wise population distribution

The age-wise population and sex distribution of the district shows that in the age group of 5-9, there is maximum number of persons i.e.717,862. The combined population from the age group of 0-14 is 20,04,427 persons, thus indicating that more work opportunities need to be created for the same by the year 2025. The following table gives the breakup of the population with respect to the age and sex respectively.

Table 2-9: Age-Sex population distribution

S No.	Age groups	Persons	Males	Females
1	0 - 4	622,009	327,289	294,720
2	5 - 9	717,862	377,607	340,255
3	10- 14	664,556	352,128	312,428
4	15 - 19	542,306	297,674	244,632
5	20 - 24	486,594	261,331	225,263
6	25 - 29	423,349	219,924	203,425
7	30 - 34	367,590	189,227	178,363
8	35 - 39	327,828	171,993	155,835
9	40 - 44	258,951	139,993	118,958
10	45 - 49	211,741	113,215	98,526
11	50 - 54	159,972	87,869	72,103
12	55 - 59	123,099	61,089	62,010
13	60 - 64	112,657	56,261	56,396
14	65 - 69	84,112	40,162	43,950
15	70 - 74	61,404	30,764	30,640
16	75 - 79	27,704	13,238	14,466
17	80+	32,881	14,660	18,221
18	Age not stated	26,456	13,779	12,677
19	All ages	5,251,071	2,768,203	2,482,868

Source: Census of India, 2001

(v.) Sex Ratio

Sex ratio is one of the major social indicator of any place. Jaipur district has shown an improvement in its sex ratio over the past decades, though the increase has not been a substantial one. At present the sex ratio of the district stands at 897, much lower than the state sex ratio of 921 and that of India which is 933.

Table 2-10: Decadal Sex Ratio of Jaipur District

Year	Rural	Urban	District
1961	905	860	890
1971	907	860	890
1981	913	865	892
1991	908	873	892
2001	914	880	897

Source: Derived from Census of India

The rural sex ratio is higher than the urban sex ratio and this can be attributed to the rural male migrating to urban areas.

(vi.) Literacy Rate

Table 2-11: Decadal Literacy Rate of Jaipur District

Year	District Literacy rate			Rural Literacy rate			Urban Literacy rate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1961	19.98	29.16	9.68	11.01	18.77	2.45	38.97	50.63	25.41
1971	23.73	33.82	12.40	14.12	23.61	3.60	46.13	57.06	33.42
1981	31.40	44.11	17.18	20.04	33.47	5.28	51.12	62.14	38.39
1991	47.88	64.79	28.69	34.49	54.8	11.80	67.37	79.19	53.72
2001	69.90	82.80	55.52	62.15	78.88	43.86	77.46	86.54	67.13

Source: Derived from Census of India

The literacy rate of the Jaipur district has increased considerably over the past decades from 19.98% in the year 1961 to 69.9% in the year 2001. The urban literacy rate is 77.46% and the rural literacy rate is 62.15% as per 2001 census. The sharp increase of rural literacy rate from 1991 to 2001 can be attributed to the fact that there was a nationwide campaign for increasing the literacy through the Sarv Siksha Abhiyaan and Saksharta evam Satat Shiksha Abhiyaan

As per 2001 census, the male literacy rate is 82.80% and the female literacy rate is 55.52% correspondingly the Literacy Rate of the male population in the rural area is 78.88% and that of the female is 43.86%. In the case of urban area, the male literacy rate is 86.54% and that of female is 67.13%. This women literacy in the district is a major concern, especially in the case of the rural areas.



2.4.2 Occupational Structure

Compared to the State where there are 58% of the cultivators, Jaipur district has only 36.5% of cultivators. Also, agricultural laborers in the State are 55%, whereas in the Jaipur district it is 4.5% only. There are a high percentage of other workers in the district, i.e. 54.6% whereas in the State it is 31%. Also, the percentage of household industry workers is little higher in the district than compared to the State, having 4.4% and 3% respectively.

Upon comparing the four categories of workers of rural and urban areas, we find that there are more cultivators in rural area, being 60.2% and more of other workers in urban area, being 89.1%. The type of workers that come under this category of 'Other Worker' include all government servants, municipal employees, teachers, factory workers, plantation workers, those engaged in trade, commerce, business, transport banking, mining, construction, political or social work, priests, entertainment artists, etc. In effect, all those workers other than cultivators or agricultural labourers or household industry workers, are 'Other Workers'.



Table 2-12: Occupational Structure

Workers	Total		Male		Female	
	Total	% to total workers	Total	% to total workers	Total	% to total workers
Cultivators						
Total	679775	36.5	350168	18.8	329607	17.7
Rural	647088	60.2	332385	30.9	314703	29.3
Urban	32687	4.1	17783	2.3	14904	1.9
Agricultural laborers						
Total	83720	4.5	33157	1.8	50563	2.7
Rural	76105	7.1	29513	2.7	46592	4.3
Urban	7615	1.0	3644	0.5	3971	0.5
Household workers						
Total	82101	4.4	54143	2.9	27958	1.5
Rural	36576	3.4	21887	2.0	14689	1.4
Urban	45525	5.8	32256	4.1	13269	1.7
Other workers						
Total	1018459	54.6	873515	46.9	144944	7.8
Rural	315624	29.3	256140	23.8	59484	5.5
Urban	702835	89.1	617375	78.3	85460	10.8

Source: Derived from Primary Census Abstract, Census of India, 2001

The above table gives the distribution of occupational structure in district, rural and urban area along with male and female participation in the same. It can be seen that percentage of male and female cultivators is almost same with only one percentage difference, with male on the higher side. Similarly in case of agricultural labourers the percentage is almost same, with female workers on the higher side. The household workers have a little higher percentage of male workers in comparison to the female workers, being 2.9% and 1.5% respectively. In case of the urban area there are 4.15% of male workers and 1.7% of female workers. A high difference exists between the male and female workers in the category of other workers. While there are 46.9% of male workers, there are only 7.8% of the female workers. In case of the urban area, there is 78.3% of the male workers and 10.8% of the female workers.

2.4.3 Workers Profile

(i.) Work force participation rate

Jaipur district has a total work force participation rate of 35.5%. The rural workforce participation rate is 40.4% and urban is 30.4%.² Thus the rate is higher in case of the rural areas.

Table 2-13: Work Force Participation Rate, Jaipur District, 2001

District	Total population	Total workers	WFPR (%)
Total	5251071	1864055	35.5
Rural	2659004	1075393	40.4
Urban	2592067	788662	30.4

Source: Derived from Primary Census Abstract, Census of India, 2001

The following table gives the comparison of India, Rajasthan and Jaipur district in terms of the work force participation rate. It can be seen that overall work force participation rate in Jaipur district is low than compared to the country and state. The urban workforce participation rate is almost same in district in comparison to the state.

Table 2-14: Work Force Participation Rate, 2001

Place	India	Rajasthan	Jaipur
Total	39.1	42.1	35.5
Rural	41.7	45.9	40.4
Urban	32.3	29.6	30.4

Source: Census of India, 2001

(ii.) Distribution of Main and Marginal workers

In Rajasthan, of the total workers, 31% are main workers and 11% are marginal workers, while in district, 30% are main workers and 5% are marginal workers. The following table gives the percentage distribution of main and marginal workers in the entire district and as well as in rural and urban areas. There is not much variation in the main workers percentage in the urban and rural areas.

² Work participation rate is defined as the percentage of total workers (main and marginal) to total population (as per Census of India, 2001).

Table 2-15: Distribution of Main and Marginal workers

District	Main workers	% Main workers to total population	Marginal workers	% Marginal workers to total Population
Total	1584361	30.17	279694	5.33
Rural	859719	32.33	215674	8.11
Urban	724642	27.96	64020	2.47

Source: Derived from Primary Census Abstract, Census of India, 2001

2.4.4 Industries

Jaipur district has 48 large & medium scale running units, 19,544 number of small scale units, 19 of industrial areas namely Bagru, Bassi, Bais Godam, Bindyaka, Dudu, Hirawala, Jetpura, Jhotwara, Kaladera, Kanakpura, Kartarpura, Malviya Nagar, Phulera, Renwal, Sanganeer, Shahpura, Sitapura, Sudarshanpur and Vishwakarma.

The main industrial products are: Acetylene gas, ACSR cables, ball bearings, bottling of LPG, ceramics, pottery, gemstone, jewellery, etc. Food items are atta, lour, edible oil, etc.

The items that are exported are Brass and lacquer work, enamel work, gems and jewellery, granite tiles, handloom, marble statues, printed cloth and textiles, readymade garments and woolen carpets. These are exported to places like Malaysia, Thailand, Hongkong, Europe and US.

(i.) RIICO - Jaipur Scenario

RIICO has its Head Office and 5 regional offices in Jaipur District, which administer the development of land related infrastructure for industrialization.



Table 2-16: RIICO industrial area in Jaipur district

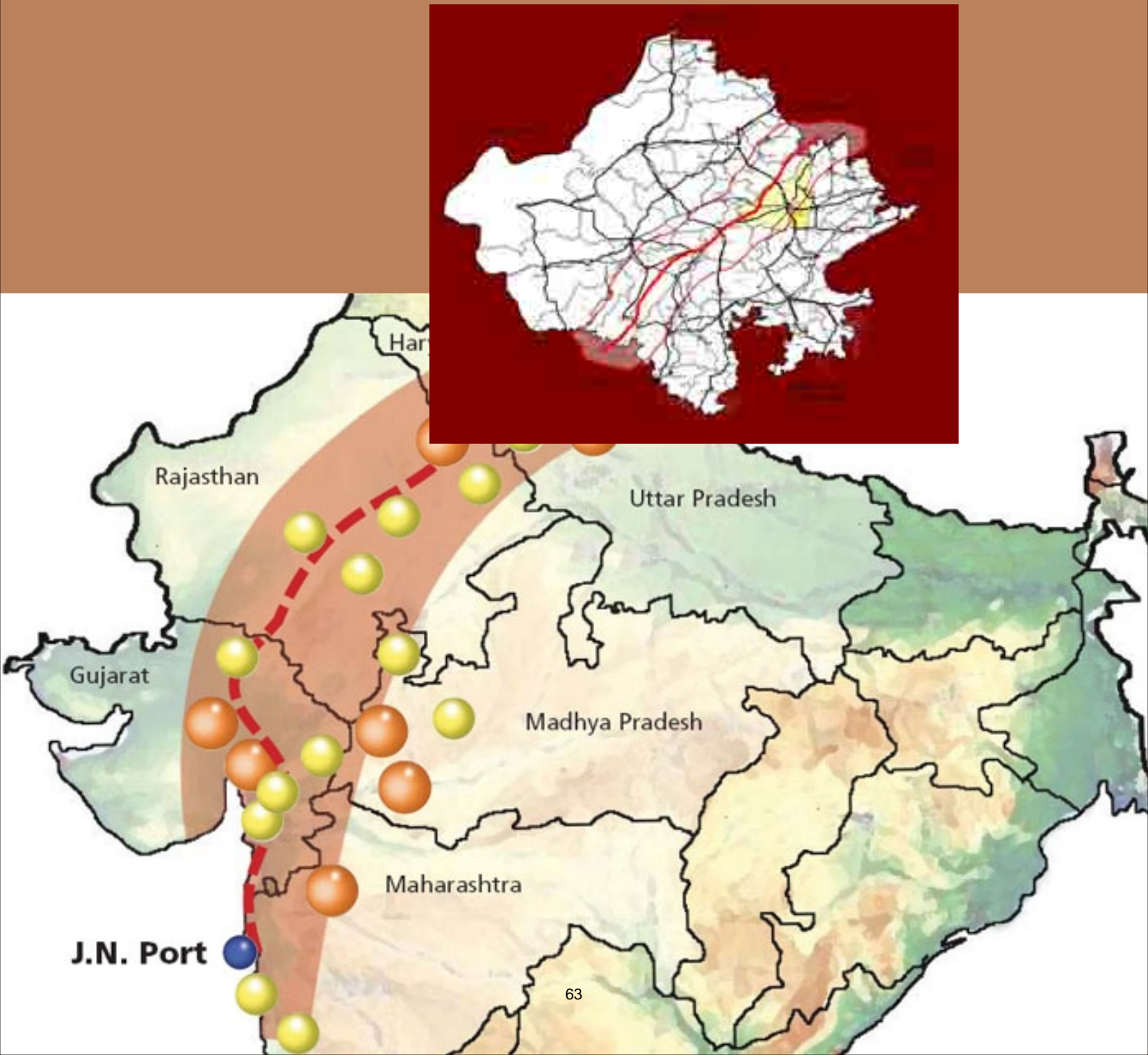
S. No.		Industrial Area	Total Land Acres
1.	Regional Office at Jaipur (North)	VKIA VKIA (Ext.) Badarna Jhotwara (Ext.I) Jhotwara (Ext.II) Jaitpura Kaladera Renwal Jhotwara (T.A.) Akeradungar	2778.65
2.	Regional Office at EPIP Sitapura	Sitapura Sitapura Ph-III Sitapura Ph-IV EPIP Institutional Area SEZ-I SEZ-II	1646.71
3.	Regional Office at Jaipur (Rural)	Phulera Kankpura (UD.) Shahpura Dudu Bindayaka-I Bindayaka-II Kartarpura (T.A.) Sudershanpura (Ext.) Bais Godan (TA) Sudershanpura (T.A.) Manpur Macheri Kukas Bagru (Ext.) phase-II Bagru Old Bagru (Ext.) Kanth Kalwar Kanth Kalwar (Ext.)	1789.605
4.	Regional Office at Jaipur (South)	MIA Mansarover Hirawala Hirawala Ext. Bassi I&II Bassi Ext. Bagrana (Undev.) Kilkipura (Undev.) Gem Park Adjoining Gem Park Bagru Chhitroli Apparel Park	1224.32
5.	Regional Office at Shahajahanpur	Keshwana	490.38

(ii.) DMIC Corridor

Jaipur District falls under the Delhi Mumbai Freight Corridor which is to enhance development of Industries (DMIC). The length of the corridor is 1483 km (39% in Rajasthan) which will get operational by 2014 . The corridor is expected to have an influence zone of 150 Kms on either side, resulting in more than 70% of Jaipur district getting covered by the same. Railways have proposed 6 Freight Logistics park along DMIC, one in Jaipur. Which is Phulera - junction / station. Rail linked Inland Container Depot and Container Freight Station is proposed in Jodhpur, Jaipur, Kota (Rawtha Road).

The following map shows the DMIC corridor along with its influence zone.

Map 2-12 DMIC corridor along with its influence zone



2.4.5 Location of Mines/ Potential Mineral

Rajasthan is very important in the mineral production. 79 varieties of minerals are available in the Rajasthan, out of which 58 minerals were produced in 2006-07. The State is exporting several minerals in raw form as well as after value addition.

A variety of mineral deposits are found in the district of Jaipur district contributing a huge amount to the state revenue each year. Some of these are:

- China clay: One of the finest varieties of china clay occurs at Buchara and Torda.
- Copper: promising areas exist near Gol and Badshahpur, Dhanla and Ghati Godyana.
- Dolomite: 50% production of dolomite for the state comes from Jaipur and Dausa.
- Iron: The iron ore deposits are located mainly at Morija, Rampura, Nayla, Nimla, Raipur, Maonda, Dabla, Bagwas, Tateri and Bania-ka-bas, Lalsot, Ravsola, Bimani.
- Lime stone: Cement grade limestone occurs near Kotputli and Maonda. Impure limestone deposits are widespread and occur near Raori, Nayla, Harori, Nimla and Dabla.
- Silica Sand: Banskoh and Jhir hills are the main source.
- Soap stone: The best variety occurs at Dogetha-Jharana.

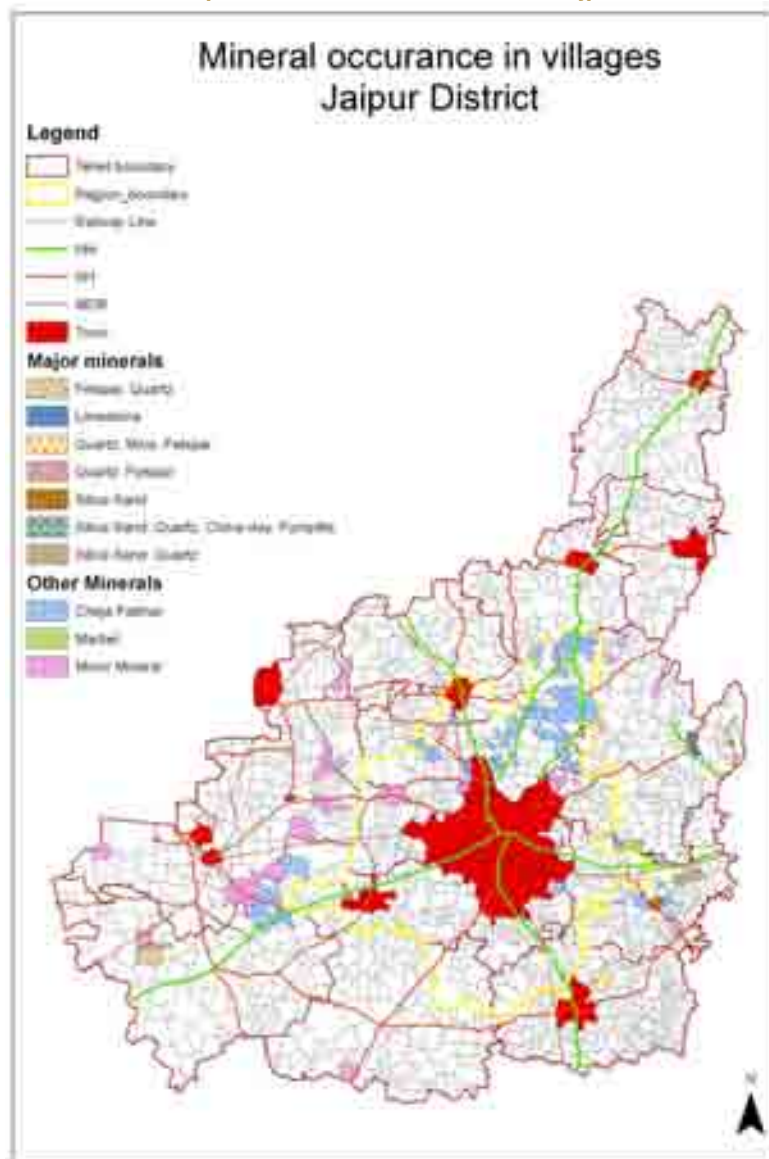


2.4.6 Economic Potential of Villages in Jaipur District

The district villages have economic potential in terms of the minerals, both major and other minerals present, the presence of small scale industries and the number of commodities manufactured as per the 2001 census. The following are the map representing the same:

(i.) Minerals

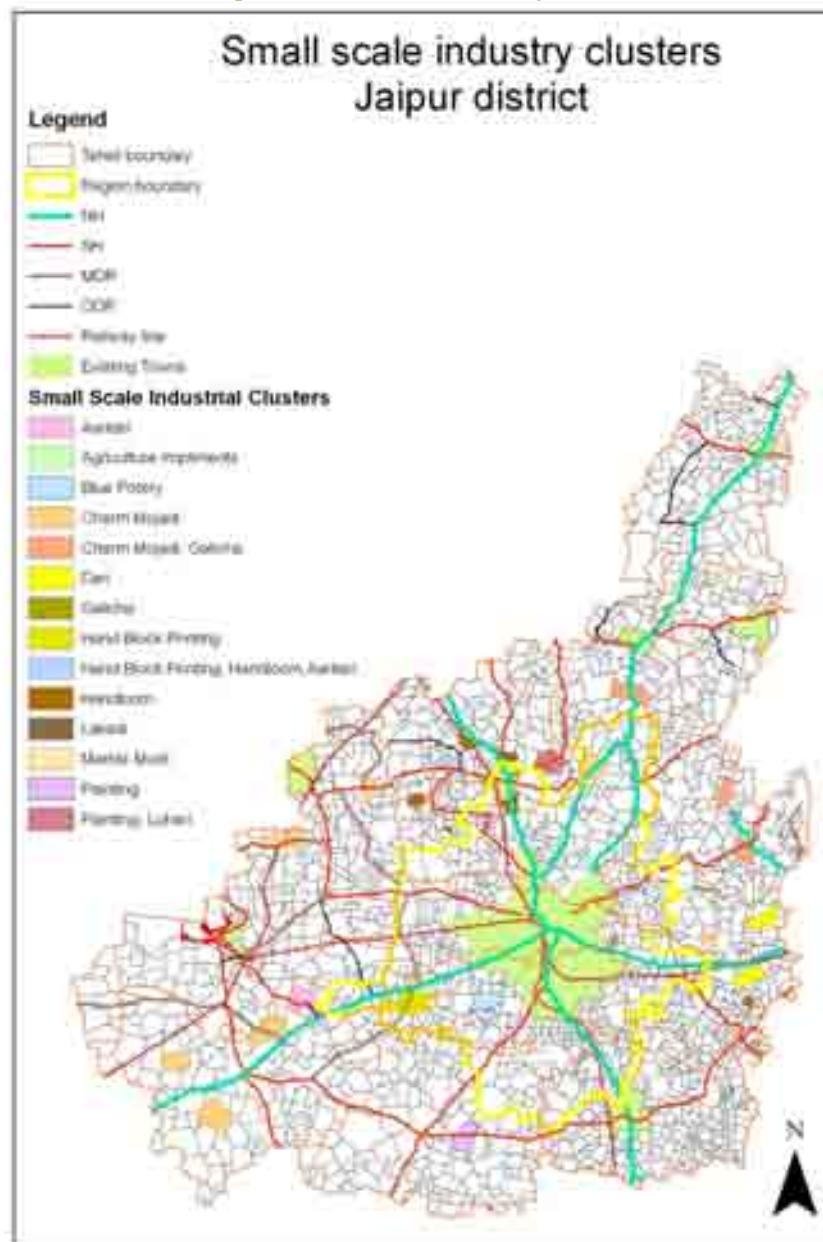
Map 2-13 Mineral Occurance in villages



A variety of minerals are present in the district, namely, Feldspar, quartz, limestone, Mica, Silica sand, China clay, Pyroplite and other minerals such as Cheja Patthar, amrbel and some minor minerals. Either one or more than one of these minerals occur in the villages. There are seven villages in which the major minerals occur. These villages are namely, Baskhoh, Shyampura, Lalgah, Marwa, Nimodiya, Sankotra and Adarwa. In all these villages, Cheja patthar is also present except in Sankotra, where marbel is present as the additional mineral. In addition to the these 7 villages, there are 70 villages where other minerals occur.

(ii) Small scale industry clusters

Map 2-14 Small Scale Industry Clusters

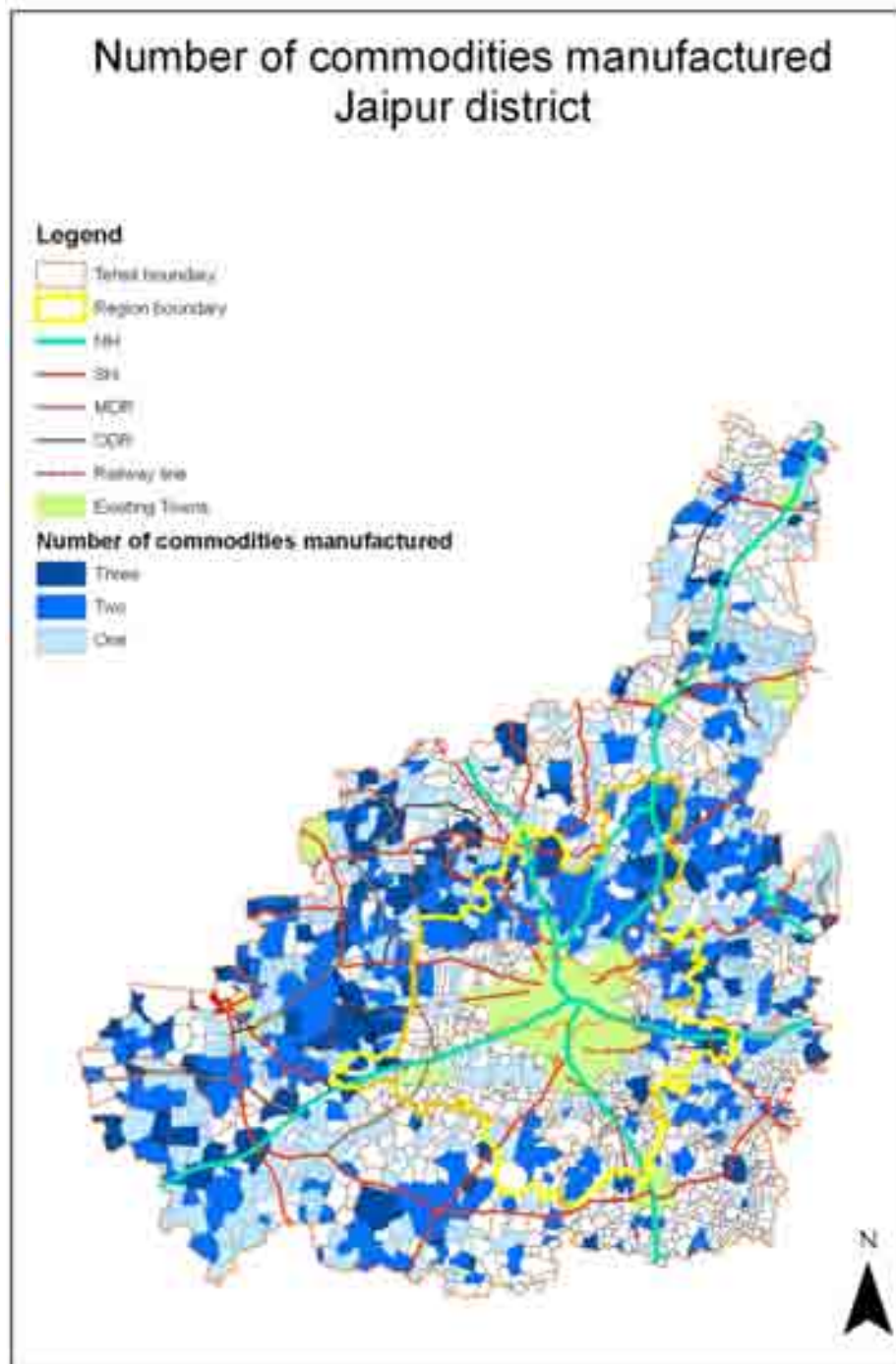


Small scale industries are being run in the villages. There are 12 types of small scale industries which are running, namely, Aaritari, Agriculture implements, blue pottery, charm mojadi, galcha, dari, hand block printing, handloom, lakdi, marble murti, painting and luhari. These small scale industrial clusters are running in 38 villages.



(iii.) **Manufactured commodity**

Map 2-15 Number of Commodities Manufactured

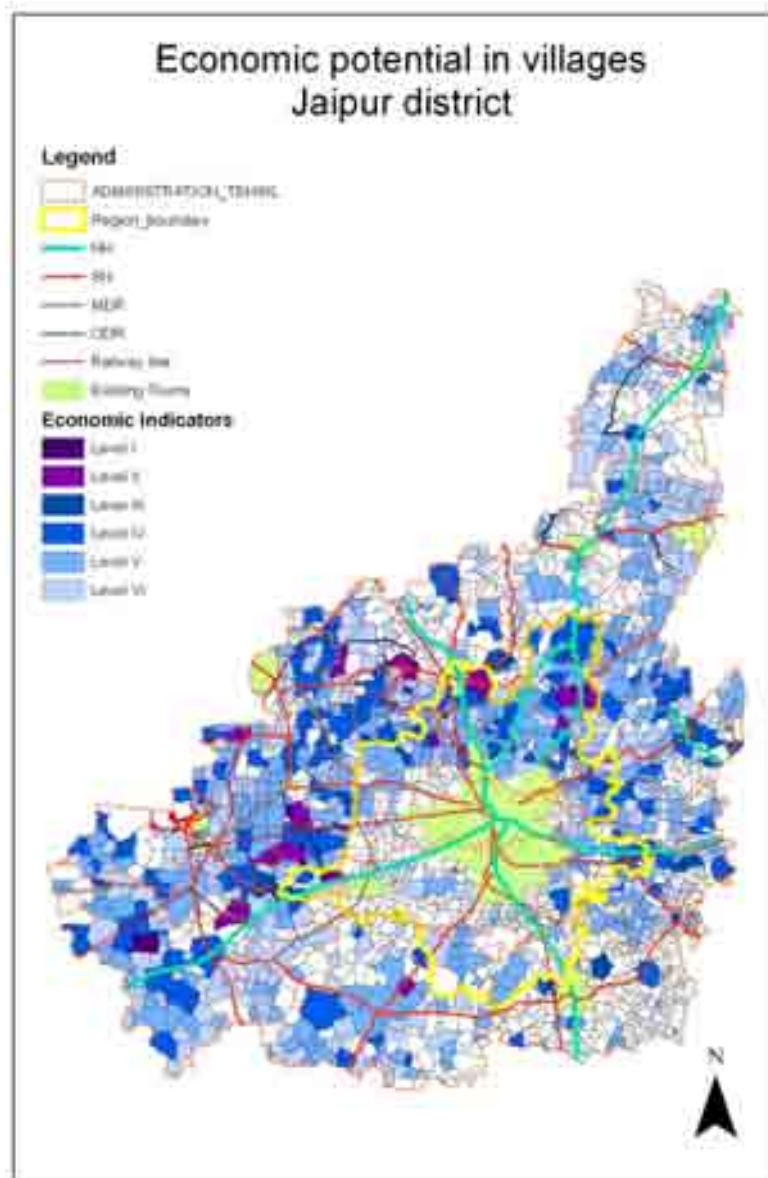


As per census of India 2001, commodities are manufactured in the villages. The top three commodities manufactured are listed. Thus, there are villages in which the number of commodities manufactured is three, two or one. There are 138 villages where three commodities are manufactured, 381 villages where two commodities are manufactured and 560 villages where one commodity is manufactured of the commodities that are manufactured, Ghee is manufactured in maximum number of villages followed by earthen pot and wood furniture.

(iv.) Economic potential

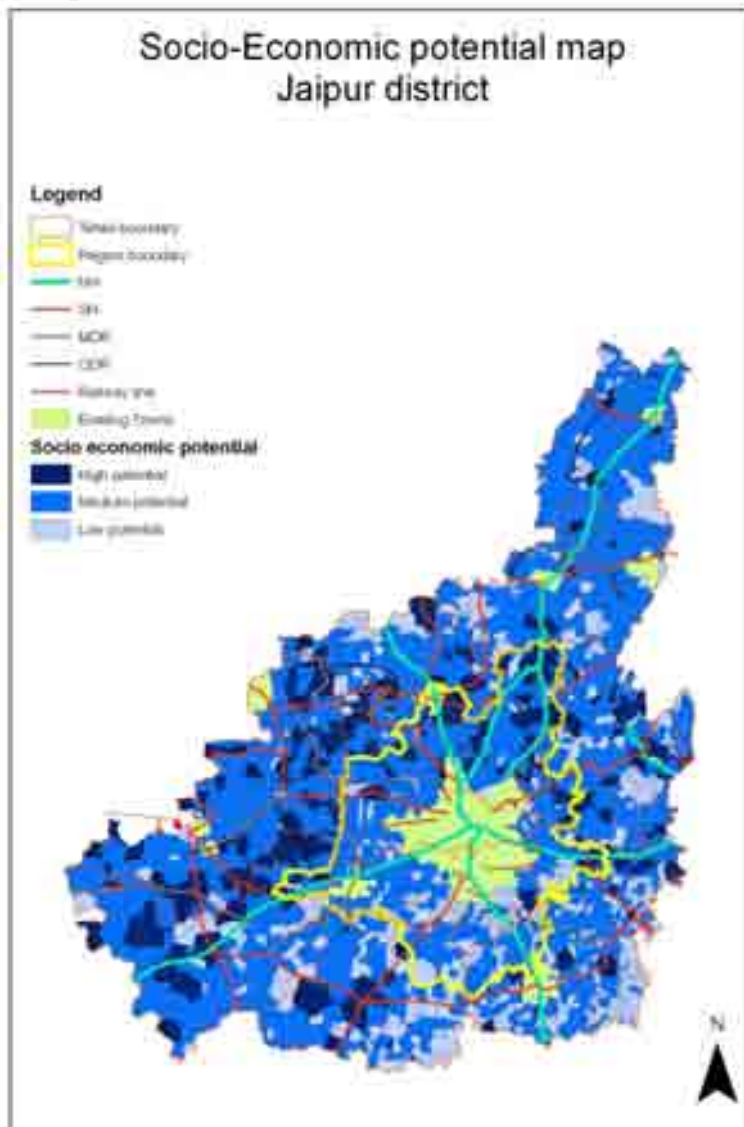
The economic potential map has been arrived by using the economic indicators. The economic indicator comprise of the commodities manufactured in each of the village i.e. the number one commodity, number two commodity, and the number three commodity manufactured as per 2001 census. In addition to it, it includes the mineral type i.e. major mineral and other mineral and the small scale industry present in the village.

Map 2-16 Economic Potential in villages



Presence of all indicators have been assigned the level I, presence of three commodities manufactured along with presence of any other indicator have been assigned level II, presence of two commodities manufactured or one commodity manufactured along with the presence of other two indicators have been assigned level III, presence of any of the three indicators have been assigned level IV, presence of any of the two indicators level V and presence of any one indicator have been given level VI to the villages.

Map 2-17 Socio-Economic Potential

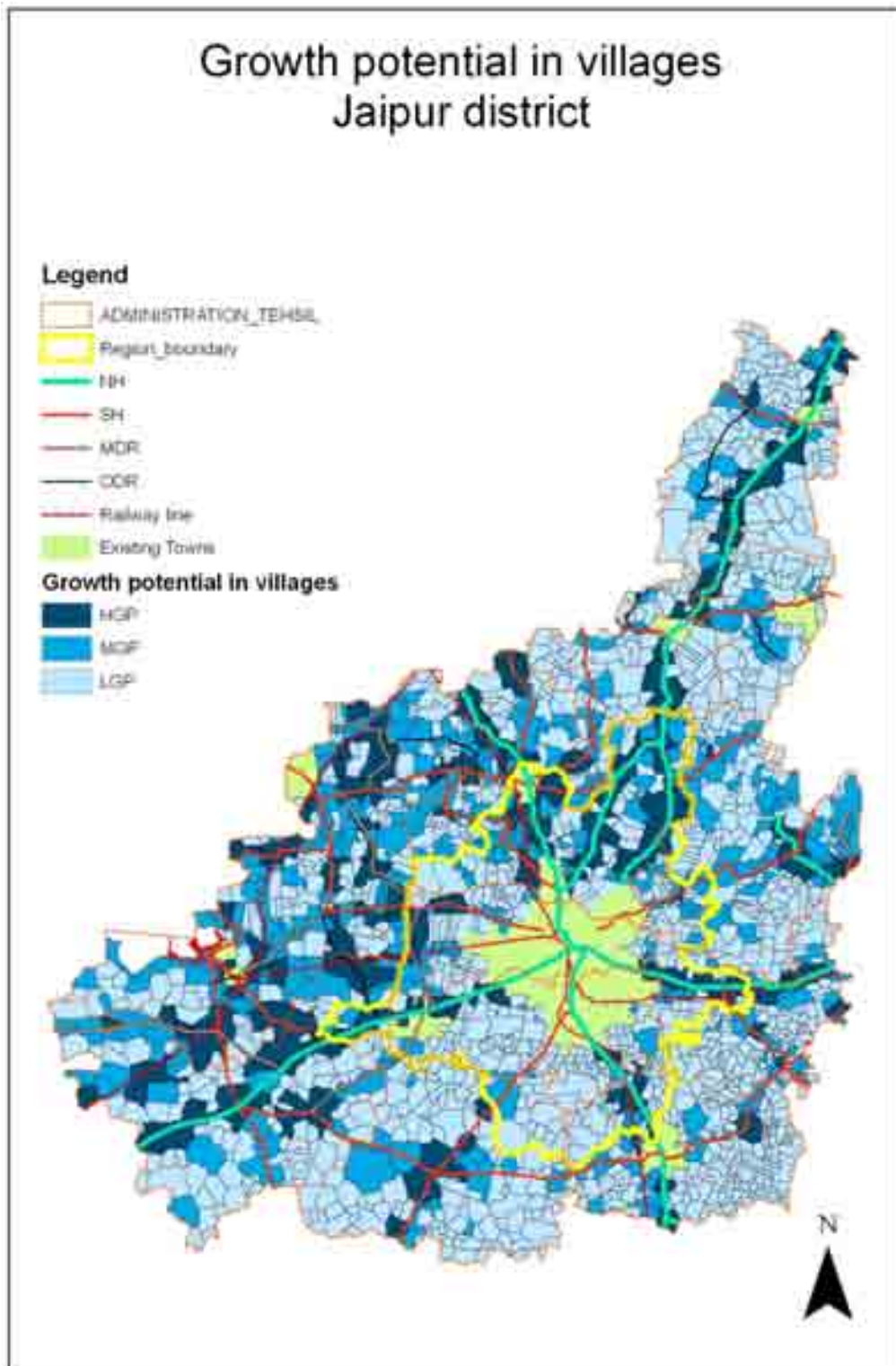


(v.) Socio Economic Potential

A socio economic potential map has been arrived at based upon the economic and facility & service potential in the villages. A total of 202 villages fall in high potential, 1294 in medium potential and 635 villages in low potential.



Map 2-18 Growth Potential in villages



(vi.) Growth Potential of Villages

Combining facility & service potential map, economic potential map and transport potential map, a final growth potential map of the villages have been arrived at. There are 245 villages with high growth potential, 387 villages with medium growth potential and 387 villages with low growth potential.

2.5

Heritage & Tourism

Tourism plays a vital role in the economy of Jaipur district, especially with the location of city like Jaipur. Apart from Jaipur city, there are many other places in the district worth watching and visiting. The following sections highlight about the same.

2.5.1 Monuments of National Significance

The following are the monuments and sites of National significance in Jaipur district.

Table 2-17: Monuments of National Significance

S. No	Name of the monument	Place
1	Jama Masjid	Amber, District Jaipur
2	Laxmi Narayanji's Temple	Amber, District Jaipur
3	Sri Jagat Siromaniji's Temple	Amber, District Jaipur
4	Sun Temple	Amber, District Jaipur
5	Punderikji ki Haveli (Paintings in a room)	Brahmpuri, District Jaipur
6	Temple containing fresco paintings	Galtaji, District Jaipur
7	Excavated site	Bairat, District Jaipur
8	Excavated site	Sambhar, District Jaipur

2.5.2 Tourist attractions

The major tourist attractions in the district are Jaipur city, Samod, Chomu, Amber, Bichoon, Viratnagar, Naila, Jamwa Ramgarh Lake, Sanganer, Bagru, Kalwar, Gaitore, Galta

2.5.3 Tourist Arrivals

Table 2-18: Share of Tourists- Jaipur District

Year	Total	Foreign	Domestic
	% Share of state	% Share of state	% Share of state
1995	14.10%	28.10%	12.60%
1996	12.90%	26.50%	11.50%
1997	12.80%	30.40%	11.10%
1998	11.00%	25.50%	9.60%
1999	10.30%	23.10%	9.20%
2000	11.30%	24.80%	10.10%
2001	9.90%	28.40%	8.50%

Amongst the foreign tourists arriving to the State, 30% of the tourists came to visit Jaipur. On an average the city receives 2270 tourists per day, who stay for an average 3 - 4 days in the city.

Chart 2-2 Tourist arrivals in lakhs (1989-07)

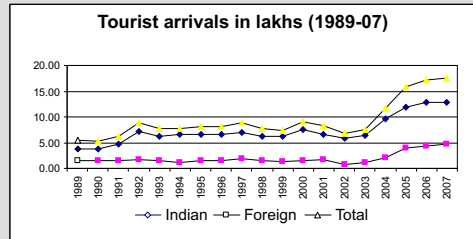
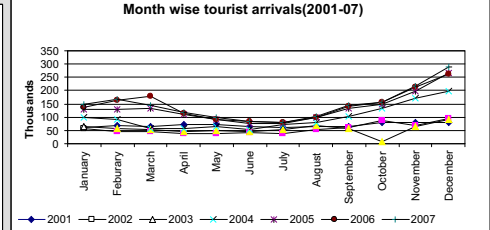


Chart 2-3 Month wise tourist arrivals (2001-07)



Source: Office of statistics, Department of Tourism, Rajasthan

A rise in number of visitors from 5.4 lakh to 17.52 lakhs

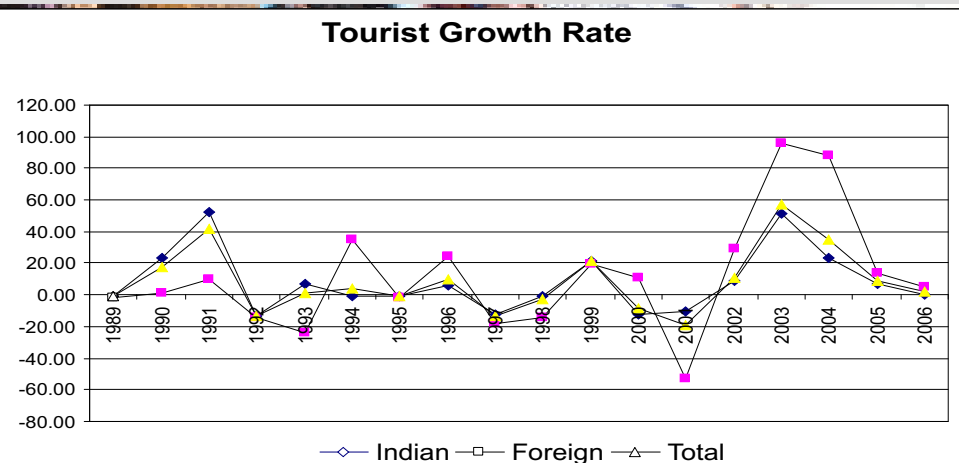
Table 2-19: Tourist arrivals in Jaipur

Year	Indian	Foreign	Total
1989	3.85	1.55	5.41
2007	12.87	4.65	17.52

Source: Office of statistics, Department of Tourism, Rajasthan

Months of May, June, July and August are the lean seasons. Over the past seven years the condition has been same. There is a need to enhance tourism by providing incentives during the lean season.

Chart 2-4 Tourist Growth Rate



Source: Office of statistics, Department of Tourism, Rajasthan

Table 2-20 Tourist Growth Rate (1991-01)

Annual percentage growth rate (1991-01)		
Indian	Foreign	Total
9.45	0.12	6.79

Table 2-21 Tourist Growth Rate (2001-07)

Annual percentage growth rate (2001-07)		
Indian	Foreign	Total
16.05	28.38	18.61

The tourist arrivals have shown fluctuation over the years. Year 2002 to 2004 showed an increase when the Bhartiya Prawasi Yojana was launched. From the year 1991-2001 the Annual percentage growth registered was 6.79%. In the year 2001-2007 the Annual percentage growth registered was 18.61%

2.5.4 Tourist Attractions -Circuits

(i.) Golden Triangle

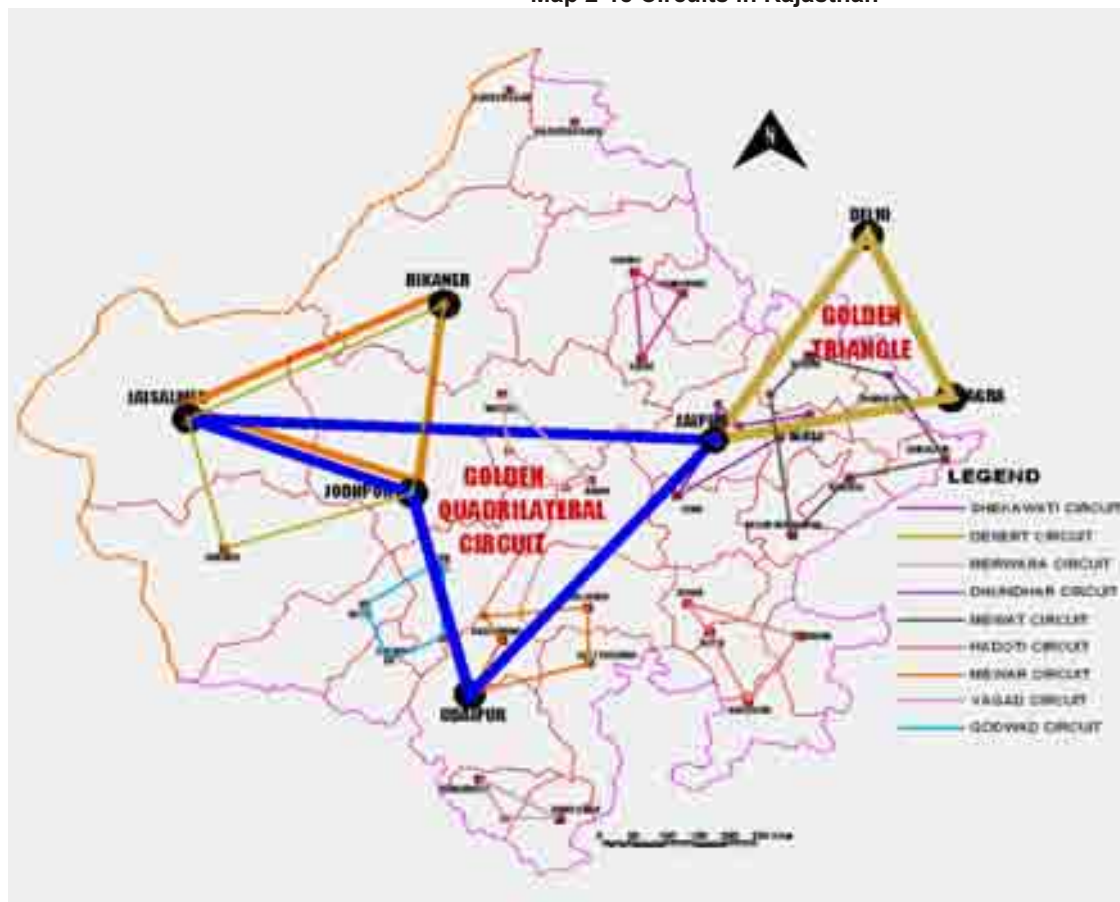


The world famous "Golden Triangle" comprising of Delhi-Agra-Jaipur has put Jaipur on the world tourism map. Almost 60% of international tourists visiting India, come to these places. Rajasthan offers a variety of attractions to both, the domestic and foreign tourists. These ranges from wild life sanctuaries to hill stations, forts, places of worship and havelis to excavation sites, and the local art and culture.

The triangular tourism corridor, which really comprises of three nodal cities Delhi, Jaipur and Agra is called so (Golden) because of its popularity and the high revenue it generates through tourism. Jaipur and Agra is known as the princely city of Maharajas and Maharanis where much of the Indian royal life still existed. Delhi and Jaipur being administrative heads have managed to maintain good standards and are constantly improving. Visitors today travel from Delhi to Agra, go back the same day, spend time in Delhi then visit Jaipur, which offers variety of tourism products.

(ii.) Rajasthan Circuits

Map 2-18 Circuits in Rajasthan



There are 9 circuits in Rajasthan, namely, Shekhawati Circuit, Dhundhar Circuit, Brij Circuit, Mewar circuit, Hadoti Circuit, Mewar Circuit, Vagad Circuit, Godwad Circuit, Desert Circuit, Merwara-Mewar Circuit.

Jaipur forms the part of Dhundhar circuit.

Following are circuit details:

Shekhawati Circuit	Sikar	-	Nawalgarh-Mandawa-Dundlod-Jhunjhunu
Desert Circuit		-	Jhodpur-Jaisalmer-Bikaner
Godwad Circuit		-	Mt. Abu-Ranakpur-Jalore
Mewar Circuit		-	Udaipur-Chittorgarh-Kumbalgarh-Nathdwara
Vagad Circuit		-	Banswara-Dungarpur
Hadoti Circuit		-	Bundi-Kota-Jhalawar
Dhundhar Circuit		-	Jaipur-Samod-Ramgarh-Dausa
Mewar Circuit		-	Alwar-Sariska-Deeg-Bharatpur-KarauliRanthambhor
Merwara Circuit		-	Ajmer-Pushkar-Merta-Nagaur

The main city of this circuit is **Jaipur**. The following insight into the interesting places is and around Jaipur District.

Ramgarh: Ramgarh is situated 35 kms to the North East of Jaipur. A temple and the ruins of its old fort and its own Polo ground are areas of interest. There is also a manmade lake created by constructing a high dam to store rain water for drinking. This lake was created in the 19th century and was the main source of drinking water for Jaipur.



Samode : Samode is situated at a distance of 42 km from Jaipur. Located on way to Shekhawati, this small village is famous for its haveli and fort. The fort is an old fortified residence of the Nathawat family (hailing from chomu) that served as the Prime Ministers of the Jaipur Royal Court is located some 40km from Jaipur and 264 km from Delhi in the range of Aravali. This magnificent fort is as charming and romantic in itself, and exhibit s grandeur, good taste, class and elegance. The way to the fort's main entrance is through the inside of the village, which can be covered from the highway by a camel safari, with the locals welcoming the guests with smiles and thrilling expressions. The inside of the fort reflects expressions of the medieval architecture that is renovated a bit



for the oriental formality. The open courtyards in the centre has separate wings on the sides that extends to 43 spacious rooms & suites having private balconies and views. The walls are in warm colours to highlight the intricate marble work, the antiques and the colourful art with traditional artifacts.

The Durbar hall of Samode Palace is one of the most beautifully painted chambers with glass & minakari work and the same goes for the private restricted spaces- meant for the "zannanis", women of the family.

2.5.5 Other Attractions

(i) Abhaneri

Abhaneri is located within the Dausa district and lies at a distance of 90 kms from Jaipur. The architectural beauty of Abhaneri speaks volumes of its history. There are various intricately carved sculptures and temples. One look at the carved sculptures reflects the richness of culture and tradition of Abhaneri. Abhaneri has also been a victim of Muslim invasions. Abhaneri is famous for two fine monuments of architectural significance 'Harshat Mata temple' and 'Chand Baori'. This temple is a fine example of architectural brilliance of the 8th century. Although very much in ruins, the temple portrays the brilliance of the Pratihara sculpture. There is a ten-faced sculpture depicting Ravana shaking the Kailash mountain (abode of Lord Shiva).



There are various statues of elephants which reflect the creative genius of the sculptors and the exquisite statues of Mahishasurmardini and Ganpati which, it seems, would come to life any moment. There is a huge tank (Chand Baori) opposite the temple, fortified on all four sides with bastions for defence. The staircase of this tank is so stunningly designed that a coin once dropped here is impossible to retrieve. There also exists a maze popularly known as Andheri-Ujali which extends a few kilometers into the Aravali Hills. This maze was used as a measure of security during the past.

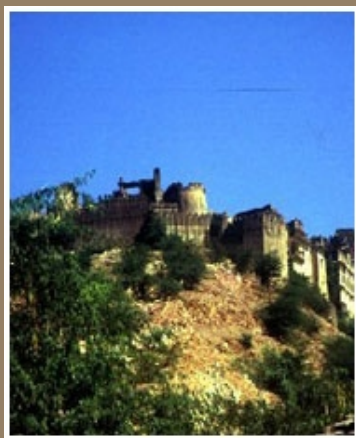
(ii) Bagru

Bagru is situated 35 kms. South-West of Jaipur on Ajmer road along National Highway No.8. The ground level fort is still in good shape. The prime attraction of Bagru is its hand printed textiles. The designs are simpler here, the technique less complicated, and the colours are of more earthy shades.



(iii.) Bairath or Viratnagar

Earlier known as Viratnagar, Bairath lies 169 kms. South-West of Delhi and 66 kms. North of Jaipur - Shahpura - Alwar route, in Jaipur district. Upto Shahpura, the route lies on National Highway no.8. The history of Bairath dates back to ancient times. Virat, the capital of Matsya, is considered to be the abode of King Virata. It is said that the *Pandavas* spent one year of their exile here. Excavations reveal that Bairath formed a part of the Mauryan Empire and flourished as a Buddhist establishment from 3rd century B.C. to 1st century A.D. The Ashokan inscription, the monastery and the circular temple are the pointers towards Bairath's antiquity. The *Bhim-ki-Dungiri* or *Pandu hill* is a low rocky hill. A large cave on this hill is considered to be Bhim's (one of the Pandava princes) abode. *Bijak-ki-Pahari* is a grey granite hill with remains of two Buddhist monasteries, which existed when *Huen Tsang* visited India in 634 A.D. The Jain temple of *Parsvanath* consists of a sanctum preceded by a *Sabha Mandapa* and is surrounded by a broad circumambulatory passage on three sides. There is an oblong courtyard enclosed by a high wall and a beautifully carved pillared portico.



(iv.) Sanganer

16 km from the Pink City of Jaipur, on Tonk road, the town of Sanganer exhibits beautiful Jain temples.

It also has important craft industries (mainly textile printing and handmade paper) besides the ruined palaces, broken city walls, triple gateways and a neglected Mughal garden. Large and small units of block and screen printers produce some of the finest hand-printed textiles in the country which are also exported and admired around the world.

(v.) Jaisingh Pura Khor

It is 12 Km away of the road to Amer and is one of the settlements of Meena Trine. It has an impressive fort, a Jain Temple and a step-well.

(vi) Karauli

To the South East of Jaipur and at a distance of about 180 kilometers lies Karauli which has several Krishna Temples. It boasts of the old city palace which was constructed in phases with the construction having started somewhere around 1400 A.D. The palace was the home of the Royal family of Karauli though as of today, it lies in the state of ruins and its occupants are animals and birds.

(vii) Madhogarh Tunga

Off the Agra road and 40 Kms away on the Bassi Lalsot road, is a palace where one of the historic battles between the Jaipur forces and the Marathas was fought called Tunga. It commands an enviable landscape with fort of Madhogarh nestled amidst orchards of mangoes

(viii) Salasar Balaji

Situated in Churu District, it is approximately 175 kilometers away from Jaipur. It is the temple of Lord Hanumana and a large number of people visit this temple.

(ix) Bichoon

Bichoon is situated on Jaipur-Phulera road around 43 Kilometers from Jaipur. It is a small village surrounded by hills. It is small village with historical and religious importance. A fort on hill, Dadu Mandir, Step well, forest are some of the attractions.



(x) Sambhar Lake

Sambhar Lake (Rajasthan)

Sambhar is India's largest saline lake, 190 sq km in extent at full capacity, and lays some 60 km west of Jaipur, just outside prosaically named Salt Lake City. This vast body of glacial saline is on average just 0.6 cm deep and never more than 3 m even just after the monsoon. It stretches in length for 22.5 km, its width varying between 3 and 11 km. Several seasonal freshwater streams, two of the major ones being the rivers Mendha and Rupangarh, feed it.

During winter, it receives tens of thousands of winged visitors, some migrating from as far north as Siberia. For such waterfowl as the flamingo, Sambhar lake is one of the few habitats that ensure sustenance every year. It is in recognition of the urgency to protect the winter home of these 'distinguished guests' that Sambhar lake was designated as a Ramsar site in 1990.

2.5.6 Potential Ecotourism Sites

Following are the potential ecotourism sites identified by the Department of Forests, Rajasthan in the Jaipur district.



Table 2-22 Ecotourism sites

S. No.	Name of the Site	Main Features
1	Band Buchada	Dam, good forest
2	Galta Forest	Good forest, close to religious place, trekking routes
3	Grass Farm	Nature trail, Diverse vegetation, Resting Place,
4	Hawa hodi (Jamwa Ramgarh)	Former Hunting Trekking routes Tower, good forest, Near Dam, Picturesque Scenic beauty,
5	Jhalana Hills	Proximity to Jaipur City, Excellent density and diversity of forest vegetation, trekking routes, World Forestry Arboretum, Jhalana Park, Picnic facilities
6	Mayalabag	Historical, good forest, recreational potential
7	Nahargarh	Biological Park facilities, Caged animals, good forest, hills and valleys, trekking routes
8	Sambhar lake	Birds, large water body, good potential for development
9	Shahpura Mrig Van	Deer Park, Nursery, some picnic and recreation facilities
10	Silva Park	Park some Picnic facilities
11	Virat Nagar	Historical & archaeological site, religious place

Source: <http://rajforest.nic.in>

2.5.7 Vision- Tourism

- Enhance tourism by connecting the surrounding tourist attractions and develop them into small circuits leading to weekend tourism.
- Capture the domestic tourists during the lean period by promoting certain events at the eco tourism sites.



2.6

Physical Infrastructure

2.6.1 Water Supply

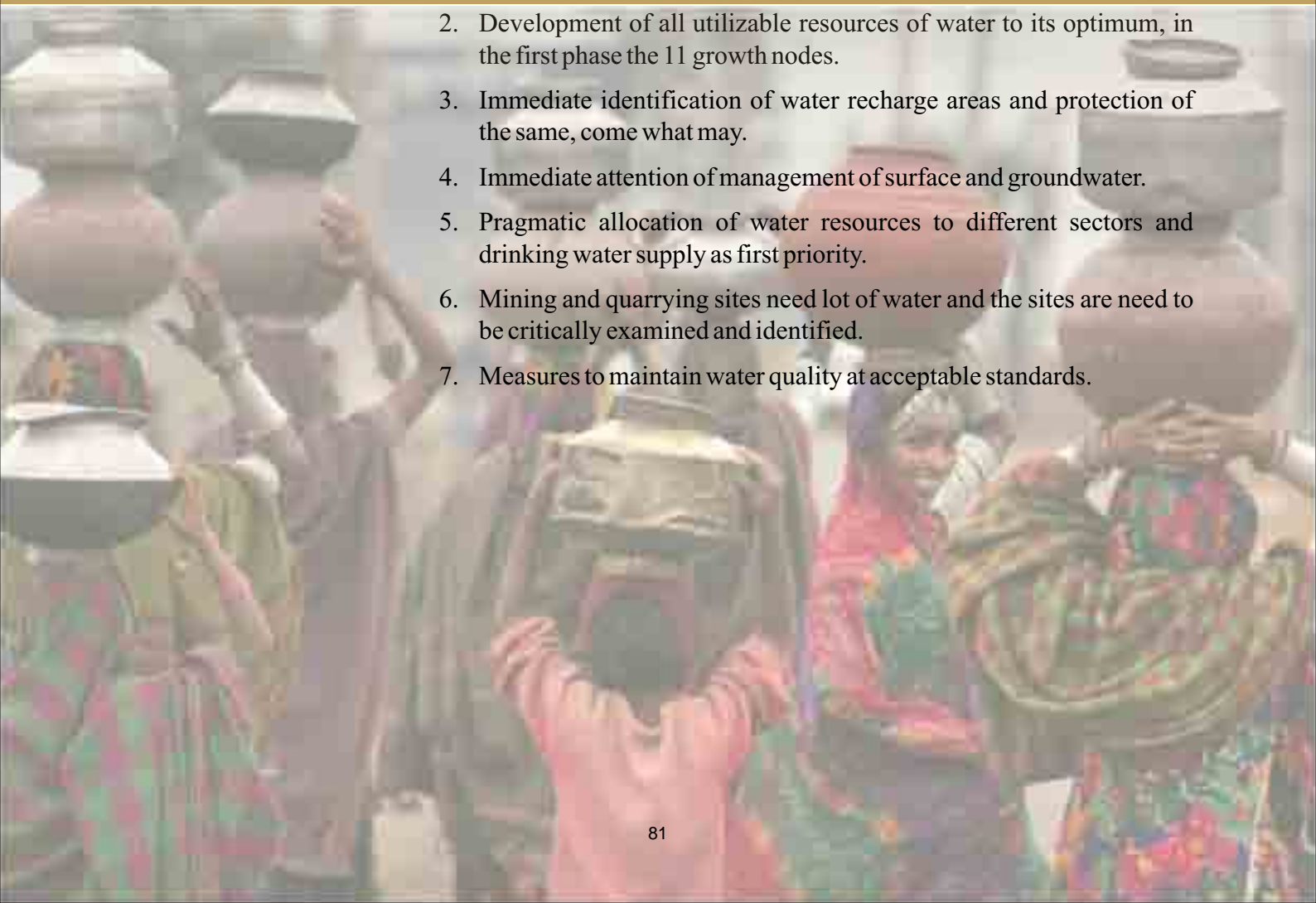
Sir C.V Raman, Noble Laureate, termed the water as the elixir of life-essential for survival of human beings. It is said that India loses 15 lakh children below age of 5 years every year and 180 crore man days are lost in terms of productivity due to water borne disease . Thus it is a priority area.

There are many villages in the district coming under high critical areas. The potable water supply of these villages is totally dependent upon ground water.

PHED has already laid lines from Bislapur to Jaipur and enroute villages are planned to be fed. The other source, in the second phase is being worked, is Isarda. The route is planned along the Tonk Road and enroute villages are assumed to be fed. However, the northern portion is deprived of, in the both the phases. This has been one of the factors, in delineating the zone as either ecosensitive or Agriculture Zone.

It is for definite that due to variability of hydro meteorological phenomenon not all the potential available sources can be harnessed and made utilizable. The resources need to be conserved and available for both drinking and agricultural purposes. The following aspects need to be considered to address the issue.

1. Need for well defined water policy for the district
2. Development of all utilizable resources of water to its optimum, in the first phase the 11 growth nodes.
3. Immediate identification of water recharge areas and protection of the same, come what may.
4. Immediate attention of management of surface and groundwater.
5. Pragmatic allocation of water resources to different sectors and drinking water supply as first priority.
6. Mining and quarrying sites need lot of water and the sites are need to be critically examined and identified.
7. Measures to maintain water quality at acceptable standards.



2.6.2 Drainage Network

The district Jaipur is drained by a number of rainy rivers of which Ban Ganga and Sabi are important. River Banganga originates in the Aravali hills, near Arnasar and Bairath in Jaipur District. It flows towards the south up to the village of Ghat, then East through partly hilly and partly plain terrain. The total length of the river is 240 km. The other river basins are Mashhi, Mendha and Morel. Banganga River Basin extends over parts of Alwar, Jaipur, Dausa, Sawai Madhopur and Bharatpur Districts. The main tributaries are Gumti Nalla and Suri River, joining the river on its right bank, and Sanwan and Palasan Rivers, meeting the river on its left bank. There is one Major irrigation project Ramgarh which presently operates only as a water supply scheme.

Table 2-23 Distribution of Tehsils (Jaipur District) in Banganga River Basin

Tehsil Name	% of Tehsil within the basin
Viratnagar	33
Shahpura	54
Chomu	9
Amber	81
Jamwa Ramgarh	85
Total District	18.6

Source: Deptt. Of Irrigation's Tahal Report for Banganga River Basin

The Sabi river basin extends over parts of Alwar, Jaipur and Sikar districts. The main urban agglomeration in the Sabi basin is the Kotputli town situated in the central part of the basin.

Table 2-24 Distribution of Tehsils(Jaipur District) Sabi River Basin

Tehsil Name	% of Tehsil within the basin
Kotputli	92
Viratnagar	67
Shahpura	25
Total District	11.1

Source: Deptt. Of Irrigation's Tahal Report for Sabi River Basin



2.6.3 Solid/Hazardous Waste Generation

A total of 968 MT/day of municipal solid waste is generated in Jaipur district. The municipal bodies which contribute to this generation are Jaipur Municipal Authority, which contributes a maximum of 900 MT/D. Other municipalities thus contribute a total of only 68 MT/day. The municipalities include Chomu, Sambhar, Chaksu, Kotputli, Jobner, Phulera, Viratnagar, Shahpura, Kishangarh, and Bagru

Hazardous Waste Generation:- Hazardous waste presents immediate or long-term risks to humans, animals, plants, or the environment. It requires special handling for detoxification or safe disposal.

Hazardous waste can be legally defined as *“any waste which by reason of its physical, chemical, reactive, toxic, flammable, explosive or corrosive characteristics causes danger to health or environment whether alone or when in contact with other wastes or substances.”*

It can be any discarded solid or liquid that contains one or more of 39 carcinogenic, mutagenic, or teratogenic compounds at levels that exceed established limits (including many solvents, pesticides, and paint strippers); catches fire easily (such as gasoline, paints, and solvents); is reactive or unstable enough to explode or release toxic fumes (including acids, bases, ammonia, and chlorine bleach); or is capable of corroding metal containers such as tanks, drums, and barrels (such as industrial cleaning agents and oven and drain cleaners).

Jaipur district generates 8236 TPA of Hazardous wastes of which 3255 TPA is recyclable, 4953 TPA is land disposable³ and 28 TPA is Incinerable.

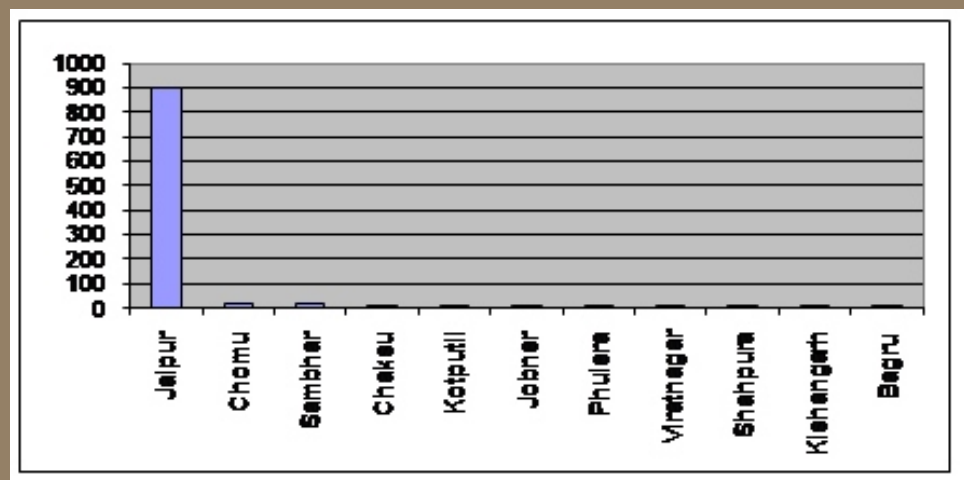


2.6.4 Bio-medical Waste Generation

Bio-medical waste is the waste generated from Hospitals, Clinics, Primary health centres, etc which if not disposed properly can pose human threat. Jaipur district generates anticipated 2761.84 kg of biomedical waste per day.

Municipal solid waste includes commercial and residential wastes generated in a municipal or notified area in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes. The waste generated in the district is as follows:-

Chart 2-5 Waste Generated in district



Source: Rajasthan State Pollution Control Board, Jaipur



³ Source: Inventory of Hazardous waste generating units in Rajasthan & Action taken report (as on 30.09.2005)



2.6.5 Power Supply

100% Electrification of Jaipur was achieved in the year 1998-99 themselves.

Table 2-25 Power Consumption of the District. (IN MILLION K.V)

Industrial	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
Residential	613.43	620.505	632.157	703.114	718.054
Commercial	276.95	277.705	283.539	309.911	323.287
Industrial	436.413	450.773	439.445	495.786	559.999
Low & Medium					
High					
Public lighting	20.18	20.134	21.921	21.648	22.594
Public water works	70.86	71.514	80.108	87.647	96.958
Agriculture	84.57	76.495	390.66	566.647	575.523
Others	45.15	58.114	48.121	51.396	53.199
Total	1547.56	1575.240	1895.951	2236.149	2348.614

Power Consumers

Table 2-26 Power Consumption

Consumers Item	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
Residential	516040	523592	510048	521909	586941
Commercial	124922	125788	121400	125494	143717
Industrial	17751	17945	16004	16559	22194
Public lighting	1005	1005	877	921	1238
Public water works	1882	1951	1980	2221	2700
Agriculture	85434	88280	82665	84460	95976
Others	1362	1362	1203	1299	1726
Total	748396	759923	734177	752863	854492



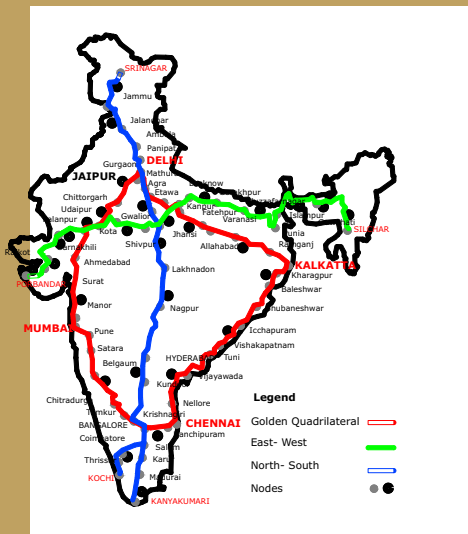
2.6.6 Transportation

Jaipur district is well-connected by rail, road and air.

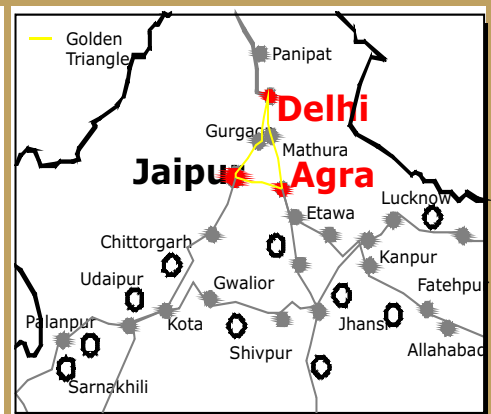
(i.) National Level Connectivity

The NH- 8, which run to a length of 207 k.m is one of the vertices of the Golden Quadrilateral (Delhi-Mumbai-Chennai-Kolkatta) corridor of the National Highways Development Project (NHDP). The district is positioned both on the North-South and East-West Corridor. It is part of the on Golden Triangle of - Delhi-Agra- Jaipur tourist circuit.

Map 2-21 Golden Triangle



Map 2-22 National level connectivity



Map 2-23 Region level connectivity

(ii.) Region level Connectivity

- NH-8 connects Mumbai and Delhi
- NH-11 connects Agra and Bikaner
- NH 12 links Jabalpur originating from Jaipur



Table 2-27: National Highways, Jaipur district

Highway	Name	Length (in the district in Km.)	Connectivity (Name of the settlements)
NH-8	Delhi-Jaipur-Ajmer-Udaipur-Ahmedabad- Mumbai	207 (Jaipur)	Alwar-Jaipur-Ajmer-Rajsamand-Udaipur-Dungarpur
NH-11	Agra-Bharatpur-Dausa-Jaipur-sikar-Churu-Bikaner	94 (Jaipur)	Bharatpur-Karauli-Dausa-Jaipur-Sikar-Churu-Bikaner
NH-11A	Dausa-Manoharpur—via Ghatwari	46 (Jaipur)	Dausa-Jaipur
NH-12	Jaipur-Tonk-Bundi-Kota-Jhalawar-Aklara-Bhopal	52(Jaipur)	Jaipur-Tonk-Bundi-Kota-Jhalawar

The district also has a good connectivity with the state highways. The following table gives the details of the same.

Table 2-28: State Highways, Jaipur district

Highway	Name	Length (in the district in Km.)	Connectivity (Name of the settlements)
SH-2	Rajakheda-Falodhi-via-Dholpur-Bari-Karauli-Gangapur Lalsot-Chaksu-Phagi-Dudu-Khatu-Shamber-Nagore	116	Dholpur-Jaipur-nagore-Jodhpur
SH-2A	Jaipur-Khatu-Jobner-Pachkodi-Lunwa-nawa-Kuchaman-Budsur-Toshina	68	Jaipur-Nagore
SH-8A	Sikar-Pachakodi-Via-Dantaramgarh-Renwal	18	Jaipur-Sikar
SH-8B	Renwal-Chandwaji-Via-Chomu	64	Jaipur
SH-12	Jaipur-Kankroli-Via-Diggi Malpura-Kekdi-Shahpura-M	49	Ajmer, Bhilwara, Jaipur,Rajsamand, Tonk
SH-13	Alwar-Ragarah-Via-Shahpura-kanwat-neem Ka Thana-Chirawa-Pilani-Rajgarh	37	Alwar, Jaipur, Churu, Jhunjhunu, Sikar
SH-37	Chomu-Churu-Via-Devrala-Khandela-Udaipurvati	35	Churu, Jaipur, Jhunjhunu, Sikar
SH-37A	Chomu-Khejroli	19	Jaipur, Sikar
SH-47	Dudu-Takholi-Via-Malpura	16	Jaipur-Tonk

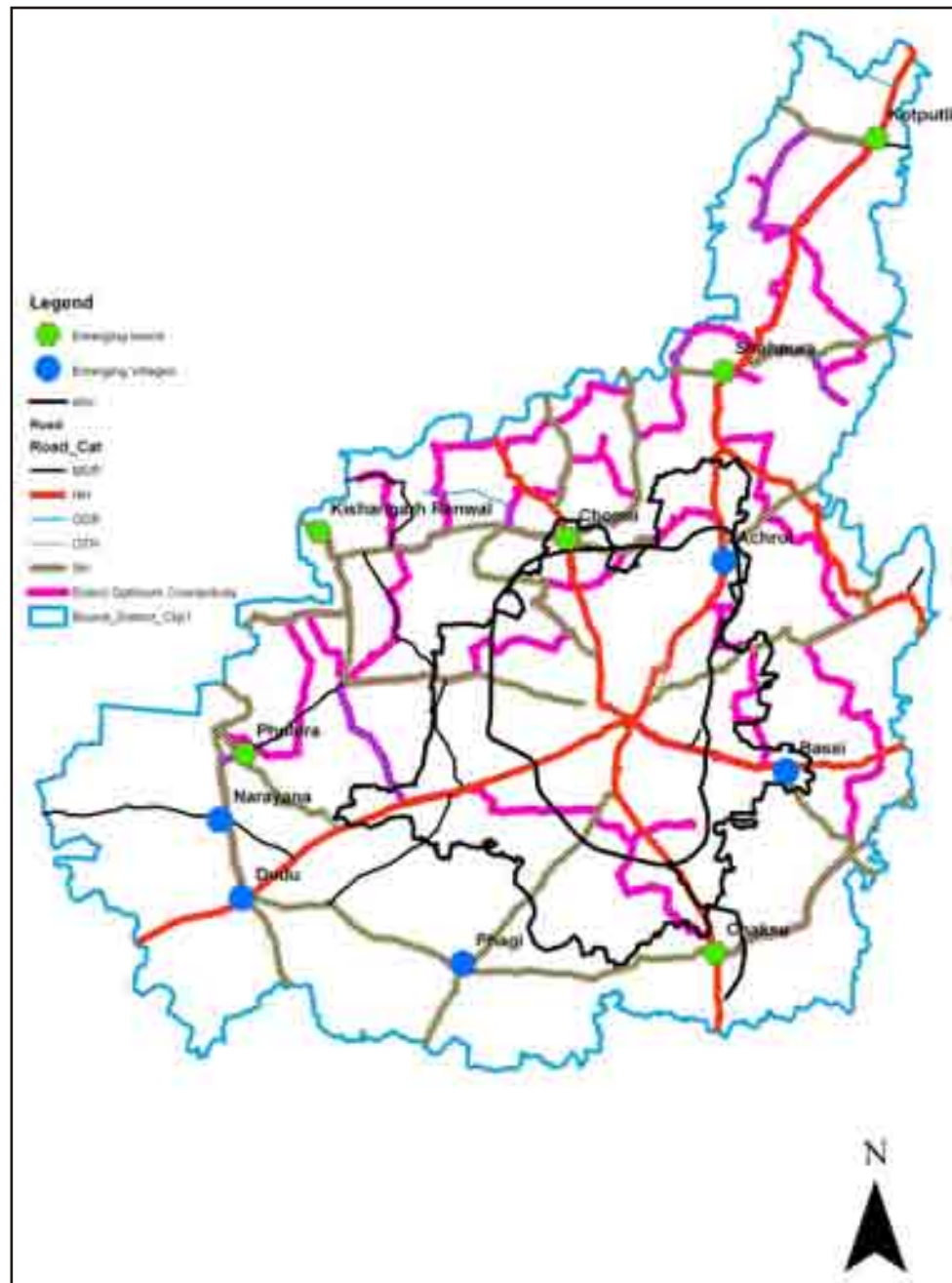
Source: Statistical Abstract, Transport-2004, Rajasthan

Following are the spread of major district roads and other district roads

Table 2-29: Major district road, Jaipur district

Road	Name	Connectivity (Name of the settlements)
MDR-25B	Jaipur-Mandawa	Jaipur, Udaipurwati, Nawalgarh.
MDR-70	Ramgarh Jaipur	Guda Kishori Sidh Ka Tibaya Jhiri Aandhi Ramgarh Jaipur road

Map 2-24 District Existing Road Network and the Optimum Connectivity

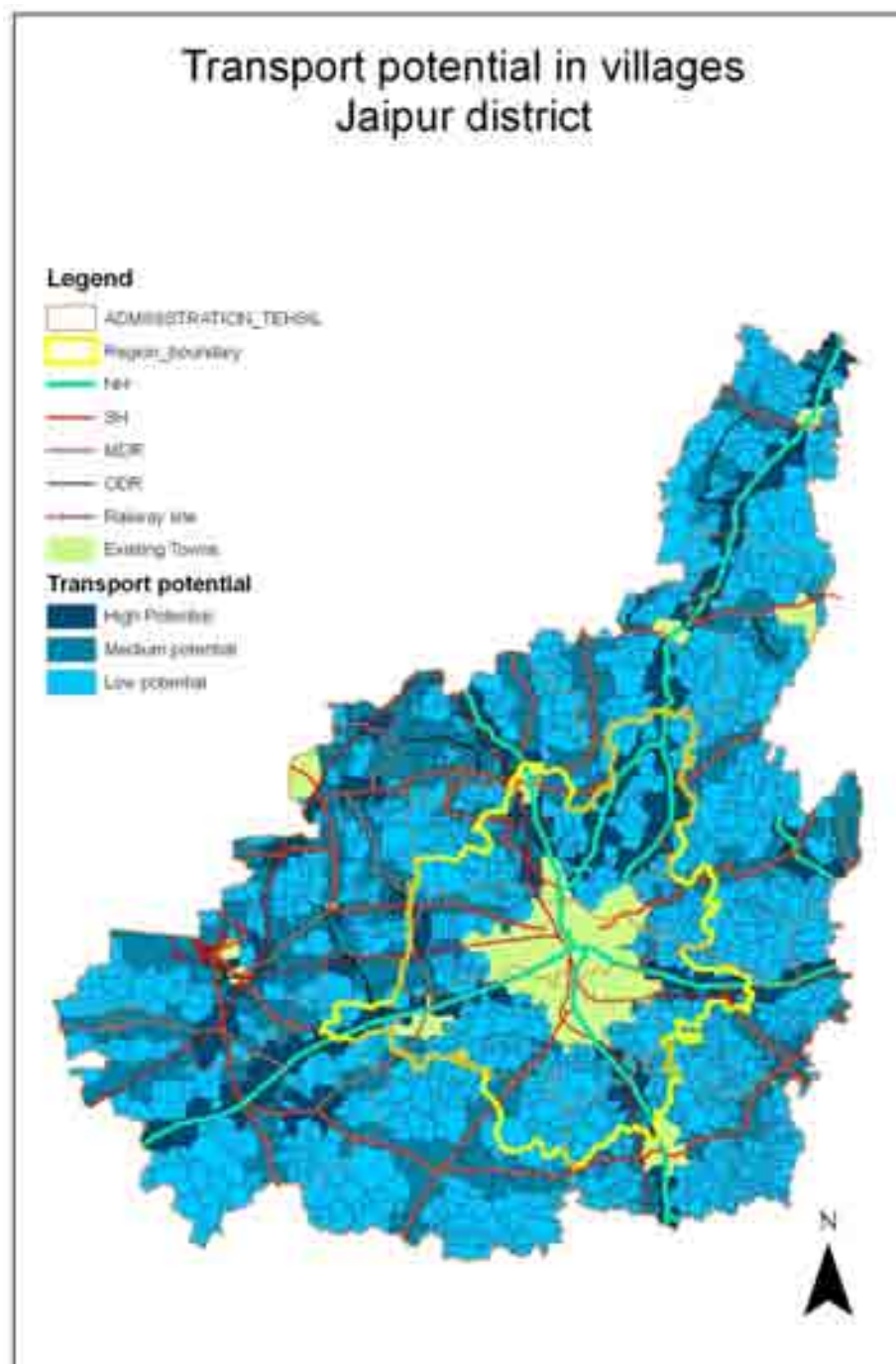


The above map indicates the location of growth nodes and its connectivity. The connectivity is optimum in terms of shortest path and indicate the levels for upgradation.

- The pink colour indicate the need for upgradation of existing level, which are mainly village roads to one level up barring the ODR (blue) east of phulera, this ODR is proposed to be upgraded to M.D.R. (Major District Road)
- The path indicated in the Jaipur Region is considered while doing the regional network for the Jaipur Region.

(iii.) Transport Potential of Villages in Jaipur District

Map 2-25 Transport Potential in villages



Connectivity plays a vital role in the growth of any settlement. How well a settlement is connected has a direct impact on the basic infrastructure and its economy. Connectivity has been measured in terms of road network and the rail network. The villages have been assigned weightage depending upon its connectivity to the one or more than one connectivity to any of the National Highway; State Highway, Major District Road, Other District Road and Village Road.

2.6.7 Rail network

The district is well connected with the rail network.

Two lines namely AHMEDABAD-DELHI railway line and DELHI MAMBAI railway line passes through Jaipur however the PHULERA-DELHI railway line

The major station of the district is Jaipur. The other stations are as follows

Jaipur to Delhi

1. Gandhi Nagar
2. Gaitor Jagatpura
3. Khatipura
4. Kanota
5. Bassi
6. Jatwada

Jaipur to Ringus

1. Dahar Ka Balaji
2. Nindad Bainad
3. Bhatto ki Gali
4. Chomu-Samod
5. Loharwada
6. Govindgarh Malikpur
7. Chota Guda

Jaipur to Ajmer

1. Kanakpura
2. Bindayka
3. Dhankya
4. Shyosinghpura
5. Bobas
6. Aasalpur-Jobner
7. Dhinnoda
8. Hirnoda
9. Phulera
10. Bhanwsa
11. Naraina
12. Damtra
13. Sakhun
14. Sali
15. Gahlota

Jaipur to Sawaimadhopur

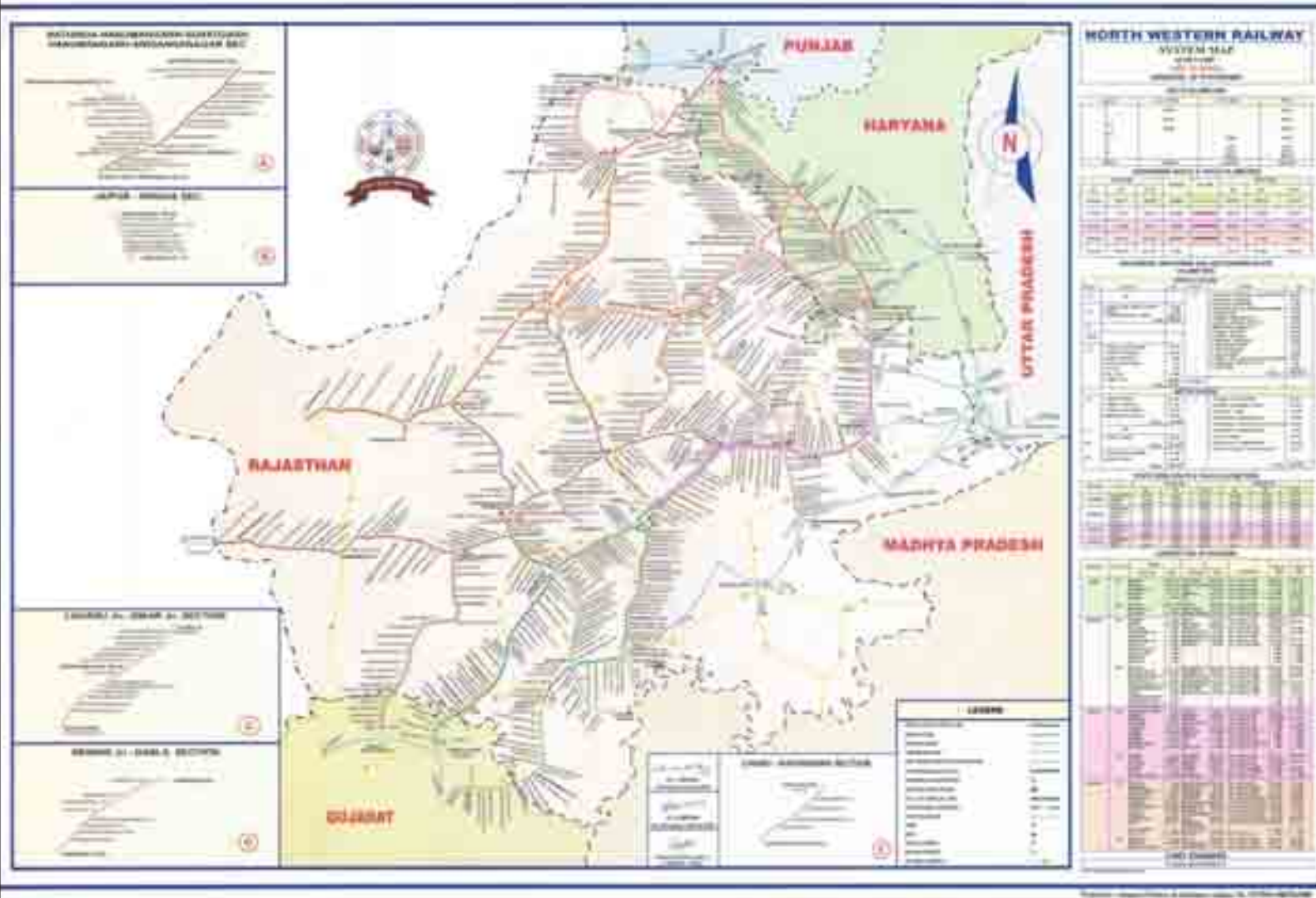
1. Baisgodam
2. Durgapura
3. Sanganer
4. Shivdaspura-Padampura
5. Chaksu

*The Gauge conversion project: Jaipur-Ringus-Churu and Sikar-Loharu(320.04KM)

*The Doubling project : Jaipur-Phulera (54.75KM)
Jaipur-Dausa (61.28KM)

The map shows the divisional details of the railways

Map 2-26 Divisional details of the railways



Map 2-27 Jaipur- Sawaimadhopur track



Jaipur- Ahmedabad line has been converted from Metre Gauge to Broad Gauge with plans to be double tracked and electrified as a rapid rail trunk for goods and people movement. The land is being reserved for stabilizing and maintenance of prime movers and rake formations.

The Jaipur- Sawaimadhopur track is Broad Gauge

2.6.8 Air Network

Jaipur is the only Airport in the district. It is well connected by air transport to the rest of India. The Domestic circuit is one out of the five in the State and others are being Jaisalmer, Udaipur, Kota and Jodhpur.

Jaipur Airport serves as an International Airport and is in close proximity to Delhi. There are regular services from Jaipur to other cities like New Delhi, Mumbai, Kolkata, Guwahati, Hyderabad, Goa, Udaipur, Jodhpur, Jaisalmer, Agra, Bangluru, Cochin, Chennai and Ahmedabad along with International flights to Dubai, Sharjah and Muscat.

Map 2-28 Air Connectivity



2.6.9 Role of High Speed Rail Link

The high speed link between Jaipur-Delhi need to be considered and its relevance reflects the issue of area for development at a faster phase once national capital is linked with State Capital.

Map 2-29 Routes of Hi-speed Link Jaipur to Delhi within the Jaipur District



Jaipur-Delhi is being segregated for goods and passengers. Though it was earlier considered for bullet train between Jaipur-Delhi now it is being considered to modify/upgrade and electrify the existing track between Jaipur Delhi. The plan is to run the trains at 160 km. ph. and the distance can be covered is 2 hrs. with the segregations of passenger traffic and goods traffic.

The proposal adds dimension in the growth of the area. RITES under the directions of the State Govt. are working on the prefeasibility study of the high speed link.

2.6.10 Suburban Railway System

The existing rail links are to be explored for inter connectivity to the Jaipur city. The Ring Road coming around Jaipur city gives a dimension to integrate Suburban system once the city grew in another 25 years and the Railway lines cutting the ring road can be developed as inter change stations. The suburban system is also form part of the RITES study being considered by the State Govt.

The growth nodes are if properly integrated, usher growth inputs in to the district for balanced development.



2.6.11 Vehicular Growth and Composition

The registered vehicles in the district have increased at an average annual rate of about 9 percent per annum since 1991. It is an extraordinary growth of nearly 4.5 times. The time series data by vehicle type since 1991 is presented below:

Table 2-30 Registration of Vehicles in Jaipur District

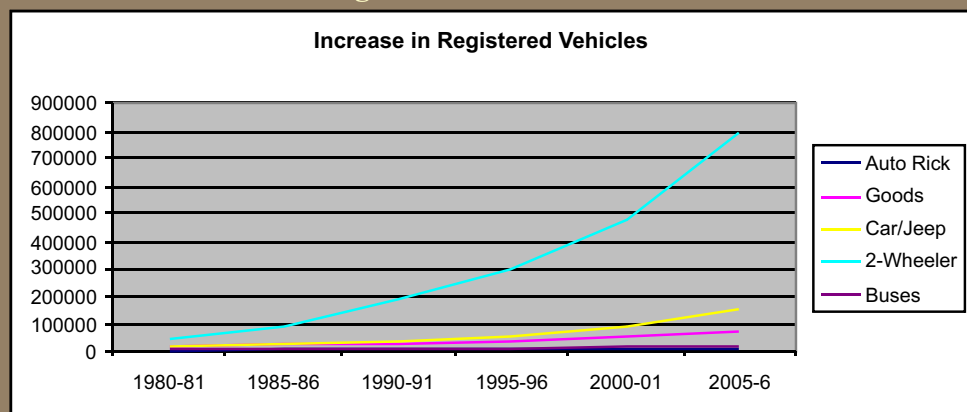
Year	M. Rickshaw	Two Wheeler	Auto Rickshaw	Tempo		Cars	Jeeps	Tractors	Trailers	Taxi Car/Jeeps	Bus	Trucks	Others	Total
				Pass	Goods									
1990-91	55	191683	3837	886	145	23335	7609	9719	2603	2330	8554	15277	221	266254
1991-92	55	211599	3952	1041	162	25057	8427	10766	2609	2534	9327	16153	223	291905
1992-93	55	229125	4059	1128	162	26401	9068	11705	2660	2753	10164	16925	231	314436
1993-94	55	248929	4236	1149	162	28090	10109	12438	2668	2883	10801	17743	234	339497
1994-95	55	271827	4397	1170	162	30471	10992	13168	2669	3023	11227	18869	244	368274
1995-96	55	300294	4644	1239	164	34614	12070	14116	2669	3331	11673	20379	258	405499
1996-97	55	331861	5193	1235	164	39743	13884	15377	2669	3667	12386	22133	258	448625
1997-98	55	364530	5630	1245	164	43874	15929	16854	2669	3942	13202	23661	265	492020
1998-99	55	402645	6179	1248	667	48583	18069	18552	2669	4355	13816	24553	278	541669
1999-00	55	444889	6568	1253	1131	55948	20185	19930	2669	4692	14362	25647	328	597657
2000-01	55	480570	6920	1253	1496	62231	21022	20637	2669	5101	14752	26660	401	643767
2001-02	55	518530	7256	1253	1876	69284	21630	21393	2686	6148	15045	27705	475	693336
2002-03	55	564419	7815	1253	2416	77121	22621	21939	2745	7168	15424	29176	493	752645
2003-04	55	617195	8579	1253	3286	86332	25136	22655	2861	8280	15787	31698	598	823715
2005-06	0	97225	1998	13	1844	16041	3130	2442	0	1285	740	2436	183	127372
		714420	10577	1266	5130	102373	28266	25097	2861	9565	16527	34134	781	951087
2006-07	55	883019	14938	1283	8588	132424	32827	29365	0	12063	17367	40025	1531	1176754
2007-Dec'07	0	93282	3031	9	1117	16651	2983	2823	0	1418	578	2687	599	126248

Source: Department of Transport

In the analysis every 64th person has a four wheeler and every 10 th person has two wheeler in the district. (2001 data)

During 1991-2003, two wheelers showed the growth rate (9.4 percent), cars (10.3 percent) and jeeps (10.5 percent). The share of personalised vehicles (2-wheelers, cars, jeeps) increased from 75.96 percent in 1985 to 85 percent in 2003. The following graph depicts the growth in registered vehicles in the city.

Chart 2-6 Increase in Registered Vehicles



The 2-wheeler growth rate is 17% while the 4-wheeler growth rate is only 10%. Thus private vehicles growth is more in terms of 2 wheelers. At the same time, the growth rate of buses in terms of public transport is only 2%. As compared to other cities in India, the growth rate is 50% lower than mega cities. The number of two-wheelers is very high which contributes to the fact that Jaipur is the city with the 3rd largest two-wheeler ownership after Vadodara and Pune. A low growth of Buses is an indication of the poor state of Public Transport. It is also an indication that, given the situation, if a good public transportation system is in place, a large ridership would be available through the two wheeler owners. The district has 3 national highways, connected through rail network by broad gauge, metre gauge and one airport serving both domestic and international levels.

2.7 Settlement Profile

The settlement (the place where people live), vary in size from the smallest (single building) to the largest (conurbations).

The Settlements are divided into urban and rural having a hierarchy which include city, classification of towns, villages, hamlets, single building.

The higher order settlements have larger population concentration with the level of services increasing.

2.7.1 Classification by Population

(i.) Classification of Urban settlements by Population

The urban population is concentrated in the 11 towns. There is one Class I town, one Class II town, seven Class III towns and two class IV towns. The following table gives the area, population and density of each town respectively.

Table 2-31: Towns in Jaipur District

S. No	Town Name	Class	Status	Area (Sq. Km)	Population 2001	Density (Persons per Sq. km.)	Connectivity
1	Jaipur	I	M. Corp.	484.64	2322575	4792	NH8,11 12&SH
2	Chomu	II	M	22.53	50708	2251	NH11& SH
3	Bagru	III	M	32.59	22092	678	NH8
4	Chaksu	III	M	13.25	29113	2197	NH12
5	Kishangarh Renwal	III	M	39.27	27565	702	SH
6	Kotputli	III	M	20.00	40164	2008	NH8
7	Phulera	III	M	10.00	21643	2164	SH
8	Sambhar	III	M	10.24	22293	2177	SH
9	Shahpura	III	M	64.00	28174	440	NH8
10	Jobner	IV	M	10.00	10498	1050	SH
11	Viratnagar	IV	M	31.07	17242	555	SH

The Jaipur.class I town, has the highest population density (4792 persons per Sq.Km) followed by Chomu (2251pps.), Chaksu (2197pps),Sambhar (2177 pps),Phulera(2164 pps),

The connectivity pattern of the above towns is considerably good. Jaipur being the primate city is connected well with National Highway NH8, NH11 and NH12 and State Highways.

(ii.) Rural settlements

Out of 2131 villages in Jaipur district, 54 villages are uninhabited. The total area of the villages is 10,33,748 hectares. The total households are 3,67,891 with a rural population of 26,59,004.

Table 2-32: Settlement Level classification

Settlement Level	Population Range	Total villages	Area (in Hectare)	Total Households	Total Population
Level I	10001-20000	10	30792	19697	138667
Level II	5001-10000	58	94987	52675	377127
Level III	1001-5000	781	550547	208936	1514234
Level IV	501-1000	647	233045	63793	463628
Level V	251-500	358	88777	18872	136591
Level VI	0-250	277	35600	3918	28757
Total		2131	1033748	367891	2659004

Source: Derived from Village and Town Directory, Census of India, 2001

The villages have been classified into six levels based upon the population. Level VI has a population range of 0-250 and level I has population ranging from 10,001 to 20000. Maximum number of villages falls under the population of 1001 to 500, i.e. level IV and there are 10 villages which are under level I.

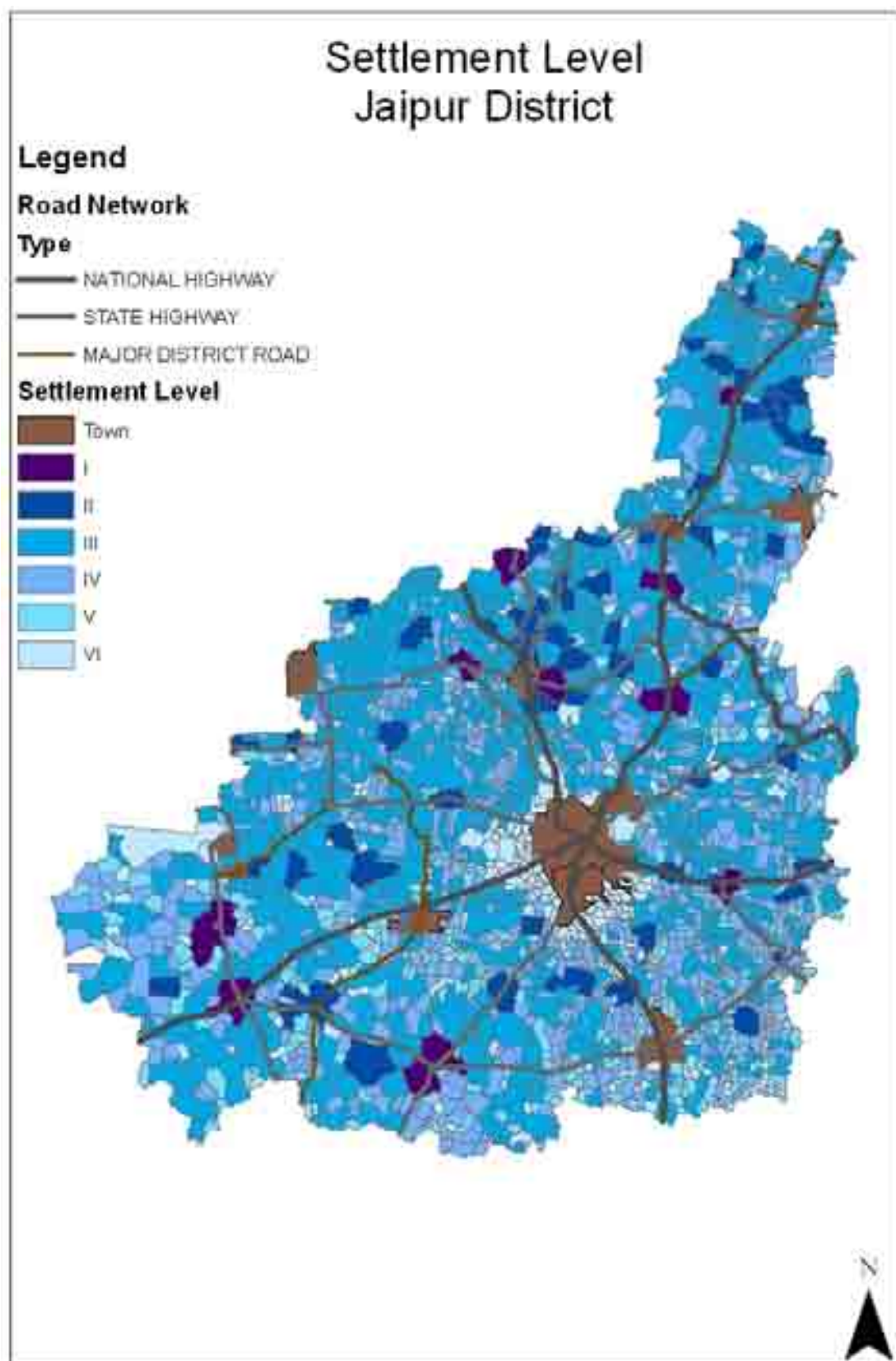
The importance of the rural connectivity is gauged by inter connectivity with one another by all weather roads. It has been observed in the National Transport Policy Committee report that *“for a country with agrarian economy like INDIA...a system of roads well serving rural areas is a basic requirement for social justice, national integration and breaking the isolation of village communities and for the integrated rural development to quicken its pace”*

The pattern of the connectivity of the rural settlements in the district achieved 100% connectivity of the settlements with a population of 500 and more with all weather roads under PMGSY scheme.

The following maps represent the settlement level of all the villages in Jaipur district and its connectivity

- (1) The Urban settlement levels and connectivity
- (2) The Rural settlement levels and connectivity

Map 2-30 Rural Settlement Level Jaipur District



2.7.2 Village Distance to Nearest Town

It is important to know how far a village is from its nearest town as its accessibility to the higher order social and economic facilities which are available at town level only will be affected due to the same. Thus, the villages have been classified based upon its nearness to a town. The town may not necessarily fall in the Jaipur district.

Upon analyzing the 2131 villages, it is found that there are a total of 134 villages that are in a distance of less than 5 Km to a town, 301 which are in a distance of 6 Km - 10 Km, 634 which are in a distance of 10 Km - 20 Km and the remaining are in a distance more than 20 Km to a town. The following table gives the score given to each town based upon its nearness to the village. Closest is the settlement, highest is the score.

Table 2-33: Village distance to the nearest town

Distance of village to town Score	Number of villages
5 (< 5 Km)	134
4 (6-10 Km)	301
3 (11-20 Km)	734
2 (21-30 Km)	582
1 (31-40 Km)	241
0 (>40 Km)	139

As mentioned earlier, the town may not necessarily fall in the Jaipur district. The following table represents the respective towns and the number of villages distant to them. Dausa town in Dausa district and Malpura town in Tonk district are the towns from the other district.



Table 2-34: Total Number of Villages as per the distance from respective town as per Census of India-2001

Town	Distance Score	Number of villages
Bagru	5	21
	4	50
	3	73
	2	27
	1	9
	0	6
	Total	186
Chaksu	5	14
	4	63
	3	136
	2	93
	1	10
	0	0
	Total	316
Town	Distance Score	Number of villages
Chomu	5	10
	4	30
	3	117
	2	79
	1	12
	0	1
	Total	249
Dausa	5	0
	4	2
	3	51
	2	68
	1	39
	0	0
	Total	160
Jaipur	5	1
	4	10
	3	113
	2	193
	1	129
	0	107
	Total	553
Jobner	5	10
	4	31
	3	34
	2	2
	1	0
	0	0
	Total	77
Kishangarh Renwal	5	8
	4	22
	3	44
	2	21
	1	17
	0	17
	Total	129

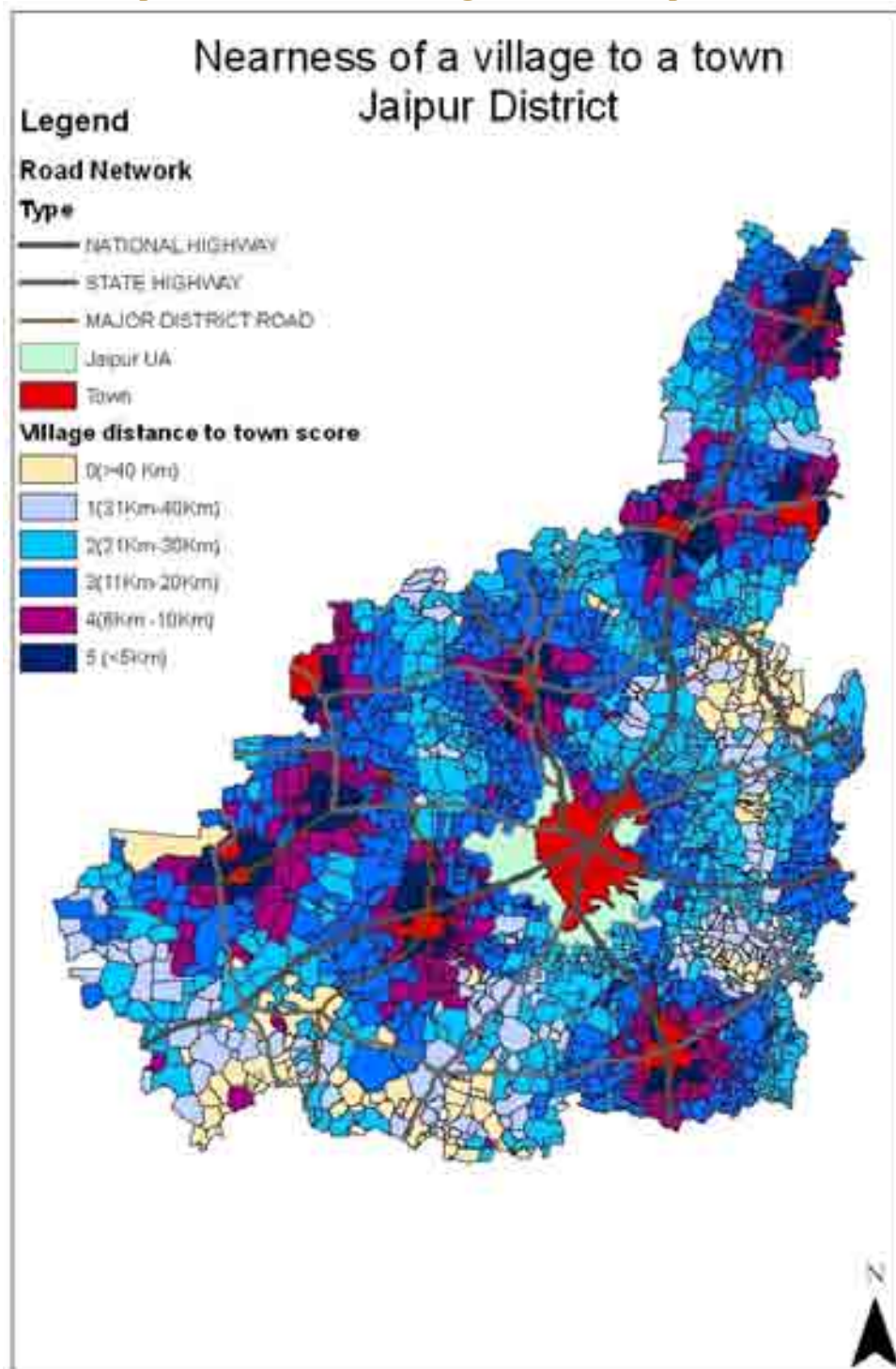
Town	Distance Score	Number of villages
Kotputli	5	29
	4	23
	3	50
	2	33
	1	3
	0	0
	Total	138
Malpura	5	0
	4	0
	3	0
	2	7
	1	9
	0	6
	Total	22
Phulera	5	8
	4	10
	3	10
	2	12
	1	5
	0	2
	Total	47
Sambhar	5	5
	4	17
	3	21
	2	8
	1	4
	0	0
	Total	55
Shahpura	5	18
	4	30
	3	57
	2	28
	1	4
	0	0
	Total	137

Town	Distance Score	Number of villages
Viratnagar	5	10
	4	13
	3	28
	2	11
	1	0
	0	0
	Total	62

There are 160 villages which are compared in distance from the Dausa town and 22 villages from Malpura town. Of the 160 villages, 2 villages are at a distance of 6-10 Km and 51 villages at a distance of 11 to 20 Km. In case of Malpura town, all the villages are at a distance greater than 20 km.

The following map represents the village wise distance to each town as per the score classification. Nine such regions emerge based upon the nearness to town.

Map 2-31 Nearness of a village to a town Jaipur District



2.7.3 Availability of Facilities and Services

The villages in the district are classified based on the facilities and the services. Census of India enumerates 53 such parameters and the Weightages have been given according to the order of facility and services available in each village. The Weightage attained by each of the village have been assigned a facility level based upon the range of the Weightage. The following table represents the facility level of the villages as per the score attained. The levels have been classified from A to F, i.e. a total of 6 levels. A level represents the villages with the highest score and the F level represents the least score obtained.

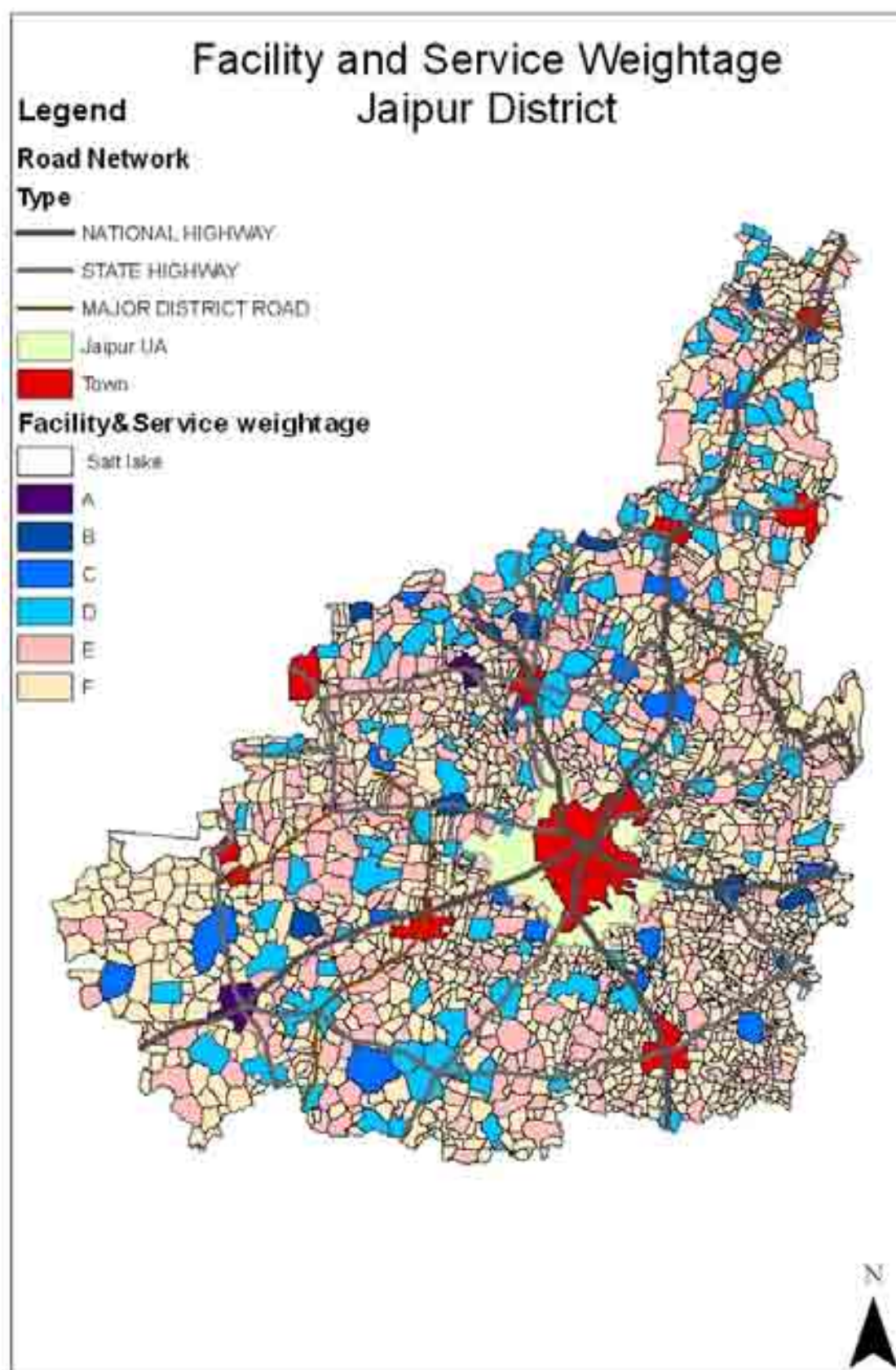
Table 2-35: Availability of facilities and services, Jaipur district

Facility Level	Facility &service score	Number of villages
A	>56	2
B	46 -55	11
C	36 - 45	19
D	26 -35	118
E	16 - 25	417
F	0 -15	1564

The highest level, i.e. level A has 2 villages, B has 11 villages, and C has 19 villages. Dudu and Kaladera have emerged as the two villages with the highest order of facility and services.

The following map represents the level of each of the village. The two villages with the highest facility score situated on the crossing of National Highway and State Highway. Similarly, the next facility levels are also either connected or positioned in close proximity to the National Highway, State Highway or Major District road.

Map 2-32 Facility and Service Weightage Jaipur District



2.7.4 Facilities and Nearness to Town

The facilities, services available in each village and the distance of each village to its nearest town need to be analyzed together. It is due to the fact that though the village itself may not have sufficient facilities and services, but its nearness to a town may compensate. Similarly, it is also imperative to find out those villages which are also at a far distance from a town and have low level of facilities so as to find out those regions with depressed levels i.e. those having low level facility and those with a high level of facility.

In order to find out such regions, by cross tabulation of the facility level score and the distance of nearest town score the following levels are arrived at; High Level facility (HF), Moderate level facility (MF) and Low level facility(LF)

The following table gives the facility level given to each of the villages depending upon the same.

Table 2-36: Village distance to the nearest town

Facility Level	Facility &service score	Nearest distance to town score					
		5	4	3	2	1	0
A	>56	HF	HF	HF	HF	HF	HF
B	46-55	HF	HF	HF	HF	HF	HF
C	36-45	HF	MF	MF	MF	MF	MF
D	26-35	HF	MF	MF	MF	MF	MF
E	16-25	HF	MF	MF	LF	LF	LF
F	0-15	HF	MF	MF	LF	LF	LF

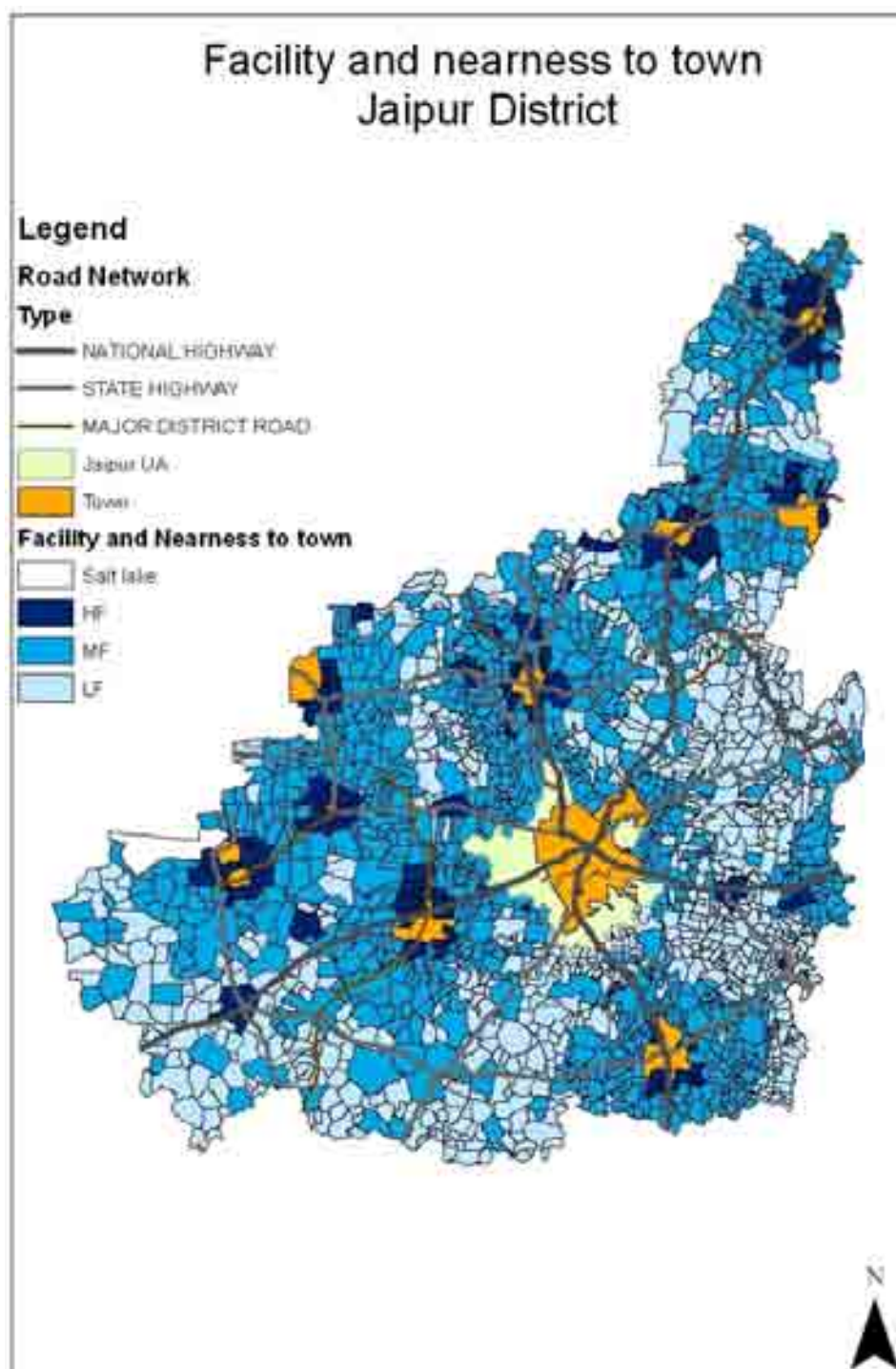
	High Level facility (HF)
	Moderate level facility (MF)
	Low level facility(LF)

The following numbers of villages emerge in the category of High Facility, Moderate facility and Low facility.

Facility Level	Facility &service score	Nearest distance to town score						Total Villages
		5	4	3	2	1	0	
A	>56	0	1	0	1	0	0	2
B	46-55	0	1	4	5	1	0	11
C	36-45	1	3	11	3	1	0	19
D	26-35	8	13	48	33	10	6	118
E	16-25	28	55	154	106	54	20	417
F	0-15	97	228	517	434	175	113	1564
Total		134	301	734	582	241	139	2131

The following map represents the villages falling under the high, moderate and low level categories.

Map 2-33 Facility and nearness to town Jaipur District



The picture that emerges is that the 147 HF villages are not evenly spread and their concentration is confined mostly to the north and west. The moderate Facility villages again are those, mostly, concentrated around the high facility villages. The major concern is the 902 Low Facility villages having a facility score up to 25 and are at a distance of more than 20 km from nearest town. These are situated mainly south and eastern parts of the district.

2.7.5 Facility & Service Growth Potential

After having done a detailed analysis of the population, facility and services, distance to nearest town and the facility level of the villages, the combination of these factors have been used to achieve the final score of all the villages to identify the growth potential. Cross tabulation of settlement level and facility level have been done to arrive at the final scores with the following High Potential (HP) Moderate Growth Potential (MP) Low Growth Potential (LP)

Following table gives the basis of identification of the growth potential.

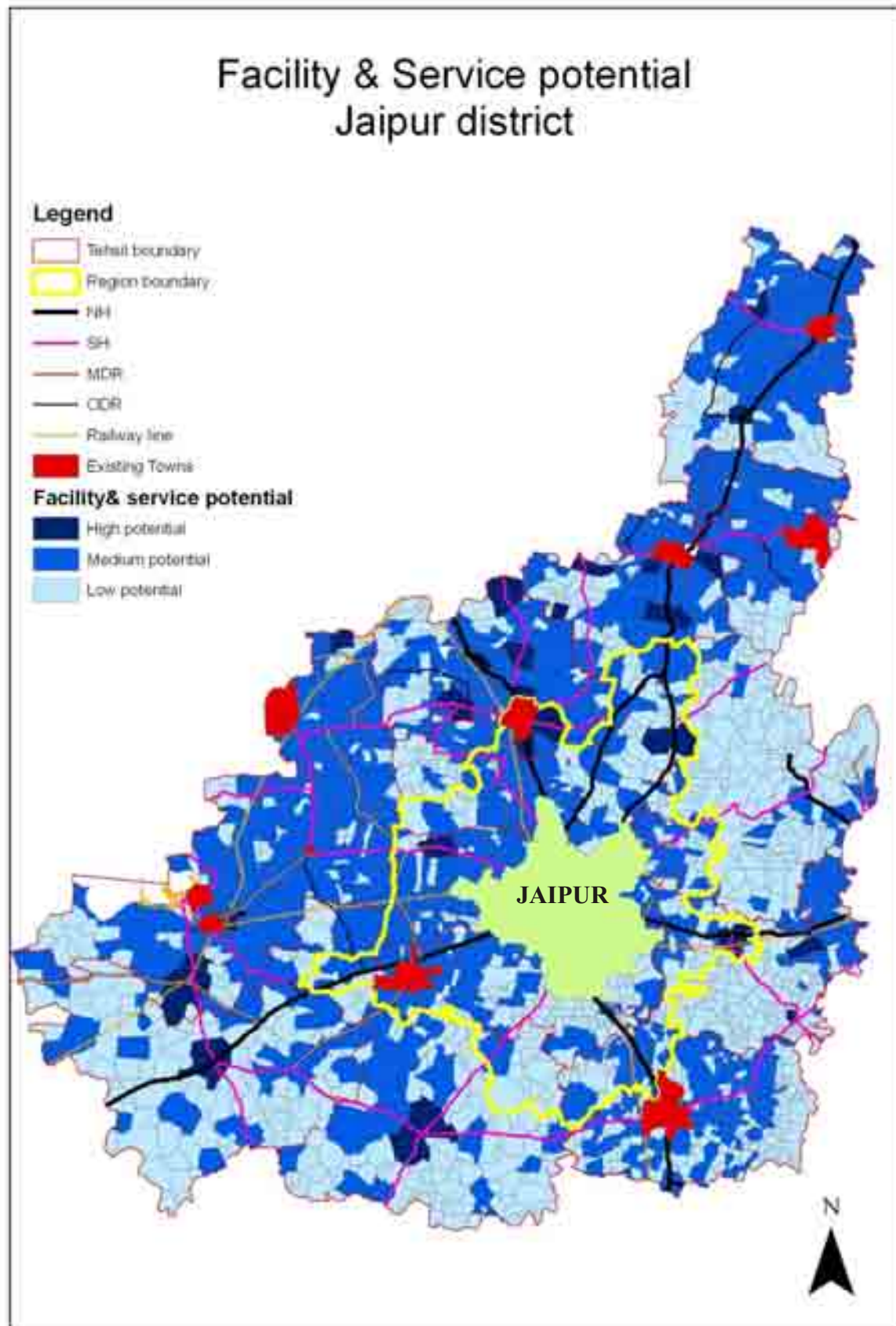
Table 2-37: Facility level identification

Settlement Level	Facility level		
	HF	MF	LF
Level I	HP	HP	LP
Level II	HP	MP	LP
Level III	MP	MP	LP
Level IV	MP	MP	LP
Level V	MP	LP	LP
Level VI	LP	LP	LP
	High Potential (HP)		
	Moderate Potential (MP)		
	Low Potential (LP)		

A total of 24 villages have High growth potential, 891 villages have Medium Growth potential and 1216 villages have low growth potential.

The following map represents the villages with the different level of growth potential. High Growth potential centres are spread throughout the district, but more concentration is towards North East of the district. East, South and South West part have emerged as the areas with low growth potential.

Map 2-34 Facility & Service Potential



2.8 Conclusion drawn from the study of Jaipur District

Since the Jaipur Development Authority does not have jurisdiction power over Jaipur district to draw planning proposals, however conclusion have drawn from the Jaipur district study for development of Jaipur region.

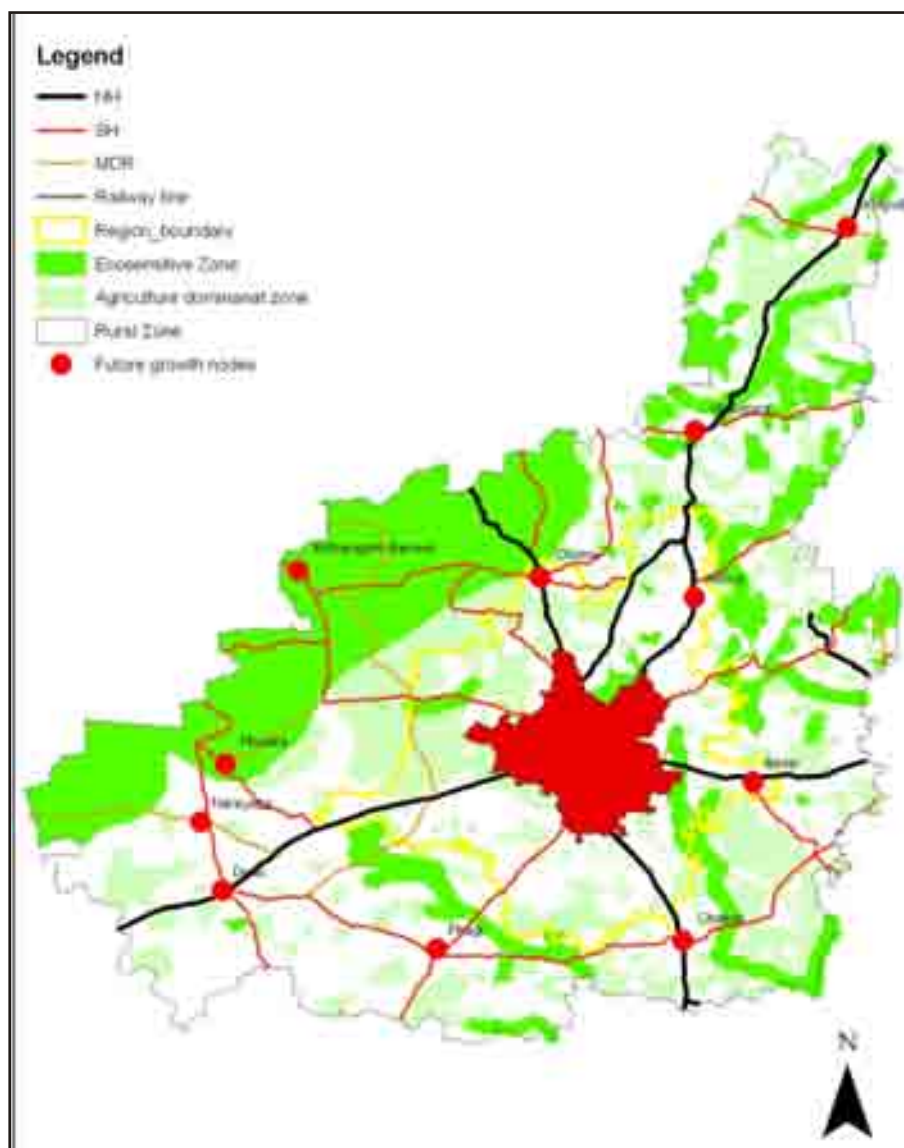
Hence broad conclusion drawn from the Jaipur district study is as follows and these conclusions all directional in nature to arrive at developmental direction for Jaipur region master plan for horizon year 2025.



2.8.1 Land Utilization

The conclusion of the district study is considered for these 11 towns. Taking into considering the various indicators as CUE (Computable Urban Economic Model) from the potentiality the land utilization has been arrived at. The zoning accordingly of the district has been done based upon its natural and manmade characteristics. The district has been divided into 4 zones, namely, the ecosensitive zone, agriculture dominant zone, urban zone and the rural zone. The map Shows the zoning and growth nodes in the District.

Map 2-35 Zoning Map- Jaipur District



The ecosensitive zone comprises of the features like water bodies with their catchment area and forests. The agriculture predominant zone is the zone where percentage of area under irrigation is high (>50%), and also where percentage of agricultural laborers and agricultural cultivators are high (i.e. >75%). Which need to be protected for Agricultural purpose. The rest of the villages have been put under the rural zone having its urban parcels for their natural growth/incentive growth as identified for 11 urban nodes.

“ Here it is assumed that for a planned budgetary provisions the nodes may require more population than assigned, however the experience shown otherwise. A one track, single-input notion of development must be discarded as it leads to complete neglect of crucial detail that forms the soul of the transformation

2.8.2 Socio-Economic Profile

(I) Population

The migration component of the Jaipur UA stand at 9.5 lakhs. What so ever the measures, it has been experienced that the migration cannot be checked cent percent. Accordingly half of the component is planned to be dispersed/ distributed to the 11 growth nodes. The following table gives the existing population, projection for 2025 and assignment part of the migration component of the Jaipur U.A. Growth.

Table 2-38 Population details for 2001 and 2025

Growth node	Population 2001	Population 2025	Assigned population	Total population (2025 population + assigned population)
Kotputli	40,164	76,460	50,000	12 6,460
Shahpura	28,174	62,740	60,000	122,740
Achrol	12796	28,073	25,000	53,073
Bassi	19,888	41,241	50,000	91,241
Chaksu	29,113	57,357	60,000	117,357
Phagi	11,299	12,010	25,000	37,010
Dudu	12,328	17,132	25,000	42,132
Narayana	13,472	18,372	25,000	43,372
Phulera	21,643	28,817	50,000	78,817
Kishangarh Renwal	27,565	53,488	50,000	103,488
Chomu	50,708	90,250	80,000	170,250
Total	267150	460813	500000	960813



2.8.3 Tourism

(i) District Level Tourism Proposals

- Enhance tourism by connecting the surrounding tourist attractions and develop them into small circuits leading to weekend tourism.
- Capture the domestic tourists during the lean period by promoting certain events at the eco tourism sites.

The tourism circuits that worked in the Jaipur District is broadly categorised as under. It has been arrived at in such a way a link can be established each of the circuit. Efforts are to be made to enhance the places of interest with planned budgeting.

Map 2.36 Proposed Tourism circuits in the Jaipur District

“ In addition the district is provided with tourism Provisions based on the character of the town in to three trails for tourism development.



Three circuits have been identified .

- **Northern Circuit :** Jaipur - Galta, Nayla, Jamwaramgarh, Achrol, Viratnagar, Shahpura, Samod, Chomu, Jaipur
- **Western Circuit :** Jaipur - Kalakh, Jobner, Sambhar, Sawarda, Dudu, Bichoon, Boraj, Mahla, Bagru, Jaipur
- **Southern Circuit :** Jaipur - Diggi, Khera Ka Balaji, Chaksu, Madogarh, Baskho, Jaipur



(ii) **Built Heritage and Cultural Trail**

1. Built Heritage and Cultural Trail
2. Recreation and Leisure Trail :
3. Religious and Spiritual Trail
4. Adventure Trail With Ropeway Circuit

All these trails developed with a link to Jaipur. The tourism department may come up with weekend trails by developing these areas with amenities.

Map 2-37 Built Heritage and Cultural Trail



Built Heritage Circuit :

Jaipur, Madhogarh, Nayla, Jamwaramgarh, Achrol, Viratnagar, Samod, Chomu, Kalakh, Jobner, Boraj, Bichoon, Akoda, Naraina, Dudu, Mahla, Bagru, Jaipur



(iii) Recreation and Leisure Trail

Recreation and Leisure Trail: Jaipur, Galta, Nayla, Jamwaramgarh, Achrol, Viratnagar, Shahpura, Samod, Sambhar, Bichoon.

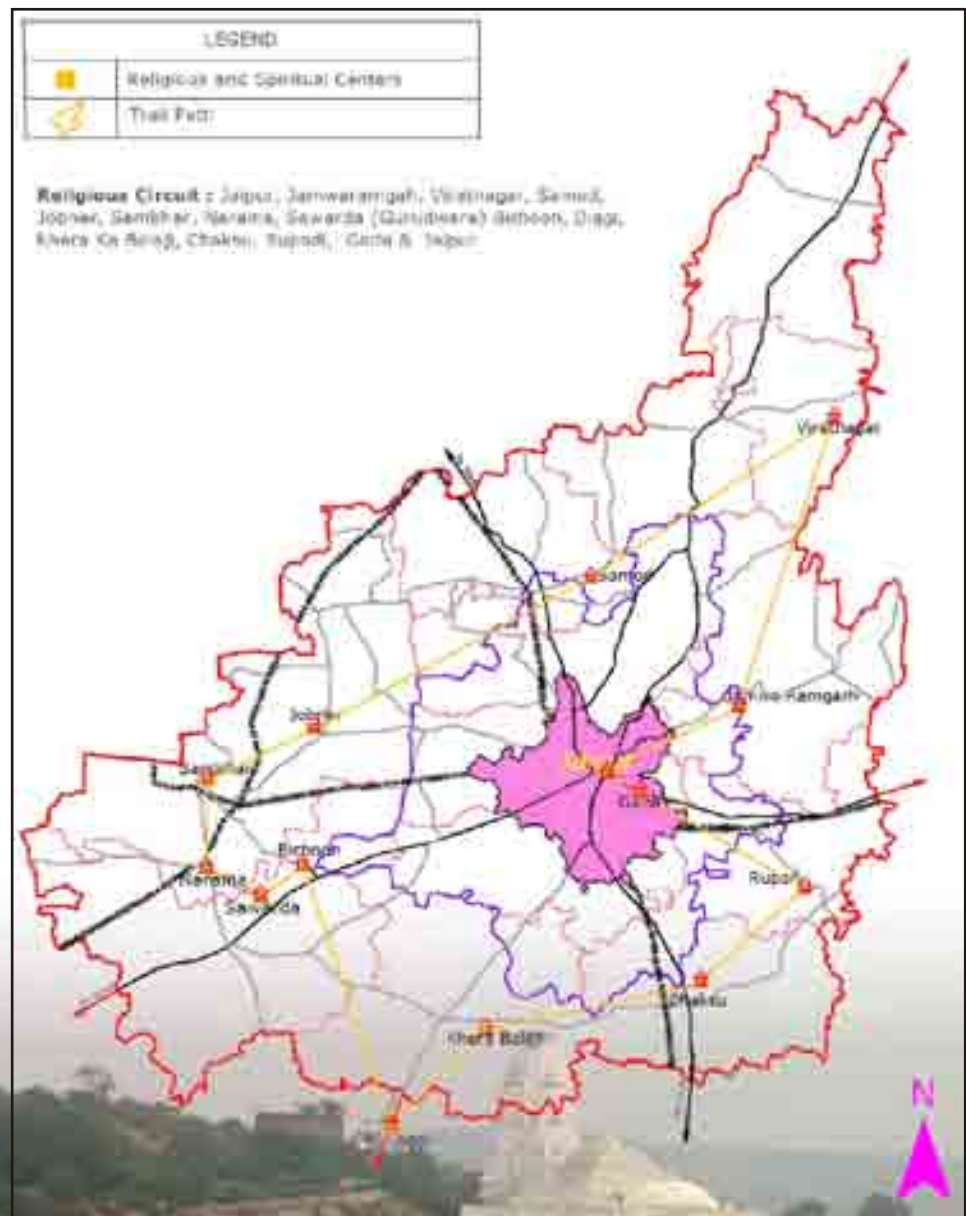
Map 2-38 Recreation and Leisure Trail



(iv) Religious and Spiritual Trail

Religious Trail : Jaipur, Jamwa Ramgarh, Viratnagar, Samod, Jobner, Sambhar, Naraina, Sawarda (Gurudwara) Bichoon, Diggi, Khera Ka Balaji, Chaksu, Rupadi, Galta.

Map 2-39 Religious and Spiritual Trail



Chomu Linking: Samod Palace, Samod Fort, Veer Hanumanji

LEGEND

● Ropeway Circuit

Jaipur Linking : Jhalana Hills, Chulgiri, Galta, Khole Ka Hanumanji, Amer, Rescue Centre, Jalgarh & Nahargarh

Chomu Linking : Samod Palace, Samod Fort, Veer Hanumanji

The map displays the Jaipur region with various districts outlined in different colors. Jaipur is highlighted in pink, Chomu in blue, and surrounding districts in purple. Ropeway circuits are marked with red lines. Two inset boxes provide details: 'Ropeway Circuit : Chomu' showing a loop between Veer Hanumanji, Samod Fort, and Samod Palace; and 'Ropeway Circuit : Jaipur' showing a loop between Amer, Khole Ka Hanumanji, Galta, Chulgiri, and Jhalana Hills. A north arrow is in the bottom right corner.

Note: All the points covered can be covered with adventure trail coupled with adventure sports.



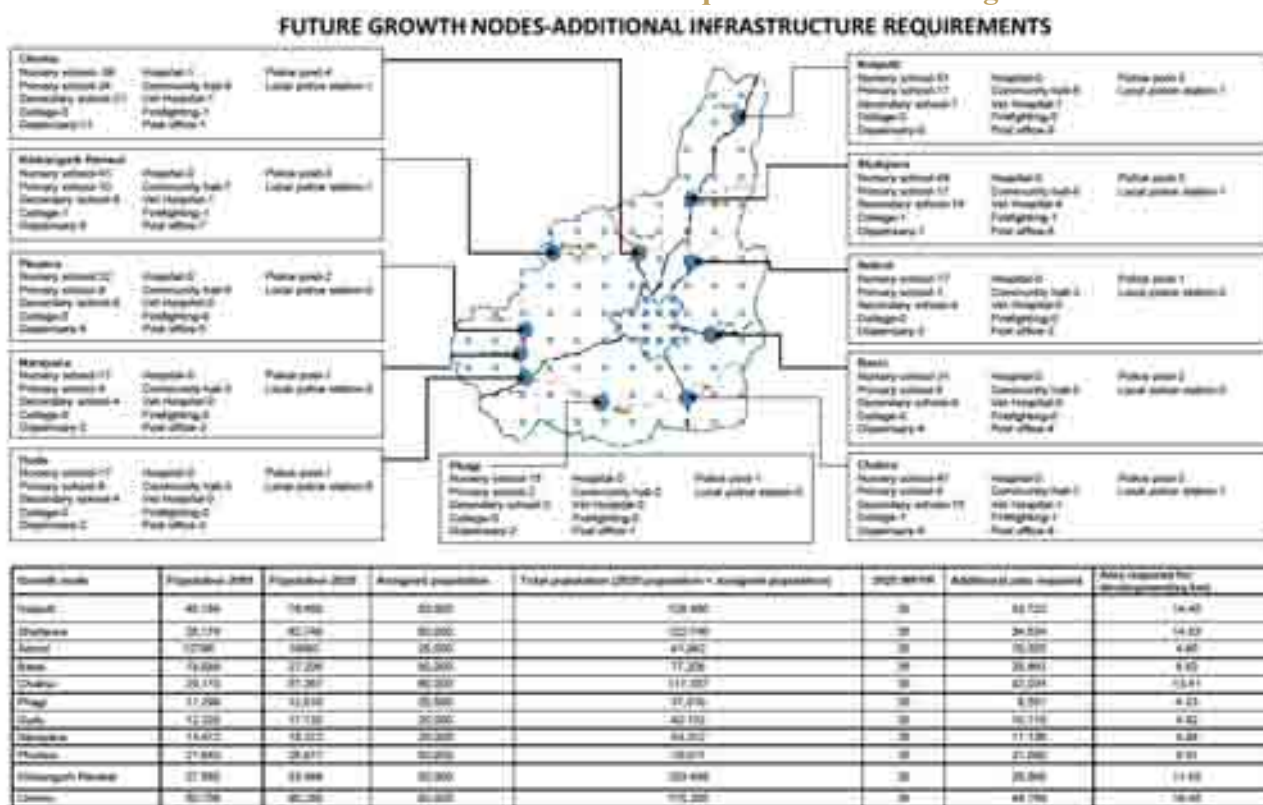
2.8.4 Social Infrastructure

It would be encouraging if the social economic initiatives are undertaken is the following urban nodes, with an assumption that they are being planned as 2 lakh towns by 2025

1. Chomu
2. Kotputli
3. Shahpura
4. Chaksu
5. Kishangarh Renwal.

For all the purposes of planning the measures along with Social infrastructure proposed as per the assignment in the following Map.

Chart2-3 Additional infrastructure requirements for future growth nodes



2.8.5 Physical Infrastructure

(i) Transport Network

Transportation is a measure of relationship between areas of development and it is the key to the development. The fabric of all the societies is held together by the road network

The series of maps generated infrastructure is to suggest the optimum connectivity amongst the level the towns and villages grow by 2025. In the present context each level of town is collaged with the next lower level to find out the best connectivity and an optimum best and shortest path has been arrived at for the urban nodes proposed for Regional Road network strength.

This network strength give an impetus for

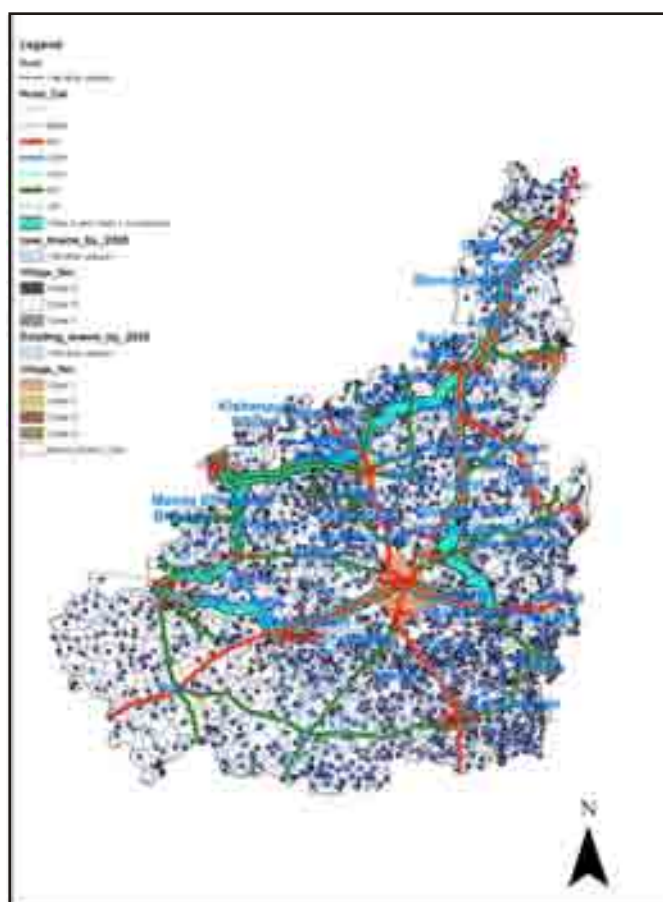
- (i.) Strong linkages of goods and services
- (ii.) Mobility amongst the people.

The map shows the connectivity amongst class-II towns to class-I i.e. Jaipur. The class two towns are well connected to the main city

Map 2-41 District Road Network-class 1 & class 2 town connectivity



**Map 2-42 District Road Network -
class 2 & class 3 town connectivity**



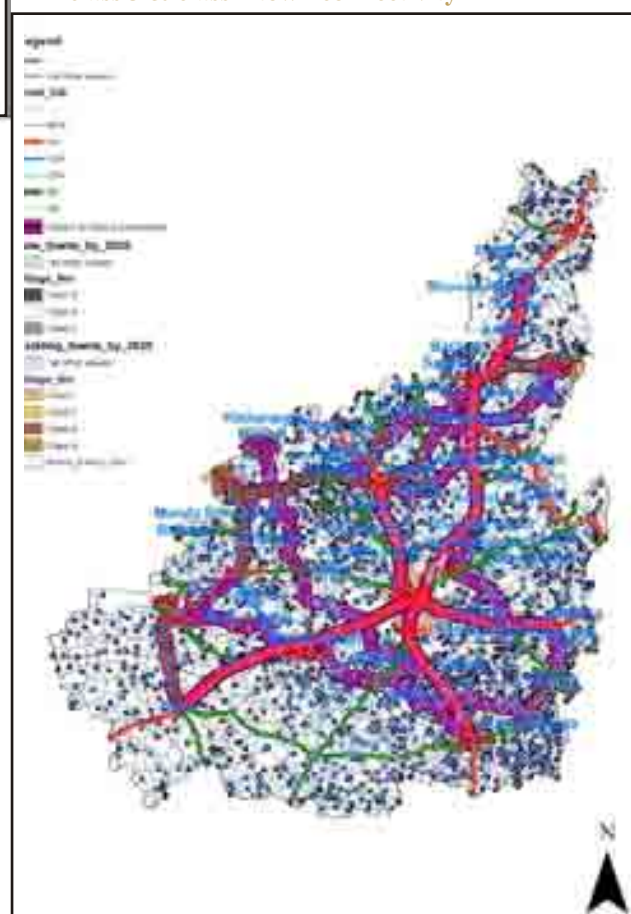
The map indicates the connectivity amongst class-III towns with class-IV towns. It has been observed that the deep purple colour shows the road network potentiality and is overlaid on the existing road network.

It is suggested that these needs are to be upgraded to one level up for best connectivity.

The map indicates the connectivity amongst class-III towns to class-II towns. The light blue colour shows the connectivity pattern of the potential towns by 2025.

In this regard the fluorescent coloured connectivity needs an upgradation by one more level to establish better optimum connectivity.

**Map 2-43 District Road Network -
class 3 & class 4 town connectivity**



[illegible]

The new potential towns need to be connected with one level up to that of the existing level.

The map displays the geographical context of the study area. It features a legend with two entries: 'Study area' represented by a green dot and 'Study area' represented by a blue dot. The map shows a network of roads and rivers, with the study area highlighted in green. A north arrow is located in the bottom right corner.

[illegible]

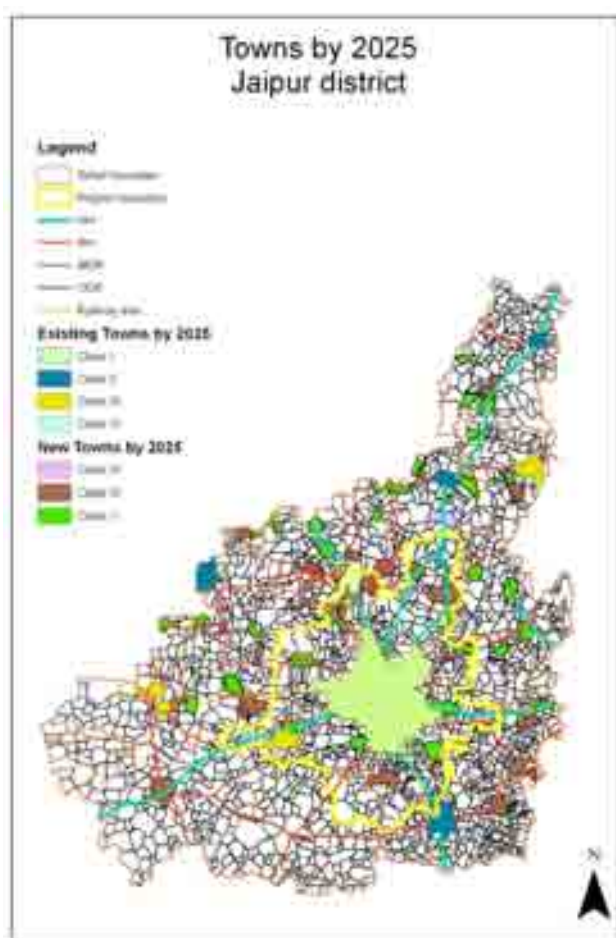
2.8.6 Settlement Analysis

(i) Towns by 2025

Towns for 2025 have been identified based upon the census definition i.e. a population of 5000, 400 persons per square kilometer density and 75% of male population engaged in non agriculture activity.

Population as per the 2025 projections has been considered. Also, projections of male workers engaged in non agriculture activities have been done. A 10% decadal rate of increase of the workers has been considered in the villages where there is presence of some kind of economic activities.

Map 2-46 Towns of Jaipur District by 2025



Thus an additional 57 new towns will be added to the existing 11 towns by 2025. The new towns that are expected to come up by 2025 will have two class III towns, 17 class IV towns and 38 class V towns. Of the existing towns, 5 towns are expected to upgrade to one higher class by 2025. Viratnagar will become class III from class IV, and Chaksu, Kishangarh Renwal, Kotputli and Shahpura will become class II from class III. Thus there will be a total of one Class I town, five class II town, six class III towns, eighteen class IV towns and thirty eight class V towns.

Table 2-39 list of existing towns with present population, future population and their class by 2025.

S. No.	Name of Town	2001	2025	Class by 2025
1	Chomu	50708	90250	Class II
2	Chaksu	29113	57357	Class II
3	Kishangarh Renwal	27565	53488	Class II
4	Kotputli	40164	76460	Class II
5	Shahpura	28174	62740	Class II
6	Bagru	22092	43243	Class III
7	Phulera	21643	28817	Class III
8	Sambhar	22293	28799	Class III
9	Viratnagar	17242	28455	Class III
10	Jobner	10498	14096	Class IV

Table 2-40 list of the 57 new towns and their class by 2025:

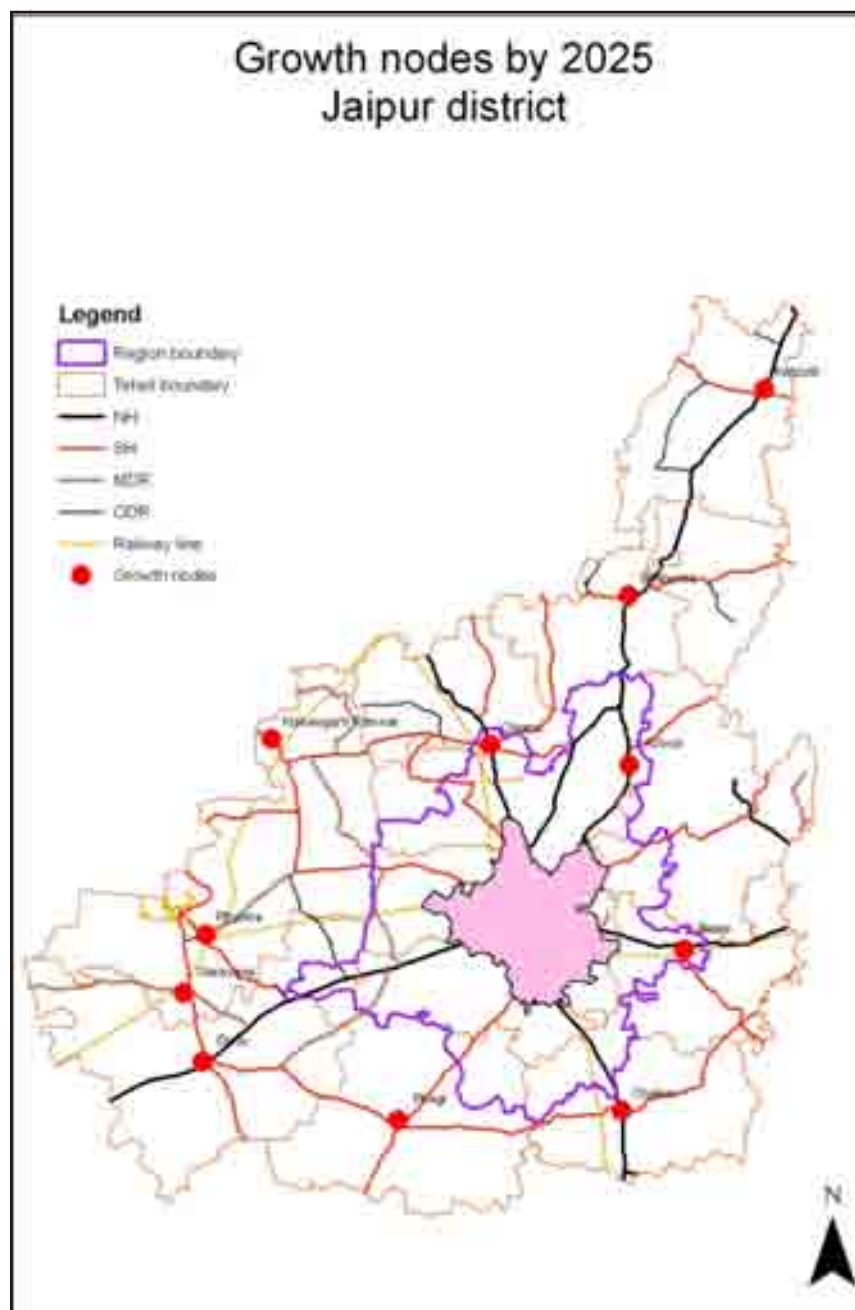
S. No.	Name of future town	2001	2025	Class by 2025
1	Bassi	19888	41241	Class III
2	Manoharpur	15756	24469	Class III
3	Achrol	12796	28073	Class IV
4	Badhal	8240	10086	Class IV
5	Baskhoh	8186	11214	Class IV
6	Boraj	8219	10549	Class IV
7	Dudu	12328	17132	Class IV
8	Jaitpura	5679	11162	Class IV
9	Kaladera	11045	14539	Class IV
10	Kanchroda	7383	10013	Class IV
11	Kot Khawada	7870	10718	Class IV
12	Manpura Mancheri	7488	10102	Class IV
13	Med	8218	10275	Class IV
14	Moriya	11363	19530	Class IV
15	Paota	12777	17342	Class IV
16	Pragpura	9888	13300	Class IV
17	Samod	7858	10158	Class IV
18	Udaipuriya	7853	10707	Class IV
19	Watika	8292	10785	Class IV
20	Akedadoongar	4000	5319	Class V
21	Amarsar	6015	7148	Class V
22	Andhi	6185	8009	Class V
23	Antela	4927	6551	Class V
24	Asalpur	6591	9126	Class V
25	Bagrana	4331	5759	Class V
26	Barijori	3871	5147	Class V
27	Bhadwa	5040	6167	Class V
28	Bhanpur Kalan	4370	7342	Class V
29	Bhonawas	4387	5833	Class V
30	Dahmi Kalan	4442	10099	Class V
31	Dantil	5339	6468	Class V
32	Devan	5192	6811	Class V

33	Dhanota	5024	6177	Class V
34	Dhodhsar	4949	6581	Class V
35	Goner	5043	6534	Class V
36	Govindgarh	7325	9650	Class V
37	Hanutpura	3782	5029	Class V
38	Hingoniya	4876	6483	Class V
39	Itawa	3984	5297	Class V
40	Jahota	4996	10380	Class V
41	Jairampura	4282	5694	Class V
42	Jamwa Ramgarh	6638	11186	Class V
43	Jatwara	5072	6618	Class V
44	Kalwar	6478	16798	Class V
45	Kanota	7356	11705	Class V
46	Khawa Raniji	4472	5946	Class V
47	Khelna	4745	6309	Class V
48	Kishanpura	4388	5835	Class V
49	Malikpur	3786	5034	Class V
50	Manda Bhimsingh	6859	8479	Class V
51	Muhana	5104	7070	Class V
52	Norang Pura	3782	5029	Class V
53	Raisar	3813	5070	Class V
54	Rojri	3994	5311	Class V
55	Saiwar	3800	5053	Class V
56	Tala	5672	7417	Class V
57	Toonga	5187	6840	Class V

(iii) Growth Nodes

In the first step towards arriving at economic drivers analysis has been done for the 10 existing towns and 57 new town by 2025. It has been emerged that 12 towns namely Kotputli, Shahpur, Achrol, Bassi, Chaksu, Phagi, Bagru, Dudu, Narayna, Phulera, Kishangarh Renwal and Chomu have potentials to check the ring ration to primate city.

Map 2-47 Growth Nodes by 2025 Jaipur district



However the development of Jaipur Region upto Bagru is fast appropriating and it is expected that Bagru becomes part of Jaipur city development along with Shivdasapura unlike Bassi, Chomu, Achrol. Thus 11 towns baring Bagru has been considered for urban growth nodes.

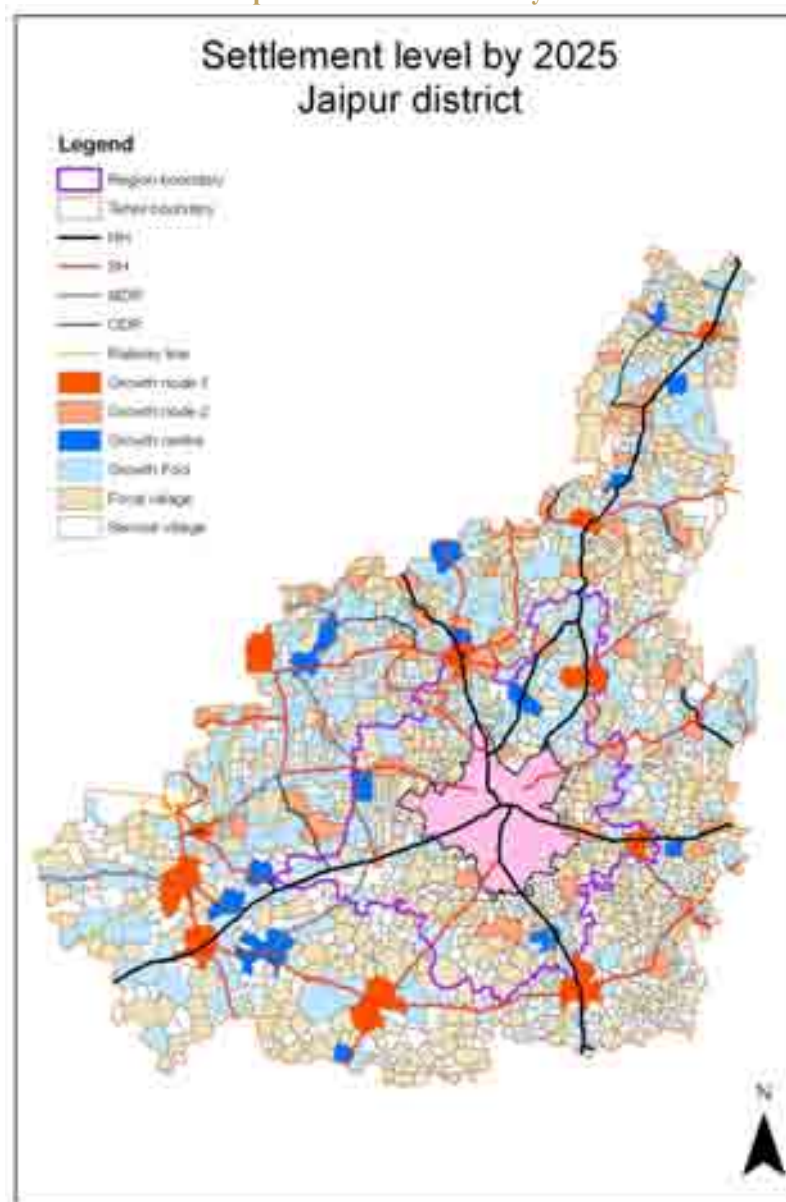
(III) Settlement Classification

The villages have been assigned the settlement level based upon the potential of the village and their population. Villages acting as growth centre have population more than 5000, growth foci having population 1001-5000, focal village with population 501 to 1000 and service village with population less than 500. The classification has been given on the basis of concept of '**Growth Pole**' theory introduced by **Francis Perroux** (1955). Following are the number of villages falling in each of the category (excluding Sāmbhar village):

- | | | | |
|-----------------|-----|-------------------|-----|
| • Growth centre | 17 | • Growth foci | 462 |
| • Focal village | 689 | • Service village | 849 |

Of rest of the 57 villages, 5 villages fall under the growth node-1 and 52 villages fall under growth node-2

Map 2-48 Settlement level by 2025



The projections of population, economic activities point that the Jaipur city and its region contrionsly play its primary role.

The directions of growth as indicated advance two theories of development.

1.Natural growth without any intervention

2.Growth with planned intervention.

In the first scenario much effort are not required but to allocate budgetary provisions to meet the requirement of the grown population. It is plagued by instinct driven inputs, which may define an orderly growth or may backfire.

In the latter case the district development can be put on development track, economic initiatives, orderly growth, planned allocation of budget provisions and balanced development.

In order to approach the same the following methodology adopted.

- To restrict primacy of Jaipur UA and region in the district
- To divert the migration component (by half) to the growth nodes.

This is achieved through

- Distribution
 - Dispersal and
 - Deflection
- } **Population and economic initiatives**

The basic premise is that the planned intemention with all possible coordinated efforts user an Orderly Development of the District. As already enumerated to contain the influence of the primate city the migration component need to be checked and deflected to the 11 growth nodes identified.

CHAPTER

3

**JAIPUR
REGION**

3.1 Introduction

The District study undertaken to draw inputs for the Jaipur region development plan. The Jaipur Development Authority has jurisdiction over Jaipur Region only. Hence, conclusions were taken as guiding factor.

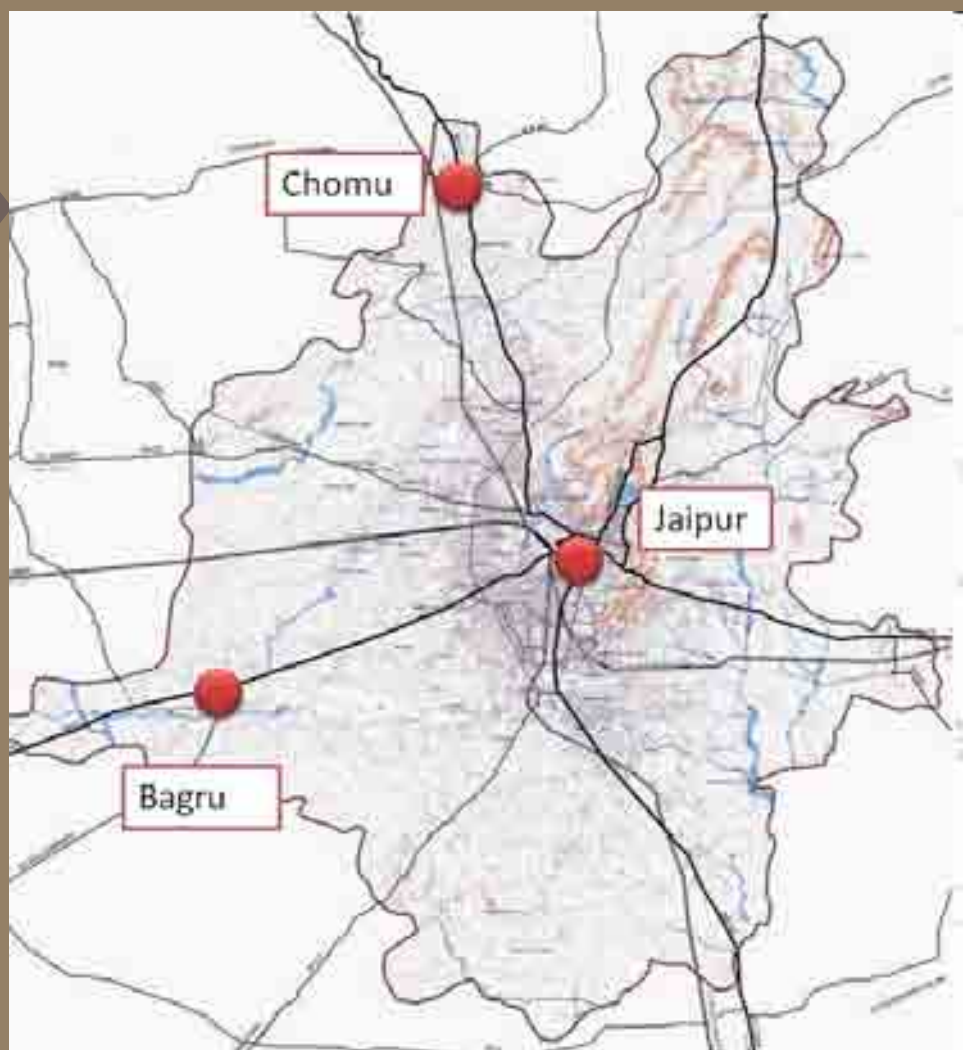
3.1.1 Area and extent

The Jaipur region with an area of 2940 SqKm include a total no. of 725 revenue villages, and the towns, namely, Jaipur, Bagru and Chomu. It was having only 132 villages in 1976 master plan which increased to 478 in 2011 and than 725 in 2025 with expansion of region boundary

Map 3-1 Map Showing Jaipur Region-2025



Jaipur region was having only 132 villages in 1976 master plan which increased to 478 in 1997 and 721 now with expansion of region boundary



3.1.2 Area under Previous Master Plans

The following table briefly reviews the Master Plans prior to the 2025 Master Plan, i.e. 1976 Master Plan and 2011 master plan.

Table 3-1 Review of 1976 and 2011 Master Plan



"In 1976 area of Jaipur Region was 390 Sq.Km. while it has increased to 1959 SqKm by 2011

	1976 Master Plan	2011 Master Plan
Total Area	390 sq km	1959 sq km
Components	<ul style="list-style-type: none"> • Urbanisable area : includes the walled city of Jaipur along with the urbanized area which covering an extent of 155 Sq. Km. • Green Belt District: The Green Belt District proposed to cover all the peripheral areas having a total area of 234 Sq. Km 	<ul style="list-style-type: none"> • Jaipur City Urbanisable Area : This includes the walled city of Jaipur along with the urbanized area which as per Master Plan 2011 covered an extent of 326 sq.km. It additionally include the urbanisable parcels of satellite and inner ring towns of Jaipur Region (64.57 sq.km) which is total accounts for 391 sq.km. • Ecological Zone; A contiguous green zone with a sensitive ecosystem having an area of 481 sq.km provided for. • Rural Area : This area excludes the urbanisable area and ecological zone. It is basically catering predominant agriculture based rural economy and villages in the Jaipur Region thus balancing the urban rural growth within Jaipur Region. This cover an area of 1087 sq.km.
No of Villages	132 Revenue villages	478 Revenue villages
Towns included in the region.	Jaipur, sanganer, Amber	Jaipur, Chomu, Bagru, Bassi
Salient Features	<ul style="list-style-type: none"> • The Green Belt District proposed to cover all the peripheral areas between the Urbanisable limits of 1991 and notified urban Area limit as Notified under the Act covering 132 revenue villages. • Selected rural settlements to be developed as 'Urban Villages' in strengthening the economy of the rural population living in this District, • Amber town towards the north and Kanakpura-Bindayaka Township towards the west formed part of the Green Belt District proposed to be taken up with separate development plans, as a follow up action of the Master Plan. 	<p>A four tier development system covering the entire Jaipur Region was envisaged to take care of the eventualities that were likely to arise, which is as under:</p> <ul style="list-style-type: none"> • First Tier: Jaipur City Urban Complex including settlements of Beelwa, Balawala, Bhankrota, Bindayaka, Sinwar, Harmada would form one contiguous developed area. • Second Tier: Outer ring of satellite towns viz. Bagru, Chomu, Achrol, Jamwa Ramgarh, Bassi and Shivdaspura & Chandlai, would develop independently as satellite nodes. • Third Tier: Inner ring of satellite towns viz. Kukas, Kanota, Goner, Jaitpura and Anantpura would be the punctuation bulbous nodes between the mother city and the satellite nodes. • Fourth Tier: Rural settlements falling in the JDA region would assume the character of suburban areas.

Constitutional Jurisdiction of Region includes JMC, Town municipalities and village panchayat with their respective wards

3.1.3 Constitutional Jurisdictions in the Jaipur Region

Broadly, for the purpose of management of the city, the Region primarily comprises of the following:

Jaipur Municipal Corporation Area (also called the Jaipur Nagar Nigam Area): This broadly comprises of the Jaipur walled city area and the development area of the Jaipur city, the whole limit comprising 77 wards, over which JMC is responsible for its maintenance and management.

Municipal Towns: There are many municipal towns within the JAIPUR region.

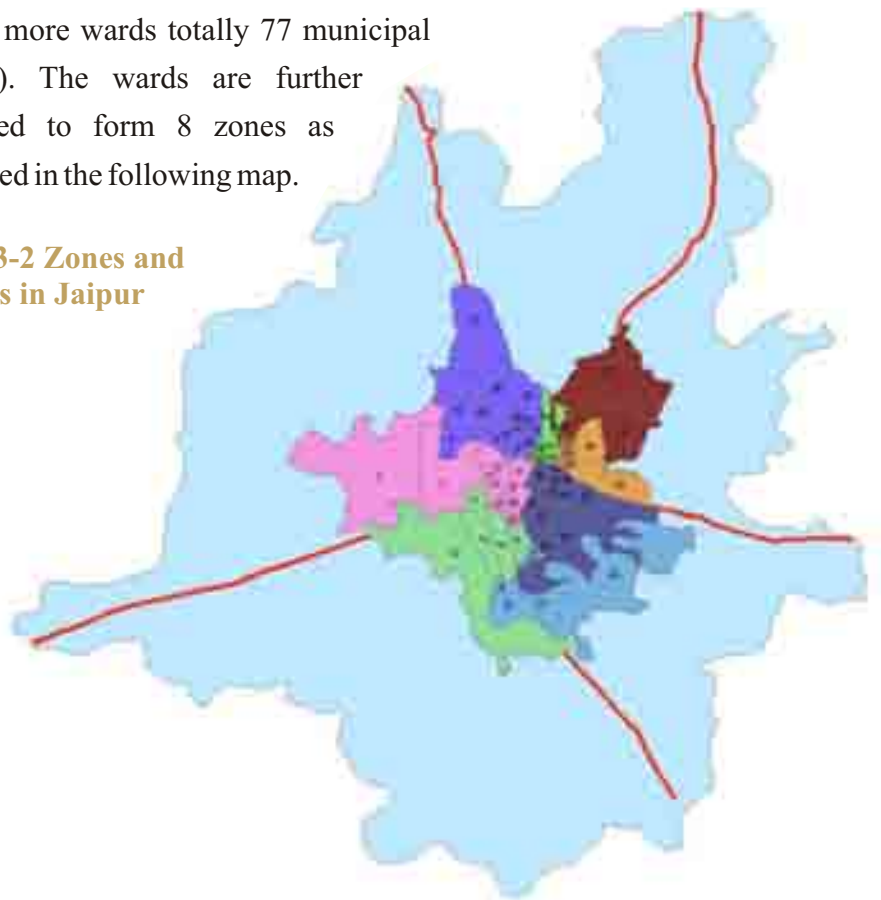
Village Panchayats: They exist beyond the limits of municipal ward boundaries covering all the remaining villages of the Jaipur region.

Following are the various constitutional jurisdictions falling in the Jaipur region:

(i) Municipal Wards

As per the Census of India 2001, the Urban Area of Jaipur has been divided into 70 wards (Recently JMC covered out seven more wards totally 77 municipal wards). The wards are further grouped to form 8 zones as depicted in the following map.

Map 3-2 Zones and Wards in Jaipur



(ii) Gram Panchayat Boundaries

A number of villages combine to form a gram Panchayat. Currently there are 117 gram panchayat within the region. Some of these are not wholly within the region boundary.

Map 3-3 Gram panchayat of Jaipur Region



3.1.4 Assessment of the Development Area

To define the area for development, the following need to be considered:

1. Existing developed area
2. Commitments
3. Sector road proposals
4. Development along the main trunks of the city
5. The existing area covered by the developments as per the satellite imageries
6. There are various commitments of the JDA in terms of future projects and schemes
7. 65 sectors of the JDA existing as of date and considering the developments and growth potential of certain areas, further sectors have been proposed for development.
8. The highways are the lifelines, attracting developments.

Chart 3-1 from the City Centre along Major Roads over the Years

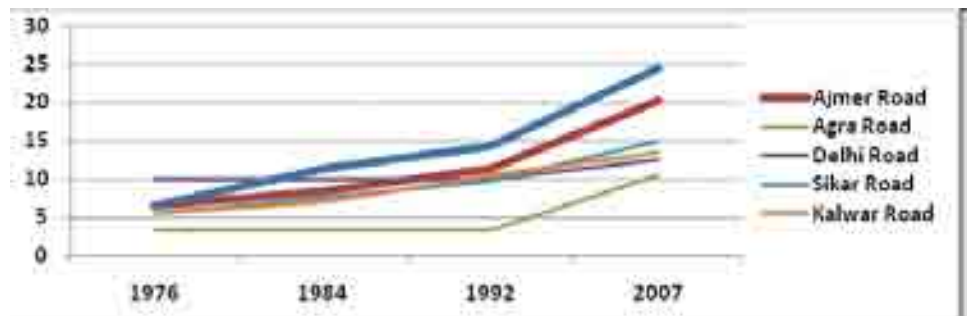


Chart 3-2 Distance (in Kms) Remaining of Development Area to Satellite Towns / growth centers



Considering the development potential along the major roads of the city, it is likely that Shivdaspura and Bagru shall form important part of the development area of the city whereas Bassi, Achrol and Chomu would still continue to act as separate urban nodes.

3.1.5 Major Settlements within the Jaipur Region

There are a number of important settlements within the region. It comprises of the two census towns - Chomu, Bagru and 6 other settlements which are also the satellite towns as per Master Development Plan 2011. These were the settlements with sizeable population having a potential for future development and transformation into towns. The classification and population of these settlements is given below:

Table 3-2 Major settlements within Jaipur Region

Name of the Town/ Satellite town	Classification as per Census	Population as per Census-2001
Chomu	Class II	50708
Bagru	Class III	22092
Shivdaspura & Chandlai	Village	8837
Achrol	Village	12796
Bassi	Village	19888
Kookas	Village	2947
Jamwa Ramgarh	Village	6638
Kanota	Village	7356





**MDP 2025
prescribed to
have an area
of 2940 SqKm
with 725
revenue
villages and
15 satellite
towns
including 4
growth
centres**





There are eight important settlements within the region. Chomu is a class II town while Bagru is a class III town whereas the rest are revenue villages ranging in population from 3000-19000.

Background of Settlements in Jaipur Region

The above settlements in Jaipur region were classified as satellite towns and ring towns based on its location and importance. Accordingly, Master plans were prepared for these settlements in MDP-2011. The settlements were assigned population and economic activities to boost their growth. A detail examination of the same is provided below:



Table 3-3 Description of important settlements

Important settlements	Description			Existing Development of important settlements 2008
	Type	Proposal MDP-2011	Existing details 2008	
CHOMU				
	Area	40.99 Sq.Km.	10.00 Sq. Km.	
	Population Assigned	1,25000	50,708 (2001)	
	Node	<ul style="list-style-type: none">CommercialIndustrial		
	Major Transport Proposal	<ul style="list-style-type: none">Bypass of NH-11 East of the townRegional Road South of the town	I. Bypass of NH - 11 is on the anvil I. Regional Road could not be materialized	
	Major Facilities Nodes	Bus terminal, Truck terminal along with commercial nodes envisaged	Transport terminals could not be developed commercial developed are not of quality area.	
BAGRU				
	Area	24.73 Sq. Km.	6.6 Sq. Km.	
	Population Assigned	80,000	22,092 (2001)	
	Node	Commercial Industrial		
	Major Transport Proposal	Regional Road South of the town and west of the town Grid road network	The proposals could not be realized	
	Major Facilities Nodes	Bus terminal truck terminal industrial and other activity nodes envisaged	Barring industrial development, the circulation proposals and other development proposals not realized	



Bassi				
	Area	31.53 Sq. Km.	3.12 Sq. Km.	
	Population Assigned	80,000	19,888 (2001)	
	Node	Commercial		
	Major Transport Proposal	<ul style="list-style-type: none"> • Link to Jaipur all along the Railway line. • Regional road east of the city 	<p>The process of link in initialized.</p> <p>The region road has been strengthened.</p> <p>Construction of by pass of Bassi could not be materialized.</p>	
	Major Facilities Nodes	Equal distribution of facilities	Plan could not be realized.	
SHIVDASPURA- CHANDLAI				
	Area	16.55 Sq. Km.	3.8 Sq. Km.	
	Population Assigned	30,000	8837 (2001)	
	Node	Commercial	Commercial development envisaged could not be realized	
	Major Facilities Nodes	Equitable distribution of all the facilities	Except few residential development no other change is witnessed	





ACHROL



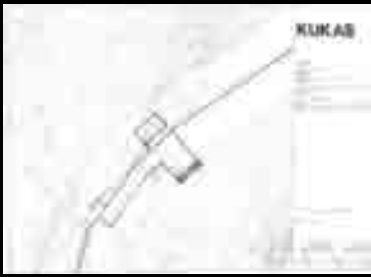

	Area	15.72 Sq. Km.	1.5 Sq. Km.	
	Population Assigned	20,000	12,796 (2001)	
	Node	Recreational		
	Major Facilities Nodes	Recreational activity promoted	Sports city development is under active consideration. The development is not as per proposals.	

JAMWA RAMGARH

	Area	7.61 Sq. Km.	0.56 Sq. Km.	
	Population Assigned	20,000	6638 (2001)	
	Node	Recreational		
	Major Facilities Nodes	Recreational land use advocated	The plan could not realized	

KANOTA & HIRAWLA

	Area	15.96 Sq. Km.	2.63 Sq. Km.	
	Population Assigned	30,000	8,838 (2001)	
	Node	Commercial Industrial	The growth envisaged in this sector could not be realized	
	Major Facilities Nodes	Bus terminal commercial uses industrial uses.	The existing industrial area and residential improved but not as envisaged.	

GONER				
	Area	4.73 Sq. Km.	0.9 Sq. Km.	
	Population Assigned	15,000	5043 (2001)	
	Node	Recreational		
	Major Transport Proposal	Bye pass to goner	It has become part of urbanisable area with various activities coming around along with sector plans for development of roads.	
	Major Facilities Nodes	Recreational and mixed land use advocated.	The plan could not be realised	
KOOKAS				
	Area	1.65 Sq. Km.	1.7 Sq. Km.	
	Population Assigned	5,000	2947 (2001)	
	Node	Recreational	Institutional	
	Major Facilities Nodes	Recreational activity envisaged	It is now a major institutional zone. It developed beyond planned area.	

It may be observed from the above study, that in most cases, the planned area has not been utilized fully nor the projected population could be achieved. This has been mainly due to the fact that major economic indicators required to support such developments and the corresponding infrastructure supports were missing. The growth of these settlements occurred in many areas other than those planned for.

3.2 Demography

3.2.1 Population Growth of Jaipur Region

The population of the Jaipur region includes that of the Jaipur UA, the towns and the villages within. The region boundary has also been redefined to include additional 243 villages. The 1991 population of these villages has been incorporated for the year 2001 to arrive at the comparable population. The following table shows the increase in population of the region over the year 1991.

Table 3-4 Growth in Population of Jaipur Region since 1991

Place	Population 1991	Population 2001
Jaipur U.A.	15,18,235	23,22,575
Satellite Towns		
Chomu	38,523	50,708
Bagru	15,509	22,092
Bassi	15,135	19,888
Achrol	9,295	12,796
Shivdaspura & Chandlai	6,779	8,837
Jamwa ramgarh	5,815	6,638
Rest of the villages -Jaipur Region^	3,49,386	6,01,412
Additional 243 villages*	2,02,694	
Total	21,61,361	30,44,946

*- The population of these villages has been incorporated for the year 1991 to arrive at the comparable population.

^- Population of 478 villages

The population of the region as per the census 2001 was 30.4 lakhs and in the year 1991 it was 21.6 lakhs. Thus there has been an increase of 8.8 lakhs in population over the last ten years. The population growth trend is depicted in the table below.

The population growth rate in the region was very high in 2001 as compared to national average due to migration for nearby towns

Table 3-5 Population Growth Trend of Jaipur Region

Year	Population (in lacs)	Decadal Growth Rate
1991	21.61	-
2001	30.45	+40.91%

The decadal growth rate of population over that of 1991 is 40% which is high as compared to the National average of the region thus it has an annual growth rate of 4 %. Out of this, it is also crucial to know the growth rate of villages in the region as well as the towns.

(ii) Decadal Growth rate of Villages and Towns in Jaipur Region

As given below, it is observed that the major growth within the region is that of the City itself, followed by growth in the villages. Towns show a relatively lower percentage of growth which indicates the migration towards Jaipur city. This reflects the induced growth in Jaipur city on account of the same.

Table 3-6: Decadal Growth rate of Villages and Towns in Jaipur Region

Area	Population		Decadal Growth Rate
	1991	2001	
Villages	552080	601412	8.94%
Rest of Towns (Chomu, Bagru, Bassi, Shivdaspura & Chandlai, Achrol and Jamwa-Ramgarh)	91056	120959	32.84%
Jaipur city	1518235	2322575	53%

It is observed from the table below, that the average decadal growth rate of the towns works out to 24.7%. Bagru has shown the highest growth which is primarily due to the growth of industrial areas around it while Jamwa Ramgarh has exhibited the least decadal growth rate of 14.2 %. The decadal growth rate of the Jaipur city is 53%



Bagru has shown a higher growth rate with growth of industrial areas while Jamwa Ramgarh has lowest growth rate due to less economic opportunities

Table 3-7: Decadal Growth Rate of Settlements within the Jaipur Region

S.No	Town/Settlements	1991	2001	Population increase	Decadal growth rate
1	Chomu	38,523	50,708	12,185	31.6
2	Bagru	15,509	22,092	6,583	42.4
3	Bassi	15,135	19,888	4,753	31.4
4	Achrol	9,295	12,796	3,501	37.7
5	Shivdaspura & Chandlai	6,779	8,837	2,058	30.4
6	Jamwa ramgarh	5,815	6,638	823	14.2

3.4.2 Demographic Profile of the Towns

There are two Municipal towns Chomu and Bagru in the region as per 2001 census. Their demographic profile is detailed below.

Table 3-8: Profile of Municipal Town Chomu

(i)
Profile of Chomu
Municipal Town

Number of Households	6,842	Average Household Size (per Household)	7
Population-Total	50,708	Proportion of Urban Population (%)	100
Population-Rural	0	Sex Ratio	904
Population-Urban	50708	Sex Ratio(0-6 Year)	921
Population(0-6Years)	8,385	Sex Ratio (SC)	942
SC Population	4,192	Sex Ratio (ST)	971
ST Population	605	Proportion of SC (%)	8
Literates	31,110	Proportion of ST (%)	1
Illiterates	19,598	Literacy Rate (%)	74
Total Workers	14,832	Work Participation Rate (%)	29
Main Worker	12,721	% of Main Workers	25
Marginal Worker	2,111	% of Marginal Worker	4
Non Worker	35,876	% of non Workers	71
CL (Main+Marginal)	2,711	Proportion of CL (%)	18
AI (Main+Marginal)	329	Proportion of AI (%)	2
HHI (Main+Marginal)	1,381	Proportion of HHI (%)	9
OW (Main+Marginal)	10,411	Proportion of OW (%)	70

(ii)

**Profile of Bagru
Municipal Town**

Table 3-9: Profile of Municipal Town Bagru

Number of Households	3,101	Average Household Size(per Household)	7
Population-Total	22,092	Proportion of Urban Population (%)	100
Population-Rural	0	Sex Ratio	909
Population-Urban	22092	Sex Ratio(0-6 Year)	909
Population(0-6Years)	4,039	Sex Ratio (SC)	963
SC Population	4,364	Sex Ratio (ST)	933
ST Population	547	Proportion of SC (%)	20
Literates	11,389	Proportion of ST (%)	2
Illiterates	10,703	Literacy Rate (%)	63
Total Workers	8,714	Work Participation Rate (%)	39
Main Worker	7,740	% of Main Workers	35
Marginal Worker	974	% of Marginal Worker	4
Non Worker	13,378	% of non Workers	61
CL (Main+Marginal)	2,102	Proportion of CL (%)	24
AI (Main+Marginal)	305	Proportion of AI (%)	4
HHI (Main+Marginal)	1,752	Proportion of HHI (%)	20
OW (Main+Marginal)	4,555	Proportion of OW (%)	52



3.3 Economy

Economy of region is based on Tourism, Trade & commerce and industries. about 1/3rd of industrial land in district, developed by RIICO, falls in Jaipur region

There are various economic activities within the Jaipur region. Tourism, Trade and commerce and local handicraft industries are major activity. The Jaipur Urban area is the major economic core but at the same time, it is crucial to actually realize the contribution of the Region towards the economy.

(i) Industrial Areas of Jaipur Region

The Rajasthan State Industrial Development and Investment Corporation Limited (RIICO) has developed 51 industrial areas in the district. There are five regional offices (R.O). Out of these, four lie in JDA region while only R.O Shahajahanpur lies outside the JDA region.

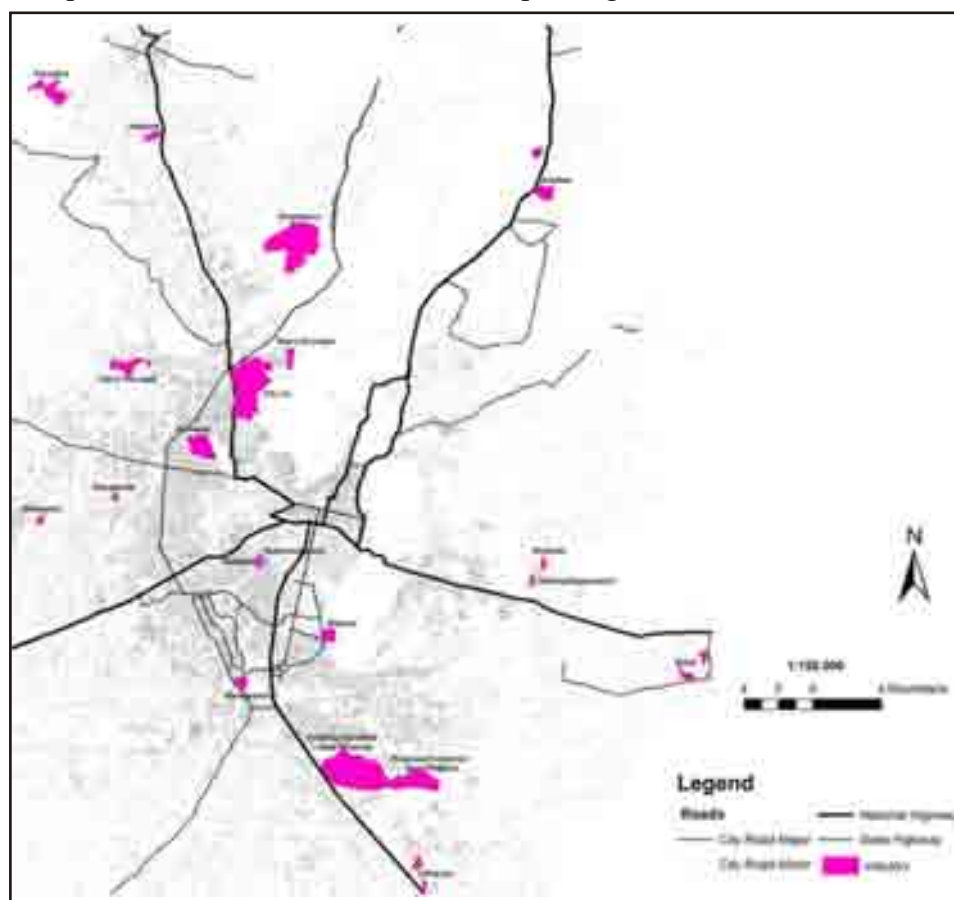
Table 3-10 Regional offices of RIICO and list of Industrial Areas in Jaipur Region

Regional Office	No. of Industrial areas	Name of Industrial areas
Jaipur North	6	Vishwakarma, Jetpura, Jhotwara I & II, Jhotwara TA, Vishwakarma Extn., Akedadoonger
Jaipur Rural	12	Bagru Old, Bagru Extn.II, Bindayaka, Bagru Extn., Manpur-Macheri, Kookas, Kanakpura, Kartarpura, Sudarshanpura Extn., Sudarshanpura T.A., Bais - Godam T.A., Kathkalwar
Jaipur South	10	Hirawala, Hirawala Extn., Malviya, Bagrana, Kilkipura, Bagru Chitroli, Mansarovar, Gem park, Jeerota, Apparel Park
Jaipur - Sitapura	9	Sitapura Phase I&II, Sitapura Phase III EPIP, Sitapura Phase IV, Institutional Area, SEZ I, SEZ II, IT Park, BT Park.
Total	37	

Source: RIICO, 2007.

The industrial areas that exist outside the urban area of Jaipur, are listed in the next table. It is observed that in total, these areas amount to nearly 2412.13 acres of developed industrial land which is approximately 1/3 of the total area developed by RIICO in the district. Thus this area contributes in a large way toward economic development.

Map 3-4 Industrial areas of RIICO in Jaipur Region



(ii) Industrial Areas in Region

The following industrial areas have been developed lying in the JDA region. The brief status of these industrial areas is as follows:-

1. **Bassi Industrial Area:** The area is situated on Jaipur-Agra National Highway.
2. **Bassi (Ext.) Industrial Area:** The area is situated on other side of the railway line from the existing Bassi Industrial Area.
3. **Hirawala Industrial Area:** The area is situated on Kanota-Nayla road which is 1km away from the main Jaipur Agra National highway. Presently the approach to the industrial area is only through Kanota-Nayla village.

Table 3-11: Industrial areas within the Jaipur Region, outside the Urban area

Name of Industrial area	Area
Jaitpura	114.66
Bagru (OLD)	55.45
Kukas	164.78
Bagru Ext.. II Ph.	465.16
Bagru Ext.	193.90
Kant Kalwar (Ext.)	165.10
Kant Kalwar	198.31
Bassi I,II Phase	126.94
Hirawala	81.25
Hirawala Ext.	67.92
Bassi Ext.	90.17
Bagrana (UD)	22.91
Kilkipura (SD)	24.50
Bagru Chhitroli (UD)	284.62

From the above table it can be seen that planned industrial areas need to be allocated within the region, in terms of land use. This would play a major role in strengthening the economic base of the city and at the same time trickle down the development benefits to a wider area. It is also observed that the Mahindra SEZ (Special Economic Zone) also lies in proximity of the city.

A Vision plan is needed considering environment aspect with provision of supporting infrastructure, proper connectivity and timely implementation since there is enough land, raw material and man power available needed for industrial development

(ii) Issues pertaining to Industrial Areas

The issues pertaining to these industrial areas are as given below:

1. There is full scope of expansion of industrial area in the region, but vision plans need to be laid out to capitalize and allocate industrial land use by the land department.
2. The development of SEZ invites along with it's ancillary functions of housing, commercial, logistics, etc which need to be materialised timely.
3. Minor issues of lack of connectivity with certain industrial areas as this aspect may have been overlooked by the fact that there was non-availability of land. These issues need to be taken up on priority.
4. Ad-hoc planning exists with industries scattered around the city. Wider vision for such planning is required to concentrate these to avail mass facilities which can then be planned for the industrial areas like fire fighting, development of warehousing, etc.
5. The environmental aspect of industrial location needs to be kept in mind so as to protect the green and Eco-sensitive zones.
6. RIICO need to take up acquisition of industrial areas as envisaged in the Master Plan on priority.

The industrial areas that exist outside the urban area of Jaipur are listed in the table below. It is observed that in total, these areas amount to nearly 2412.13 acres of developed industrial land which is approximately 1/3 of the total area developed by RIICO in the district. Thus, this area contributes in a large way toward economic development.

3.3.2 Special Economic Zones (SEZ)

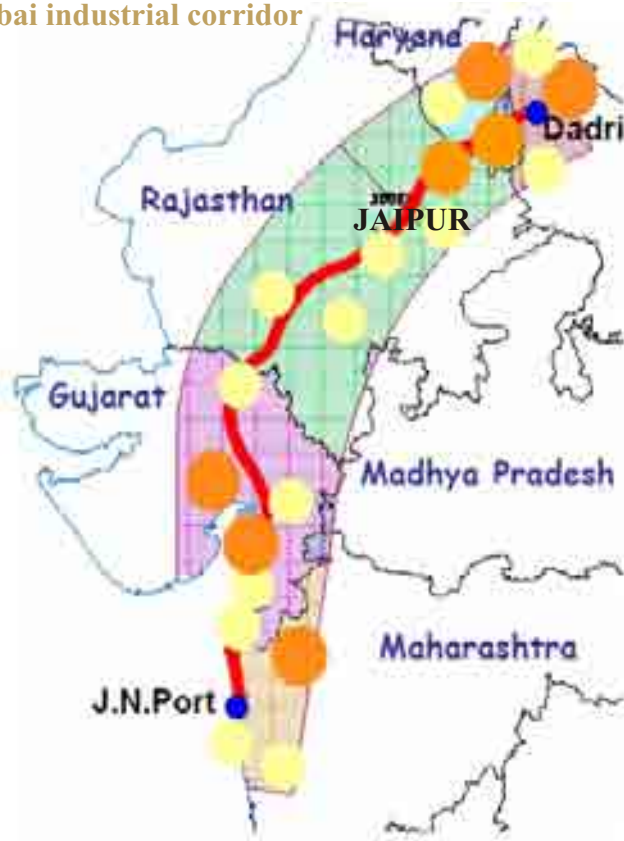
The Special Economic Zone is spread over 2,500 acres and is located close to the proposed Ring Road, near Bhankrota on Jaipur - Ajmer road. The Special Economic Zone is to contain dedicated zones for IT/ ITeS, manufacturing, warehousing, logistics and special zones for auto and auto components and institutions to cater for the demand arising out of the processing zone and Inland container depot. The project timeline is 5 years. The proposed development shall be undertaken by Mahindra World City. The Special Economic Zone is expected to generate Rs10,000 cr, investment and one lakh jobs.

(iv) Delhi Mumbai Industrial Corridor:

Government of India has announced establishing the Dedicated Freight Corridor between Delhi and Mumbai, covering an overall length of 1483km and passing through the States of U.P, NCR of Delhi, Haryana, Rajasthan, Gujarat and Maharashtra, with end terminals at Dadri in the National Capital Region of Delhi and Jawaharlal Nehru Port near Mumbai. This Dedicated Freight Corridor offers high-speed connectivity. The Delhi-Mumbai leg of the Golden Quadrilateral National Highway also runs almost parallel to the Freight Corridor.

In the context of JDA region, it would mean a huge development potential for various industries in the area between the Sikar road and the Ajmer road as that would be under the influence of the Industrial corridor. Besides, there would be a major terminal coming up at Phulera and hence the economic corridor would be towards it and also towards the Ringus belt which already has a developed industrial area of RIICO. The environmental compatibility of the same needs to be judged prior to zoning this area.

Map 3-5 Delhi-Mumbai industrial corridor



(v) Ring Road

JDA had through its vision for developing infrastructure projects to make Jaipur a world class city, prepared the proposal for development of the Ring road.

The ring road development corridor is a visionary plan to create infrastructure through public participation to meet the rapid growth and better connectivity bypassing the heavy traffic coming into the city. The project involves development of a 360 m wide corridor, with expressway, service roads and a Public Transportation. route along area for P.A.P. (Project allocated persons).

(vi.) Market Economies

The city is a major trade and commerce hub of the Region. The markets comprise of the main mandis along with sub-yards. A list of the grain markets is given below.

Table 3-10 Annual Income (Rs. in lacs) Main Market /Sub Market from 1999-2000 to 2006-07- Jaipur region

Sl.	Name of Main Market/Sub Yard	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1.	Surajpole Main Market	365.41	390.87	398.32	411.58	560.47	647.01	662.52
2.	Bagru Sub yard	39.10	44.05	43.90	52.24	68.55	53.73	48.24
3.	Bassi Sub yard	13.68	13.68	15.68	20.00	24.55	32.88	30.04
4.	Sanganer Sub Yard	4.12	5.56	4.65	4.78	2.92	4.34	4.91
5.	Lalkhoti Sub Yard	5.76	8.47	10.22	10.33	11.40	14.94	12.87
6.	Sodala Sub Yard	10.26	12.24	15.10	15.32	23.64	11.23	17.92
7.	Achrol Sub Yard	2.40	2.44	1.26	2.88	3.58	7.22	5.81

Source: Office, Krishi Upaj Mandi, Jaipur.

It is observed from the above that the Surajpole mandi is the largest grain market and accounts for 47% of the annual income in the district. It has sub yards at various parts of the JDA region. Thus it shows that there is a well developed system in the region for the grain mandis but these need to be further planned and area allocations need to be reserved as per future need some of them have already become part of the developed area.

In terms of the Agriculture produce, there exist markets within the JDA urban area. There exists an informal market of agriculture produce within the settlements of region. The focus is still toward moving the produce toward the urban area for marketing. There is no provision of the APMC on the development of regional terminal markets. Proposals need to be worked out for such markets in the potential areas.

Warehousing facilities:

In terms of warehousing facilities, other than the urban area, Chomu is the other town which exhibits good warehousing facilities. There is a substantial agricultural produce in Chomu and the presence of railway station in the town facilitates the logistics of the same. The details of storage facilities available in the JDA region are as below:

Table 3-11 warehousing facilities in the Jaipur Region other than the urban area

Sl.	Warehousing	Name of the place	Capacity in MT
1	Rajasthan State Warehousing Corporation (Owned)	Railway Station, Chomu	12380
		Biharipura, Chomu	3600
2	Rajasthan State Warehousing Corporation (Hired)	Bankotra (3nos)	60076

Source: Collected from CWC, SWC, Jaipur.

3.4

Heritage and Tourism

3.4.1 Tourism Industry in Jaipur Region

Amongst all tourist locations, of the India, Rajasthan is a key destination. During the last decade, Rajasthan has emerged as one of the favourite tourist destinations in India for both domestic and foreign tourists. While in the year 1973, the total arrivals of tourists in Rajasthan was about 2 million; it has increased to 19.9 million by the year 2005, of which 1.13 million were foreign tourists and 18.78 million were domestic tourists.

As per survey by the Ministry of Tourism, Government of India (Marketing and Research Wing), approximately 90 per cent of the foreign tourists and 20 percent of domestic tourists undertake package tours. Approximately 50-60 percent and 15-20 percent of all foreign and domestic tourists respectively take the golden triangle route in some form i.e, the Delhi-Agra-Jaipur route. Thus Jaipur is the prime attraction in Rajasthan.

Most of the tourist sites are located in the main city and are well exploited. However, to boost tourism, a number of tourist sites within the region and around Jaipur city need to be developed. Though much of the efforts of tourism development have been done in the city, there have been recent interests to develop areas around the city. There are a number of departments/organizations, etc which focus towards this vision for the city of Jaipur region.

3.4.2 Potential for Tourism Development

Tourism is one of the major economic generators for the State. Jaipur particularly has development potential due to the following:

- Its proximity to the National Capital making it a good weekend destination
- Its inherent multiple number of Tourist sites
- Potential for corporate tourism and conventions with a blend of tradition and heritage
- Relatively lower costs of real estate and slower, relaxed pace of life attracting investors and tourists
- Potential for Rural/village tourism.



3.4.3 Development of Tourist Sites in the Region (Other than the Jaipur City)

There are certain Heritage zones and sites in the JDA region other than the urban area which need to be conserved and developed as heritage circuits linked to the Pink City destination. A brief details of these heritage/tourist sites is as below:

(i) Jamwa Ramgarh

Ramgarh lake about 33km from Jaipur city.

The small settlement has strong historic links.

Fort, protected temple of Jamwa Ramgarh and the lake and wildlife sanctuary are significant features of the place.



(ii) Sanganer

About 14 km from city.

Sanganer is an important historic town.

It is known for its block printing textiles known as 'Sanganeri Print' and has significant temples and havelis.



(ii) Bagru

About 30 km from Jaipur city

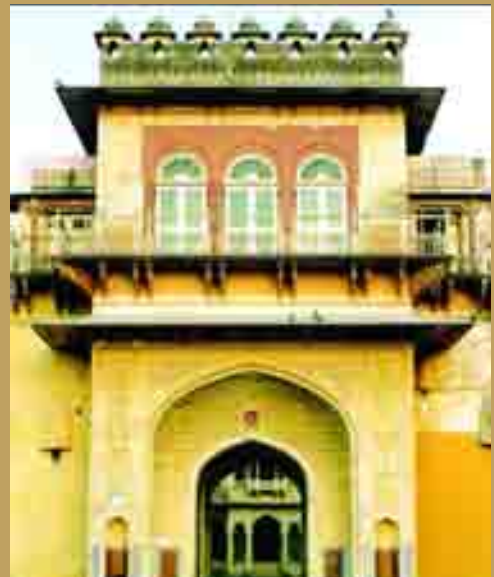
The heritage structures in this town are totally neglected and dilapidating. Physical access to areas is not good.

(iv) Samode and Chomu:

About 34 km from Jaipur city.

Samode having a beautiful palace with sheesh mahal, a mughal garden and Chomu with a significant protected fort and haveli ruins.

Except for the Samode Palace in Samode and the Chomu Fort in Chomu, most of the heritage structures are dilapidating due to neglect or in ruins



(v) Kookas/Achrol

About 20 km from Jaipur city.

Achrol and Kukas have some interesting fortresses and havelis.

Kukas has recently come up as an important area on Delhi-Jaipur highway.

The increasing land rates on the NH8 highway have development pressures on towns like Achrol and Kukas

(vii) Jaisinghpura Khor

It is 12 Km away of the road to Amber.

It is one of the settlements of Meena Tribe.

It has an impressive fort, a Jain Temple and a step-well.

The above mentioned heritage/tourist areas need to be developed and integrated into the tourist circuits. In terms of infrastructure too, development and provision is essential which would encourage visits and stays.

Revitalization of these areas requires a lot of capital and maintenance too is also costly. New programmes and plans need to be chalked out with economic sustenance, and involves also a lot of cross policies which would make these areas attractive and important.

3.4.4 Potential Ecotourism sites in Jaipur Region

Following are the potential ecotourism sites within the Jaipur Region/ District of Jaipur identified by the Department of Forests, Rajasthan.

Table 3-12 Ecotourism site- Jaipur Region

Sl.	Name of the Site	Main Features
1	Galta Forest	Good forest, close to religious place, Trekking routes
2	Hawa hodi (Jamwa Ramgarh)	Former Hunting Trekking routes Tower, good forest, Near Dam, Picturesque Scenic beauty
3	Jhalana Hills	Proximity to Jaipur City, Excellent density and diversity of forest vegetation, trekking routes, World Forestry Arboretum, Jhalana Park, Picnic facilities
4	Mayalabag	Historical, good forest, recreational potential
5	Nahargarh	Biological Park facilities, Caged animals, good forest, hills and valleys, trekking routes

Source: <http://rajforest.nic.in>

3.4.5 Private Participation

A number of monuments are adopted and maintained by private parties, especially palaces and forts, etc. There have been announcements of recent policies to adopt such monuments which encourages revitalization and reuse of the same.



Tourism is one of the major economic generators for both State and region having various heritage sites, proximity to National capital region and potential for development of rural and Eco-tourism

3.4.6 Organizations / Committee's involved at Region level

JHERICO (Jaipur Heritage Committee)

JHERICO a body created by the Government of Rajasthan in August 2006 marks a commendable initiative of the Government of Rajasthan to look holistically at the city's built heritage. The objective was outlining of a 'Heritage Vision' for the city of Jaipur.

Besides the Urban area of the city, the Heritage Plan covers built heritage zone and structures in the following areas outside Jaipur urban limits and within the JDA Region:

- | | | |
|----------|------------|---------------|
| • Kookas | • Achrol | • Chomu |
| • Bagru | • Sanganer | • Shivdaspura |
| • Goner | • Kanota | • Bassi |



3.5 Social Infrastructure

The social infrastructure of Jaipur Region has been evaluated at two levels: (1). At the level of towns in the Region and (2). At the level of villages in the region.

3.5.1 Existing Scenario of Social Infrastructure & Services: Towns in Jaipur Region

The Jaipur region has two towns, namely Bagru and Chomu, which are class III and class II level municipality. The population of the towns is 22092, and 50708 respectively. The social infrastructure parameters are evaluated below for each of the towns.

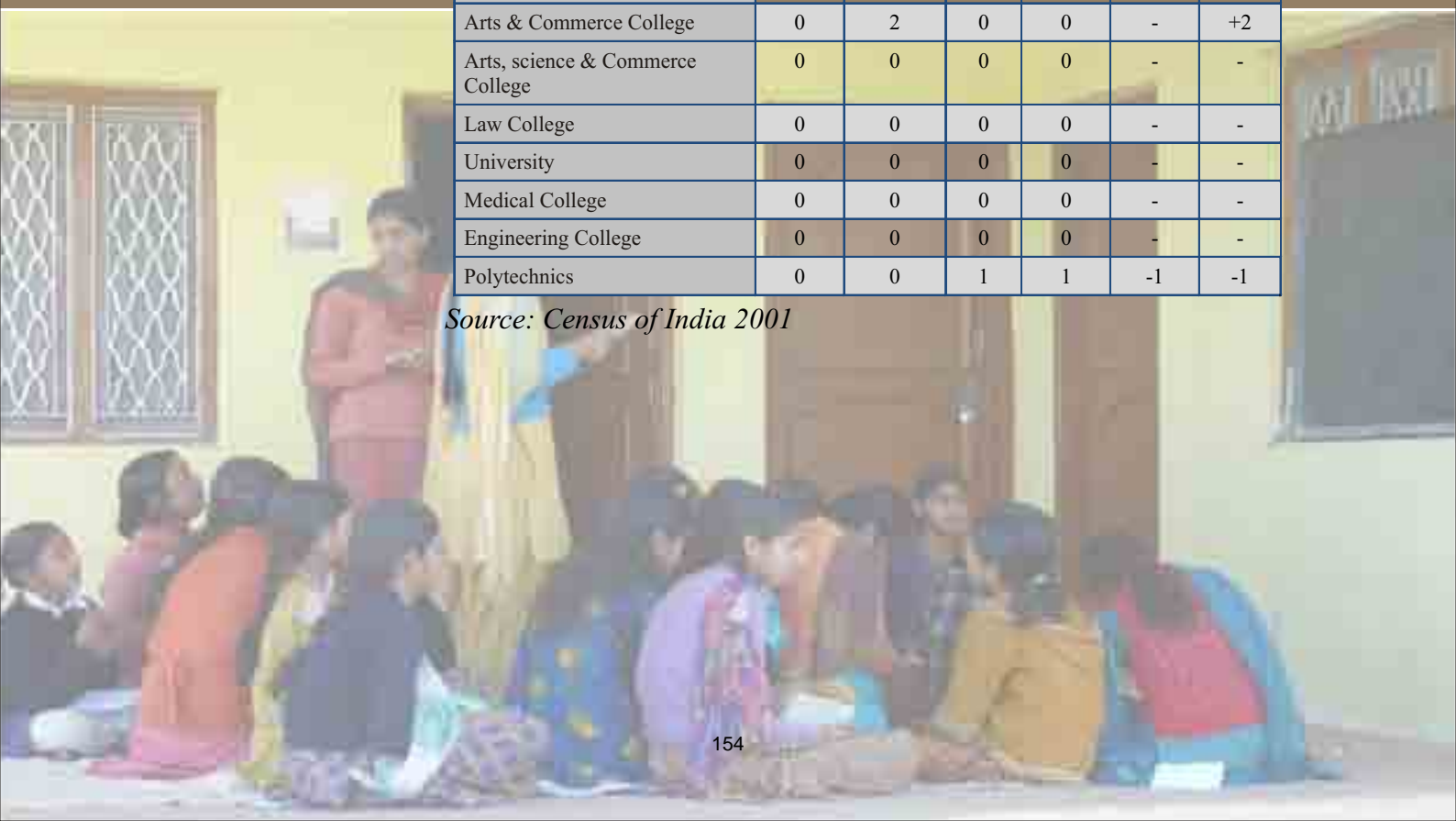
A. Education

The following table gives the number of education facility that is present in Bagru and Chomu town. Also, there is a need of some more Arts, science and commerce colleges.

Table 3-13: Education Facility in Bagru and Chomu

Facility	Existing Number		Required as per UDPFI		Deficiency/ Surplus	
	Bagru	Chomu	Bagru	Chomu	Bagru	Chomu
Primary school	8	10	9	20	+1	-10
Middle/ Junior secondary school	3	3	3	7	+3	0
Secondary /Matriculation school	1	2				
Higher Secondary /Intermediate school	2	2				
Arts College	0	0	0	0	-	-
Science College	0	0	0	0	-	-
Commerce College	0	0	0	0	-	-
Arts & Commerce College	0	2	0	0	-	+2
Arts, science & Commerce College	0	0	0	0	-	-
Law College	0	0	0	0	-	-
University	0	0	0	0	-	-
Medical College	0	0	0	0	-	-
Engineering College	0	0	0	0	-	-
Polytechnics	0	0	1	1	-1	-1

Source: Census of India 2001



B. Health

There are no dispensaries in each of the town while there is one health centre and one family welfare centre in Chomu. However, higher level facilities exist in these towns. In Chomu there are 4 nursing homes and 1 hospital while in case of Bagru, there are 2 nursing homes and 2 hospitals.

Table 3-14: Health Facility in Bagru and Chomu

Type	Existing Number		Total Beds		Required as per UDPI		Deficiency/Surplus	
	Bagru	Chomu	Bagru	Chomu	Bagru	Chomu	Bagru	Chomu
Dispensary	0	0	0	0	2	3	-2	-3
Health Centre	0	1	0	24	0	0	-	+1
Family welfare centre	0	1	0	6	0	1	-	0
TB Clinic	0	0	0	0	0	0	-	-
Nursing Home	2	4	51	82	0	1	+2	+3
Hospital	2	1	6	0	1	1	+1	0

Source: Census of India 2001

C. Banking

There are no specific guidelines pertaining to establishment of banks as per population standards. Hence only the existing status of the towns has been quoted. Bagru and Chomu towns have 4 and 7 banks respectively. There is one Agricultural credit society present in each town.

Table 3-15 Banking Facility in Bagru and Chomu

Facility	Bagru	Chomu
Banks	4	7
Agricultural Credit Societies	1	1
Non-Agricultural Credit Societies	0	0

Source: Census of India 2001

D. Recreation

There is no recreation facility in Bagru town. In Chomu however, recreational facilities are present.

Table 3-16: Recreation Facility in Bagru and Chomu

Facility	Existing Number		Required as per UDPFI		Deficiency/ Surplus	
	Bagru	Chomu	Bagru	Chomu	Bagru	Chomu
Number of Recreational and Cultural facilities	0	9	0	1	-	8
Stadium	0	2	0	0	-	2
Cinema	0	2	0	0	-	2
Auditorium/Drama/Community Halls	0	0	2	3	-2	-3
Public Libraries	0	2	2	3	-2	-1

Source: Census of India 2001



Evaluation of Social infrastructure is done at both Town and village level to assess the future requirements

3.5.2 Existing Scenario of Social Infrastructure & Services: Villages in Jaipur Region

The Jaipur Region as per Schedule I of JDA Act comprises of 721 villages with a total population of 6,48,046 whose population varies from 13 persons to 19,888 persons. The 721 villages include the villages of the Urban Agglomeration. Out of the 721 villages, 168 villages form part of the Urban Agglomeration (Old-77 villages + new-91 villages = 168 villages). Thus, a study of 555 villages in the Region has been considered. The following present an outline of the type of infrastructure that is available in the Region.

A. Education

The Jaipur Region villages has a total of 629 primary schools, 185 middle schools, 58 secondary schools, 20 senior secondary schools and 1 college.

Table 3-17: Education Facilities in Jaipur Region Villages

Infrastructure	Standard		Number of facilities		
	At a Distance	For a Population	Existing	Total Requirement (as per UDPFI)	Deficiency/ Surplus
One Primary school	1-2 Km	500-1000	629	648	-19
One Middle School	3-5 Km	5000	185	130	+50
One Secondary School	6-8 Km	7500	58	86	-28
One Senior Secondary Schools	8-10 Km	10,000	20	65	-45
One Degree college	12-14 Km	50000-75000	1	9	-8
One Industrial School	12-16 Km	50000-75000	1	9	-8
One Training School	12-16 Km	50000-75000	2	9	-7

Source: Census of India 2001& Standards as per compilation for Rural Area Studies in Planning Institutions.

The Region lacks both school level education and college level education. The Region has only 1 Degree College, 1 Industrial School and 2 training schools respectively which are not sufficient to serve the population of 6,48,046. The senior secondary schools as well are far less than required.

B. Health

The rural region of Jaipur Development Authority has various number of health facilities. The various facilities that are available do not meet the standard requirements. The number of facilities are less and there is a need for additional facilities.

Table 3-18: Health Facilities in Rural Jaipur Region

Infrastructure	Standard		Number of Facilities		
	At a Distance	For a Population	Existing	Total Requirement	Deficiency / Surplus
Dispensary	2-3 Km	1000	9	648	639
Sub health Centre	4-6 Km	4000-5000	61	130	-69
Primary Health Centre	8 Km	30,000	17	22	-5
Hospital	12-14 Km	1 lakh	0	6	-6

Source: Census of India 2001& Standards as per compilation for Rural Area Studies in Planning Institutions.

The table shows the additional requirement for the various health facilities. The maximum requirement is for dispensaries i.e. 639 followed by Sub health centres which is 69. An additional 5 primary health centres is also required in the region. There is no hospital in the rural area of Jaipur region and 6 hospitals are required to cater to the existing population.

In addition to the above, the following medical facilities are also available in the rural Jaipur Region. These however have not been evaluated against any Standards.

Table 3-19 Other Health Facilities in Rural Jaipur Region

Health Facility	Total Number
Ayurvedic Dispensary	42
Yunani Dispensary	1
Maternity and Child Welfare Centre	9
Maternity Home	11
Child Welfare Centre	9
Health Centre	7
Family Welfare Centre	11
T.B. Clinic	0
Nursing Home	2
Registered Private Medical Practitioners	97
Subsidised Medical Practitioners	8
Community Health workers	77
Other medical facilities	1

Source: Census of India 2001

Post and Telegraph

There are a total of 96 Post offices in the rural area of JDA region catering to the 653 villages, thus making it to 14 percent of the total villages it serves. There are only 7 telegraph offices and 5 post and telegraph offices in the rural belt of the JDA region. Hence, there is a need to provide for more post and telegraph services.

Table 3-20: Post and Telegraph Service in Rural Jaipur Region

Service	Number
Post Office	96
Telegraph Office	7
Post and Telegraph Office	5
Telephone connections	4133

Source: Census of India 2001

There are no appropriate standards for Postal services but as a thumb rule every village with over 500 persons should have a post office. For telegraph and telecommunication, it has been observed that, with the advent of cellular technology, the reach of telecommunications has increased. The durations for availability of cellular connections being very trivial, it is no longer an issue. The same is true with regard to postal services as courier services in today's day context are reasonable, trustable and at least in areas of the Jaipur region, accessible.

D. Banking

There are a total of 27 commercial banks, 11 cooperative banks, 48 agricultural societies, 10 Non agricultural credit societies and 7 other credit societies. Again there are no standards for the provision of banking facilities. There is a need to evaluate the banking and credit facilities as per the agricultural production areas within the Jaipur region.

Table 3-21: Banking Service in Rural Jaipur Region

Service	Number
Commercial Bank	27
Co-operative Commercial Bank	11
Agricultural Credit Societies	48
Non Agricultural Credit Societies	10
Other Credit Societies	7

Source: Census of India 2001

For serving the Banking needs and to enable the reach of the banking sector to the grass root levels, it is crucial that villages have some form of credit societies. This would help dissipate plans and policies to these levels.



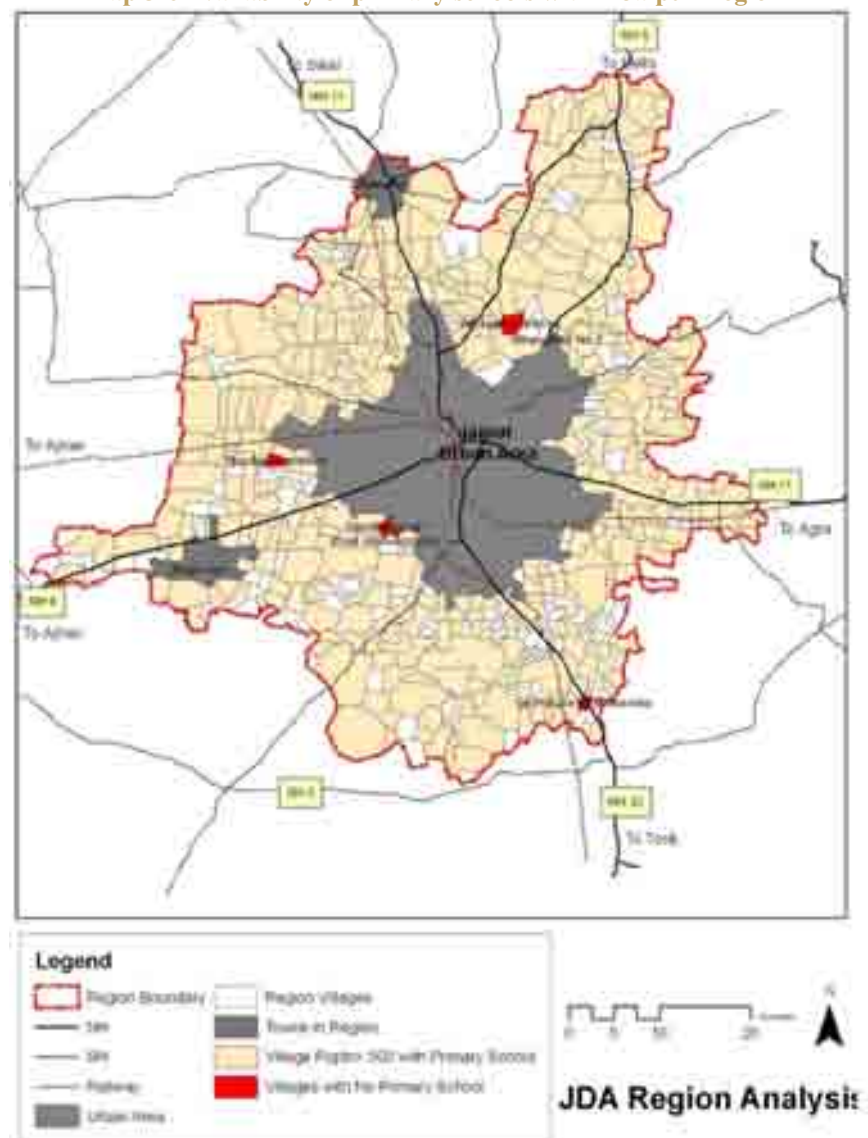
3.5.3 Spatial Analysis of the Social Infrastructure Facilities (UA, Towns and Villages)

The critical infrastructure facilities are analyzed for the region spatially to gauge availability and proximity to available facilities. These are considered important for the upliftment of the village and as essential requirements to improve the quality of life in these areas. An analysis of these requirements has been done to arrive at the depressed areas. A buffer of 10 kms has been drawn to the Region boundary as the influence and reach of facilities present here.

Educational Facility: The following levels are considered

With respect to Primary schools, there exist 6 villages within the region which do not have a Primary School. Out of these, three lie in the proximity of Urban area. Thus primary education is available to almost all parts of the Jaipur region.

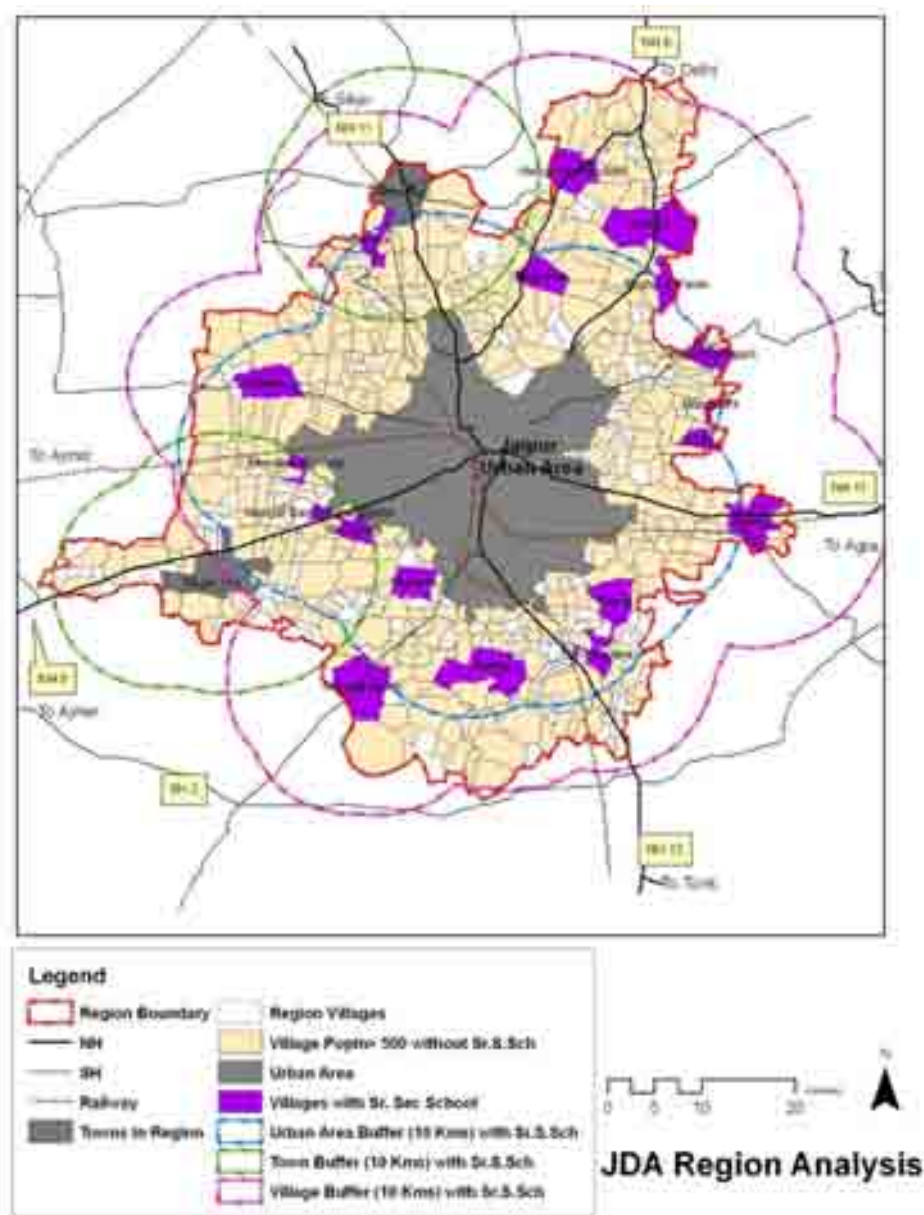
Map 3-6 Availability of primary schools within Jaipur Region



1. Availability of Primary School: Identify those villages with a population greater than 500 which do not have a primary school; especially those which are farther away from the urban areas.

2. Proximity to Sr. Secondary School: In order to identify the access of the Sr. Secondary schools a radial distance of 10 km has been drawn from available areas to identify those settlements which are deprived.

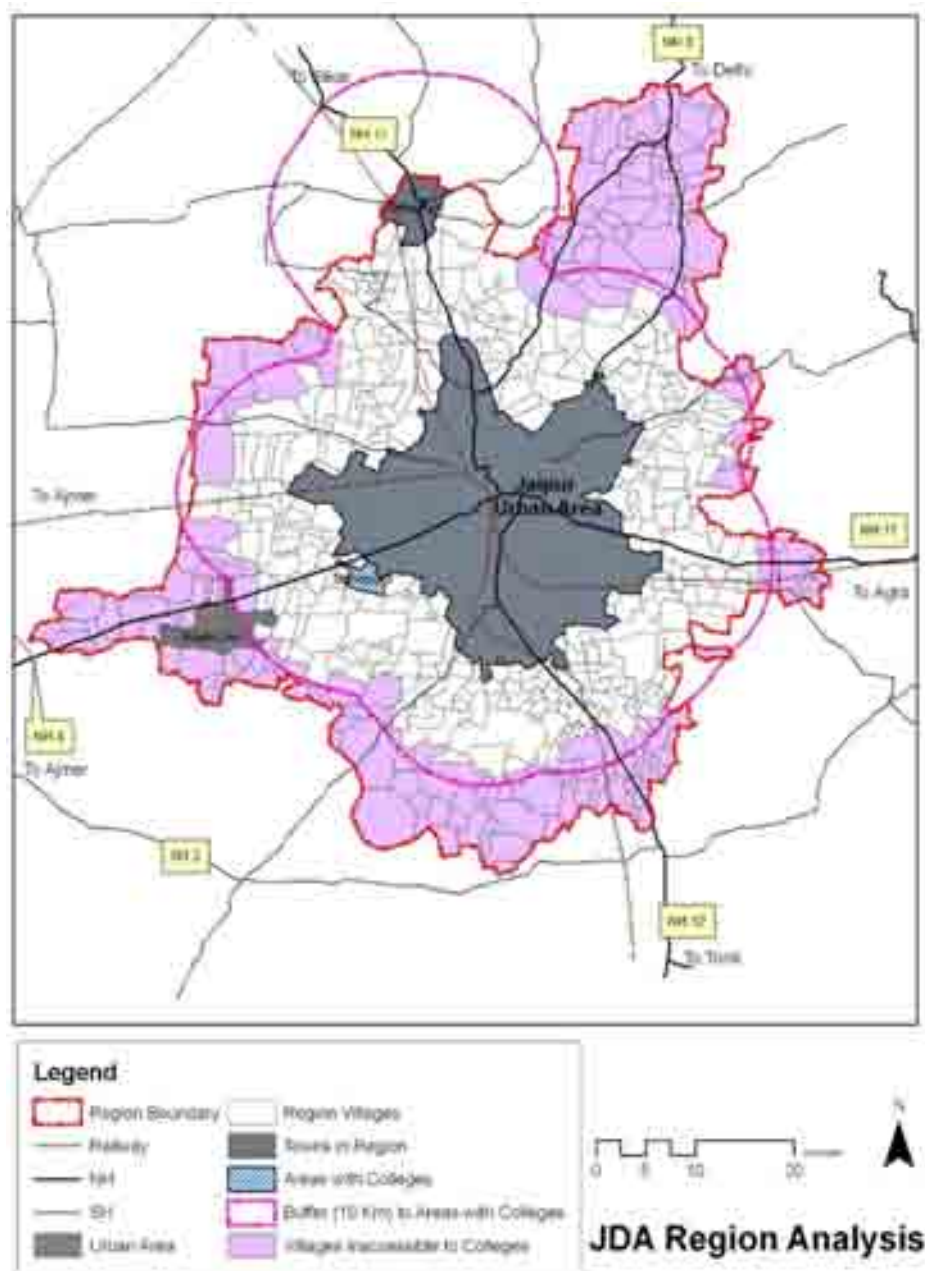
Map 3-7 Assessment of senior secondary school availability in Jaipur Region



There are 17 villages in the Region with this facility in addition to the UA and the towns. In terms of accessibility, the entire region area is accessible to Senior Secondary Schools.

3. Availability of Colleges: The college level access is a higher order facility and by applying the same standard with a distance index, the collage reach has been calculated.

Map 3-8 Assessment of college availability in Jaipur Region

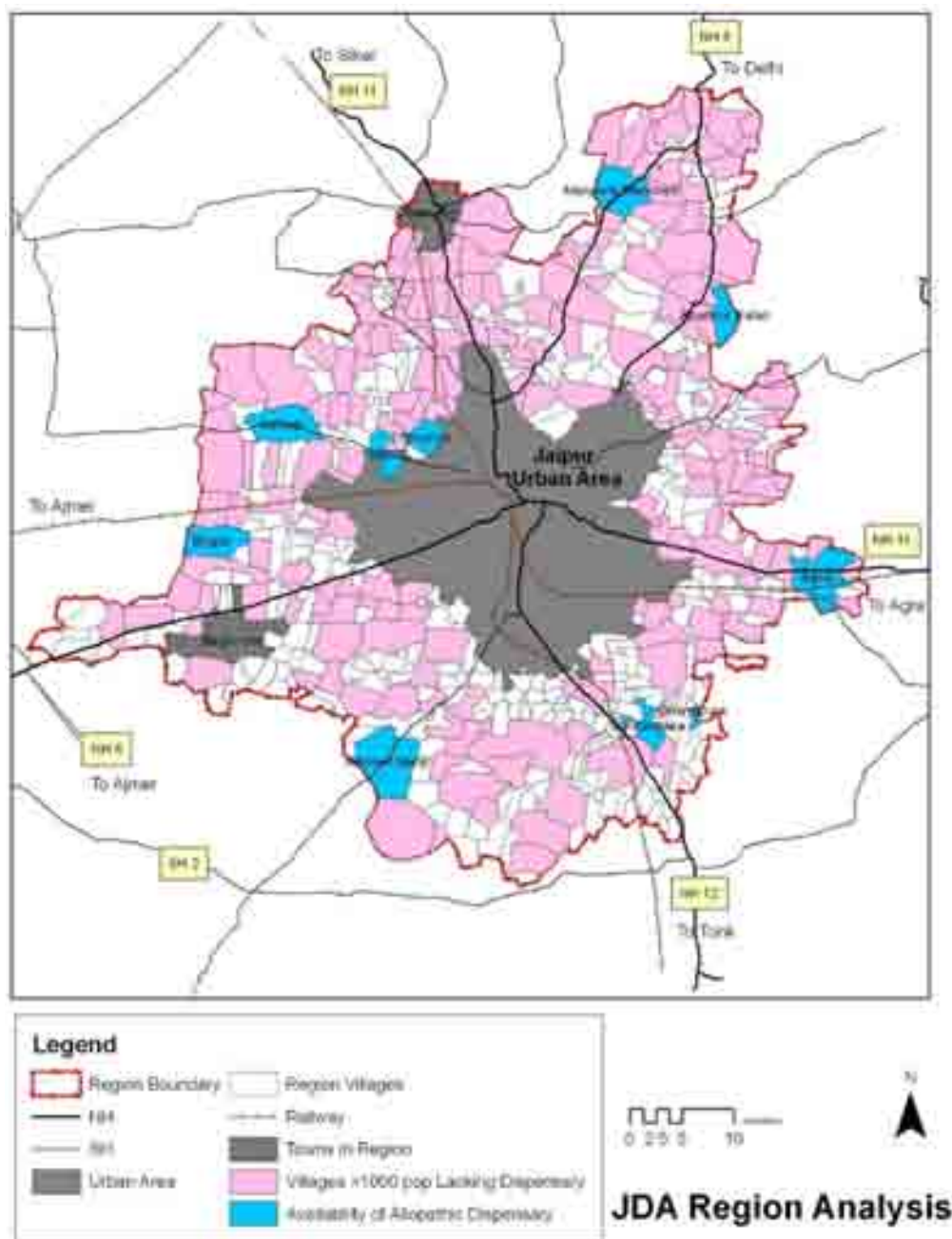


There is just one village i.e. Mahapura which contains a college other than the UA and Chomu town. Thus most of the higher order education facilities are concentrated in the urban part of the region as a result of which, 181 villages do not have access to colleges and these are mainly exist at the peripheral areas. The immediate town Chaksu also lacks of college facility.

Medical facilities: The following levels are considered

1. **Availability of Dispensaries:** By identifying villages with over a thousand population which do not have an Allopathic dispensary.

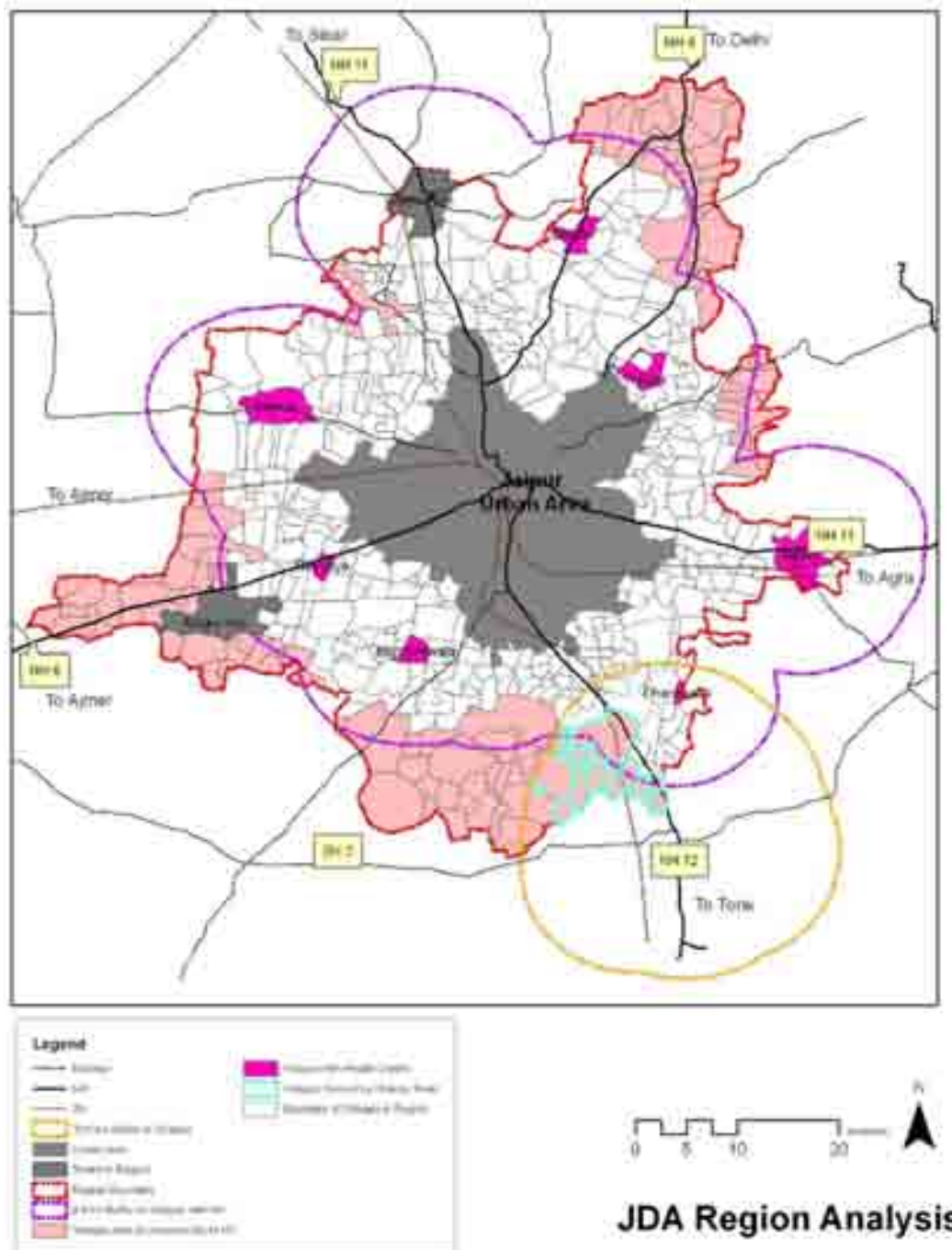
Map 3-9 Availability of allopathic dispensary within Jaipur Region



The basic unit of medical services-i.e; allopathic dispensary is available in only 9 villages in the region. There are 201 villages with over a 1000 population in the region and there is a gap of 192 dispensaries.

2. **Proximity to Health centre:** By Identifying villages which have a health centre and within a radial distance of 8 kms the villages requiring the same are assessed.

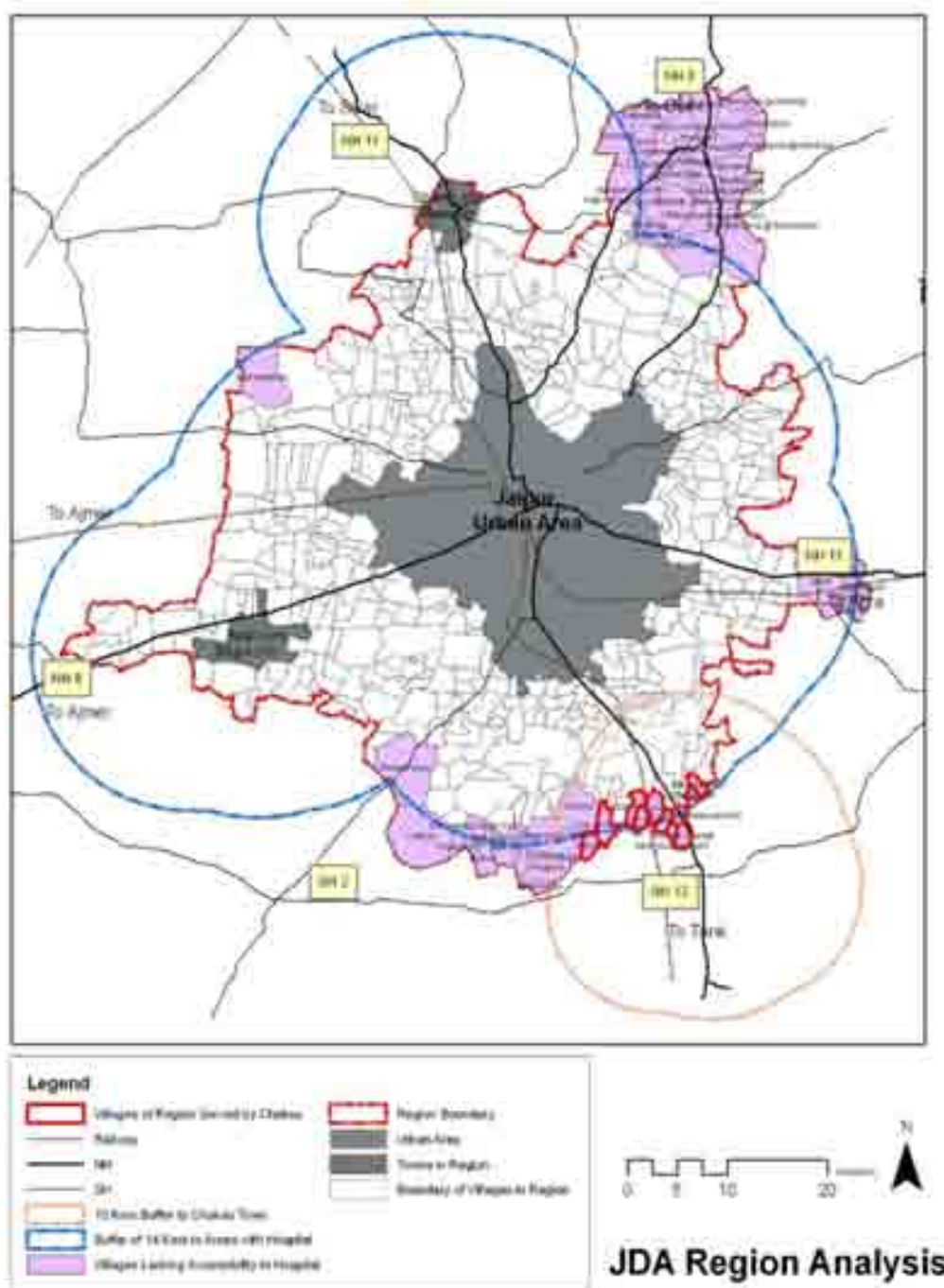
Map 3-10 Assessment of health centre availability in Jaipur Region



There are 134 villages in the region with no access to a health centre. The villages with these facilities are within 8 kms radius of the urban area. Thus all facilities tend to be concentrated in the centre. Chaksu, immediate to the region also has a Health centre. There are 18 villages which can access this facility. Thus there are a net 116 villages without access to a Health centre.

3. **Proximity to a Hospital:** In order to identify towns and villages with hospitals by assigning radial distances of 14 kms (the proximity standard for hospitals) villages which lack this facility are identified.

Map 3-11 Accessibility to hospitals in Jaipur Region

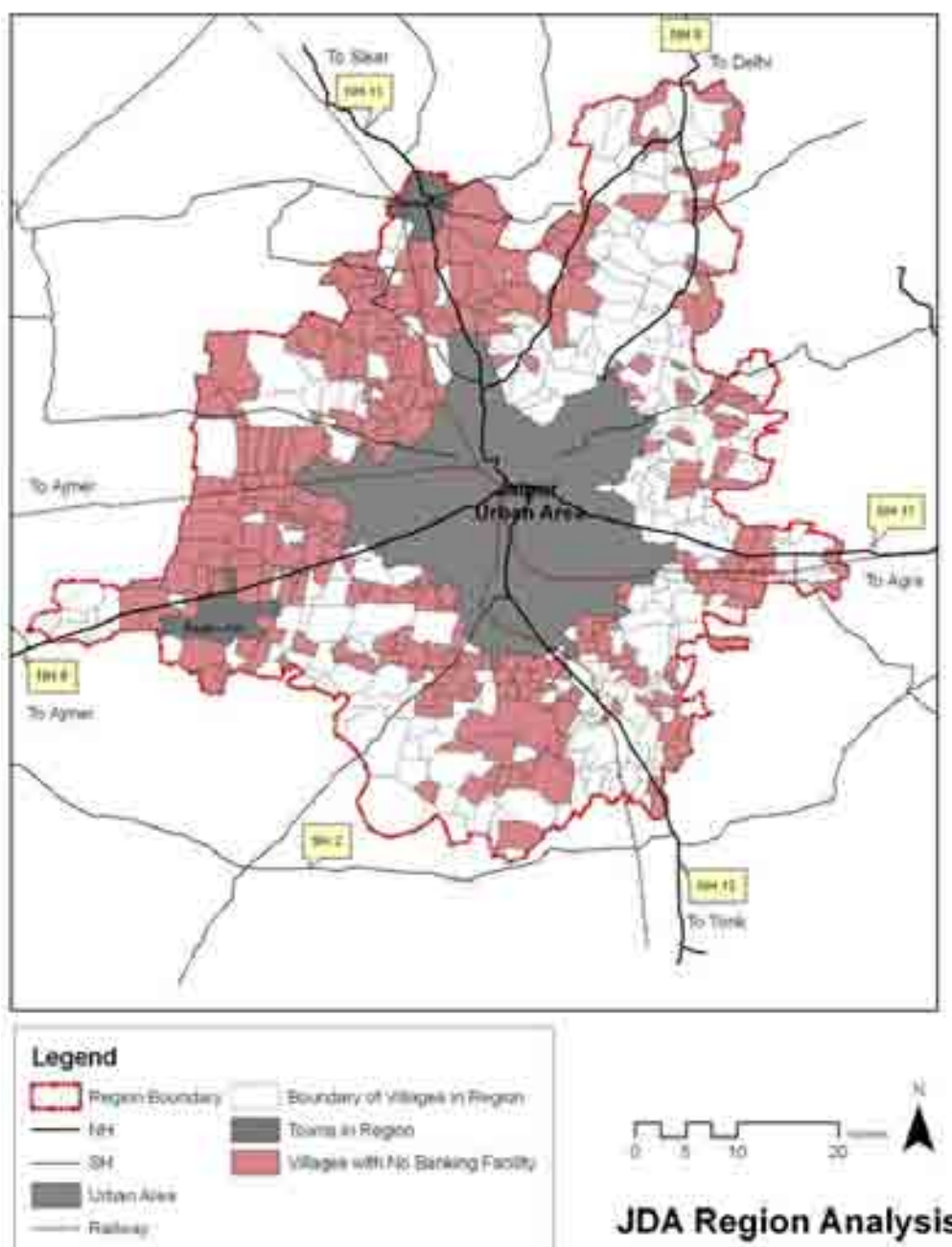


The UA and the towns, Bagru and Chomu have hospital facilities. There are 65 villages which lack accessibility to a hospital. In addition, Chaksu also has a hospital which serves additional 11 villages from the region. Thus a net 54 villages lack access to a hospital.

For Banking Facilities:

The villages are identified with no banking facilities. In order to manage savings and encourage economic planning of the villagers, banking facilities, especially government banking facilities are of prime importance. This is true because despite Private ventures in banking, these are limited only to urban areas. Post Offices could also help to land to services of savings, banking, etc.

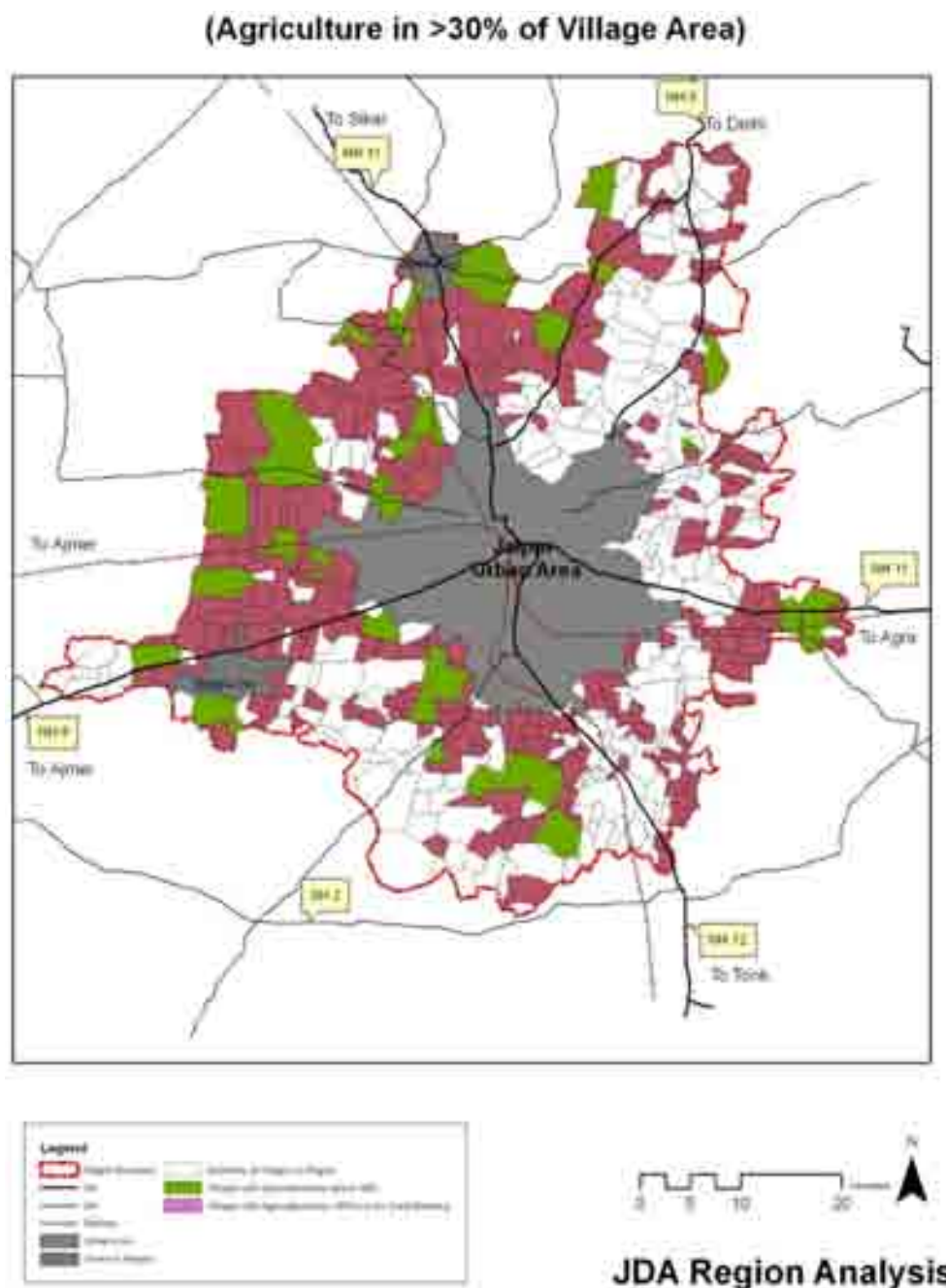
Map 3-12 Bank facility in Jaipur Region



There are 310 villages in the region without banking facilities of 653 villages. This is even less than 50% provision.

For Credit Banking, firstly, the villages have been identified with over 30% of irrigated land as these areas would be having higher agricultural production. The existing credit facilities for these villages are analysed to identify the villages which are not served.

Map 3-13 Availability of credit banking facility in Agriculture productive areas -Jaipur region



There are 325 villages in the region with agricultural area greater than 30% of the village area. Out of these, 294 villages lack credit banking facilities. Only 31 villages have credit banking facilities. This is only 9% of the villages which require credit banking. There is thus increased dependency on the centre for disbursement and availability of rural/agricultural credit.

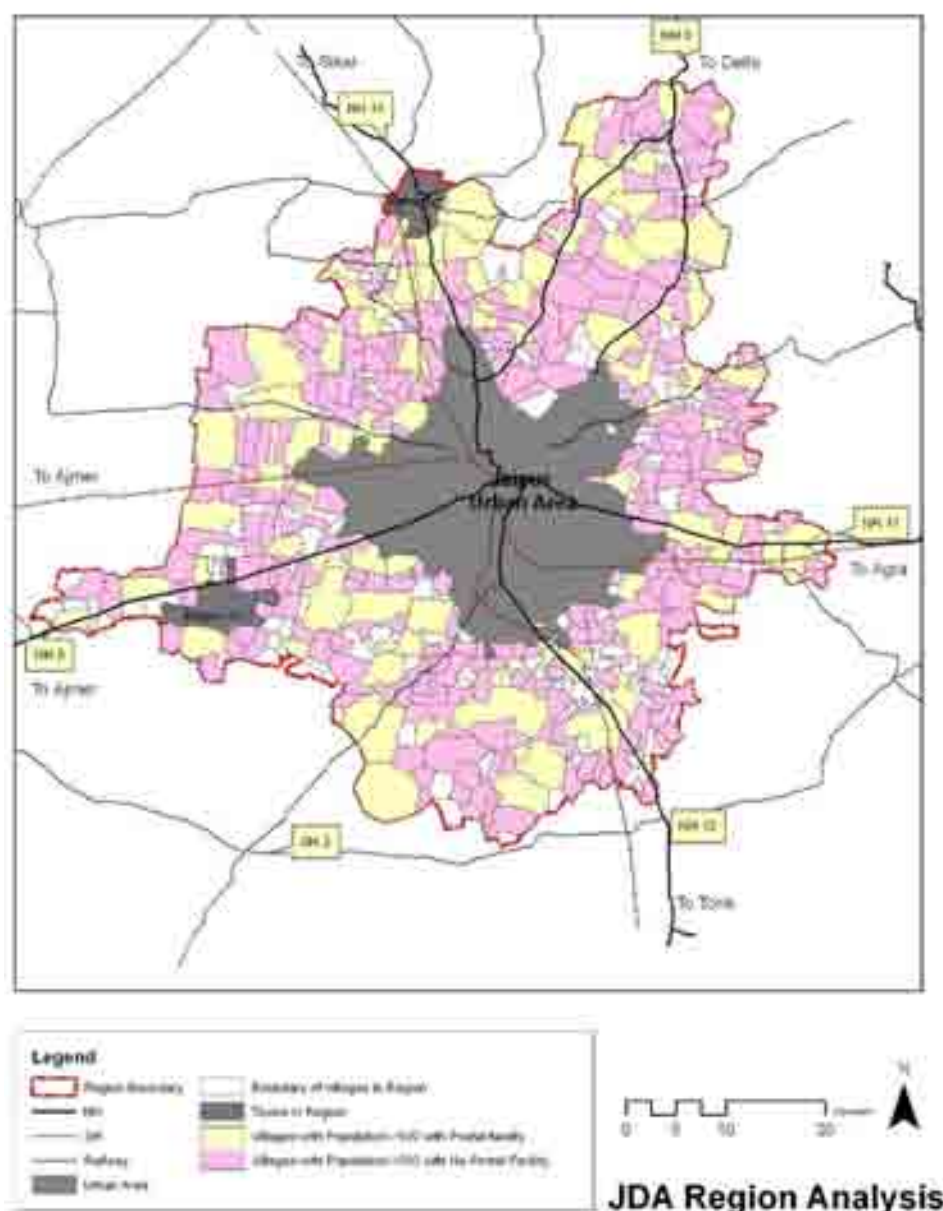
3.5.4 Spatial Analysis of Services in the UA and Villages of Region

In addition to the facilities, certain facilities are important for the region which are essential for functioning of the villages. The ones evaluated are Postal services and Bus services.

For Postal Services, the following is considered:

Postal service being a basic facility, needs to have a reach even at the lowermost level of the settlement. A benchmark population of 500 persons has been set. Thus all settlements above 500 which lack postal services are identified.

Map 3-14 Availability of postal services in Jaipur Region



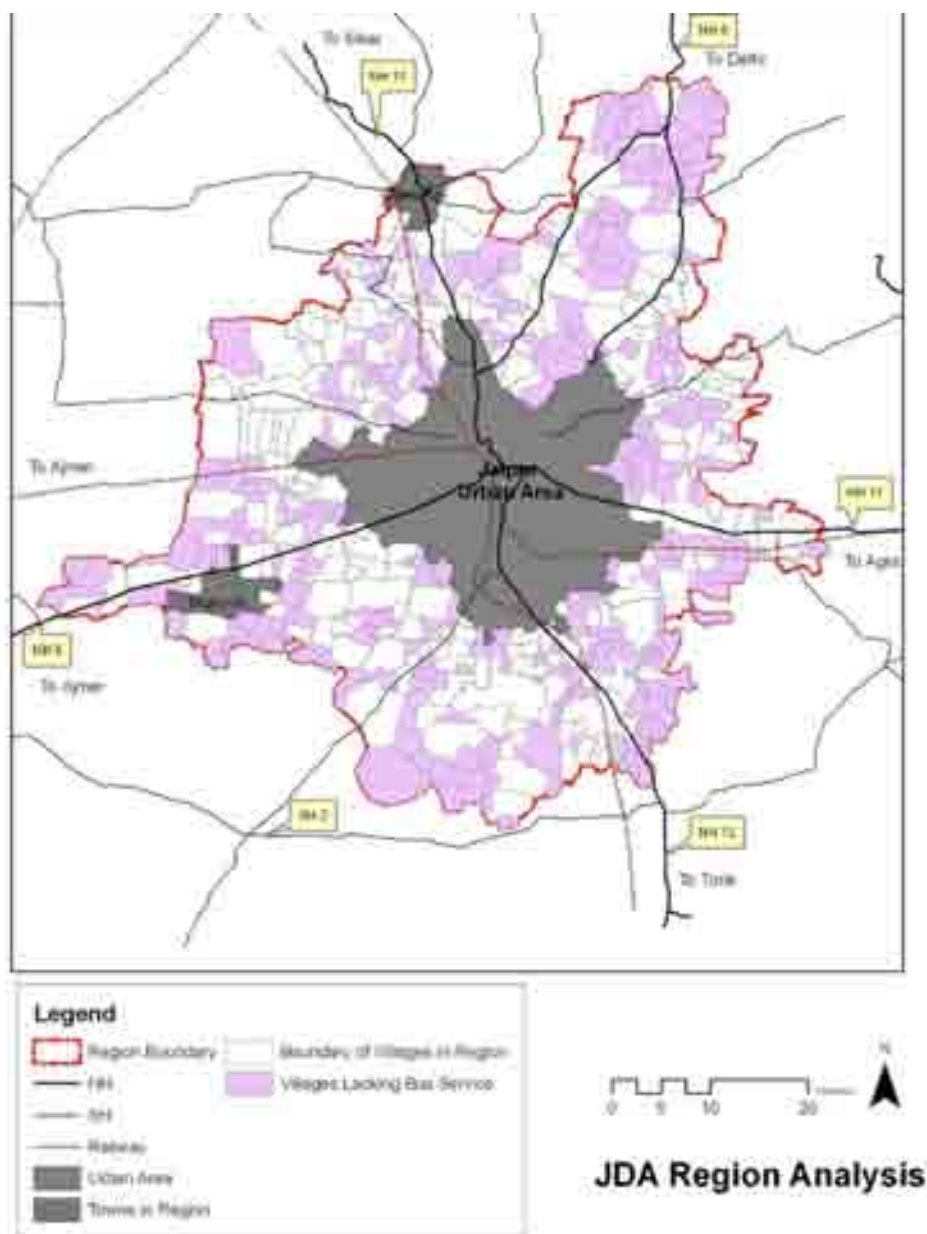
There are 379 villages in the region with a population of over 500 persons. Of these 286 villages have no access to postal services

In terms of connectivity, the following issues are addressed:

1. Availability of Bus Service : Bus connectivity to the villages has been evaluated as public transport is of prime importance for the movement of commuters.

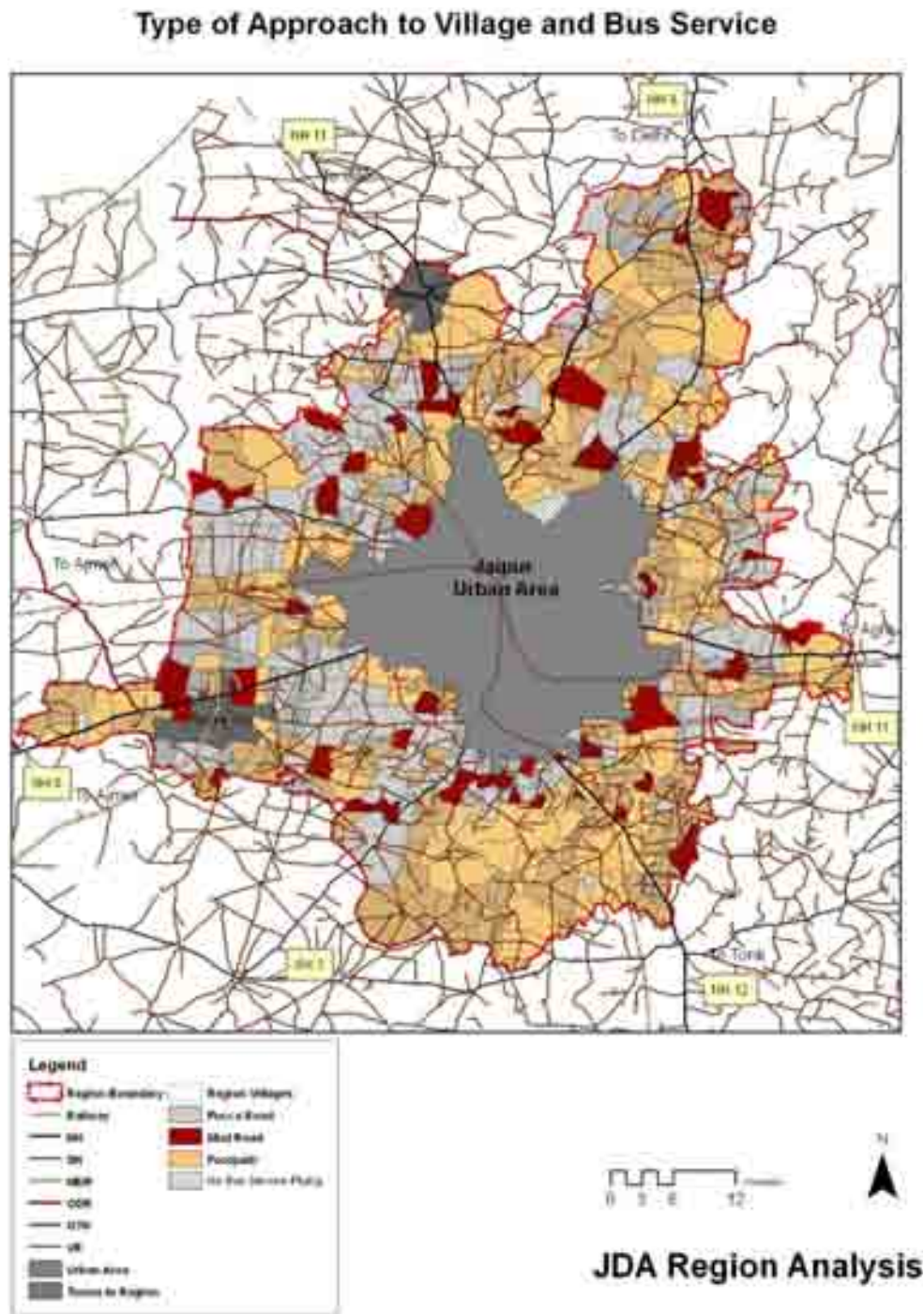
2. Type of Approach : The approach to a village is essential for the plying of buses. Villages in the region have been identified which have pucca roads and others which have kuccha access roads. These require immediate development programmes.

Map 3-15 Availability of bus services in Jaipur Region



There are 408 villages in the region without accessibility to bus services. This has been further collaged with the approach available to these villages

Map 3-16 Type of approach to village and bus services in Jaipur Region



“

It is observed that predominant approach to the village in 2001 was by a footpath followed by Pucca roads and mud roads. By overlaying the current road network, it is observed that those villages along the major roads have accessibility to bus services while those in the interiors lack good approach and also bus services. However, connectivity to settlements has been undertaken in a new central project given below.



3.6 Physical Infrastructure

3.6.1 Water Supply

The areas falling outside piped water supply system are identified where drinking water source is ground water. This is co-related with the areas which are high with respect to fluoride and nitrate content within the region. All these villages would require tapped water supply on a priority basis.

In addition, the Bisalpur water supply project cell has identified the villages to route in drinking water to the city of Jaipur. These villages in the immediate future would have tapped water facility. However, the other critical areas will need to be looked into.

Methodology:

The villages have been identified which have ground water source for drinking. The water quality is analysed on the basis of three parameters: Nitrates, Fluoride and Salinity. The interpretations are provided below and the higher components are considered for each of the parameters as given below:

Table 3-22 The parameters and interpretation for ground water quality in villages

Parameters	Fluoride Content in mg/l		Nitrate Content in mg/l		Salinity content:: Electrical Conductivity (EC) in u/s/cm	
	Fl Level	Interpretation	Ni Level	Interpretation	EC Level	Interpretation
1	0	Normal	0	Normal	0	Normal
2	1.5-3.00	1 (Low)	50-100	1(Low)	6000-8000	2(Low)
3	> 3	2 (High)	>100	2(High)	>8000	1(High)

Firstly the parameters of fluoride and nitrate are considered as per matrix below:

Fluoride			
Nitrate	0	1	2
0	A	A	B
1	A	A	B
2	B	B	B

Where A= Low content

And B= High Content

Further this analysis is tabulated against salinity as per matrix below:

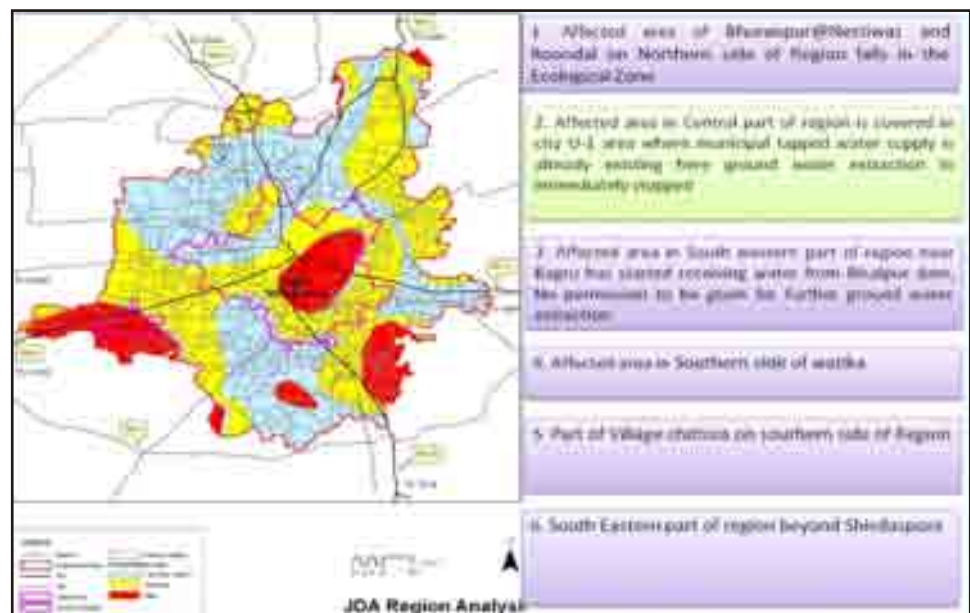
Salinity	0	1	2
Fl & Ni			
A	Low	High	Low
B	High	High	High

This would thus provide the areas which have high sensitivity to water quality. This has been analyzed against areas which use ground water for drinking purposes.

Water supply to Villages affected with poor ground water quality

There are few areas in Jaipur region as shown in map below which are affected with Fluoride, Nitrogen and sulphur content and are most critical in terms of ground water quality. There are a number of villages which require immediate piped supply for drinking water. These are the areas where municipal tapped water supply shall be provided on urgent basis and extraction of ground water to be checked.

Map 3-17 Villages affected with poor ground water quality -EC,Fl& Ni in Jaipur Region



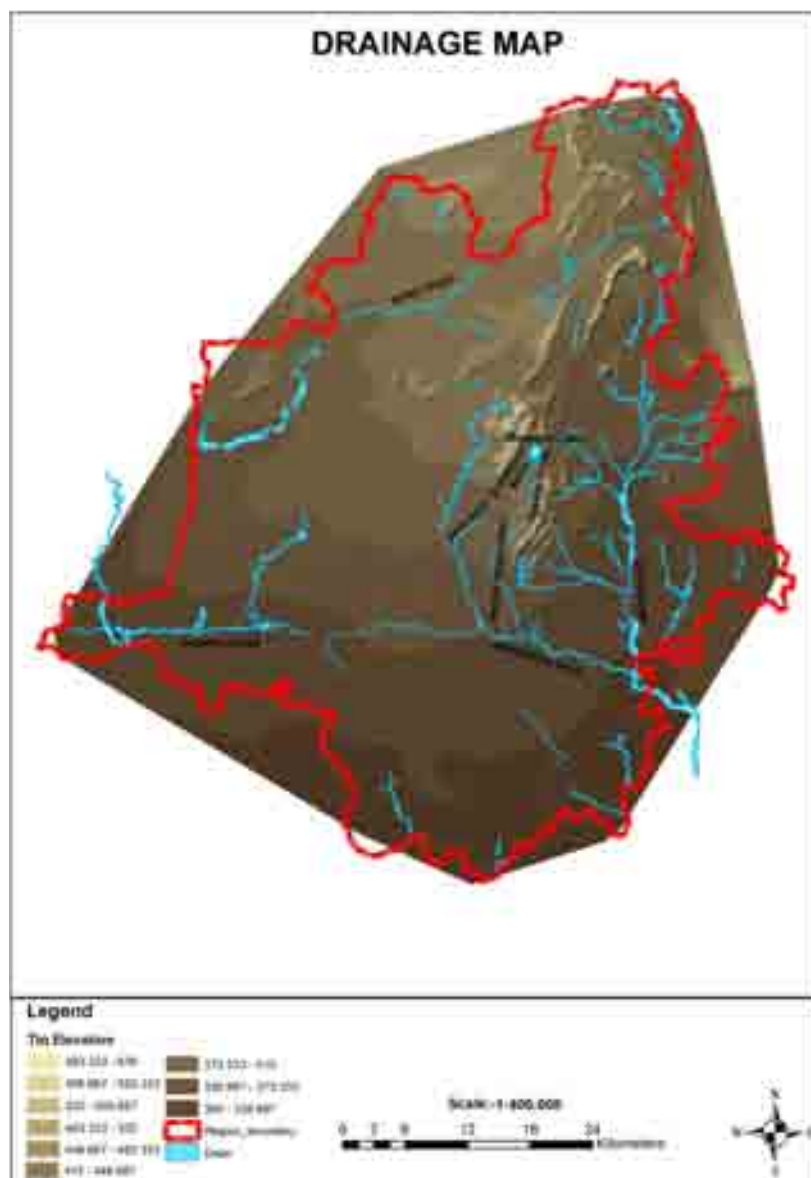
These are highly critical in terms of ground water quality. First stage of highly critical villages requiring immediate piped water supply (112 villages) and second stage of Villages to be followed for piped water connections after the first stage of supply is achieved. These areas are indicated below containing villages in:

- Central part of region in Main city
 - South western part of region around bagru
 - South Eastern part of region near Shivdaspora
 - Southern side of watika
 - Part of Village chittora on southern side of Region
- Bhuranpur-Nestiwas and Roondal on Northern side of Region

3.6.2 Drainage

The storm water drainage forms a significant place in the Master development plan 2025. The problem of inadequacy of drainage system is a common phenomenon for most of the towns in India. Storm water drainage, planning and design are associated normally with objectives consistent with economic development. Social well-being and environmental quality. The major water bodies and drains existing in Jaipur region are shown in the map below.

Map 3-18 Major drains/rivers in Jaipur region



The natural drainage of the Jaipur region is largely technically affected. It shows intense gully erosion particularly in the northern hilly region. The drainage area of Jaipur covers vast undeveloped areas on the western planes which drain into Bandi and the sadariya rivers. These areas on the northern and eastern flanks form semi hilly region which finally drain into the Dundh River.

The Jaipur municipal area and few other towns are having designed storm water drains, but all other settlement does not have proper drainage system. It is essential to connect these villages with planned storm water drainage system.

3.6.3 Sewerage

Sewerage network is very limited in Jaipur municipal area. All the villages in region have septic tank and soak pits for disposal of night soil. It is necessary to develop a mechanism to connect all these villages with sewerage network system.

3.6.4 Solid Waste Management

Solid waste management (SWM) is an integral part of the urban environment and planning of the urban infrastructure **"to ensure a safe and healthy human environment while considering the promotion of sustainable economic growth"**.

(i.) Current scenario of region

Currently Solid waste Management of **Jaipur City area** is being dealt by Jaipur Municipal Corporation which is further detailed out in U1 area.

- In the peripheral areas there is no waste management.
- Waste is being dumped on open land/roads.
- So far there has been no legislation setting standards for collection or disposal of solid waste.
- Public health laws have sometimes used against garbage dumps with problem of rodent or flies.
- Guidelines of Airport authorities are also determining factor in selection of solid waste disposal sites.
- The major cost of solid waste disposal is in the collection and transportation of the wastes.
- In Jaipur reclaiming non-destructible components of garbage for recycling, is also practised. This contributes to employment and manufacture.

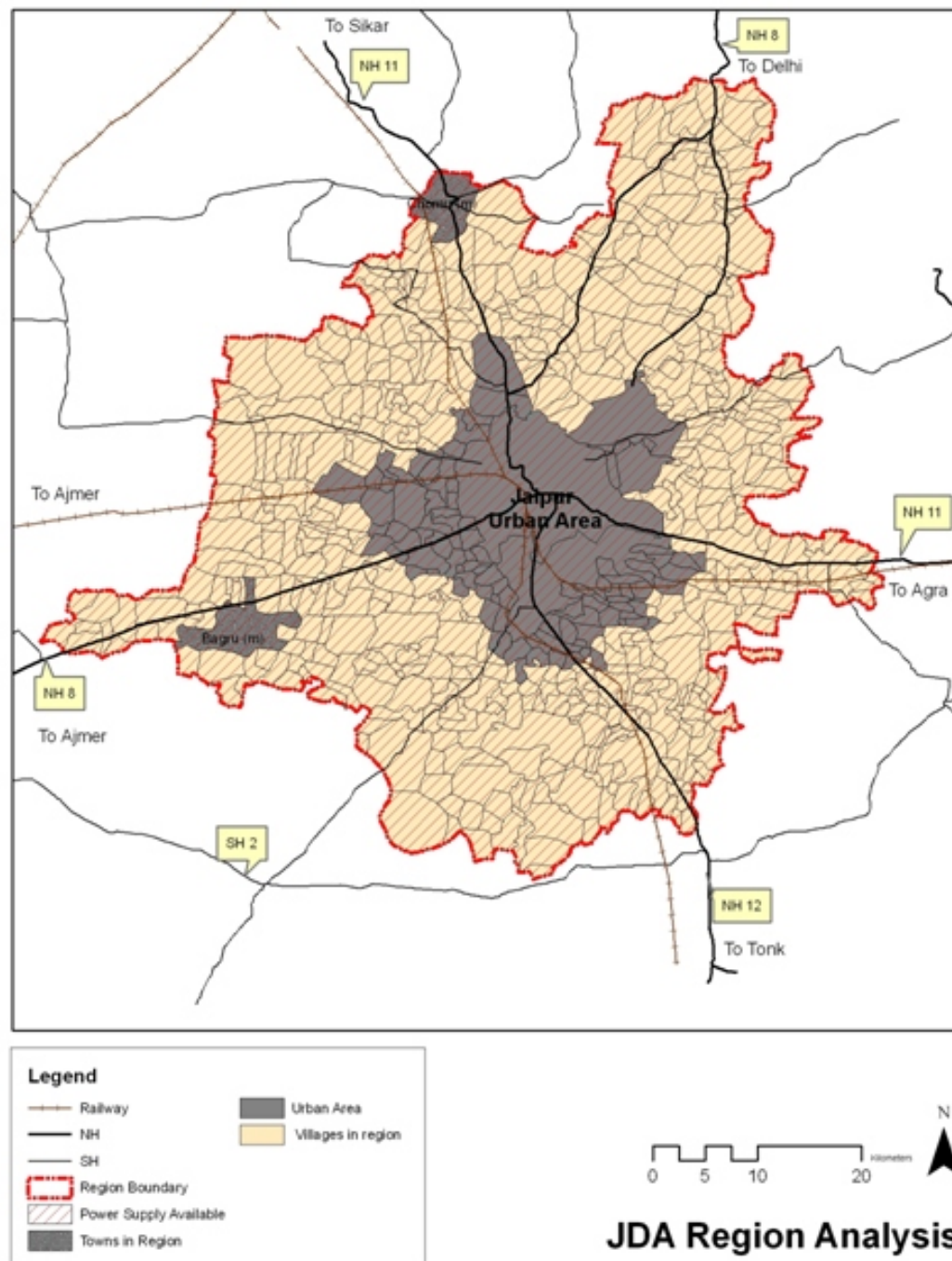
Municipal Solid Waste (Management and Handling) Rules, 2000

- According to this, every municipal authority is responsible for setting up a waste processing and disposal facility, and for preparing an annual report.
- The State governments and Union Territory Administrations have to enforce provisions of these rules in the metropolitan cities and within territorial limits of their jurisdiction.
- The CPCB, State Boards, and the other committees are required to monitor the compliance of the standards regarding groundwater, ambient air, leachate quality, and compost quality including incineration standards.
- As per implementation rules, setup of waste processing and disposal facilities are to be done first. These facilities must be monitored once every 6 months.
- Existing landfill sites must be improved, and identification of landfill sites for future use must be carried out.
- Waste collection by any method (community bin, house-to-house collection, etc.) must be conducted by using bell ringing or a musical vehicle to alert citizens without exceeding permissible noise levels.
- Biomedical and industrial wastes must not be mixed with MSW.
- Citizens must be encouraged by the municipal authority to segregate wastes.
- Vehicles for transportation must be covered and the MSW must be processed in such as way as to reduce the burden on landfills.
- Biodegradables are to be processed by composting, and anaerobic digestion with land filling restricted to those wastes that are non-biodegradable or inert, or which are not suitable for recycling.

3.6.5 Power supply

Villages in the region are to be identified which lack power for domestic use. As this is a basic requirement, it will hold for villages with any level of population.

Map 3-19 Availability of power supply for domestic use within Jaipur Region



It is observed that the all villages in the region benefits from availability of power supply for domestic use. This is true for the whole district as well.

3.7 Regional Linkages

The region is well connected within and to other parts of country with improved road networks (in form of National highway, state highway DMIC), rail network, and air network

3.7.1 Road Connectivity

The region level linkages are of prime importance as they indicate the level of connectivity of the city with its important settlements. As there is a large dependency on the city for work and other purposes movement of goods and people needs to be met as well. Most of the major routes continue to other parts of the district and some provide major goods routes to other parts of the country. Good accessibility not only helps easy movement but as a whole catalyses the growth of a region. Inter-connectivity within the settlements of the region is also crucial.

Status as of Date: till today, there exists the following category and lengths of roads developed within the region:

Table 3-23 Major road lengths within Jaipur Region

Type	Length (Km)
National Highways	412.53
State Highways	559.00
Major District Roads	129.23
Other District Roads	94.57
Village Roads	5560.90

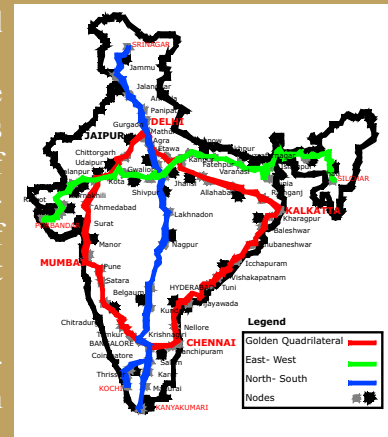


National Level

Road connectivity of region at National Region and settlement level

Well linked to the rest of the country. The NH- 8 along which the city is located is being developed as one of the vertices of the Golden Quadrilateral (Delhi-Mumbai-Chennai-Kolkata) corridor of the National Highways Development Project (NHDP).

It also lies on the North-South and East-West Corridor as well as on the Golden Triangle of - Delhi-Agra- Jaipur.



National Level Connectivity

Region Level

NH-8 connects Mumbai and Delhi while NH-11 connects Agra and Bikaner. NH 12 leading to Jabalpur starts from Jaipur. National Highway 8 and National Highway 11 intersect at Jaipur. NH-8 transects the city in North-South direction and NH-11 does so in an East-West direction.

NH 8: Delhi-Mumbai

NH 11: Bikaner-Agra

4 lane Project underway - NHDP phase 3A

NH 12: Jaipur-Jabalpur



Regional Level Connectivity

Settlement level

Primarily the following road connectivity exists in the region:

- | | |
|------------------------------|------------------------------------|
| NH 8 (Delhi-Jaipur-Ajmer) | - Chandwaji- Achrol- Kookas -Bagru |
| NH 11 (Bikaner-Jaipur-Agra) | - Bassi - Kanota - Chomu |
| NH 12 (Jaipur-Tonk-Jabalpur) | - Shivdaspora - Chandlai |

Among the State highways passing through the district, the important ones are SH-2, SH 2A, SH 12, SH 13, SH 8A, SH 8B, SH 37 and SH 37 A. However, much of these SH lie outside the JDA region except for SH 2A (Kalwar road) SH 12 (Diggi Malpura road), Jamwa Ramgarh road SH 55, SH 19 via Jahota Moriija road SH 37 and Tunga road (SH 24).

Existing Situation:

Most of the regional proposals envisaged in the earlier plans were not achieved. Today, the regional connectivity holds through the following links as depicted in map.

Map 3-20 Regional Connectivity



3.7.2 Rail Connectivity

Jaipur is well connected by rail network with a majority of neighbouring states such as Agra (Uttar Pradesh), Ahmadabad (Gujarat) and Delhi. Major rail routes passes through Jaipur city and connect the city with Delhi, Ujjain and through Ajmer to Gujarat. These rail routes are: Jaipur - Delhi via Bandikui

Jaipur-Delhi via Ringus

Jaipur-Ujjain via Sawai madhopur

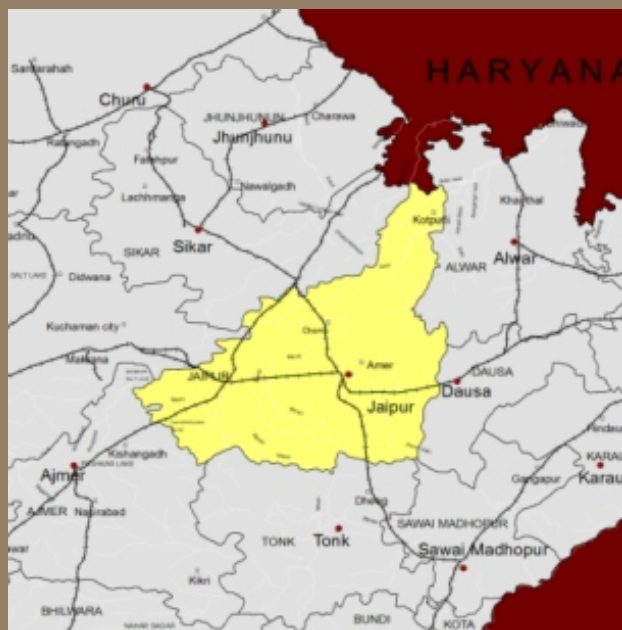
Jaipur - Ratlam via Ajmer

Jaipur- Ahmedabad line has been converted from Metre Gauge to Broad Gauge with plans to be double tracked and electrified as a rapid rail trunk for goods and people movement. The land is being reserved for stabilizing and maintenance of prime movers and rake formations.

The Jaipur- Sawai madhopur track is Broad Gauge

The Jaipur Ringus line is to be converted from Metre Gauge to broad Gauge by 2011.

Map 3-21 Jaipur Sawai Madhopur Track



Map 3-22 Jaipur Ringus Track



The following Railway Station figure in Jaipur Region in Addition to Jaipur Junction

- Jaipur Ajmer (Kanakpura, Bindayaka, Dhankya)
- Jaipur Sikar (Dher ka Balaji, Neendar-Benaud, Batonki Gali, Chomu)
- Jaipur Delhi (Gandhi Nagar, Jagatpura Khatipura, Kanota, Bassi)
- Jaipur Sawai Madhopur (Bais Godam, Durgapura, Sanganer, Goner (defunct) Shivdaspura)

The Major Station is the Jaipur Junction, located in the heart of the city. It is a three- direction railway station. It is prescribed to be one of the 22 world-class stations in the country. Jaipur is also the command headquarters of the Western Command. Railway siding exists in the city at Kanakpura for goods.

3.7.3 Air Connectivity

Jaipur is well connected by air transport to the rest of India. The airport is located in Sanganer, Jaipur city, about 15 kilometres from the Pink City. The Domestic airport is one out of the five in the State; others being Jaisalmer, Udaipur, Kota and Jodhpur. Jaipur Airport also serves as an International Airport and is an alternate to Delhi airport during winters and for flight diversions on account of its close proximity to Delhi. There are regular services from Jaipur to other cities like New Delhi, Mumbai, Kolkata, Guwahati, Hyderabad, , Bangluru, Goa, Udaipur, Jodhpur, Jaisalmer , Agra, Cochin, Chennai and Ahmadabad along with International flights to Dubai, Sharjaha, Kuwait, Peshawar, Kathamandu, Karachi, Bahrain, Muscat and many other global cities are too connected with the international airport of Jaipur.



3.7.4 Region Level Linkages and Bye-passes

The regional level linkages indicate the connectivity of the city with other towns in the region or district which are in immediate proximity to the city.

1996

A hierarchical system of roads prescribed for the direct movement of people and goods around the Urbanisable area.

Bypass roads for NH-8 and NH-11 prescribed both, towards the North as well as to the South which was to serve as the outer ring road for the city.

A by-pass for Amber, was prescribed towards the east of the town. These by-pass roads towards the south and the north-west were to circumscribe the new residential areas and also provide access to the major industrial complexes located at Jhotwara, Bais Godam, etc. Minimum right-of-way was to be adopted due to the difficult terrain.

In the Master Development Plan-2011, transport was dealt with at two levels

(1) Augmentation and up-gradation in existing developed areas

(2) Provision for development in new areas.

It was prescribed to develop bye passes of the region so that traffic which is not destined for Jaipur, does not pass through it.

The bypasses prescribed were as under:

(1) NH 8 bypass was prescribed to commence from Chandawaji on Delhi Road to terminate on Ajmer Road beyond Bagru, cutting through Sikar Road between Chomu and Jaitpura. Till such time this bye-pass was developed the bye-pass alignment as being developed by PWD from Chandawaji Chomu Road to Harmara was required to be upgraded to accommodate the Highway traffic.

(2) South-Western bye-pass was prescribed to connect NH 8 to NH 12 via Chaksu, Koderia, Bhojyara, Binodiya near Bagru.

(3) Chomu Bye-pass on N.H. 11

1. The Northern bypass could not be realized

2. The Tonk road to Shipra path portion of the Southern bypass could not come up.

3. The western bypass followed the original alignment prescribed in 1976 and due to the necessity to keep it access controlled, it was elevated from Ajmer Road to Sikar Road and was further linked to Delhi

Among the bypasses, they were realised partially, with a connection from Chandwaji to Chomu established with change of alignment at Chomu on the existing Moriya road. The bypass alignment developed from Chandwaji, Chomu road to Harmada which is widely used. Beyond Chomu, upto Ajmer road it could not be realized.

The south western bypass and the Chomu bypass could not be realized.

The roads connecting NH11 to NH12 via Bassi could not be realized. The road connecting NH11 to NH12 via Kanota is being developed as a part of the sector plan through which the link is established.

2011

In addition, a major regional network was prescribed to be developed and / or upgraded to the level of Regional Link Roads i.e. ROW of 250ft. with 50ft. plantation strip on both sides, to meet the future transportation requirements of the region.

These roads were expected to initially serve the requirements of National Highway Bye-passes till such time the Outer bye-passes as prescribed are available. These roads were so chosen that alignments are possible as per ground conditions, in large stretches of these alignments black top roads were existing which could easily be upgraded and in other parts WBM roads were available.

- (i) Road connecting NH 11 to NH 12 via Bassi, Kishanpura, Sambhariaya, Nangalpura, Burkhera.
- (ii) Road connecting NH 11 near Kanota to NH 12 via Kanota near Shrirampura, Siroli, Goner, Ningriwala.
- (iii) Road connecting Bagru to Sanganer via Nevta and Mohana.
- (iv) Upgradation of roads leading to Sinwar and Bindayaka and leading to Kalwar.
- (v) Road connecting NH 12 near Chandlai to NH 8 via Watika, Lakhna, Balawala, Kapurawala, crossing Bagru Sanganer Link Road at Nevta and further to NH 8 (Ajmer Road) via Khatwara & Mahapura.
- (vi) Road connecting NH 11 near Kanauta to Jamwa Ramgarh Road via Hirawala, Nayala, Bhanpura and further to NH 8.
- (vii) Road connecting Agra Road to Jamwa Ramgarh Via Sumel.

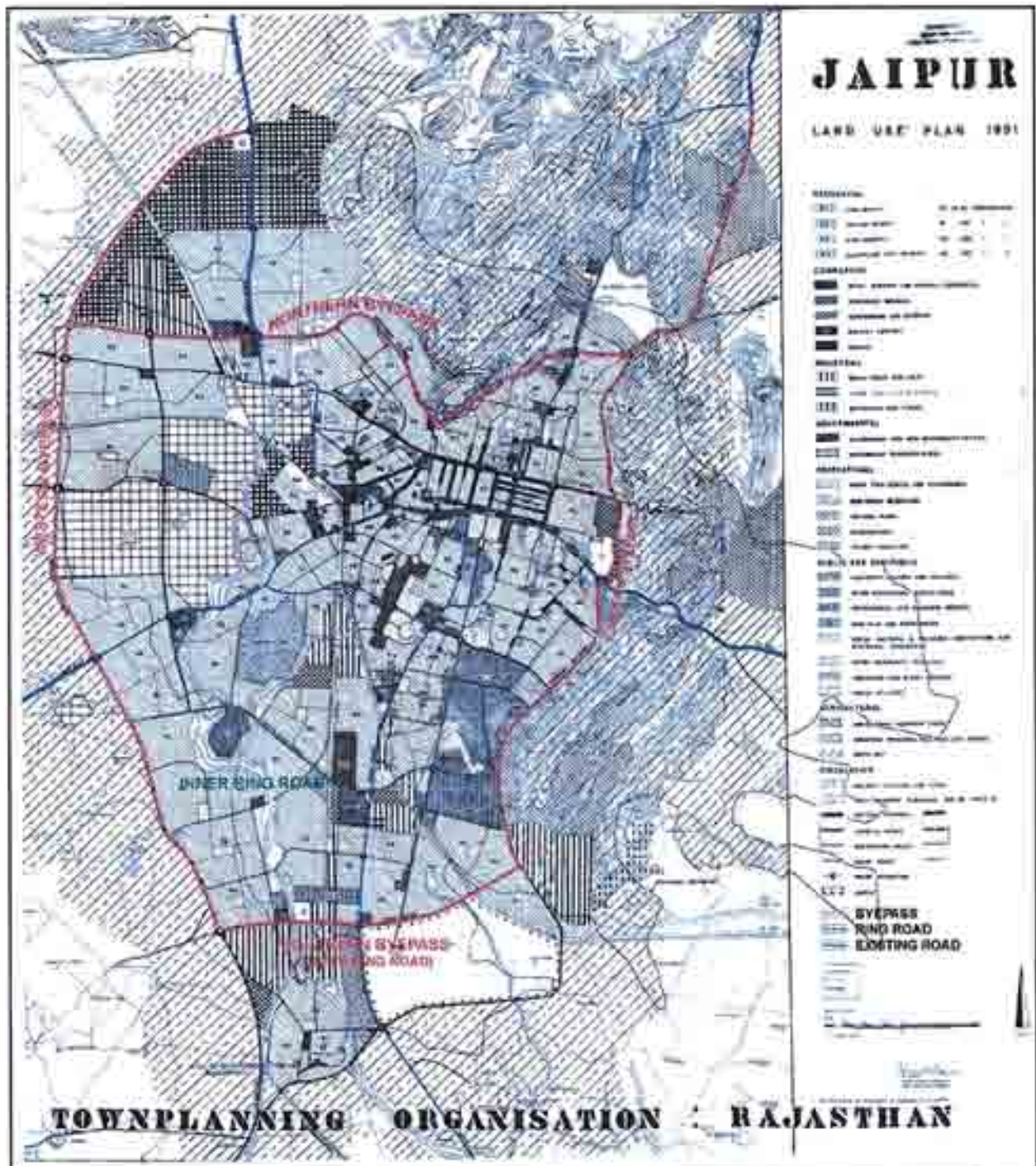
The road connecting Bagru to Sanganer has been half realized and has been modified from the originally envisaged with the coming up of SEZ.

The strengthening of Sinwar and Bindayaka roads leading to Kalwar has been taken up.

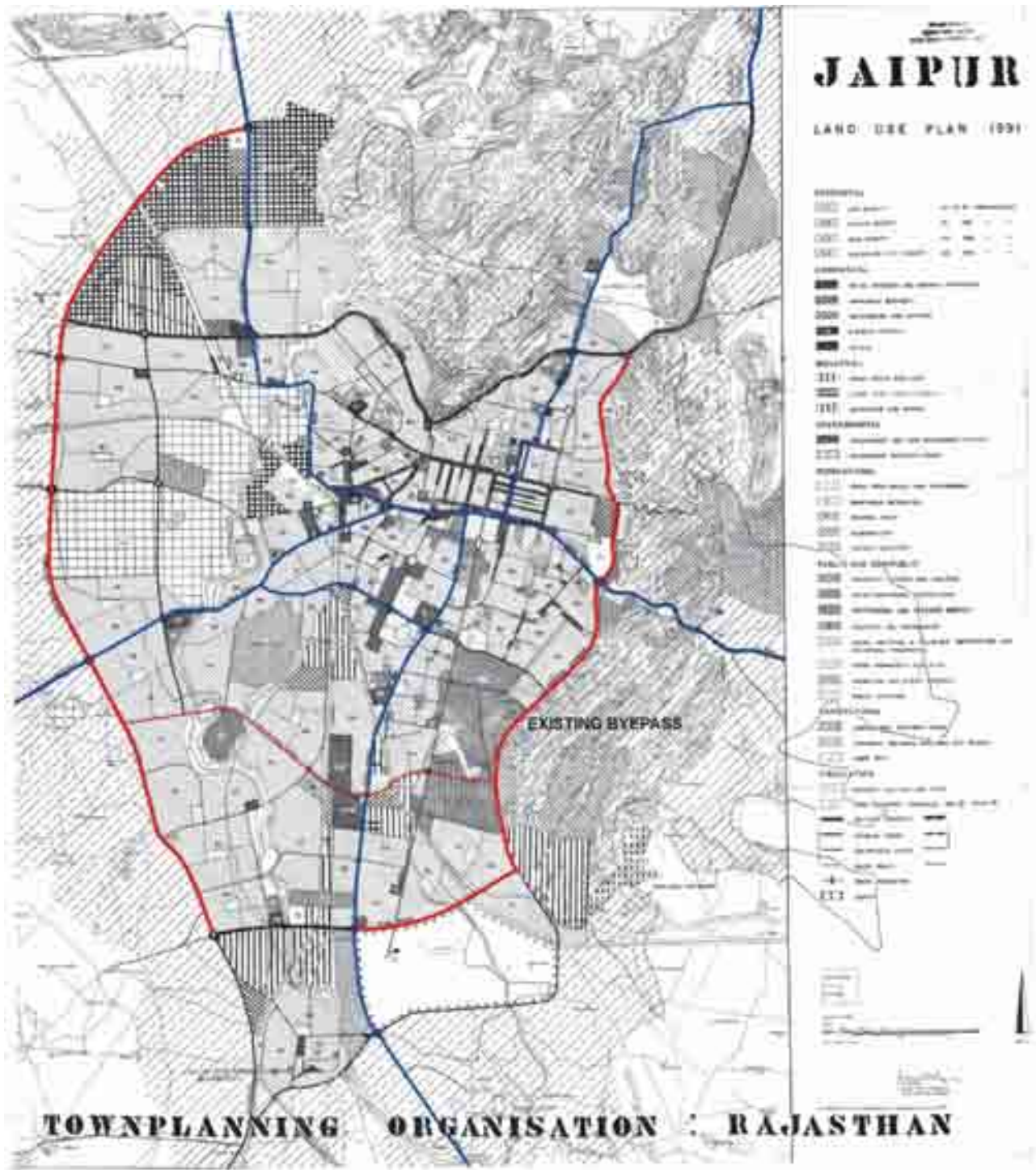
Connectivity of NH12 to NH8 near Chandlai via Balawala, crossing Bagru, Sanganer further up to the Ajmer road could not be realized.

The existing road connecting NH11 near Kanota to Jamwa Ramgarh road via Nayala has been strengthened. Similarly strengthening of Agra road to Jamwa Ramgarh via Sumel has taken place.

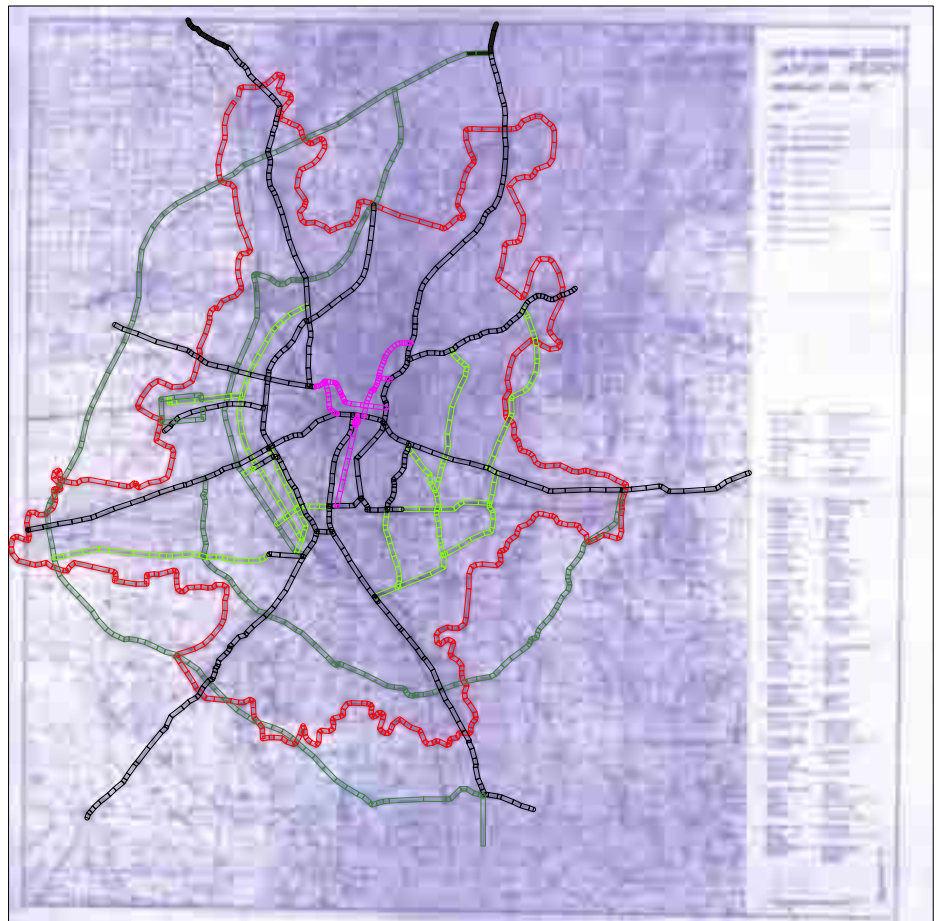
Map 3-23 1996 Master Plan Transport Provisions



Map 3-24 Realization of the Plan by the year 1998



Map 3-25 Master Plan 2011 Transport Provisions



Map 3-26 Master Plan 2011 Land Use Provisions



3.7.5 Connectivity with Hinterlands:

As Jaipur is a major urban centre and capital city in the State with the addition to being a metro rail, it attracts vast numbers of persons from other districts as well as the hinterland for the purpose of employment. Jaipur has a number of small villages and towns around it ranging from Class I to Class IV towns. Some of these are Chomu, Achrol, Bassi, Kookas, Jamwa Ramgarh, Shivdaspura, Chandlai, Bagru, Kanota, Chaksu, Dudu, Jobner, Shahpura, Govindgarh, Phulera, Phagi, Dausa, Bandikui, Niwai, etc. Hence connectivity with the hinterland need special focus.

Map 3-27 Hinterland connectivity Jaipur region



Table 3-24 Influence towns and important settlements in Hinterland of Jaipur region

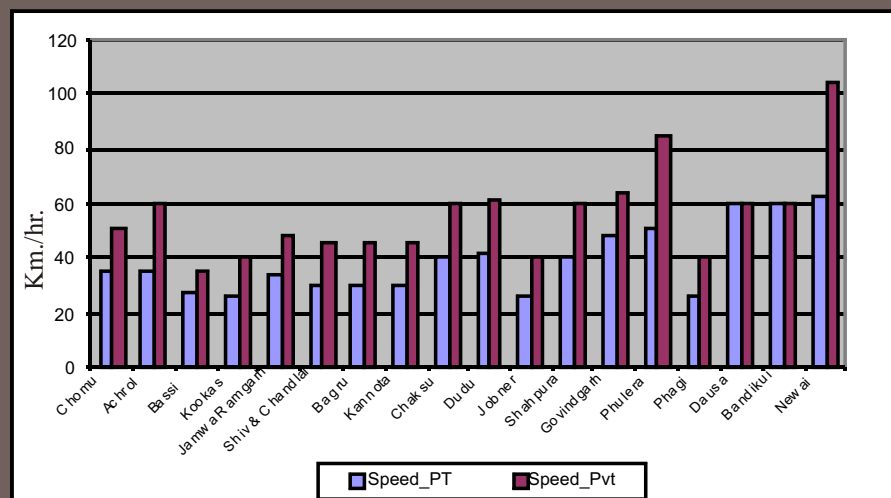
Influence Satellite /Towns/ settlements	Classification (as per census)
Dausa (Dausa District)	Class I
Chomu	Class II
Bagru	Class III
Chaksu	Class III
Shahpura	Class III
Phulera	Class III
Niwai (Tonk District)	Class III
Jobner	Class IV
Govindgarh	Class IV
Bandikui (Dausa District)	Class IV
Shivdaspura & Chandlai	Village
Dudu	Village
Phagi	Village
Achrol	Village
Bassi	Village
Kookas	Village
Jamwa Ramgarh	Village
Kanota	Village

The travel is carried out either by road or while in areas like Phulera, Dausa, Bandikui, it is by rail as there is a local train access. To assess the daily travel time to the city from the towns, a primary survey was carried out for Public (Bus/rail) and private (2- Wheeler). Among passenger vehicles, 68% either originate or terminate in Jaipur- 50% for work purposes.

3.7.6 City Level Transport network

It can also be noted that the speeds of public transport vary from 30-45 km/hr while that of the fastest trains-60kms/hr. On the contrary, speeds of private transport vary from 40-60 km/hr. Thus the preference is evidently towards the private mode of transport. Hence better connectivity is essential which has to be faster, reliable and efficient travel. Future routes/provisions need to be charted for rapid transit between city and these existing/upcoming suburbs.

Chart 3-3 Speed graph of Public and private transport

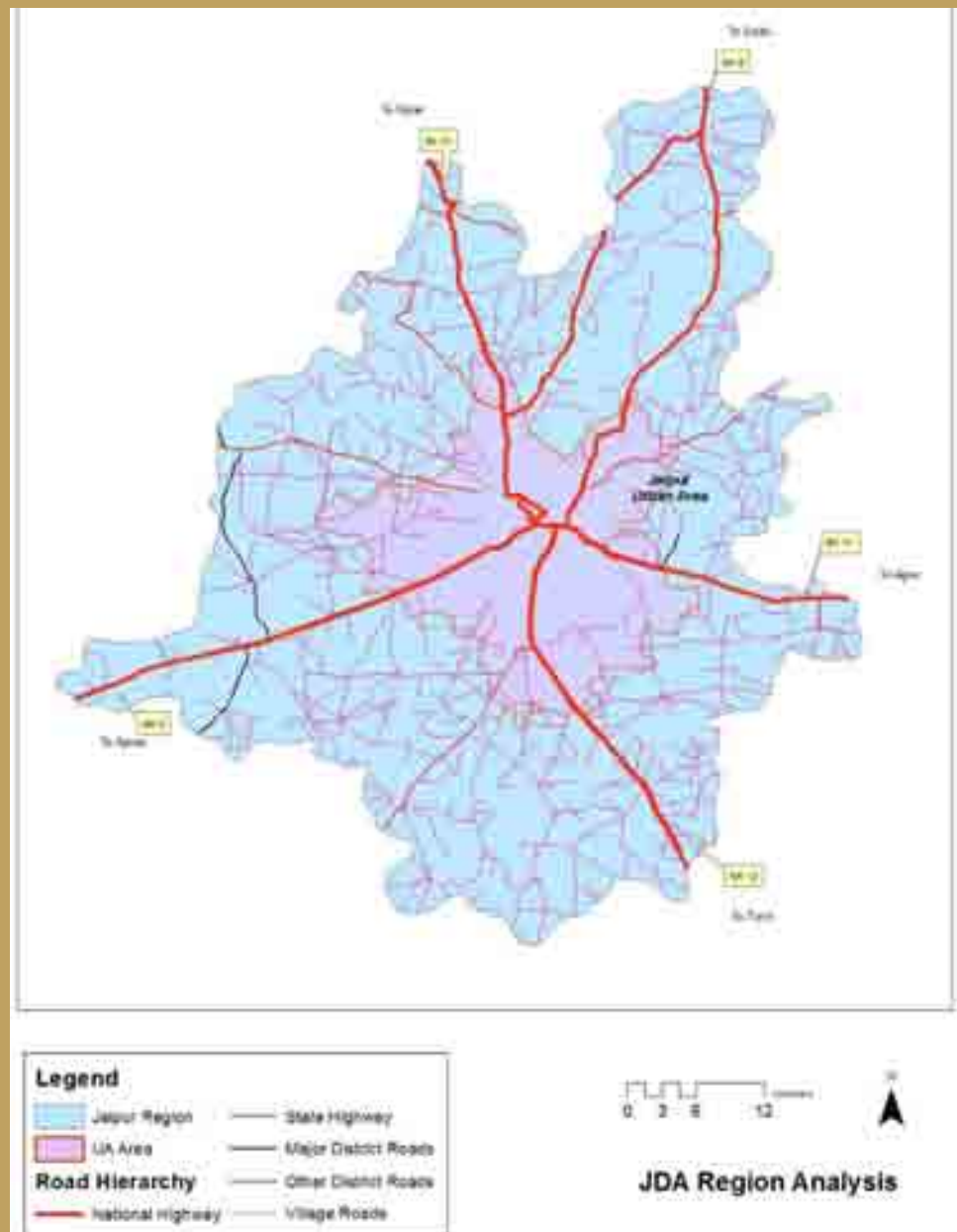


3.7.7 Rural Road Connectivity

Rural Road Connectivity is not only a key component of Rural Development by promoting access to economic and social services and thereby generating increased agricultural incomes and productive employment opportunities, it is also as a result, a key ingredient in ensuring sustainable poverty reduction.

Map 3-28 Road hierarchy in Jaipur region

Connectivity among various settlements has enhances the overall growth and development facilitating movement of good and people



As evident in fig it is observed that as per census of India 2001, the development of roads within the region has not been satisfactory. Major part of the region was not connected by roads. With the implementation of the central scheme, the current scenario of road development has tremendously improved as reflected in the map

3.7.8 Special initiatives by the Government

Connectivity to settlements from other parts of region and connections with other settlements is important to take the benefits of development and growth to the rural pockets. It also facilitates movement of goods and people and in return brings about an upliftment of the settlement. With a view to redressing the situation, Government have launched the **Pradhan Mantri Gram Sadak Yojana** on 25th December, 2000 to provide all-weather access to unconnected habitations.

The Pradhan Mantri Gram Sadak Yojana (PMGSY) is a 100% Centrally Sponsored Scheme. 50% of the Cess on High Speed Diesel (HSD) is earmarked for this Programme. The State of Rajasthan is also covered in this programme. Under this scheme, it has been envisaged that all the villages with a population of over 500 persons to be connected by pucca roads. This is to be a continuous developmental programme with a cess of Rs 1/- levied per litre of fuel. It can thus be assumed that all these settlements would be connected. However up gradation of regional roads is also crucial which will be dealt with in the transport section.



3.8 Climate and Physical Characteristics

3.8.1 Rainfall and Climate

The Jaipur is located in the semi-Arid region of Rajasthan and hence it is extremely hot in summers and severe cold during winters. As per the data form IMD, the mean minimum temperature recorded is in the month of January which is 7.8 °C and maximum in the month of May i.e. 40.3 °C. Major problem in the winter are fog that envelops the city in the evening. Monsoon starts in the last week of June. The Number of rainy days varies from 25 to 40 in a year. Annual mean rainfall recorded is 673.9 mm. July and August months record the maximum rainfall.

Table 3-25: Climatological Jaipur

Month	Mean Temperature (°C)		Mean Total Rainfall (mm)	Mean Number of Rainy Days	Mean Number of days with			
	Daily Minimum	Daily Maximum			Hail	Thunder	Fog	Squall
Jan	7.8	22.5	7.9	0.6	0	0.8	0.5	0
Feb	10.7	25.7	11.7	0.9	0.1	1.5	0.4	0
Mar	15.8	31.5	6.1	0.7	0.1	2.4	0	0.3
Apr	21.4	37	4.1	0.5	0	2.3	0	0.4
May	25.4	40.3	16.2	1.1	0.1	4.2	0	0.8
Jun	27.2	39.3	66	3.6	0	7.5	0	1
Jul	25.5	33.9	216.3	10.8	0	10.2	0	0.9
Aug	24.3	32	231.2	11.6	0	9.3	0	0.5
Sep	22.9	33.2	80.3	5.1	0.1	4.9	0	0.3
Oct	18.6	33.4	22.6	1.2	0	1.8	0.1	0.1
Nov	13.1	29	3.2	0.3	0	0.4	0.1	0.1
Dec	9.1	24.4	3.3	0.4	0	0.7	0.6	0
Annual	18.5	31.9	673.9	36.8	0.4	46	1.7	4.4

Source: <http://www.imd.gov.in/section/climate/jaipur1.htm>

The monsoon causes 90% of the annual rainfall in Jaipur region from July to September, whereas in winter only cyclonic depressions cause precipitation in this part of the country. Winds are generally light to moderate, but in summer, early southwest monsoon winds may strengthen on some days. Dominantly westerly to south-westerly winds prevail during the summers and southwest monsoon season. The winds are mostly from directions between west and north in the post-monsoon and winter months. Gentle winds blow mostly from northwest and northeast direction in the winter season.

The area covers almost middle part of the Jaipur district of Rajasthan. The area is pediplain covered with thick alluvium and aeolian deposits of Quaternary age. A few, isolated, linear ridges and hillocks trending ENE-WSW to NE-SW form the prominent landmarks in the northwestern part of the area. The maximum height near Kalwar is 515 m above MSL. Meta-sedimentary rocks, metapelites, migmatites, gneisses, occur concealed under thick cover of alluvium and aeolian sand, in the area.

Legend

- Regional boundary (red line)
- District boundary (black line)
- Major road (thick black line)
- Minor road (thin black line)
- River (blue line)
- Lake (light blue area)
- Forest (green area)
- Barren land (yellow area)
- Water body (blue area)
- Settlement (black dots)
- Religious site (red dot)
- Health facility (green dot)
- Government building (black dot)
- Other building (black dot)
- Other facility (black dot)
- Other site (black dot)
- Other area (black area)

Scale

0 5 10 20 km

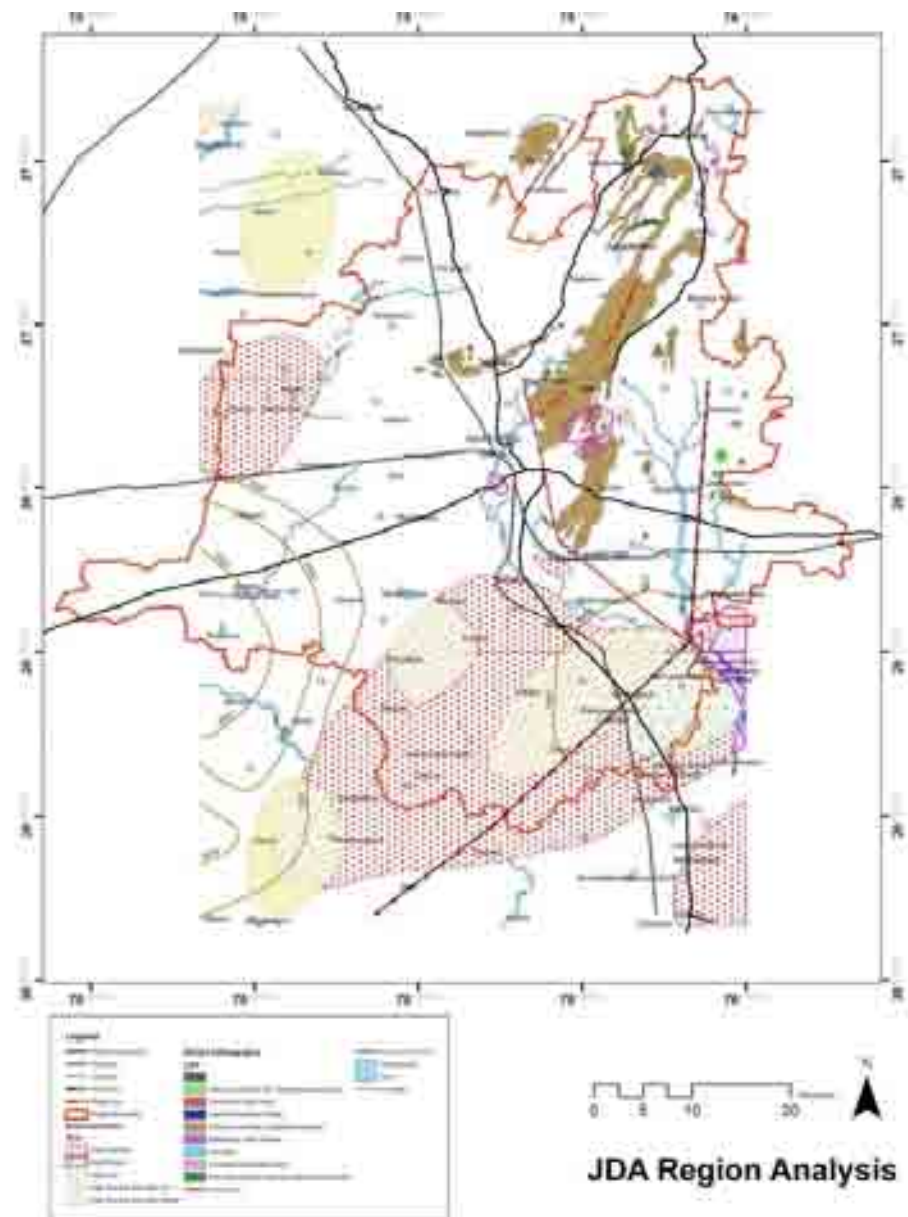
North Arrow

JDA Region Analysis

3.8.3 Hydrogeology and Ground Water Quality

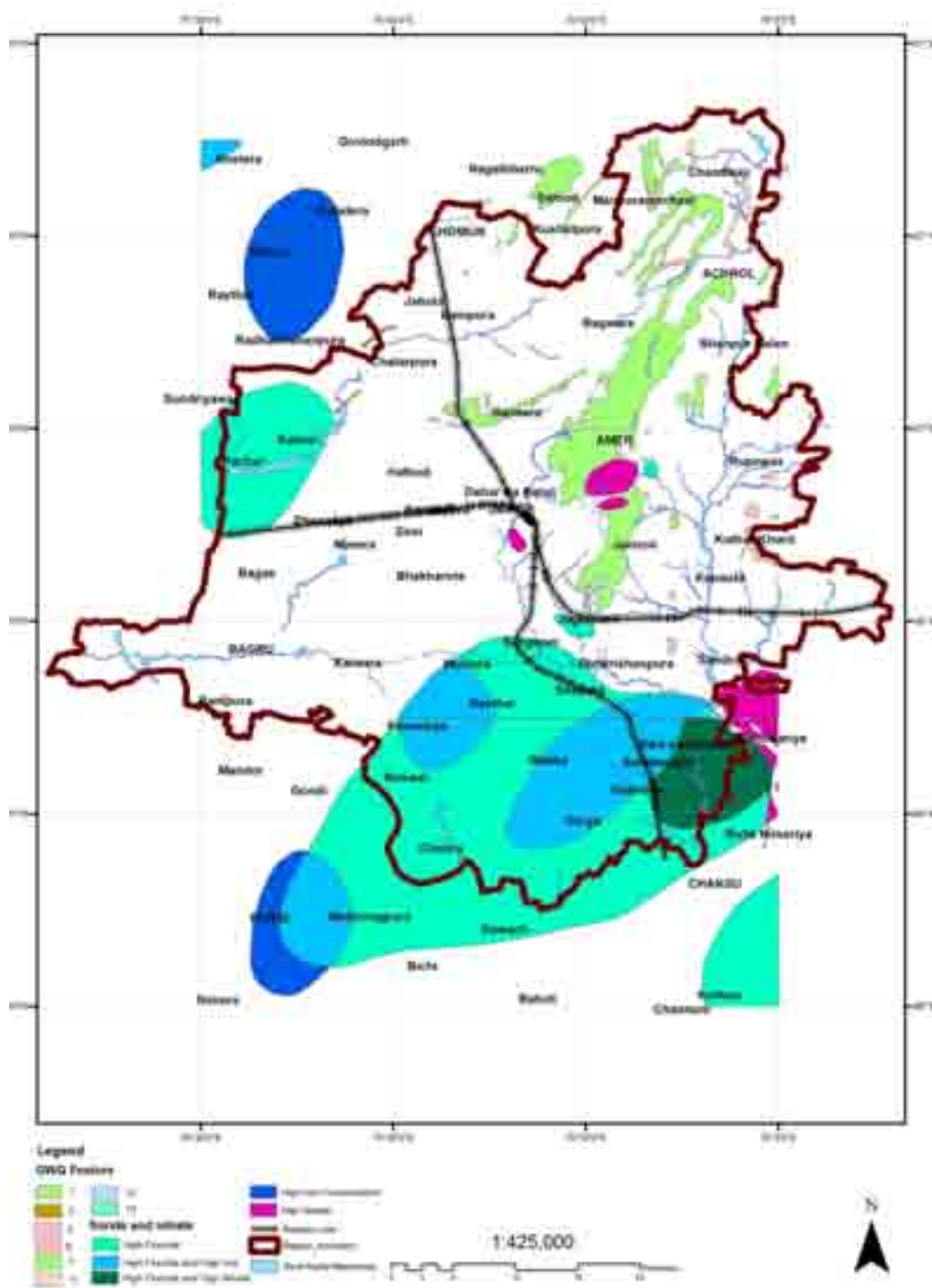
Groundwater in the Jaipur region occurs both in unconsolidated Quaternary formations and consolidated formations of Bhilwara & Delhi Supergroups and also post-Delhi Granites. Alluvial deposits mainly fine sand & silt serve as potential aquifers in greater part of the Jaipur district. Besides, water bearing gravel zones are also encountered at Sanganer, Ambabari, Bajaj Nagar (Jaipur city) and Shahpura, Dhanauta, Nayan, Kalyanpur, Muhana and Chandalai areas. Groundwater occurring at shallow depth occurs under water table conditions and groundwater at deeper levels occurs under semi-confined to confined conditions.

Map 3-30 Hydrogeology and ground water quality map of Jaipur Region



Quality of groundwater is suitable for drinking and irrigation in major part of the Jaipur region with electrical conductance (EC) less than 3000 micro-mhos/cm. However, high salinity in groundwater has been observed in parts of Jamwa Ramgarh, Bassi, Phagi, Dudu, Chaksu and Sambhar blocks. Similarly high fluoride contents have been found in parts of Sanganer, Sambhar, Dudu, Chaksu and Phagi blocks.

Map 3-31 Fluoride, Nitrate and ground water quality map of Jaipur Region

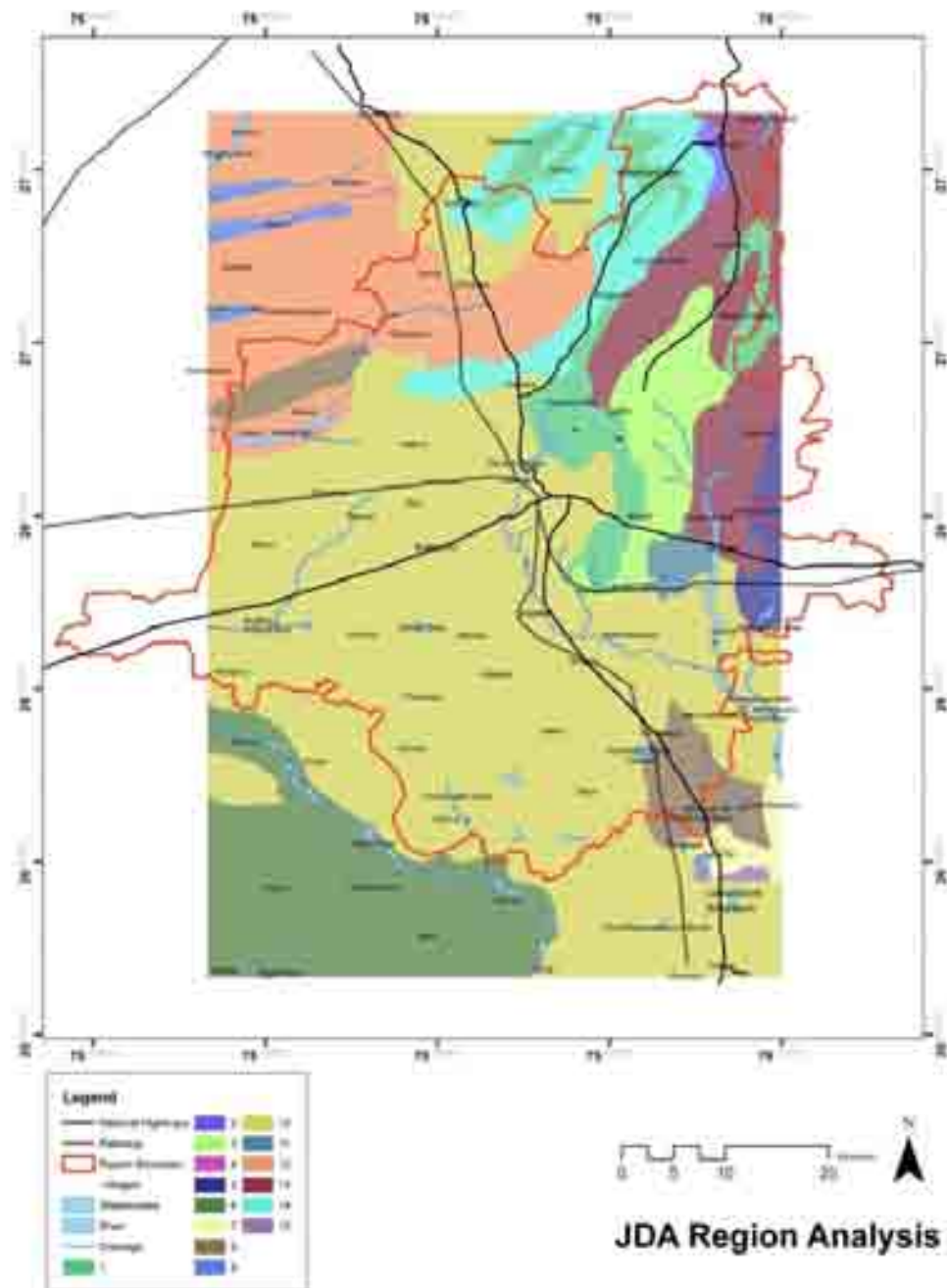


3.8.4 Soil

Jaipur region is covered with several soil units and also some other physical features such as sand dunes, rock outcrops, water bodies etc. Sandy soil with severe erosion, salinity and shallow skeletal soils are major limiting factors affecting crop choice in the region.

Soils of the Aravali landscape are mainly derived from the argillaceous deposits composed of slates, phyllites and mica schist along with granite and quartzite. The Jaipur region represented as a traditional zone between the humid in the east and arid in the west.

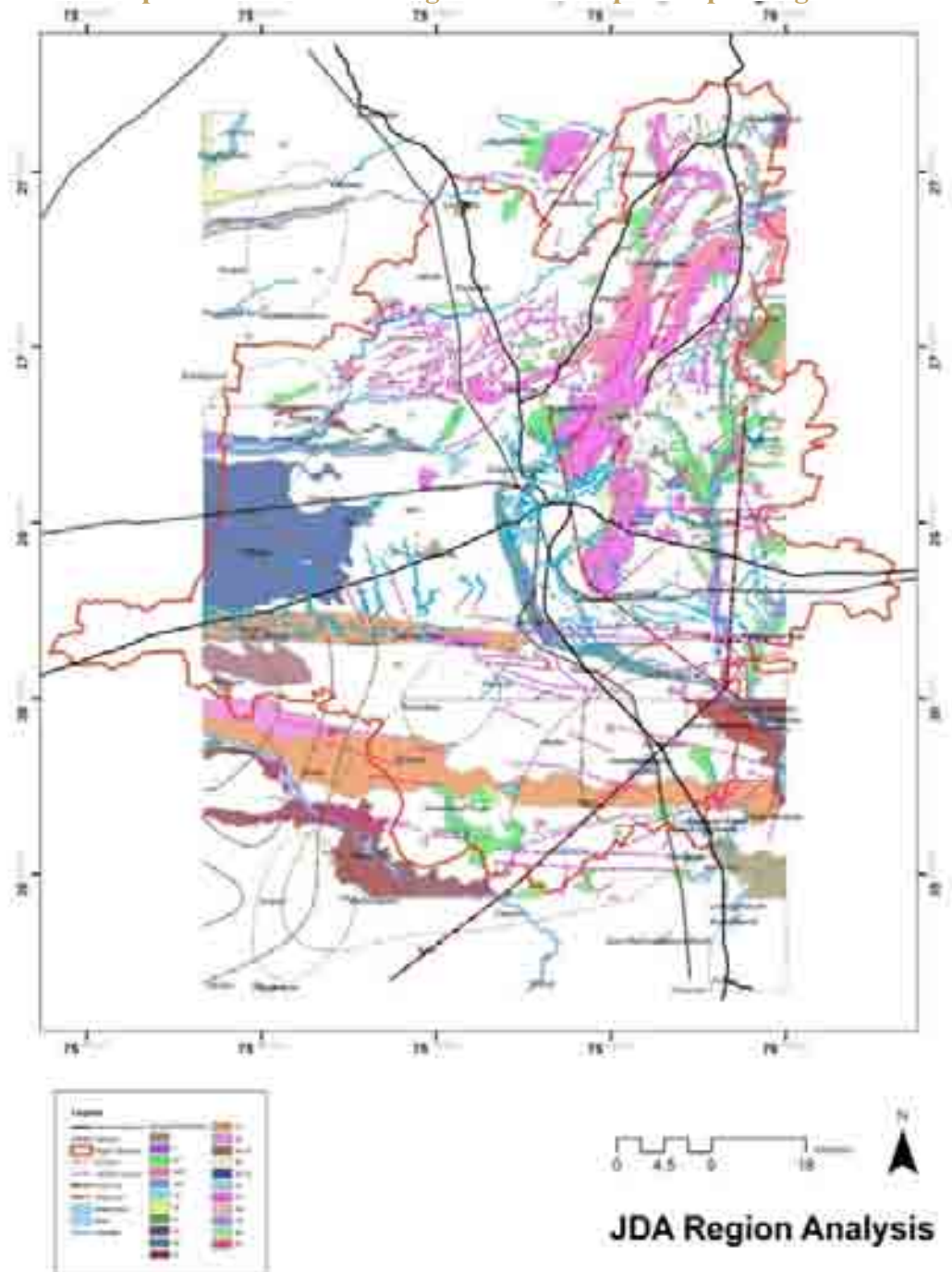
Map 3-32 Soil map of Jaipur Region



3.8.5 Environmental Geo-hazards

Environmental geohazards in Jaipur region are categorized into ten major classes. These include areas prone to soil erosion by water and winds. Areas vulnerable to flash floods, sheetwash and riverbank erosion and high or low intensity wind erosion are also delineated. Aspects of land degradation and desertification are also emphasized particularly land deterioration/intensified use of fragile ecosystem or incompatible land use.

Map 3-37 Environmental geo-hazard map of Jaipur Region



(i) Soil Erosion

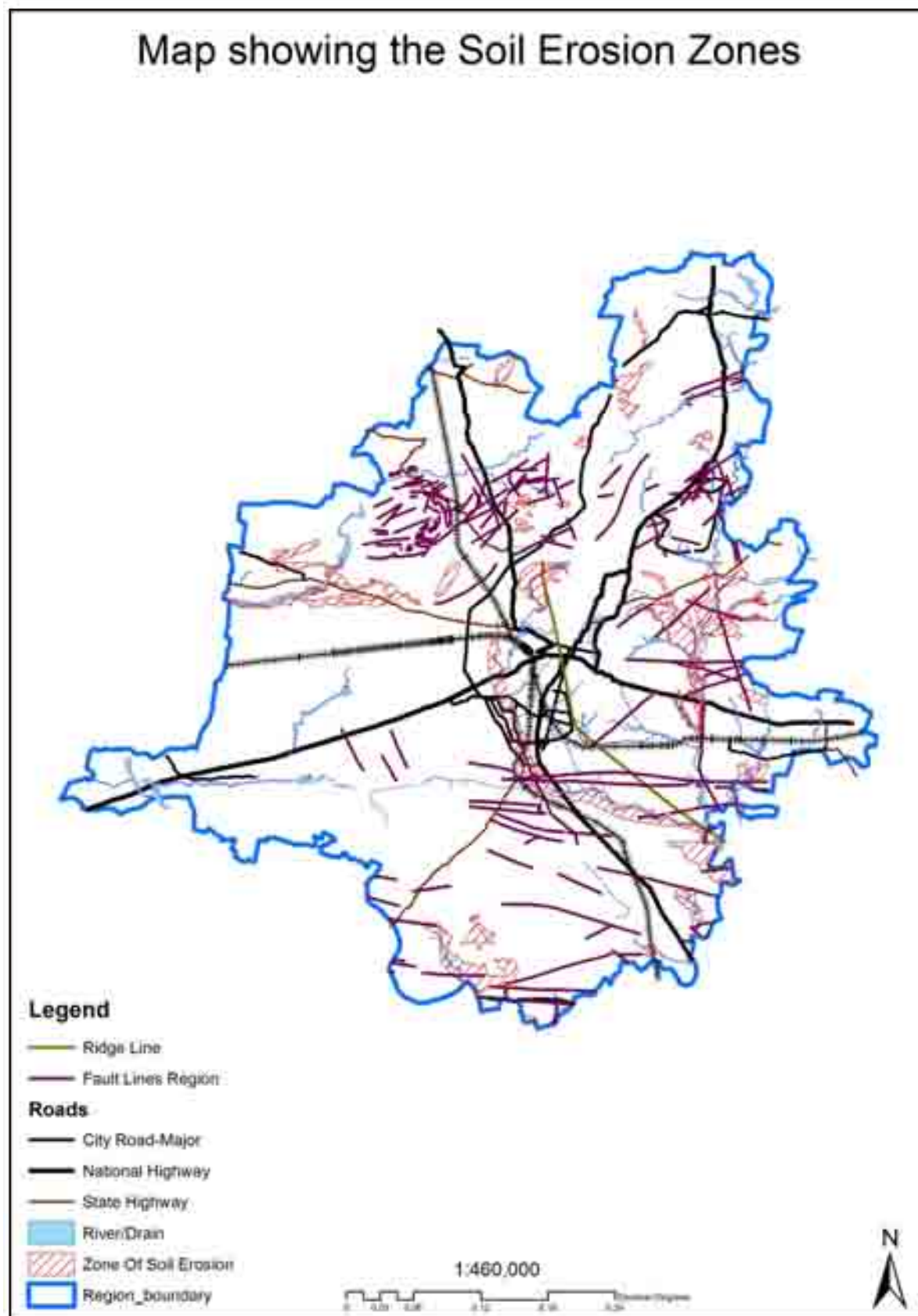
Erosion is a natural process, but it has been increased dramatically by human land use, especially industrial agriculture, deforestation, and urban sprawl. Land that is used for industrial agriculture generally experiences a significantly greater rate of erosion than that of land under natural vegetation, or land used for sustainable agricultural practices. A certain amount of erosion is natural and, in fact, healthy for the ecosystem. For example, gravels continuously move downstream in watercourses. Excessive erosion, however, causes serious problems, such as receiving water sedimentation, ecosystem damage and outright loss of soil.

The Jaipur region area is specially spread with soil erodible nature and there are different types of soil erosion have been occurs. These soil erosion types are as follows:

- (i.) Gully Erosion**
- (ii.) Sheet Wash**
- (iii.) River bank erosion**
- (iv.) River land use abstracted**



Map 3-33 Soil Erosion Zones in Jaipur Region



(i) **Gully Erosion:-** Gully erosion is the removal of soil along drainage lines by surface water runoff. Once started, gullies will continue to move by headward erosion or by slumping of the side walls unless steps are taken to stabilise the disturbance. Repair work done in the early stages of newly formed gullies is easier and more economical than letting the problem go unchecked for too long. Large gullies are difficult and costly to repair.

The Jaipur - Bagru sector shows intense gully erosion area east of Kanauta village along the Dhund River and Ratanganga River and western and southern side of Mahalbag - Kisanbag area of Nahargarh reserved forest (RF). Gullies are also seen on NW slope of Nagla hill and southern slope of Hardi hill north of Kanauta Ki Dhani on Agra road. Deep dissection in soft fine to medium grained fluvial and aeolian sediments has caused development of ravinous land in these areas. The badland development proceeds head-wards and gets accelerated by anthropogenic and neotectonic activities thus causing loss of fertile soil and deep dissection by running water. Slope in the ravinous land vary from gentle to steep (5° to $> 30^{\circ}$). The fine-grained, dominantly aeolian sediments in these landforms are highly erodible.

These dissected lands are best suited for development of open grass field, recreation parks, groundwater recharge structures and development/regeneration of forests, FSI housed and picnic spots. Controlled grazing may also be allowed.

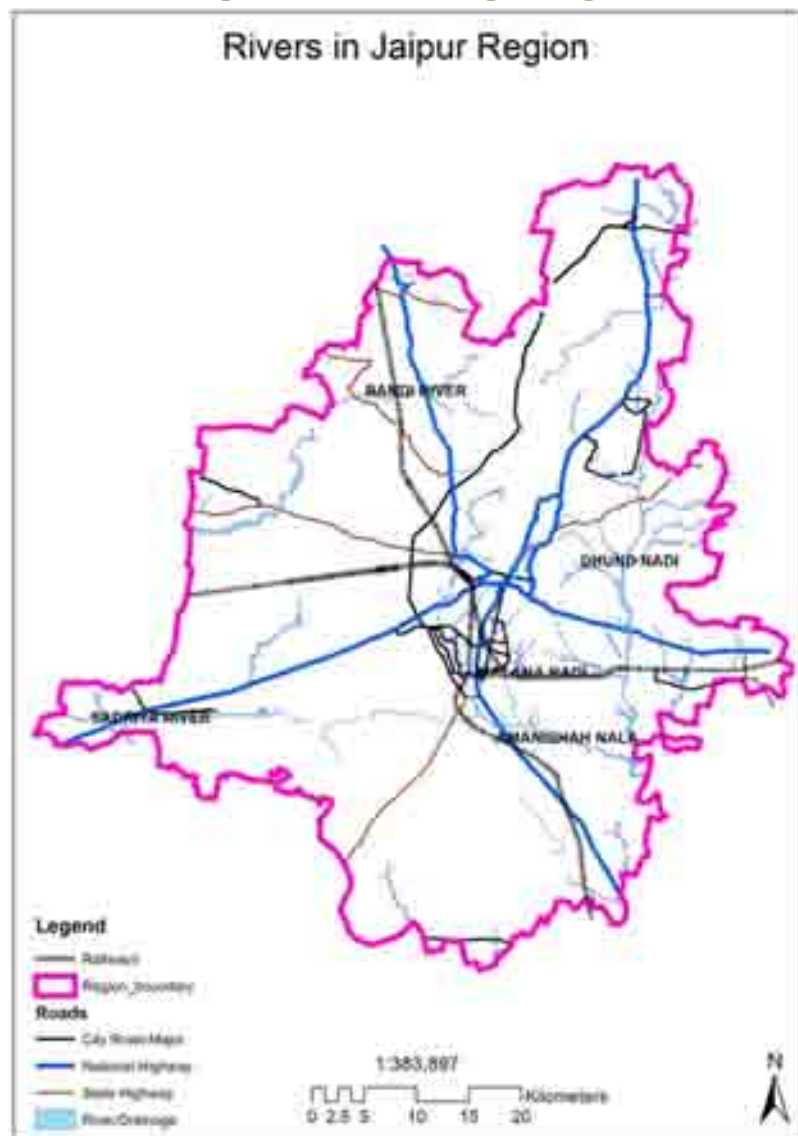
Jaipur-Bagru sector is marked by low and intense gully erosion area. The western part is practically devoid of gully erosion except at few places along Sanjariya River and few north-south to NE-SW tracts (unit 1a). The eastern part of the sector is marked by intense gully erosion area from SE of Chawand Ka Mand to Kanauta and from Largriyawas to NW of Nayla. The Dhund River and Ratanganga riverbeds show deep dissection and tributaries joining these rivers show intense gully erosion.

(ii) **Sheet Wash :-** Sheet erosion commonly occurs on recently plowed fields or on other sites having poorly consolidated soil material with scant vegetative cover.

A small area of sheet wash is seen north of Niwaru. The area extends from south of Bauri - Sarana Dungar hill north and extends upto west of Niwaru.

(iv) **River Bank Erosion:-** The banks of ephemeral rivers such as the Dhund, Ratanganga, Sadriya nadi, Bandi and Amanishah nallah and various other tributary streams of the river show bank erosion, head ward erosion and development of bad land or ravinous land. Prominent sections of bank erosion are seen in Dhund River at Sandoli, Hingoniya, NE of Bijaipura and SW of Dungarwada. Bank erosion in Sadriya nadi is seen N of Nimera and west and south west of Sanjriya. Intense bank erosion and development of gullies reflect older, soft sediments deeply dissected by the river; whereas less intense bank erosion is in younger aeolian sands in Bandi River which is being cut by the Bandi River. In some sections along the Dhund River, the bank erosion also represents scarp developed due to neotectonic faults and lineaments.

Map 3-34 Rivers in Jaipur Region



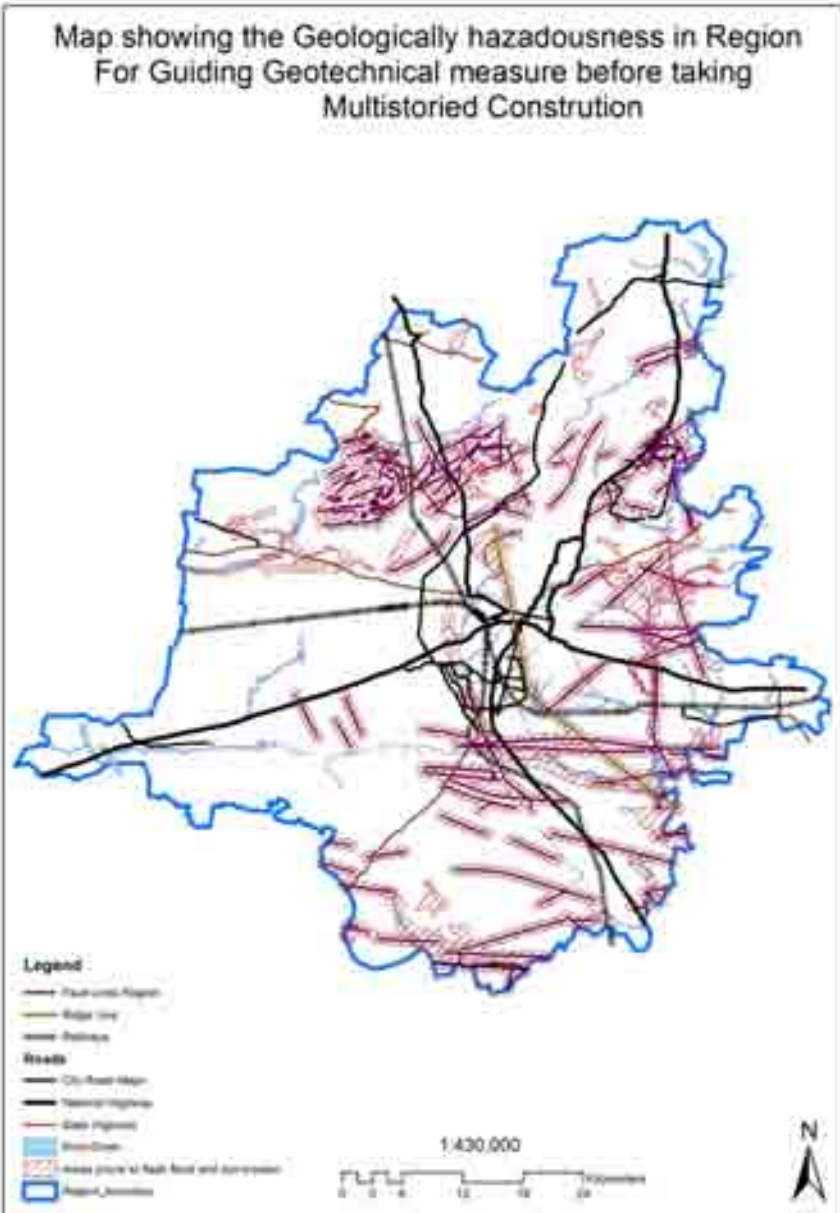
(v) River courses abstracted / encroached by urban-industrial units

The Sadriya nadi is obstructed north of Lokhanda and near Bagru and Bandi nadi is obstructed by urbanoindustrial growth.

Efforts have been made in this plan to address and accordingly propose these areas under low intensity development. There may be case of contradiction while detailing the plans of balanced act. There may be cases for multi storied construction. In such case a map is needed for the people to be able to find an idea of the extent.

The following map generated to guide the people at large to perform the geotechnical measures while making the constructions.

Map 3-35 Geologically Hazardousness in Jaipur Region



3.8.6 Area Prone to Flash Floods

Flash floods are floods that happen very suddenly and with little warning. They are very dangerous. A very heavy rain or an accident like a dam break can cause one.

Younger flood plain of ephemeral rivers: Ratangarh, Dhund, Jhalera Nadi, Amanishah nalla, Sedriya Nadi and Bandi nadi area flowing through the Kanauta - Jaipur - Kalwar segments of Jaipur region are prone to flash flooding during heavy or persistent rains in their catchment region.

It is interpreted that the Jhalana nadi was probably meeting Dhund river near Bhurthal. It has been captured by Acharyon Ka Bandh Nallah north-east of Khatipura Railway Station. Encroachments and incompatible landuse in this part of Jhalana Nadi may revive the palaeo-channel and cause avoidable loss of life and property in this part of Jaipur region that is developing very fast.

3.8.7 Seismotectonically Vulnerable Zones

The entire region falls in seismic Zone II and III of Seismotectonic Atlas of India and its environs, GSI (2000).

Zone-II is low damage risk zone but zone-III is moderate damage risk zone and a small part (North-East) of the region comes under zone-IV which is high damage risk zone.

The sector shows presence of N-S, E-W, NE-SW and NW-SE faults. Many of these faults are tectonically



Map 3-36 Earthquake zone map of Rajasthan

active (neotectonic) faults. Prominent among these are N-S faults along the Dhund river and parts of Jaipur upland in Jaipur district. Most of these features have been associated with low, but active seismicity of the region.

In view of the above and aeolian sand cover of few metres to 175 m thick west of Durgapura (Jaipur), the zone is vulnerable to seismic hazard. It is therefore, recommended that area falling between major lineaments and faults should not be developed as high density residential or commercial activity centers. They may be developed as institutional areas, special economic zones (SEZ) with suitable engineering measures for Zone II seismicity. The ideal land use recommended for lineament zones is the groundwater recharge sites and development of farmhouses, open recreation spaces, etc.

3.8.8 Important Features

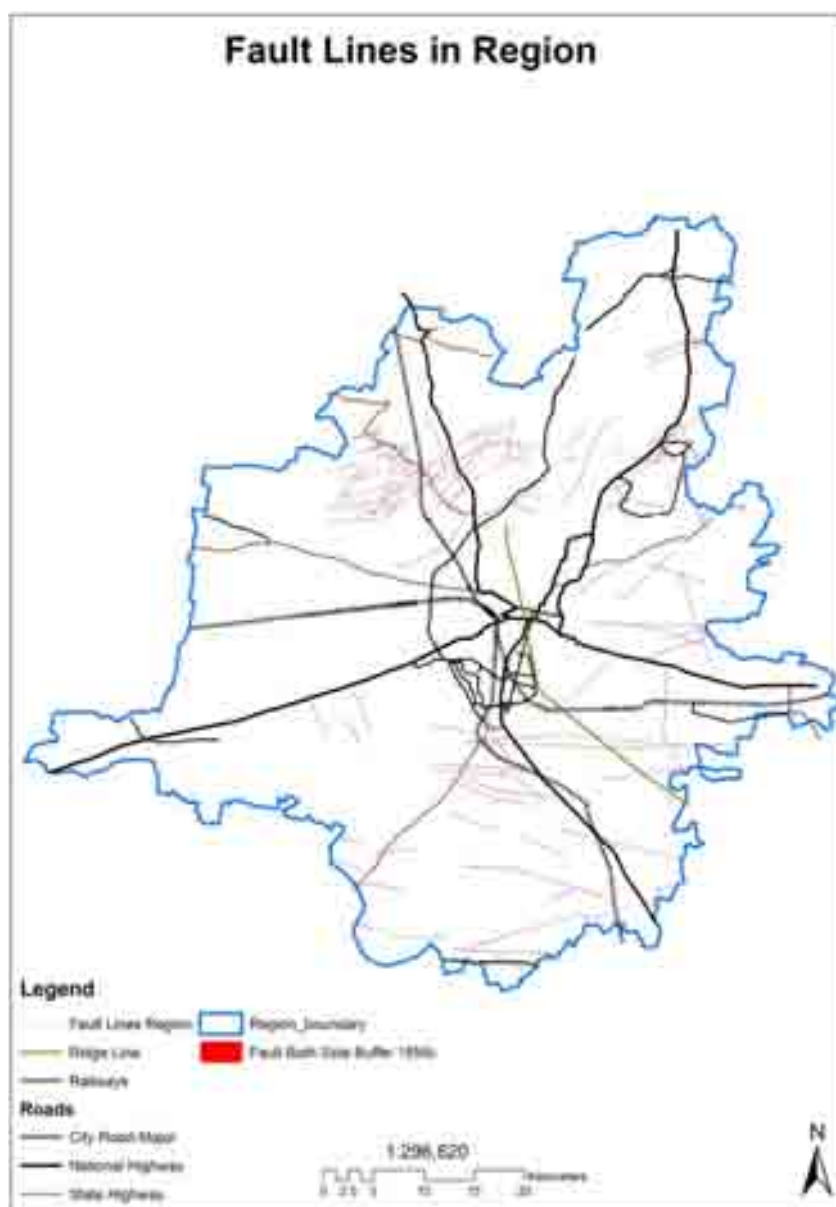
There are some features in Jaipur region has been identified in the study of Geological Survey of India. These features are as follows:

Fault line: **fault line** is the surface trace of a fault, the line of intersection between the fault plane and the Earth's surface. These fault lines areas should not used for any type of construction so the recreational parks have been prescribed in the MDP-2025.

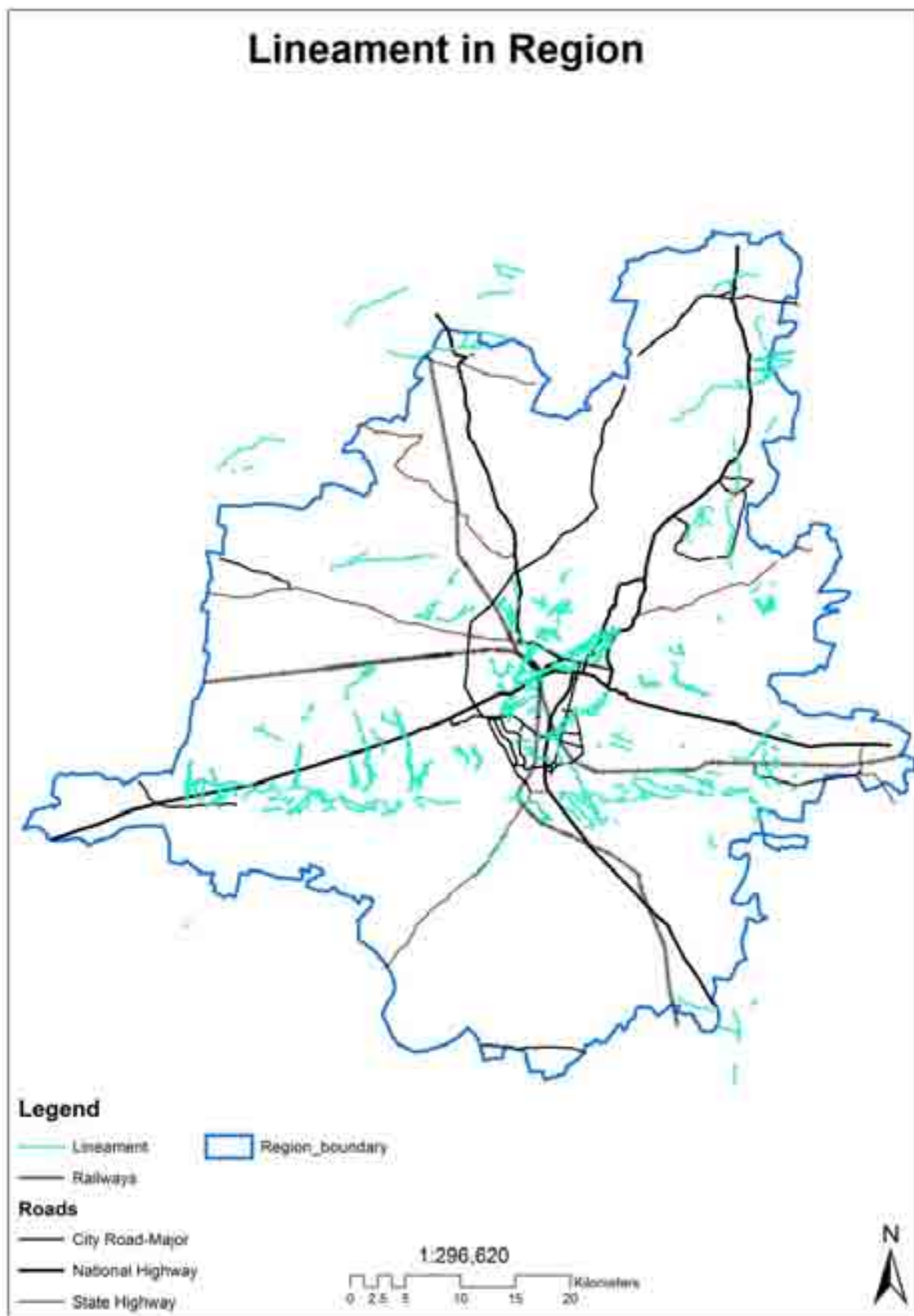
Lineament: It is a linear feature in a landscape which is an expression of an underlying geological structure such as a fault.

Ridge line: It is a geological feature that features a continuous elevational crest for some distance.

Map 3-38 Faults and Ridge line in Jaipur Region



Map 3-39 Lineaments in Jaipur Region

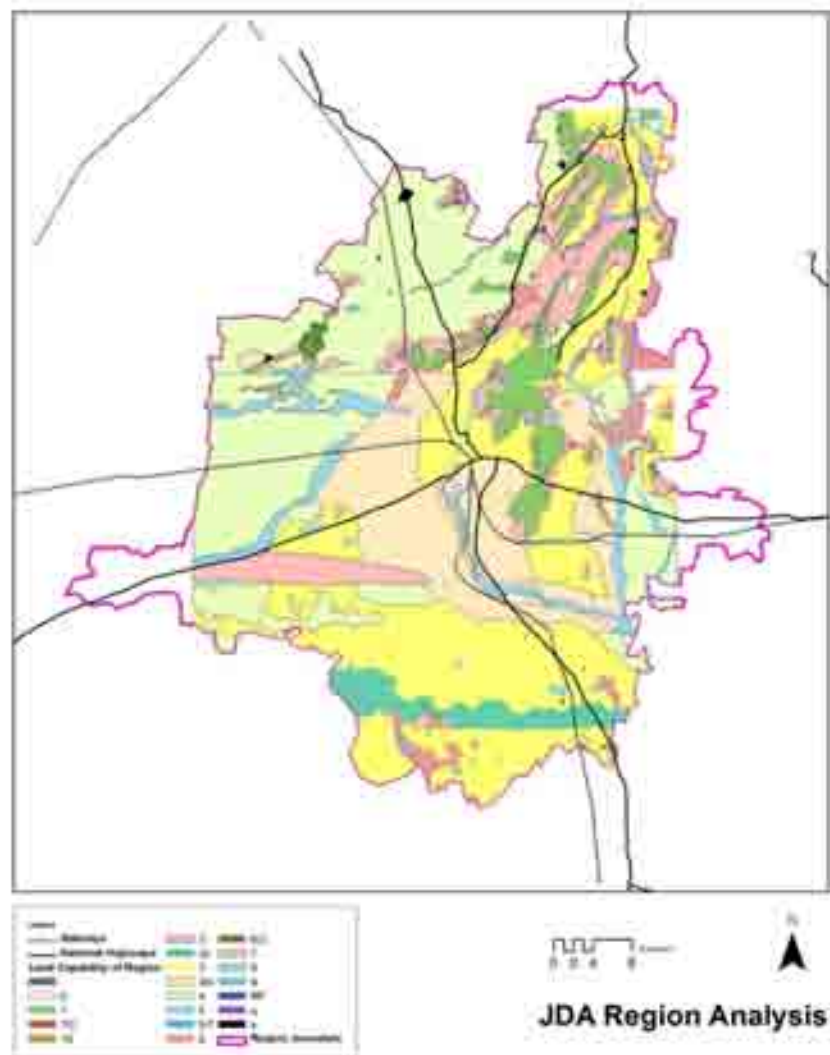


3.9 Land Capability of Jaipur Region

3.9.1 Land Suitability Mapping

Land capability map of the Jaipur region defines the areas suitable for various uses. The map is based upon the study of various geo-factors such as geology, hydrology, ground water conditions, soil conditions and environmental geo hazards. The following maps represent the scenario of the respective conditions. Based upon these maps, a detailed study, overlay and analysis of the geo-factors is conducted of the region stating the capability of the land for different uses. Accordingly there are 12 land suitability classes defined on the geo-factors based upon land capability units. Through this map the areas suitable for respective uses can be judged for broad zoning. At the same time if the particular use capable is not achieved/achievable, appropriate measures need to be made for the same to mitigate the negative effects.

Map 3-40 Land capability map of existing Jaipur Region



For broad Zoning of respective uses Jaipur region is divided into 12 land capability units based on geo factors

The twelve land suitability classes are given in Table 3-6.

Table 3-26 Land Suitability Jaipur Region

Class No	Land Suitability Classes (Suggested Land Use)	Geo-factors based Land Capability Units	Remarks
1	Priority to afforestation, regeneration of protected/ reserved forest areas (adopt dry land afforestation techniques)	Structural ridges/ Residual hills / Hills- valleys complexes	Forests with degraded vegetal cover
	Ecological reserves. Wild life sanctuaries. Tourist adventure and recreation resorts/ Nature walks and trekking routes / Picnic spots, etc.		
	Environmentally safe and sustainable mining of Dimension stones/ Road aggregates/ Silica sand/ Crusher sites		
2	Priority to afforestation, regeneration of protected/ reserved forest areas. Adopt modern techniques to combat desertification/ Slope stabilisation by vegetal growth	Piedmont zone along lower hill slopes / Colluviums covered at places with Aeolian deposits / obstacles dunes/ sand sheets	Prone to soil/ gully erosion and desertification
	Develop water harvesting structures/ watershed management/ Ground water recharge structures/ Outdoor recreation centres / Picnic spots, etc.		
3	Priority for residential, urbano-industrial activity with agro-forestry/ agriculture in selected zones with suitable hydrological conditions and groundwater availability	Pedi plains, sand sheets of fluvio-aeolian deposits. Stabilised older dune sands with pedocalcic (calcrete rich) sediments Bedrocks at shallow depth (e.g. Chaksu-Phagi area)	Gently undulating to flat plains
4	Priority to agriculture activity, Farm houses, poultry and Animal husbandry/ Agro -products and Food technology and packaging industries Encourage optimum exploitation of groundwater	Older flood plains / fluvio-aeolian reworked Quaternary deposits/partially stabilized sand sheets / semi-stable dunes – interdunes areas	Favourable soils and lineaments/fracture system. High groundwater recharge potential

5	Priority to Ecological Reserves: Water channel be kept free from any obstruction/encroachment. Ban/discourage direct disposal of untreated effluents/solid waste in the channel,	Younger flood plain, including present channel, terraces/	Vulnerable to seasonal flash floods and wind erosion
	Environmentally safe channel bed cultivation of cash crops and terrace cultivation in the selected localities;	Unconsolidated and active Aeolian deposit	
	Open spaces/parks for groundwater recharge; Watershed management; subsurface dikes across channels of the Bandi and Dhund Rivers systems.	Aggraded river courses	
6	Regeneration of degraded forests/Protection of RF and PF / afforestation along both banks of aggraded river courses.	Flood plain/fluvio-aeolian deposits prone to gully erosion/sheet erosion and river bank erosion	Highly dissected terrain and erodible deposits
	Ecological reserves; open grass covered spaces/parks and controlled grazing grounds		
7	Priority to SEZ; industries with low water requirement/ Salt tolerant crops	Salinity affected areas / degraded soils Disorganised and aggraded drainage	Potential sites for Solid Waste Management (SWM)
8	Priority to restoration and creation of traditional surface water resources reservoirs/ ponds / baories (stepped wells) for domestic and agricultural purpose, Desilting and creation of green belts (at least 50m wide all around these land-water units; Recreation and Picnic sites	Surface water reservoirs and ponds/ depressions/ inland basins; existing as well as proposed	Sites for water conservation/ optimum utilization
9	Priority to groundwater recharge zones, open spaces, Farm houses/ institutional area (Vulnerable to seismicity equivalent to Seismic Zone-II)	Tectonic lineaments/ master fracture systems place – channels / buried channels,	
10	Sites suitable for urban waste disposal sanitary landfills / compost plants	Inert and impervious substrata, degraded/gullied formations	Directional proximity to conserve on transportation/ fuel costs

11	Sites for renewable energy resources (winds / solar)	Elevated natural grounds	
12	Sites for preservation of cultural heritage sites / promotion to eco - tourism/ religious tourism creation of geo-parks/ nature and landscaped monuments	Natural scenic beauty / Aravali and desert margin landscapes	

The following table depicts the amount of area covered under each type of use within the region and the developed area. The difference is also depicted in table 3-7.

Table 3-27 Development Area Covered under each Class of Land Capability

Sr. No	Class No	Region	Urban Area	Balance Area in Region	Balance area as % of Region
1	0	2.76	0.03	2.73	98.96
2	1	137.97	6.43	131.54	95.34
3	1/2	0.39	0.00	0.39	100.00
4	2	186.62	12.58	174.04	93.26
5	2/4	0.97	0.00	0.97	100.00
6	2c	0.34	0.28	0.06	17.14
7	3	751.29	206.18	545.11	72.56
8	3/4	380.08	310.05	70.03	18.43
9	4	731.79	15.00	716.79	97.95
10	5	116.06	33.51	82.55	71.13
11	5/6	11.11	0.00	11.11	100.00
12	6	82.89	1.48	81.41	98.21
13	6/2	6.66	0.00	6.66	100.00
14	7	58.26	6.94	51.32	88.09
15	8	6.76	1.31	5.45	80.61
16	9	77.05	5.47	71.58	92.90
17	q	2.33	0.00	2.33	100.00
18	s	4.58	0.04	4.54	99.13
		2557.91	599.30	1958.61	

As per calculations of maps provided by GSI

Based on the Land Capability classes as provided in table 3-7, they have been grouped into three major use type: Agriculture, Eco-sensitive and Development area as given in table 3-8.



land capability units divides the region into three major uses i.e., development area (50%) , Agriculture area (29%) and Eco-sensitive area (21%),



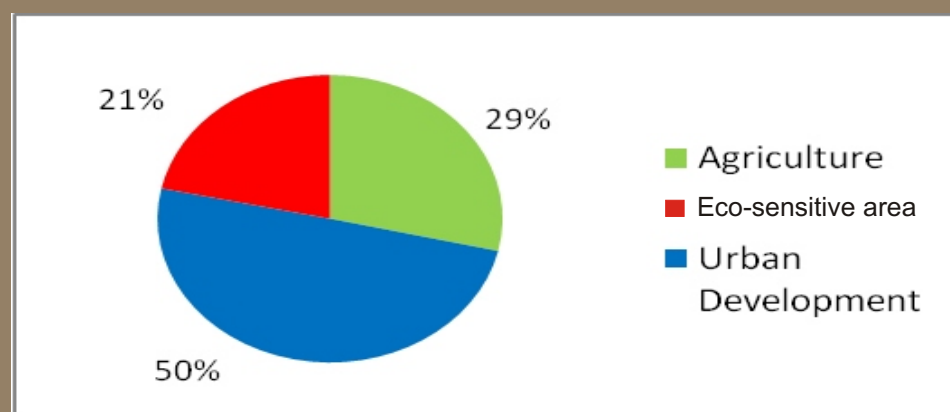
Development area needs zoning considering geo-environment hazards while eco-sensitive area needs to be protected

Table 3-28: Development Area Categorized under the Broad Classification for Region

Use	Region (Sq Km)	Development Area (Sq Km)	Balance	% Bal Area to Region	Dev Area as % of Region
Agriculture	731.79	15.00	716.79	97.95	2.05
Urban Development	1273.59	528.68	744.91	58.48	41.51
Eco-sensitive	552.53	55.62	496.91	89.93	10.07

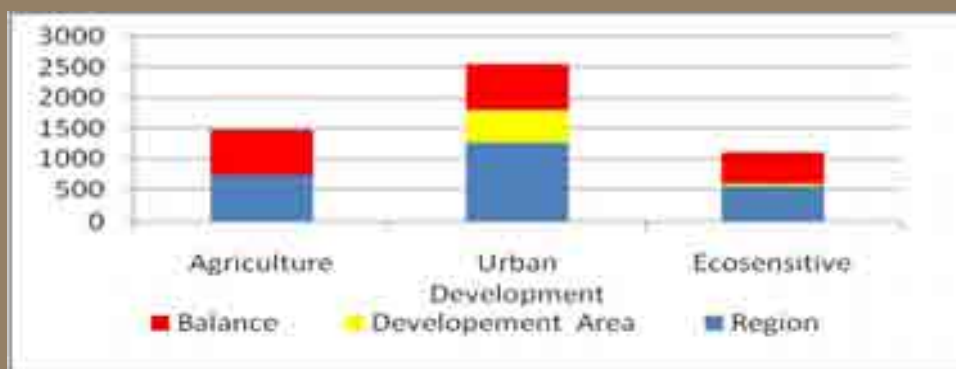
Based on the classification, we can arrive at the respective percentages of the Land utilization within the Region as reflected in illustration below. It is observed that 50% of the land in the Region is suitable for Urban Development. 29% is Agricultural area and 21% is Eco-sensitive in nature.

Chart 3-4 Percentage Share of the Three Categories within the Region



It is thus observed that as per the land capability 41.51% of area suitable for urban development exists in the region. 97% of Agriculture and 89% of Eco-sensitive exists beyond the developed area which needs to be protected.

Chart 3-5 Amount of Area Used and Balance of the Urban Development area in the Region



From the above analysis some of the important issues which come across are stated below:

- It is thus imperative that Eco-sensitive areas within the sector plans needs to be protected while preparing the land use plans.
- The development areas need to be zoned bearing the geo-environmental assessment of the area.

The new development areas would try and exploit the areas suitable for Urban development activities and refrain from venturing into the environmentally sensitive parts.



3.10 Land Utilization

3.10.1 Land Utilization in Jaipur Region

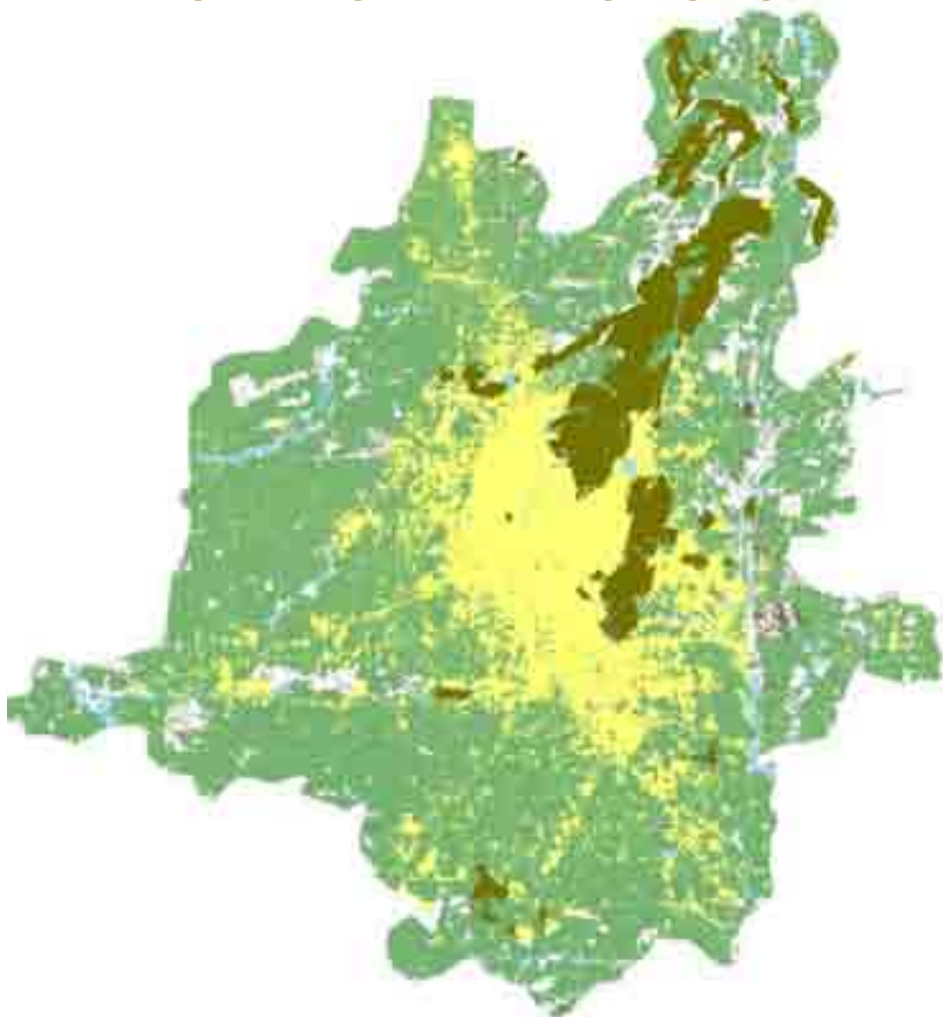
The existing land use map of the Region has been prepared with the help of base map provided by RMSI. (An organisation engaged by DOIT, GoR for the RUIS project) It is based on the NUIS standards prescribed.

The Region has been divided into the UCA and UDA as described below:

Map 3-41 Existing Land Utilization Map of Jaipur region



Jaipur region comprises in to two areas 'UCA' urban core area including core developed are of city and 'UDA' urban development area outside the core area

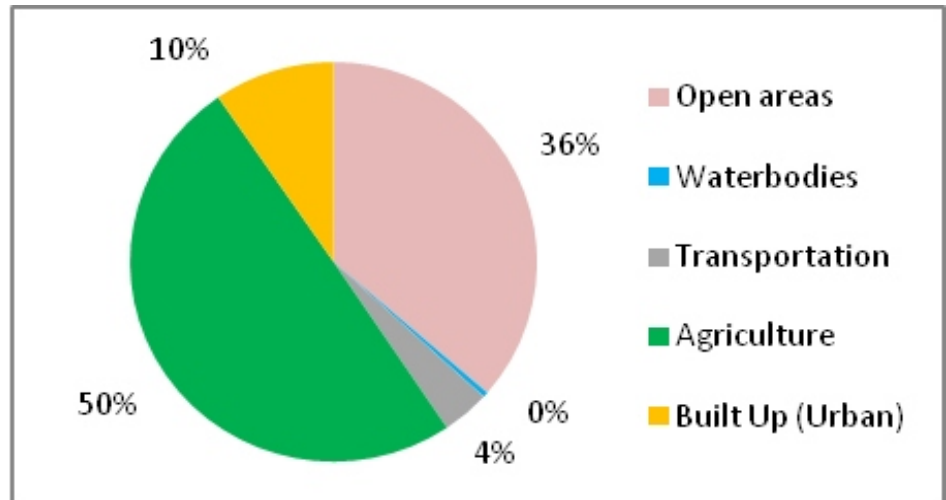


(i.)

UCA: Urban Core Area

This comprises of the developed core of the Jaipur city, covering an area of approximately 1368 sq.km.

Chart 3-6 Land use classification of UCA area



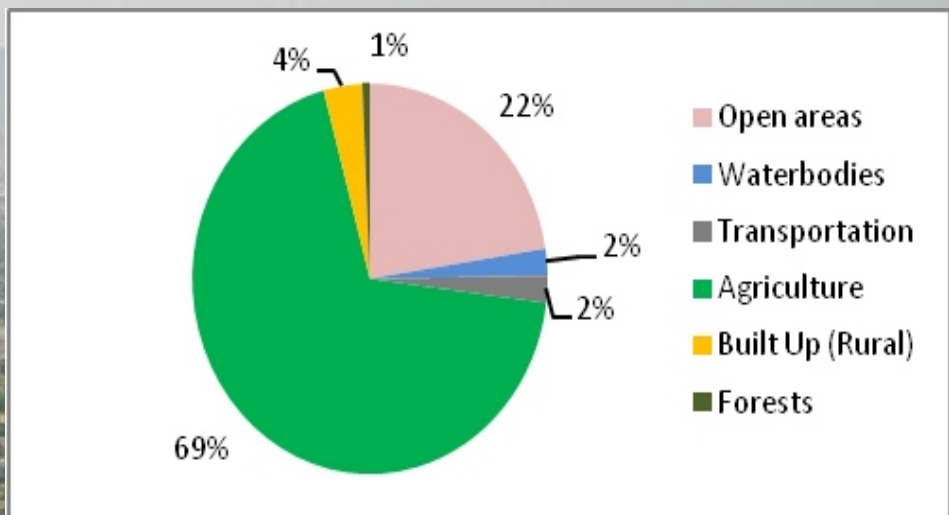
(ii.)

UDA: Urban Development Area

It is observed that within the core area based on the figure, the net built up area is 10% while the agriculture area is 50%. There are also 36% open areas and 4% of the area are under circulation.

This area comprises of area outside the core city covering 1,347 sq.km.

Chart 3-7 Land Use Classification of the UDA Area



The development area has more of agricultural parcels constituting to nearly 69% of the total area. This is followed by open area constituting 22% of the area. The built up forms a small part of 4%, similarly circulation and water bodies constitute 2% each.

3.10.2 Total Land Use in the Region

This reflects the UCA and the UDA. Totally, as reflected in figure below, the agriculture constitutes 59% of the area followed by open areas of 30%. As a whole, the built up constitutes 7% of the total area.

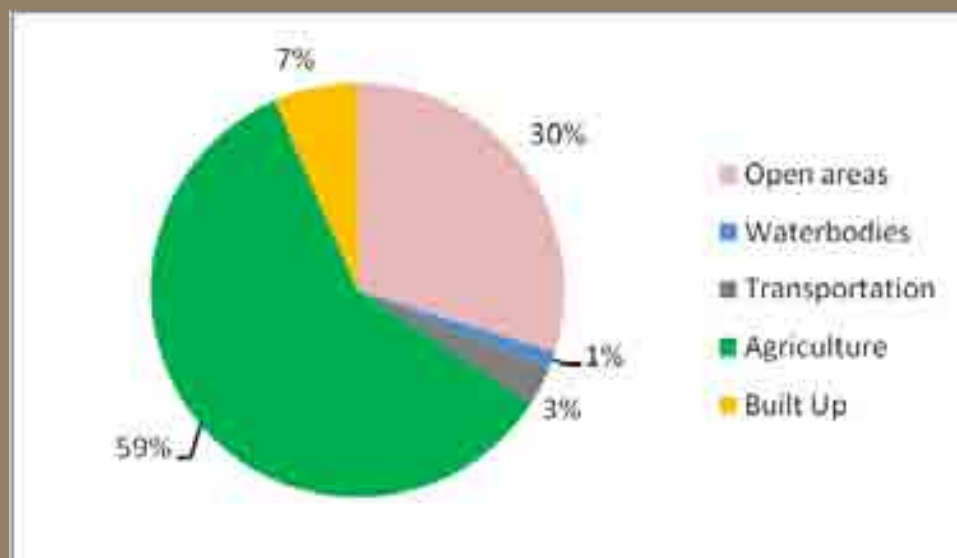
Table 3-29 Land use cover within the Region

	UDA	UCA	Total
Open areas	31,29,85,551.4	497850312.8	810835864.2
Water bodies	29689823.15	5596337.228	35286160.38
Transportation	29895227.19	52074214.68	81969441.86
Agriculture	926779272.4	681748039.3	1608527312
Built Up (Rural)	47766240.14	131334858.5	179101098.6
Total	1347116114	1368603763	



In the total region only 7% area is under built up while rest of the 93% area includes agriculture land, open areas transportation and water bodies

Chart 3-8 Land use cover Classification in Percentage of the Region



CHAPTER

4

JAIPUR

U-1 AREA

4.1 Introduction

4.1.1 Background

Jaipur, the foci and capital of Rajasthan, occupy a place in the hearts of the people as multi dimensional city with a flair for growth accompanied with traditional touch. It is a tourist destination placed with in the golden triangle. It assumes a greater importance being near to the National capital and in the confluence of three national highways.

Growing at a quicker pace compared to other towns of Rajasthan, the city needs to be integrated with the following:-

- to absolve the deficiencies,
- to accommodate the growing needs,
- to place the city on a global network of:-
 - tourism,
 - business,
 - education,
- to blend complex modern trends with the traditional eithos.

The first Master Plan was prepared under Raj Urban Improvement Act, 1959 in the year 1976 for horizon year 1991 (it was extended upto 1998) with an urbanizable area of 153 sq. km.

The second Master Plan prepared in 1998 under JDA Act, 1982 with a horizon year 2011.

The border less mechanism of the cities, growing beyond city limits is a challenge to urban managers. The intention of land owner to put to use the land ,depleted by water table, for urban uses since agriculture is not a sound proposition is **major pointer** while attending to this Master Plan.

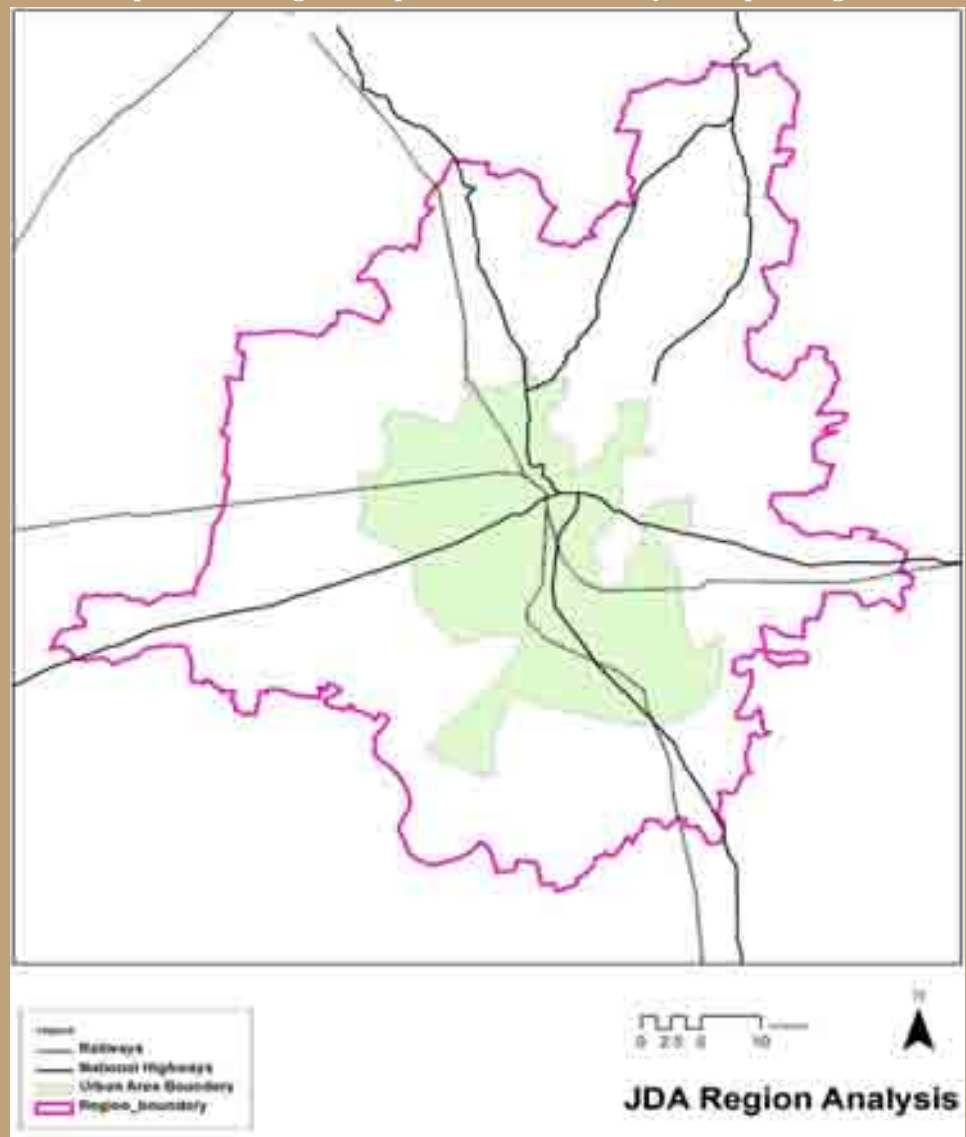


4.2 Jaipur Urbanisable Area

4.2.1 Existing Urban Development Area within Region

As per Master Development Plan 2011, the footprint for development covered an area of 326 Sq.Km out of which 207 Sq.Km of the area actually developed. However, due to pressures on land and fast paced conversions, the development area expanded by another 215 Sq Km. with planned interventions in the form of sector plans to regulate growth. The present Urbanisable area within the Region now covers a total area of 541 sq.km (other than the satellite towns). Thus, the Built up area and the existing sectors together comprise of the existing development area of the Region (other than the satellite towns).

Map 4-1 Existing development area boundary of Jaipur Region



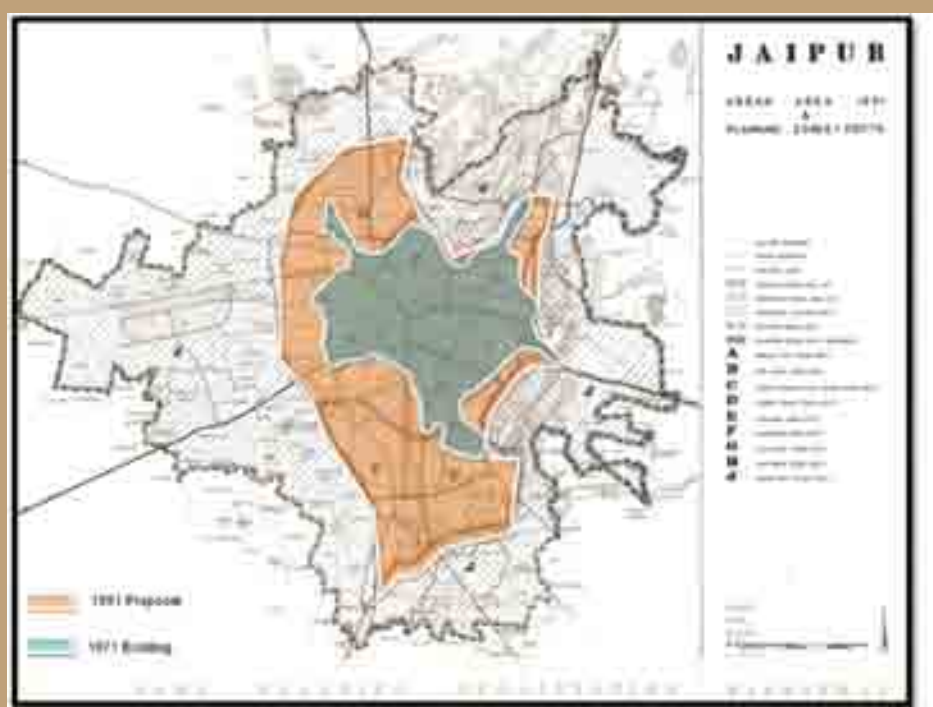
The first Master plan prepared in 1991 envisaged a development area of 156 sq.km. However, new areas were developed including Prithviraj Nagar (PRN), Pratapnagar, Sitapura and South of Jaipur. The area including diversions amounted to around 190 sq.kms with an increase of 21.80%. These deviations were 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. Though the plan period up to 2011 envisaged 326 sq.kms, the development area today stands at 600 sq.km. with a percentage deviation of 84.05%.

Table 4-2 Jaipur Urbanisable Area and Deviations over the Years

Year	Area envisaged	- Deviations	Approximate developed area	% increase in area against planned	Area if % growth maintained
1971	-		60 sq.km	-	-
1991	156 sq.km	Areas developed which were not envisaged: PRN, Pratapnagar, Sitapura, South of Jaipur (total approx. 58 sq.km)	214 sq.km	37.18%	-
2011	326 sq.km	Planned interventions in terms of new sectors, NRI colony, Jagatpura, etc	600 sq.km (as of 2009)	84.05%	400 sq.km

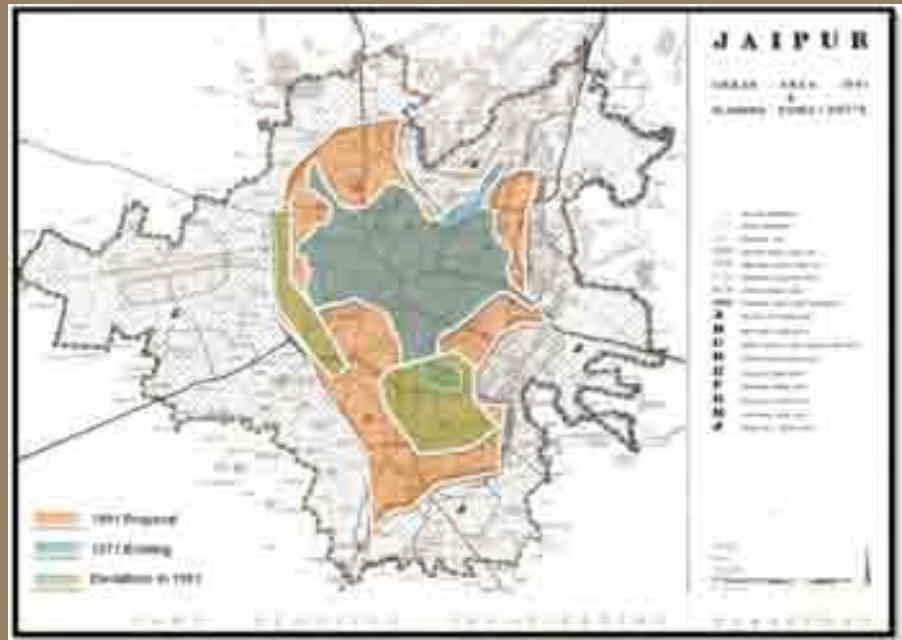
The map below shows the existing area of development in 1971 and the area for development proposed in 1991. However, on account of deviations due to PRN, etc, the plan in 1991 eventually showed changes as depicted below:

Map 4-2 Development area in 1971 and Proposal for 1991



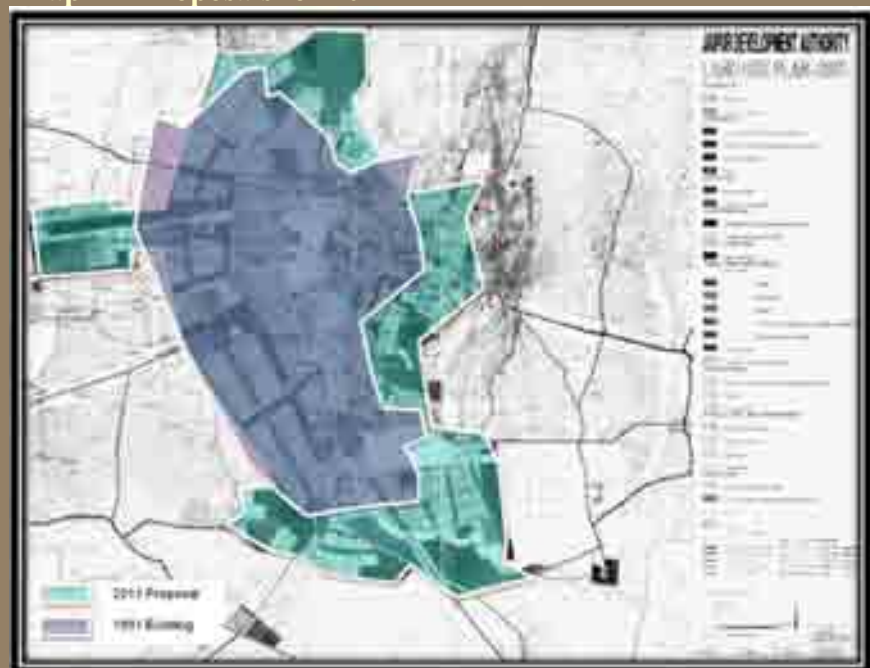
The above map shows the existing area of development in 1971 and the area for development proposed in 1991. However, on account of deviations due to PRN, etc, the plan in 1991 eventually showed changes as depicted below:

Map 4-3 Deviations in Proposal for 1991

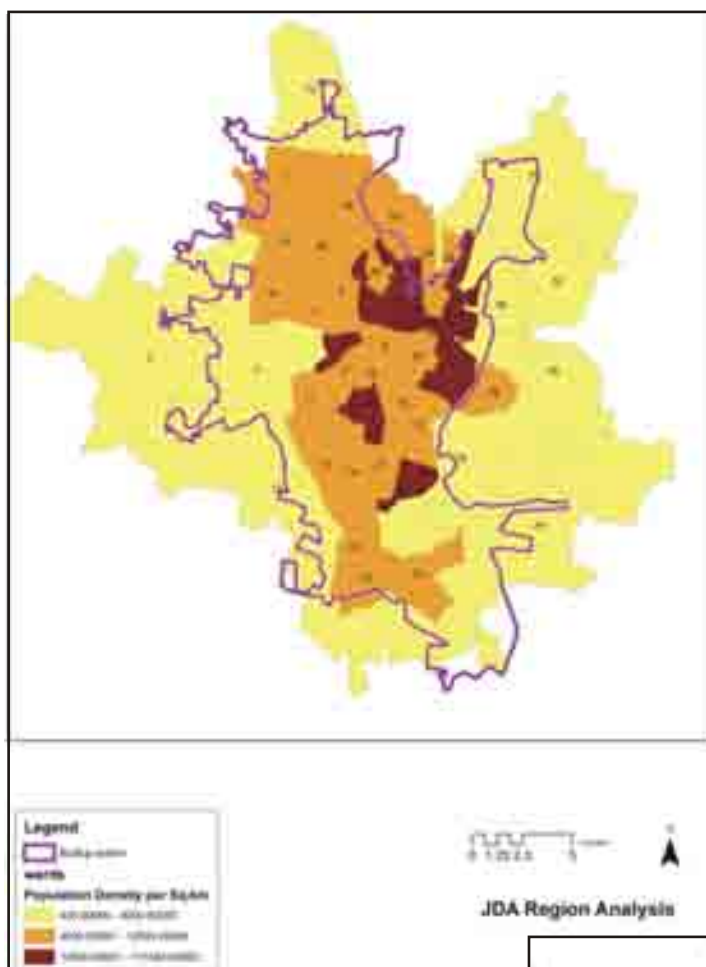


Again in 1996 when the Master plan of 2011 was underway, an area of 326 sq.km was proposed. This too deviated massively from the proposal of 2011 with areas being developed beyond the hills on Agra road and other planned interventions of sectors. These maps are depicted below.

Map 4-4 Proposals for 2011



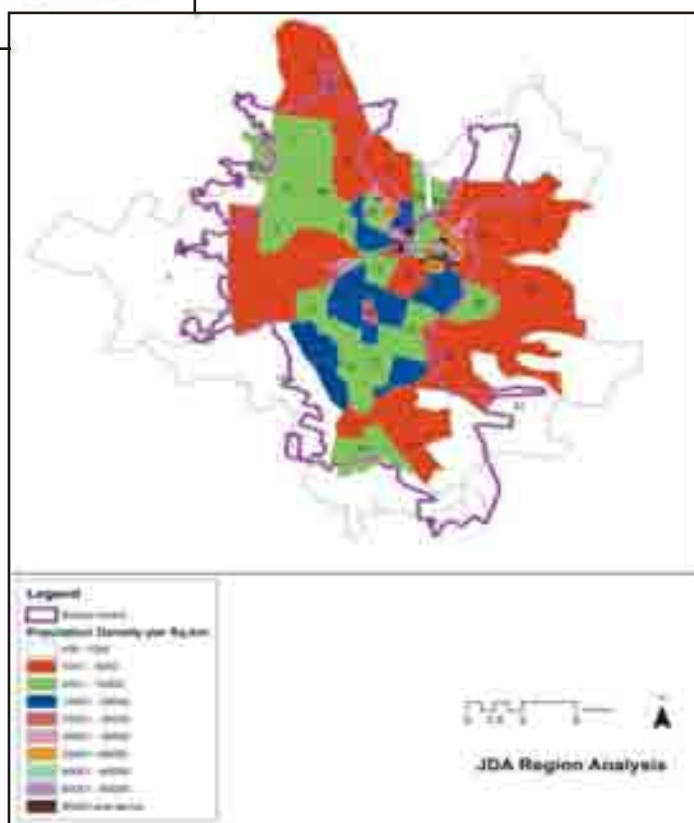
Existing Planned Interventions with Sectors and other Regularized Schemes:



Map 4-5: Gross density within wards- Census 2001

The average density is around 5000 persons per sq.km. reducing outward to less than 1000 persons per sq.km.

Map 4-6 Existing Gross density within wards of Jaipur region



4.3 Environment

4.3.1 Climate and Physical Characteristics

Climate and physical characteristics of Jaipur city have already covered in the chapter of Jaipur region but hereafter some part of the climate and physical characteristics is given below:

(i) Topography

Slope and topography describe the shape and relief of the land. Topography is a measurement of elevation, and slope is the % change in that elevation over a certain distance.

Consideration of the slope of the land is important to reduce construction costs, minimize risks from natural hazards such as flooding and landslides, and to minimize the impacts of prescribed development on natural resources such as soils, vegetation and water system. Jaipur city is characterized by diverse topography. The slope of the city is from north to south and then to south east. The overall trend is a decline of level from the areas bordering the hills in the north plain to plain in the south slopes which are in general gentle.

Northern-eastern region of the city consists of higher elevation in the form of low, flat topped hills of nahargarh (587m High), Jaigarh, Amber and Amargarh in the North and Jhalana in the east, which is a part of Aravalli hills - ranges which are deeply dissected and eroded.

Further in the south and the west of the city are also prevailing hillocks but they are isolated and discontinuous in formation. An isolated hillock called “Moti Dungari” upon which an old royal castle exists on JLN marg, near the Rajasthan University. topographical levels of the these areas varies between 280 meters along Bandi and Dhund rivers in the south to some 530 meters in the north east of Chomu near Samod hills. The southern end of the city is open to plain and stretches far and wide covering Sanganer and beyond. Harmara and Niwaru hills situated in north act as barrier for further northern development.

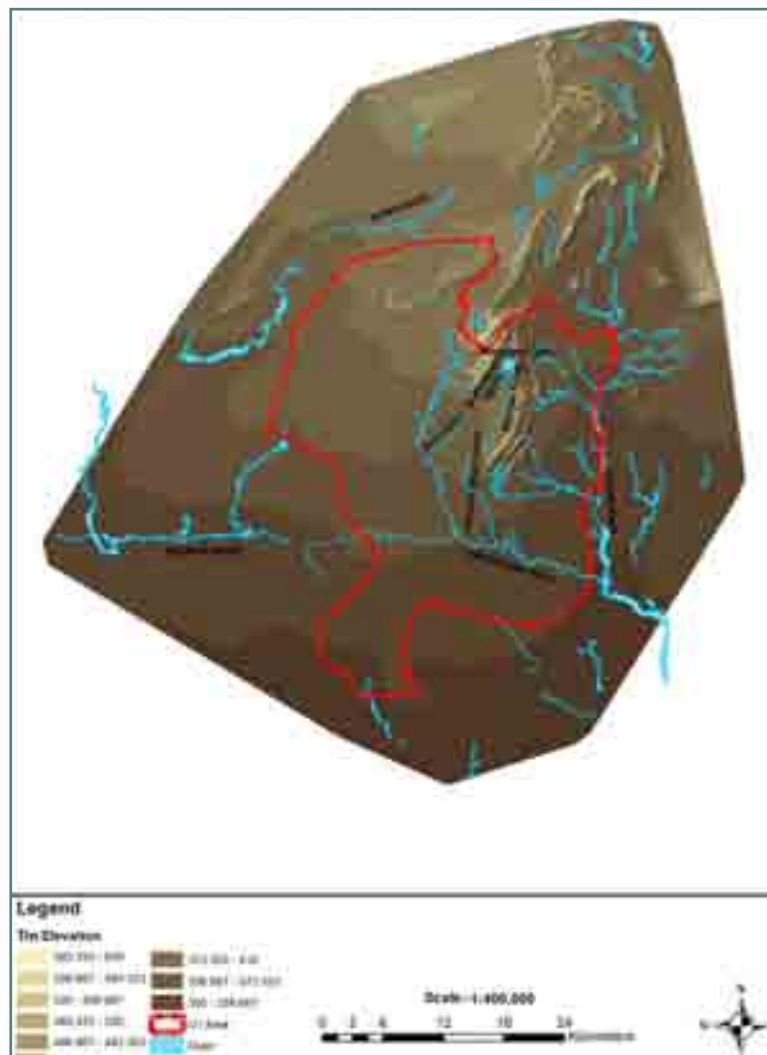
Map : 4-7 Surface analysis of U1 area with flow direction



(ii) Drainage

The city area is drained by the Amanaisha Nallah and Dhund River. Both the Dhund River and Amananisha nallah form a fork like drainage pattern in the confluence Zone just outside the U1 boundary in south east. The Amanishah nala, which originates from the western slopes of Jaigarh hills, flows northwards in the upper reaches, turns south and south-west in its middle course and flows towards east with a crescent shape. It joins river Dhund further down stream. There is another small drainage system in the north foothill is to Jal Mahal (Man Sagar).

Map : 4-8 Major Drains of Jaipur



4.3.2 Natural Features

(i.) Amanishah Nala

Amanisha nala is a life line of the city. It starts from foot hills of Nahargarh and flows through Jaipur city were in north to south direction and culminates in to Dhund River. The length of this nala is about 48 K.m. Many other nalas of the city i.e. Nahri Ka Naka nala, Ganda nala and Jawahar nala also merge with Amanisha nala. The Mazar Dam, Dam on sikar road, Goolar dam and Shri Ramchandrapura dam have been constructed on this nala. The water of Goolar dam and Shri Ramchandrapura dam is utilised for irrigation.

4.3.3 Green / Recreational areas (Green Zone)

Jaipur city is growing at a very fast pace. Open spaces are being used for development of infrastructure, housing and commercial complexes. Aravali Hills, one of the oldest hill ranges run in South-West direction. It gives Jaipur a green cover which serve as lungs of the city. There is a need to conserve and develop the woodlands and forest areas in and around Jaipur. At present 22 blocks of Reserve/Protected forest fall within the Jaipur Development Authority limits.

At the rate of Rs. 20000/- per ha. (Maintenance upto 5 years) a sum of Rs. 1639 lac (approx) will have to be set apart for the development and conservation of the forest areas. Modalities to be worked out in this direction with forest department and the local Authority.

The existing forest covers in Jaipur urbanisable area 77.28 sq km which is 8.17% of the Jaipur urbanisable area.

Map 4-9: Forest Cover U1



4.4 Population and Employment

4.4.1 Demography (i) Population

- Jaipur City Population (as per 2001 Census) 23.23 lakhs
- Projected Population (2011) 36.02 lakhs
- Projected Population (2025) 64.95 lakhs

(ii) Natural growth and In-migration

The earlier trend is expected to inverse with natural growth expected to decrease and the migration expected to increase by 2025. The following table gives the net increase of population by natural growth and migration.

Table 4-3: Population in Jaipur City

Year	Addition by Natural Growth		Increase by Migration		Net Increase
	Population	%	Population	%	
1981	2.08	55.47	1.67	44.53	3.75
1991	3.00	59.64	2.03	40.36	5.03
2001	5.45	67.78	2.59	32.21	8.04
2011	6.77	52.93	6.02	47.07	12.79
2021	9.14	50.30	9.03	49.70	18.17
2025	5.40	50.00	5.36	50.00	10.76

Source: Census of India and population projections

(iii) Elderly and Children Population

The city of Jaipur is expected to see an increase in the number of elderly persons and a decrease in children below 14 years from 2001 to 2025.

Table 4-4: Elderly and Children Population in Jaipur City

Year	Elderly + 60 Year		Children (0-14) Year	
	Population	%	Population	%
2001	1.38	5.90	7.84	33.70
2011	1.77	4.91	9.54	26.49
2021	4.39	8.04	10.90	20.11
2025	6.89	10.60	12.90	19.90

Source: Census of India and population projections

The age group wise break up indicates a need to provide special facilities catering towards the elderly.

(iv) Sex Ratio

The sex ratio of the city is very low when compared to the district and the overall urban population in the district though there has been an increase in the same over the decades.

Table 4-5: Sex Ratio-Jaipur

Year	Jaipur District			Jaipur UA
	Total	Urban	Rural	
1961	890	860	905	855
1971	890	860	907	857
1981	892	865	913	861
1991	892	873	908	868
2001	897	880	914	876

Source: Derived from Census of India

(v) Literacy Rate

The city of Jaipur does not give a very healthy picture when it comes to literacy though there has been an increase in the literacy rate. At present there are 69.9% of literates of which female literate from the total female population is 55.52 percent while that of males is 82.8 percent. Table 4-7 gives the decadal increase in the literacy rate of the total population, males and females

Table 4-6: Literacy rate- Jaipur

Year	Total	Male	Females
1971	57.42	70.39	43.15
1981	65.01	77.78	51.14
1991	69.93	80.31	57.86
2001	69.90	82.80	55.52

Source: Derived from Census of India



4.4.2 Economy

(i) Employment

Work force participation rate

The workers profile of any place defines its economic characteristic in terms of the percentage of population working and the type of the work they are involved into.

Jaipur city as per 2001 census has a work force participation rate of 31%, lower than that of district which is 35%.

Of the JMC Zones in the city, Vidyadhar Nagar has the lowest WFPR, being 29% only. The highest WFPR is in the Mansarovar and Civil Line Zones, being 32%. This is followed by Sanganer and Moti Doongri at 31%. The rest of the three zones have a WFPR of 30%.

Chart 4-1 Work Force Participation Rate Jaipur-2001



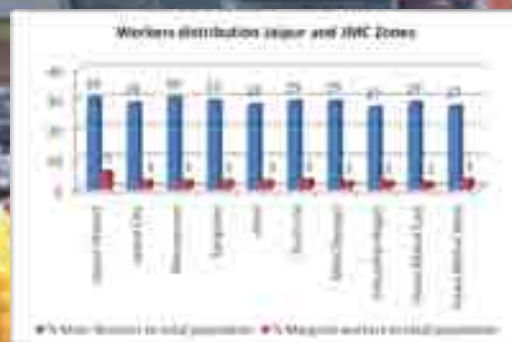
Source: Derived from Census of India 2001

The 2025 work force participation is estimated to be 35% as more employment opportunities are expected to come up.

Table 4-7: Work Force Participation Rate

Year	Male	Female	Total
1981	25.54	2.1	27.64
1991	25.82	2.6	28.42
2001	26.22	4.35	30.57

Chart 4-2 Workers Distribution-Jaipur



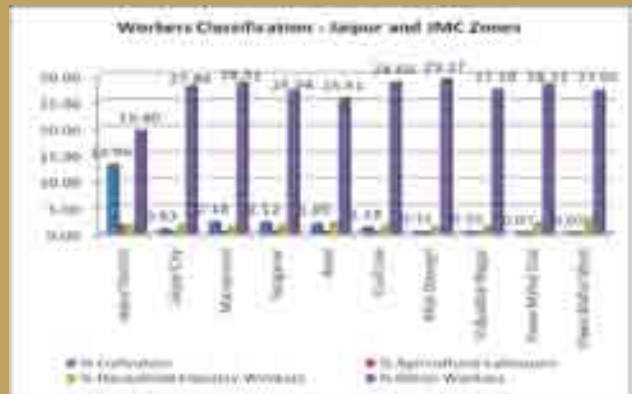
Source: Derived from Census of India 2001

The district of Jaipur which has 35% of the working population has 30% of Main workers and 5% as Marginal workers. Jaipur city has 28% of the Main workers and 2% of marginal workers.

The Mansarover zone in the JMC has the highest WFPR of 32% and has 30% of main workers and 2% of the marginal workers. Vidyadhar Nagar zone has the least WFPR which is only 29%.

Upon analyzing the percentage distribution of the various classifications of the workers, it can be seen that the Jaipur district has highest percentage of other workers which is 19.4% followed by 12.95% of cultivators and almost equal percentage of agricultural laborers and Household Industry workers which is 1.59% and 1.56% respectively as can be seen in the following table.

Chart 4-3 : Workers Classification Jaipur and JMC Zones- 2001



Source: Derived from Census of India 2001

In case of the Jaipur city, the city has maximum of percentage of other workers, i.e. 27.84%. Household industry workers in the city are 1.68%, 0.83% is cultivators and 0.22% are agricultural laborers.

Like the city, the zones also represent the similar characteristics of the workers are involved into the work. While the maximum percentage of the workers is under the category of other workers, a small but significant percentage of Household industry workers are also present. Hawa Mahal West and East Zone and Amer Zone has more than 2% of the household industry workers.

Table 4-8 Workers Classification in Jaipur and JMC Zones

Place	% Cultivators	% Agricultural Laborers	% Household Industry Workers	% Other Workers
Jaipur District	12.95	1.59	1.56	19.40
Jaipur City	0.83	0.22	1.68	27.84
Mansarovar Zone	2.18	0.44	1.29	28.51
Sanganer Zone	2.12	0.66	1.73	26.94
Amer Zone	1.89	0.46	2.00	25.61
Civil Line Zone	1.18	0.31	1.57	28.60
Moti Doongri Zone	0.31	0.12	1.32	29.17
Vidyadhar Nagar Zone	0.35	0.08	1.28	27.18
Hawa Mahal East Zone	0.07	0.03	2.06	28.23
Hawa Mahal West Zone	0.07	0.05	2.85	27.05

Source: Derived from Census of India 2001

4.5 Shelter

4.5.1 Housing and Urban Poor

(i) Households Growth Rate

Table 4-9: No. of Households and Household Size in JMC

Year	Population	Households	%Decadal HH growth rate	HH Size
1971	615258	107998	-	5.7
1981	977165	178296	65.1	5.5
1991	1458183	262560	47.2	5.6
2001	2322575	408888	55.7	5.7

Source: Derived from Census of India 2001

The growth of households in Jaipur city has been more than 50% in the last decade. The following table shows the decadal growth in households and the house hold size over the decades.

Table 4-10: Number of Households and Housing Units

Total households	Households with house	Houseless households	% Houseless households	Number of census houses	% of occupied census houses	% of vacant census houses
4,08,888	3,75,021	33,867	8.3	5,37,343	88.4	11.6

Source: Derived from Census of India 2001

As per 2001 census, the city of Jaipur (M.Corp.) has a total of 4,08,888 households out of 3,75,021 households have a house to live. Thus 8.3% of the households are houseless. Out of the 5,37,343 houses, 88.4% are occupied and 11.6% of the houses are lying vacant.



4.22% of the houses are semi permanent and 0.94% of the total houses are temporary of which 0.32% are non serviceable.

(ii) Households and Housing Units in City

Jaipur Municipal Corporation has a total of 4,74,751 houses as per Census of India 2001 out of which, 74.95% of the houses are used as residence, 3.3% are used as residence cum other use, 15.4% are used as shop and office, which totals to a 93.6%. The rest of 6.4% of the houses are used for purpose such as hotels, lodge, hospital, dispensary, factory, workshop and other non residential use.

(iii) Housing Conditions

2.45% and 1.5% of the total residence and residence cum other use houses are in dilapidated condition which needs attention.

(iv) Households Per Rooms and Ownership Status

Table 4-11: Distribution of Households By Number of Dwelling Rooms

HH Size	Total no. of HH	No exclusive Room	One room	Two rooms	Three rooms	Four rooms	Five rooms	Six rooms & above
All Households	375,021	2,846	111,035	101,524	68,092	46,034	19,304	26,186
% to total	100	0.8	29.6	27.1	18.2	12.3	5.1	7.0

Source: Derived from Census of India 2001

Of the total households, 29.6% of the households live in one room, 27.1% in two rooms and 18.2% in three rooms making 74.8 % of the total households. 0.8% of the total households live in no exclusive rooms.

4.5.2 Housing Supply System

Jaipur has a traditional architecture housing system in the walled city, which by date has experienced lot of changes in its original form. On the otherside 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. The proportion of housing supply by the various agencies has been as below.

Table 4-12: Housing Supply in Jaipur

Sl.	Housing	Nos.	Percentage
1	Traditional Housing (Walled City)	64,800	17.5
2	RHB Housing	61,385	16.5
3	JDA/UIT/Govt. Housing	76,090	20.5
4	Private and Coperative Societies	1,13,240	30.5
5	Katchhi Basties	55,680	15.0
	Total	3,71,195	100

Source- Census of India-2001 and Information collected from department

(i) Traditional Housing

The houses in the walled city have traditional architectural character giving due consideration to the orientation for wind and light. The houses of business class and well to do communities were of haveli type buildings with courtyard. The Havelies were of one chowk, two chowk or more chowks depending upon the status of the owner. The entrance of the havelies was generally from side street or lane having narrow doors. The peculiars feature of traditional housing of Jaipur was that the rear portion of Havelies or residential houses, these use to be a common open space, which used by children to play field and also a place of family gathering. Another unique feature of these houses was that there used to be a narrow 2-3 ft wide service lane in the side of the house as service lane to be cleaned by sweepers for dry latrines.

The character of traditional houses of the walled city is endangered due to housing demand as well as commercial expansion in the city. Most of these buildings are more than 150 years old having G+1 or G+2 structures. The maintenance of the buildings is not proper and living conditions are also not good due to scarcity of water, noise pollution, traffic problems etc. Therefore, people are moving outside the walled city. The havelies are now being converted into shopping malls and other commercial establishment.

(ii) Rajasthan Housing Board

R H Board has come out as one of the largest housing supplier in urban areas of Rajasthan. In Jaipur it has already developed seven major colonies providing about 61,384 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 as given below.



Table 4-13: Houses Planned by RHB in Jaipur

Sl.	Scheme	EWS	LIG	MIG -I	MIG -II	HIG	Total
1	Jawahar Nagar	22	1856	444	1100	300	3728
2	Shastri Nagar	861	520	70	16		1467
3	Van Vihar	576	176				1467
4	Malviya Nagar	5310	3740	1555	1128	560	12293
5	Jyoti Nagar	412	28	42	20		502
6	Pratap Nagar	2330	4050	2750	2725	1830	13685
7	Mansarovar	6817	3030	19155	5850	3105	28957
	Total / %	16328 / 26.60%	13400 / 21.83%	15016 / 24.46%	10839 / 17.66%	5801 / 9.45%	61384 / 100%

Source: RHB

(iii) Jaiur Development Authority/Urban Improvement Trust

JDA was established in 1982 in place of Urban Improvement Trust (UIT). The total housing stock provided by UIT upto 1981 was 23020 and afterwards JDA has taken up Residential schemes to meet the growing need of the housing. The JDA schemes caters to all income groups.

(iv) Co-operative Housing

Jaipur has experienced a typical residential development in respect of a large number of housing co-operative societies. As per information more than 1500 housing schemes / colonies have been registered by the co-operative societies providing more than 1.50 lakh plots. The challenge before the authority is to really make it part of development proposals. The schemes are named with ownership, planning norms etc, problems .

4.5.3 Housing Shortage

The housing shortage for 2001 is 144,042 and is expected to reach 2,78,412 by 2025.

Table4-14: Housing Shortage Jaipur 1961-2025

Year	Population	Houses	D.G.R (%)	House hold	D.G.R. (%)	House hold size	House Shortage (%)
1961	410376	76352	-	80420	-	5.1	-
1971	639768	103256	35.24	111256	38.34	5.75	-
1981	1015160	183741	77.95	184425	65.77	5.5	-
1991	1518325	269705	46.68	271916	47.44	5.58	-
2001	2322575	375021	39.05	408888	50.37	5.68	144042 (35.23%)
2011	3602000	543780	45	654909	60.17	5.5	-
2021	5419208	815670	50	1022492	56.13	5.3	-
2025	6495000	995117	55 (22.00)	1273529	61.38 (24.55)	5.1	278412 (21.86%)

Source: Derived from Census of India

The shortage is based on number of Households, housing stock, excess of Household over housing stock, congestion in households, obsolescence in households and up gradation of temporary houses as there is more of urbanization and an increasing trend towards more nuclear families, the need for housing also increases proportionately.

The need to be fulfilled by the adequate supply of houses in the form of residential townships, schemes etc.

4.5.4 Kachhi Basties Jaipur

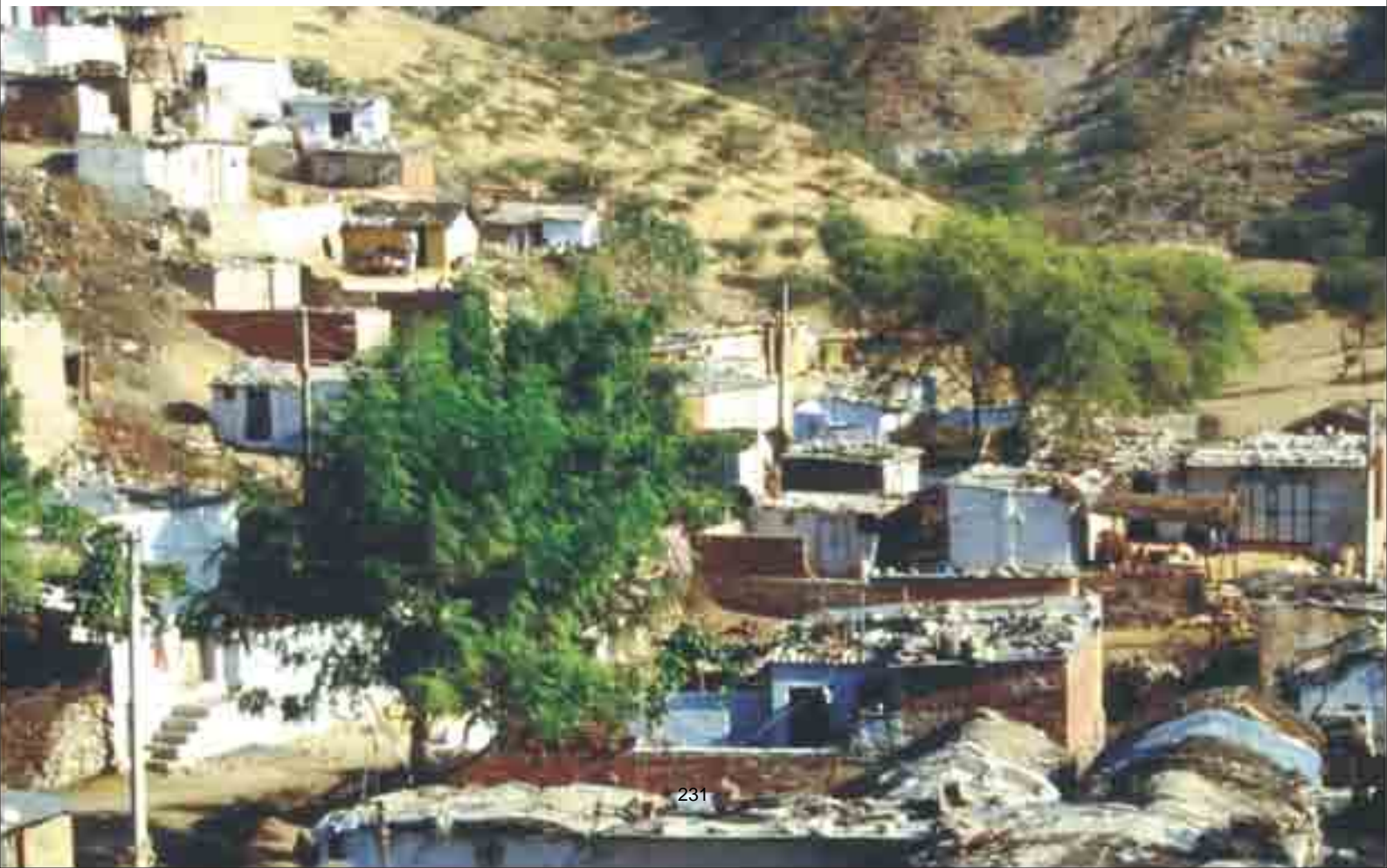
The city has a slum population of 3,68,670 persons accounting for 15.87% of the total population. The only million plus city of Rajasthan has the distinction of having largest slum population of Rajasthan. The city slum population when compared to Rajasthan population shows that the 28.48 percent of the State slum dwellers are residing in Jaipur.

Ward numbers 65, 29, 64, 63, 62&7 account for approximately 50% of the slums. The interesting feature of slums in Jaipur is that wards 59,60,61,62,63,64,65,66,67&68 are having large slum population and the presumption is that they are contiguous.

4.5.5 Housing survey

The detailed household survey was carried out in Jaipur city. Overall household data was collected by household survey like migration characteristics, occupational characteristics, travel characteristics and household characteristics. The analysis has been made according to survey data. The analysis of the survey data reveals that trade & commerce sector is the biggest employer and maximum households have monthly income of less than Rs. 10,000. The survey results indicate that travelling by foot is the predominant mode for travelling to work or education. A little over **25%** of the surveyed households are migrants in the Jaipur Municipal Corporation area. The average size of the households is 5.6.

The survey reveals that almost 90% of the structures consist of pucca structures and nearly two thirds (61%) of the structures are good in condition.





4.6

Trade and Commerce

4.6.1 Commercial Areas

Though the last master plan envisaged the development of District centres and hierarchical commercial establishments, none of them materialized. Very few planned commercial schemes operate in the city. The area around the old city has evolved into a commercial hub with streets and markets involved in business and sales like the MI road, Jayanti market, etc

(1) Walled City

The walled city of Jaipur acts as a Central Business District for the city **with over 60% of the commercial activities concentrated here**. It is famous for its traditional handicrafts, gems and jewelry, textile, wooden furniture, leather bags etc. The walled city has the traditional bazaar in Jaipur, not only attracting the locals, but also the tourists, the area has witnessed an increase in the traffic. Thus the walled city needs to be treated carefully and sensitively in view of its high density and multiple use.



(2) Planned Commercial Centers in urbanisable area

The planned commercial centres in the urbanisable area are:

- (a) Lal Kothi District Centre
- (b) Subhash Nagar District Centre
- (b) Vidyadhar Nagar Central Spine
- (c) Indira Place, JLN Marg
- (d) Jagatpura Central Spine



Apart from the above, commercial center in Vaishali Nagar and other road side commercial that have been planned and are currently supporting the activities which otherwise would have been supported by a hierarchical commercial centre.

(3) Unplanned Commercial Centers

Generally dominated by mixed use characterized of the 207 sq km developed area, this use is dominant when compared to the planned commercial area.



4.6.2 INFORMAL SECTOR-STREET VENDORS

The rapid growth of Jaipur, has witnessed a limited capacity to generate urban employment, particularly for the poor migrants to the city who seek a better life than their rural existence could offer. The result has been the emergence in the city of a large informal sector, which absorbs the migrant poor unable to attain permanent employment and serves the lower income market of the city.

The street vending activity forms a large part of the informal sector. The contribution of unhygienic street foods to total nutritional intake of poor is alarming.

The establishments are typically irregular, unstable and marginal. The concept of a street food vendor covers a broad range of activities. Street food vendors are disadvantaged due to lack of support from formal institutions to improve their businesses and keep hygienic form.



(ii) State Level Initiative

On the lines of National Policy described as above, the Govt of Rajasthan adopted a State Policy called Pheriwalo Ka Sansar in 2007 which is implemented in the State till date. In 2009, a model law was drafted by Government of India and was sent to the State Government for enactment in the State.

There is a Proposal for making a law for Street Vendors, the first of its kind in Rajasthan. It will be based on 'Model Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill 2009' by the Central Govt.

(Iii.) Jaipur Level Initiative

In order to give the vendors a dignified livelihood and living and simultaneously monitoring the hygiene and reducing health risks of consumers, the JMC has come out with a proposal to streamline the vendors in the city.

A Detailed project report and implementation for the scheme of Up-gradation of the quality of street food in Jaipur city is undertaken by Jaipur Municipal Corporation for street food vendors. The report is prepared by an NGO; HCMS (Hahnemann charitable mission society, an NGO). The main objective of this project is to help in reducing the risk of food born diseases through food served by vendors. It will upgrade the quality and taste of processed and unprocessed street food.

Under this project a detailed door to door survey of street vendors, in all 10 zones of city, is done to know the existing status and problem of street food vendors. During the survey there found a large number of loopholes/problems which ultimately increasing health problems and reducing tourism sector in Jaipur. The outcomes of survey are as follows:-

- Urgent need to educate vendors about the hazards and practical measures essential for food safety;
- Need for system of regular spot checks by trained personnel to correct unsanitary conditions and assist the vendors to accept and use improved hygienic practices;
- Need of Health insurance of them and their families;
- Licensing as a means of control & confirmation of their places for food cart;
- Illiterate vendors under unhygienic conditions operate.

Efforts are being made by the State Government to make it mandatory for the food vendors to register with the local authorities. The most important tool in improving quality of street food is personal hygiene & sanitation education. Regular inspection of work place and food handlers will ensure sanitation and personal hygiene practices.

The project aims to supervise the hygienic condition of food served at these kiosks, and also impart training to the vendors to maintain the same. Three categories of vendors have been identified--mobile, immobile, and those on bicycles. Each vendor would be allotted a kiosk for a period of 10 years, that could be renewed for another 10 years. Twenty years will be the maximum period for which a kiosk would be allotted to one vendor.

Besides this a project study "the Different ideas for licensing street vendors, especially in Indian old cities" is done by Mr Abhigna A S for vendor market of Jaipur. Key findings of study are:

- About 1/3rd of Road ROW in old city is occupied by street vendors. They sell their goods on carts and kiosks (thelas) outside permanent shops. These vendors sell fruit, vegetable, flower and clothing accessory, portable utensils, crockery, and food items cooked or packed etc.
- Land is sanctioned by JDA at two places for Vendor market
- In Vidyadhar Nagar, The fruit and vegetable market is equipped with electrification, toilet, parking and water facilities, a sweeper and an overnight guard to look after the stalls of the vendors in which the produce is simply covered.
- The Murlipura market is established on road side, and well organized with none of its 80 stalls encroaching the space that isn't theirs.
- Once properly settled vendors shall be able to open bank accounts and escape the clutches of moneylenders. The vendors, in a way, need to mobilize amongst themselves so as to become eligible for microfinance.

There is also a project on PPP mode for, 'hydrological restoration of Mansagar Lake which nestles the palace Jal Mahal'. The Project is planning to develop 100 acre land adjacent to the restored lake as tourist complex with recreational facilities. It would also include a craft Bazaar envisaged as an integrated complex for the artisans in Jaipur and around, who would be able to avail of all kinds of facilities related to production and sales outlets and design workshops in this complex. The Project will benefit the traditional poor and the informal sector workers. The major activators of the recreational programmes such as elephant ride, boat rides, setting up of stalls for souvenir and local food can be managed in the informal sector.

The township policy makes provisions for informal sector in upcoming township schemes under "Jansathi Scheme". As per norms 6 % commercial area is to be earmarked in townships and accordingly

- 2% area from 6% commercial to be set apart for convenient shopping/ Kiosks / informal sector.
- Colonies developed by JDA/ RHB/ provides for 2% towards informal sector
- Residential complex provides for 1.5% plinth area reserved for informal sector (Kiosk) on stilt level. The space shall be allotted at concessional price.

SEWA (All India federation of Self employed women's association) is a federation of membership-based organisations. It is a labour union of poor self-employed women workers in the informal economy. It mandate to highlight issues concerning women working in the informal sector, and to strengthen the capacity of the organisations that serve the interests of these women.

In December 2006, SEWA extended its work to Jaipur with the aim to organise the street vendors and hawkers trading in vegetables, old clothes, and earthenware etc. Currently, SEWA has its presence in six areas of Jaipur. Vending is the primary source of income for most of the women here. Besides this, there are women doing embroidery and some who are traditional drum players. SEWA also proposes an exclusive 'Ladies' Market' concept to the Jaipur Municipal Corporation (JMC), which will be a well-designed place, and can be developed as a tourist spot.

4.7

Wholesale Trade

A majority of other specialty markets other than the above lie in the old city which still has the street marketing flavor or the traditional bazaars.

4.7.1 Wholesale Market

The Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale like outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing.

The major markets under wholesale trade are given below. Surajpole is the largest grain market. Respective wholesale markets are listed below

Table 4-15 Wholesale Markets in Jaipur City

S.No.	Type of Market	Location Area
1	Grain Market	Surajpole
		Mahapura-Kukarkhera
2	Fruit And Vegetable Markets	Muhana Terminal Market
3	Building Material	Agra Road
		VKIA
		Kalwar road
4	Iron and Steel Hardware	Chaura Rasta, Sansarchandra Road, Loha Mandi and Machua
5	Lakkad, patthar mandi	Admasaili, Delhi Bye Pass
6	Slaughter House	Chainpura, Ramgarh Road

(1) Fruit and vegetable market

Wholesale fruit and vegetable produce comes to Jaipur from the surrounding villages and districts like Ajmer. The produce is marketed to Delhi, Punjab and other nearby States.

The Lal kothi Mandi was shifted in 2007 to Muhana Terminal market. It is situated on 138 ha of land.

(2) Grain Market

Grain market comprises of the main Surajpole market and the sub-yards. Shifting of the Chandpole grain mandi is already in progress to Mahapura Kukarkhera.

(3) Specialized Markets

Certain specialized markets exist which market only one type of product. These are generally non-perishable and non-daily usable goods markets like building materials, electronics, electrical, vehicle parts, etc.

Table 4-16: Specialized Markets in Jaipur City

Sr. No	Name	Specialization
1	New Aatish market	Building materials
2	Jayanti Bazaar	Electronics
3	Delhi Bye-Pass	Truck and Bus body-building parts

4.8 Industry

4.8.1 Organized Industrial areas

There are 6 major industrial areas in the city namely V.K.I.A., Jhotwara, Kanakpura and Bindayaka in the north west, Sitapura and Sanganer industrial areas towards the south of the city and Malviya industrial area towards south east.

4.8.2 Unorganized Industrial areas

The unorganized industry is mainly concentrated in the Sanganer town and surroundings.

4.8.3 Household Industry

A number of household industries are present in Jaipur, mostly in walled city and engaged in works such as stone cutting and polishing, blue pottery, lac work, gota sculptures etc. The household industries are acting as savior to the traditional art and craft for which Jaipur is famous. A total of 5.09 percent of workers are engaged in the household industry as per the census 2001.



4.8.4 General Manufacturing Industries

The growth of manufacturing Industry is an important component of the economy.

- Master Plan 1991 envisaged 1805 Ha, however development could be taken place in 1007 Ha.
- Master Plan 2011 envisaged 1862 Ha. (6% of the urbanisable area) however 1600 Ha. developed.

The main industrial products are ball bearings, ceramics, pottery dyeing and printing, electronic items, engraving on brass items, ferrous and non ferrous castings, gems and jewellery electrical appliances, marble statues, marble tiles and slabs, PVC units, Food products etc.

The export items centered around Brass and lacquer work, enamel work, gems and jewellery, Granite tiles, handloom, marble statues, printed cloth and textiles, readymade garments and woollen carpets.

These are produced by organised industrial area and as well as unorganised industrial areas. Efforts have been made by the govt. to give incentives for the both.

- The large and medium scale industries in Jaipur District have attracted an investment of 151681 cores (March 2007) and product output equivalent to 139899 cores.
- List of large and medium scale industries as on March07 in Jaipur Region

Units	83
Operational	36
Closed	41
Pipeline	6
Employment	9638

- The alarming rate of closure needs retrospection and a favourable atmosphere need to be ushered.
- The scenario is more favourable to the development of small scale Industries and house hold industries and positively for service sector.
- The small scale industrial sector in the urban area of Jaipur increased with their corresponding investments.

- The textile and food industries registered under SSI recorded maximum annual growths of 60%. It is noteworthy that a large number of unregistered units are in operation and they employ approximately twice the work force engaged in registered units.
- RSIC assists artisans, promotes Rajasthan Handicrafts by marketing them.
- Availability of land is crucial for SSI.
- Household industry began in the 18th century in the narrow lanes of Jaipur through lac industry. Today it is a booming business, with its products finding their way to places like Europe. In the recent past it has successfully broken from its traditional image of making bangles to produce exquisite jewellery and gift items. The industry employed 17000 workers in 1991 which doubled to 33000.
- The following agencies promote Industries.
 - The Bureau of Industrial Promotion.
 - The Rajasthan Financial Corporation.

The commission rate of Industries is the organization through which the Govt implements, operates and executes various schemes.

- Looking in to the strategic location of Jaipur on the map of India, Jaipur may and need to be made to become hub for Education sector and Knowledge based Industrial sector.
- The Industrial areas need to be equipped with.
 - Water harvesting system. Ground water and surface water recharge.
 - Recycling (S.T.P.) Pollution control measures.

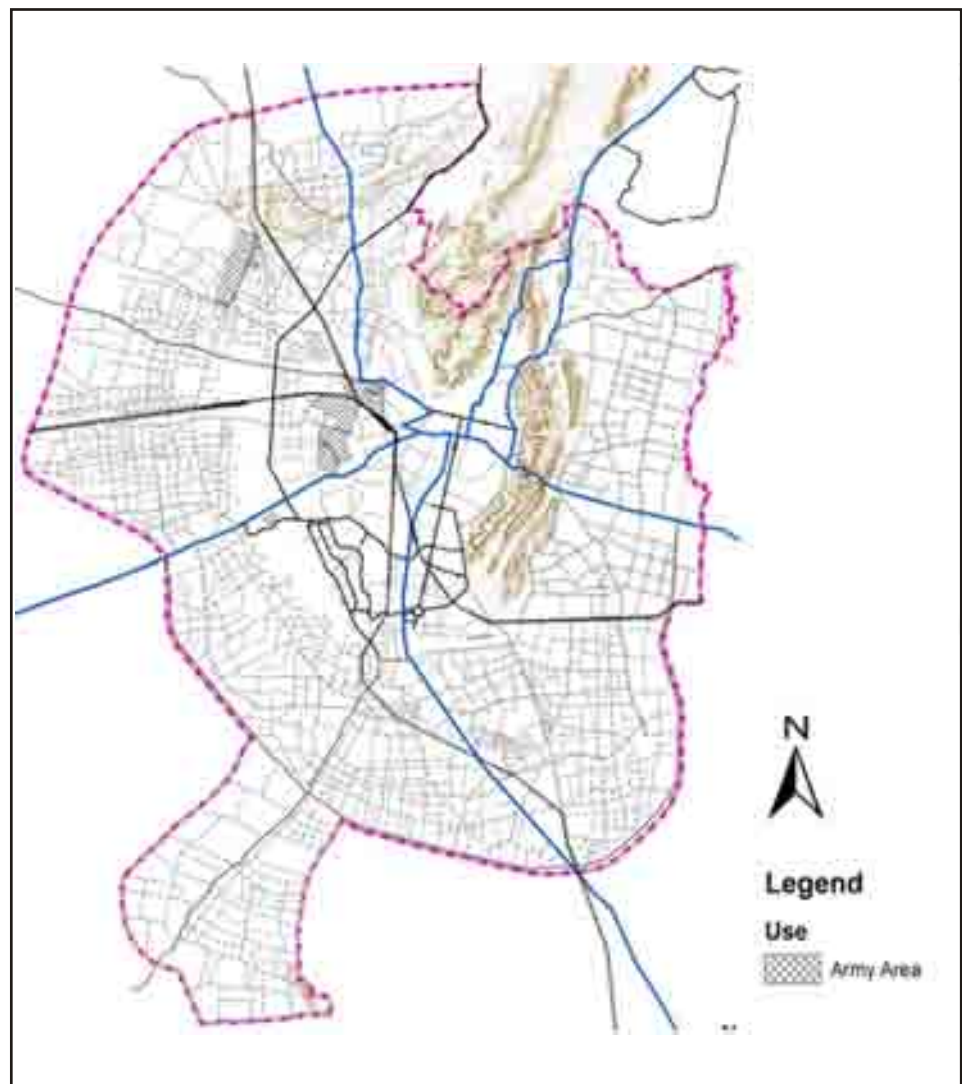
4.9

Army Area

The following are Govt. reserved areas in and around Jaipur:

- I. A large extensive army area is situated west of Collectrate and east or Vaishali Nagar.
- II. Area situated north or Niwaru Road South or neared Benad popularly known as Niwaru field firing range.
- III. A small area situated South of Heerapura grid station (South of Ajmer Road)
- IV. Air force area situated West of Kanak Brindavan
- V. The CRPF area situated on SH-55 (Jamwa Ramgarh).

Map 4-10 Army Area in U1



4.10

Conservation of Built Heritage

4.10.1 Heritage & Tourism

Jaipur is famous for its rich cultural heritage. The city boasts of tangible heritage such as buildings and physical elements of architectural and historical significance, and intangible heritage, which includes movable artifacts, handicrafts, folklore, music, literature. Strong cultural identity, rich heritage and unique experiences of the city attract large number of foreign and domestic tourists.

(i) Golden Triangle

The world famous "Golden Triangle" comprising of Delhi-Agra-Jaipur has put Jaipur on the world tourism map. Almost 60% of international tourists visiting India, come to these places. The triangular tourism corridor, which really comprises of three nodal cities Delhi, Jaipur and Agra is called so (Golden) because of its popularity and the high revenue it generates through tourism.

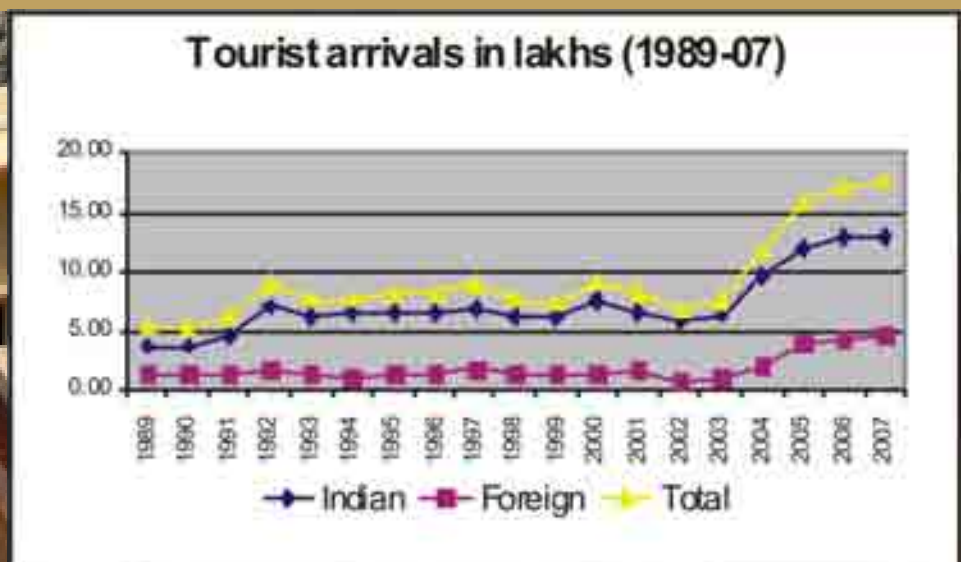
(ii) Jaipur Circuit

There are 9 circuits in Rajasthan and Jaipur forms the part of Dhundhar circuit. The circuit comprises of Jaipur-Samod-Ramgarh-Dausa.

(iii) Tourist Arrivals

Statistics from the office of tourism shows that there has been a rise in number of visitors from 5.4 lakhs to 17.52 lakhs persons.

Chart 4-4 Tourist arrivals in Jaipur



(iv) Tourist Attractions

Places of tourist attractions in the city of Jaipur are as follows

- (1) Walled City of Jaipur (City Palace, Maharja Swai Man Singh(II) Museum, Hawa Mahal, Jantar Mantar, Bazaars)
- (2) Outside walled city:
 - (a) Forts- Amber, Jaigarh, Nahargarh, MotiDoongri
 - (b) Palaces- Jal Mahal, Rambagh
 - (c) Sacred Shrines- Ganesh Mandir, Birla Mandir, Jagat Shrimon Temple, Shila Mata Temple, Galtaji
 - (d) Parks and Gardens- Ghat ki Ghuni, Kanak Vrindavan, Ram Niwas Garden
 - (e) Museums- Govt. Central Museum (Albeart Hall)

4.10.2 The Heritage Resources of Jaipur

The Heritage Resources of the city of Jaipur can be broadly categorized into four sections: a) Built Heritage, b) Natural Heritage, c) Cultural Heritage and d) Art/Archival Heritage

This categorization has already been outlined earlier in the Built Heritage Management Plan for Jaipur (2007). However, for the purpose of the Jaipur Master Plan 2025, it is only the significant tangible heritage i.e. Built Heritage and Natural Heritage of the city that needs to be addressed.

Amber Fort as seen in Google Maps

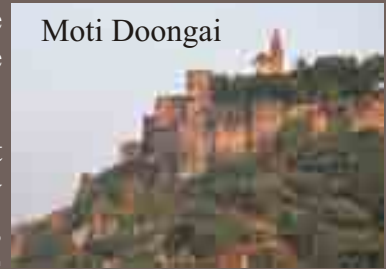


It is important the natural heritage resources of the city such as the hills, forest areas, water catchment and rivers etc. are integrated in the Master Plan development. It is equally important that the built heritage of the city including the streetscapes, historic water systems and the range of architectural types are conserved, reused and developed with proper planning as outlined in the Master Plan. Another crucial point that needs to be acknowledged is that the natural and built heritage of the city are in most cases overlapping and share a symbiotic relationship with each other. Hence, any future planning for heritage zones needs to incorporate a holistic approach that addresses the area in totality along with its built and natural heritage.

(I) Built Heritage

The built heritage of Jaipur is listed as heritage zones, heritage precincts/areas and heritage structures/buildings :

Moti Doongai



a) The urban settlement level that includes areas such as the walled city of Jaipur, earlier hill town of Amber, Sanganer; smaller fortified towns such as Chomu, Kanota or natural and built heritage zones such as Ghat ki Guni with Galta Complex etc. These are categorized as Heritage Zones that require special conservation planning.

b) An area or precinct, a street within these heritage zones or outside that possesses unique heritage characteristics and identity of its own such as Chaura Raasta and other commercial streets in the walled city or MI Road outside the walled city. These are categorized as Heritage precincts.

c) The range of architectural types standing as individual monuments or as part of the walled settlements. These may further be categorized into subtypes as per their architectural characteristics to formulate specific urban controls. These are categorized under heritage structures as follows:

Birla Mandir



- Fort and Palaces
- City Walls and Gates
- Temples and Religious Buildings
- Havelis and Houses
- Public and Commercial Buildings
- Wells and Bavdis
- Cenotaphs, Tombs and Memorials

Following table outlines the quantum and nature of the built heritage resources in Jaipur.

Table 4-17 Built heritage resources in Jaipur

S. No.	Built Heritage Types	Total No.
1	Heritage Zones	9
2	Heritage Precincts	17
3	Heritage Structures	709

The topology of heritage structures listed within and outside the walled city is as follows:

The built heritage of Jaipur as identified above requires to be addressed in varied manner as per its characteristics and location within the urban fabric.

(ii) Natural Heritage

Jaipur is an area rich in natural resources comprising of a unique geomorphology with the surrounding Aravallis belt and a range of tributaries and water bodies contributing to its eco system. Though an extensive listing of the natural heritage of the city is essential and needs to be done, the primary natural heritage features of the city can be listed as follows:

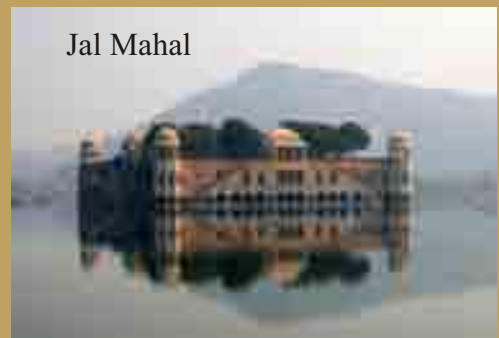
a) Hills

Jhalana Doongri
Amagarh Hills
Amber and Jaigarh hills
Nahargarh Hills
Moti Doongri

b) Water bodies

Amani Shah Nallah
Lake Maota and other water catchments of Amber town
Mansagar
Sagar Lake
Ramgarh Lake
Kundlac Talab
Kadamb Kund

Jal Mahal



Jantar Mantar, Jaipur



Integrating natural heritage areas in master planning is one of the most crucial aspect hence, the Jaipur Master Plan 2025 has used an analysis by GSI to demarcate the eco sensitive areas which are prescribed to be developed as low density areas. Environment Management Plans need to be developed for special areas.

4.10.3 Institutional Framework for Heritage

The protection and conservation of built and natural heritage in Jaipur comes under the jurisdiction of several government organizations. Two main government bodies responsible for built heritage conservation are the Department of Arts and Culture and the Department of Tourism. The protection of natural heritage resources of the city primarily falls under the jurisdiction of the Irrigation Department or the Forest Department.

However, with majority of heritage zones, heritage precincts and heritage structures (built and natural) of the city come under the Jaipur Nagar Nigam. Hence, it becomes crucial to equip this local body with adequate heritage conservation skills and capacity. It is important that -

- All Heritage Conservation works specifically implementation on sites shall be monitored by a single agency.
- Only specific organizations such as Department of Art and Culture, Amber Development and Management Authority etc. which are familiar with conservation works and have empaneled conservation architects shall deal with heritage conservation projects
- JNN should be equipped to deal with heritage conservation works through a special Heritage Cell established within the organization.
- More incentives for Public Private Partnership in Heritage Conservation works shall be encouraged.

The Jaipur Nagar Nigam shall form a technical Heritage Committee for the purpose of

- Strategic advice regarding Heritage Conservation Planning and Projects
- Screening all approvals/changes proposed for protected/listed heritage
- Assisting the Municipal Corporation in drafting Terms of Reference's (TOR's) and guiding consultants who prepare Heritage DPRs with regular feedback on their work;
- Ensuring alignment of the heritage conservation DPR with the Heritage Management Plan, and resolving any conflicts of interest with other DPRs
- Assisting in the formation of the Heritage Cell under the Municipal Corporation

- Acting as an advisory body for the functioning of the Heritage Cell
- Acting as a nodal body between the planning level and the project level activities, ensuring that the focus towards heritage conservation is not lost
- Advising the District Collectors Office and the Municipal Corporation in implementation of the projects outlined in the DPRs

The Heritage Committee may comprise of the Principal Officer from relevant government departments, experts from UNESCO/ national organisations like INTACH/ other NGO's, eminent specialists in architecture, urbanism, landscape, ecology, sociology, economy and representatives from local NGO's.

The Jaipur Nagar Nigam already has a technical Heritage Cell. The primary role of the Heritage Cell within the Municipal Corporation is to sensitize the municipal system, and the local communities with all aspects of urban heritage. The Heritage Cell needs to take up the role of a Catalyst, educator, facilitator and coordinator in carrying out heritage programmes in the city including strategic partnerships with interested N.G.Os, professionals, local welfare associations and voluntary agencies.

Role of the Heritage Cell can be outlined as:

- Devising Heritage bye-laws in the General Development Control Regulations to ensure protection of the listed heritage properties.
- Promoting Community participation in urban heritage conservation such as holding meetings where to discuss strategies for conservation and development of the heritage areas
- Organizing cultural and community programmes with local residents.
- Providing support for publications of relevant documents - manuals etc. for heritage conservation

The composition of a Heritage Cell comprises of 4 areas including research and documentation team, technical team, administrative team and a volunteers team involving local NGO'S, institution etc.

Jaipur Development Authority/Government of Rajasthan became member of the UNESCO led Indian Heritage cities network (IHCN).

Towards reaching goals Amber Development Plan with zoning is being embarked upon.

4.10.4 Conservation Strategy and Heritage Management Plans

The conservation strategy for the identified heritage zones and areas in the city needs to be evolved as per their natural, historic, architectural, archeological, scientific, social and economic significance. Hence, a comprehensive documentation, listing and assessment of significance is a prerequisite for evolving any development plan for the natural and built heritage zones identified in the Master Plan and outlined in the Zonal Plans.

Based on the heritage characteristics and the potential for development, each heritage zone should have either one or more of the following plans for development:

- Environmental Impact Assessment/ Management Plan
- Special Zone Regeneration/Renewal/ Decongestion Plan
- Heritage Management Plan/ Conservation Plan
- Heritage Tourism Development Plan

Such plans and their subsequent influence zone need to be detailed at Zonal level and beyond that. The Master Plan only provides an outline of planning work to be carried out at the zonal level.



4.11

Transportation

4.11.1 Traffic and Transportation

(i) Road Network

The transport system of Jaipur city is mainly road based. The road network characteristics are very different for the walled city and the areas outside. The walled city has a grid pattern of roads and most of the wholesale and retail trade activities are located in the walled city. The road network follows a hierarchy. The major East-West, Surajpol-Chandpol road and North-South Roads, which form the sector boundaries, measure 33 m wide. Following this, there is a network of 16.5 m wide roads which run North-South in each sector linking internal areas of the sectors to the major activity spine formed by the major roads.

Jaipur city has around 10 major arterial spines that criss-cross the entire city. Tonk road is a major arterial road that connects some of the major employment centers like Sanganer, Durgapura and Lal Kothi. The section of the Tonk road from Gandhi Nagar to Ramniwas Garden is known as Sawai Ramsingh Road. M.I. Road runs from Ghat Gate to Railway Station Road connecting high employment areas like Banni Park, Sindhi Camp and Transport Nagar. J.L.N. Marg runs straight from Jawahar circle to Ramniwas Garden and has many important sites like Laxmi Narayan Temple, Albert Hall, Rajasthan University and other institutions on its either side. Ajmer road connects Ajmer and Jaipur. It terminates in Jaipur at the intersection of MI Road. Khatipura road starts from the railway station and runs towards Khatipura lying to the west of the city. Numbers of Level railway crossings are the places of heavy traffic delays on roads in Jaipur city.

Vehicle Growth

The travel needs in the city are catered to by a variety of modes of transport in the form of buses operated by RSRTC, mini buses run by private operators, auto rickshaws and private vehicles such as cars, two wheelers and cycles. There is resulting in steep

Table 4-18: Vehicle Registration in Jaipur District (1980-81 to 2005-06)

YEAR	Auto Rick.	Goods	Car/Jeep	Two Wheeler	Buses	Total	Growth (%)
1980-81	2,361	14,839	14,418	44,808	4841	81,267	-
1985-86	3,469	21,053	20,410	91,732	6609	1,43,273	15.26
1990-91	4,778	27,965	33,274	1,91,683	8554	2,66,254	17.17
1995-96	5,931	37,586	50,015	3,00,294	11,673	4,05,499	10.46
2000-01	8,228	51,863	88,354	4,80,570	14,752	6,43,767	11.75
2005-06	13,348	74,233	1,55,743	7,89,559	16,626	10,49,509	12.60

Source: Transport Department, Jaipur



A comparison of growth trends of motor vehicles in four mega cities and Jaipur city is presented in Table 4-19. The total number of vehicles in Jaipur is about half of vehicles in Chennai and Mumbai and rate of growth is less than the other metropolitan cities of the country.

Table 4-19: Growth Trends of Motor Vehicles- India & Mega cities (in '000)

Year	All India	Delhi	Mumbai	Kolkata	Chennai	Jaipur
1981	5,371	536	307	-	120	81
1986	10,577	961	480	339	228	143
1991	21,374	1,813	629	475	544	266
1996	33,783	2,630	724	588	812	405
1998	40,939	3,033	860	664	975	510
2001	58,924	3,925	1,350	1,051	1,354	643

Source: Motor Transport Statistics of India, MoST, Govt. of India

(iii.) Accident Trends

Accident trends on the road network highlight the safety of the road users and conditions of traffic. The inability to segregate fast and slow moving modes of transport on urban network has resulted in serious safety problems in the city. Trends in accidents in Jaipur city have are presented in Table 3-19. The fatality rate per ten thousand motor vehicles has decreased many folds which are a result of constant mentoring and enforcement of strict traffic rules and regulations in the city.

Table 4-20: Trends in Road Accidents in Jaipur City

Year	Population (in lakhs)	Motor Vehicles (in lakhs)	Road deaths	Total road accidents	Fatality rate per 10,000 motor vehicles	Accident rate per lakh population
1981	10.15	0.81	51	300	6.5	30
1991	15.18	2.66	207	2,077	8	138
1999	20.37	5.41	280	1,775	5	89
2000	21.14	5.97	267	2,120	4.5	100
2001	23.24	6.43	236	1,924	3.7	83
2004	-	8.23	347	2,043	2.37	-
2005	-	9.23	416	2,367	2.22	-
2006	-	10.49	453	2,379	2.32	-

Source: Traffic Police, Jaipur

4.11.2 Transport Surveys

(i.) Traffic Surveys

- ❖ Traffic volume count conducted for 16 hours and 24 hours at mid blocks, screen lines, intersections and outer cordons.
- ❖ Classified volume counts and origin destination surveys for passenger and goods vehicles were carried out at ten locations to capture the traffic entering and exiting the city.
- ❖ Extensive parking surveys using vehicle registration method were conducted at major on street and off street locations of the city.
- ❖ Operators of Public transport and IPT were interviewed at important bus stops, terminals and auto rickshaw stands.
- ❖ Important road and rail passenger terminal surveys have been done to assess the passenger and terminal characteristics in Jaipur city.

(ii.) Transport Data Analysis

The field data collected as a part of the study has been compiled and analyzed using appropriate techniques to obtain base year traffic and travel characteristics of the city.

A road network of about 600 km length including arterial, sub arterial and other important roads was taken up for inventory survey. The right of way of roads is sufficient in Jaipur as 18 % of the roads surveyed have ROW less than 30m., about 32% of roads have ROW 30m and rest 50 % of the roads have ROW in excess of 30m.

Footpaths, an important provision for movement of pedestrians along the road, has been found to be missing in majority of the roads

Abutting land use along the road is very important for the functioning of the road and the characteristics of abutting land use on left and right of the network is presented in Table 3-21. It can be observed from the table that 13 % of the road network has commercial land use along the road, 15 % has industrial and 34 % has residential land use as predominant along the road.



Table 4-21: Cross Section Details of Major Road Network

S. No	Road Name	Length (Km.)	ROW (m)	Carriageway Details(m)			Footpath /Shoulder (m)
				CW-Lett	Median Width	CW-Right	
1	Agra Road	19.200	28.644	7.9	1.16	8.8	6.6
2	Airport Road	14.200	54.500	7	2	11.5	16.52
3	Ajmer Road	33.600	35.560	8.300	1.26	8.04	4.38
4	Albert Hall Road	7.400	37.980	10.660	0.5	8.5	7.93
5	Amber Road	22.800	27.140	9.000	1.67	8.12	3.7
6	Amrapali Road	1.800	25.000	12			4.5
7	Ashok Marg	5500	22.700	14.2			1.5
8	Bhawani Singh Road	3.800	33.250	11.5	4.16	9.16	3
9	Bye-pass	85.200	59.070	10.070	2	10.07	6.92
10	Chandpol Bazar Road	2.000	35.200	7.500	1.200	7.500	5.500
11	Durgapura Pulia Marg	16.200	46.800	7.1			18.25
12	Gandhi Marg	5.000	29.750	13.250	1	11.5	2.75
13	Gopal Pura Bypass	16.800	40.450	10.630	1.25	9.75	5.09
14	Govind Marg	4.300	19.200	13.53			2.5
15	Hawa Sadak	3.000	29.750	13.250			3.5
16	Imli Fatak Link Road	6.400	24.930	5.000			1
17	Jagatpura Road	31.200	25.470	10.300			7.66
18	Jagatpura- Agra Link Road	33.800	12.500	6.160			3.16
19	Janpath Road	2.600	20.250	10.250			2.5
20	Jawahar Nagar Marg	4.800	18.670	8.500			3
21	Jhalana Doongri (NH-8 Bye-pass)	44.800	28.830	10.930	2.5	10.930	3.94
22	Jhotwara Road	17.400	32.790	11.560	1.2	10.775	7.5
23	JLN Marg	19.100	43.120	11.360	1.64	10.32	4.17
24	Jhohari Bazar Road	2.400	43.550	8.250	0.75	8	3.5
25	Khatipura Road	3.800	43.830	12.000	1	7.5	1
26	M I Road	4.700	30.290	14.780	1	11.5	2.85
27	Madhyam Marg	8,680	23.760	7.350	0.95	7.35	4.5
28	Mansrover Road	13.800	52.330	7.500	1.26	7.5	9.68
29	Malviya Nagar Marg	4.900	28.400	8.000	1.2	8.2	2.5
30	Mahal Road	23.000	32.000	6.800	5.85	7.25	12.5
31	Moti Doongri Marg	4.300	28.340	9.600			4.42
32	New Sanganer Road	4.880	30.550	14.500			8.1
33	Prithavi Raj Road	4.300	25.600	13.500			5.4
34	Queen Marg	10.000	28,900	12.000	1.2	10.5	2.5
35	Railway Station Road	4.200	35.050	9.330	0.83	9.75	6.16
36	Saradar Patel Marg	3.200	31.930	10.330	1.1	10.5	2.5
37	Shantipath	5.800	21.030	12.275			2.5
38	Tonk Road	43.580	39.440	11.460]	1.2	10.92	4.68
39	Water Work Road	3.000	18.500	9.500			4.75

Source: DHV Primary Survey, 2007

↑ टोंक रोड
TONK ROAD

↑ एअरपोर्ट
AIRPORT

↑ दुर्गापुर रेल्वे स्टेशन
DURGAPURA RLY. STATION

↑ जे एन एन मार्ग
J.N.MARG

सिटी बस
CITY BUS

एन सी
N.S.I

TATA

ROMO

Need it now?
GPRS for the day @
3000 RSRS IN CASH.

Do the new.

Table 4-22: Abutting Land Use along Road Network

S.No	ABUTTING LAND USE	LEFT SIDE		RIGHT SIDE		TOTAL(% age)
		ROAD LENGTH (in Km.)	% age	ROAD LENGTH (in Km.)	%age	
1	Residential	204.73	34.06%	208.28	34.64%	34.35%
2	Commercial	51.27	8.53%	47.67	7.93%	8.23%
3	Residential & Commercial	27.60	4.59%	29.45	4.90%	4.74%
4	Public And Semi Public	42.40	7.05%	38.80	6.45%	6.75%
5	Industrial	90.24	15.01%	88.64	14.74%	14.88%
6	Agricultural	0.10	0.02%	0.10	0.02%	0.02%
7	Open/Green	17180	28.58%	177.40	29.50%	29.04%
8	Mixed	12.90	2.15%	11.00	1.83%	1.99%
	TOTAL	601.04	100.00%	601.34	100.00%	100.00%

Source: DHV Primary Survey, 2007

Mixed traffic flows, narrow stretches due to encroachment, delays at traffic signals and the railway crossings within the city are causes for delays on the network.

- The share of two wheelers in the traffic stream is maximum among all the category of vehicles.
- The maximum peak hour traffic flows are in the range of 2500 PCU to 3000 PCU.

(iii) Parking Characteristics

Overall growth coupled with inadequate public transport system has given rise to increased private vehicles on the road network creating problems of parking on other roads also like M.I. Road and Sansar Chandra Road in Jaipur. This necessitates the provision of proper off street parking places and regulations of their use. There are very few off street parking facilities except small parking lots at Ram Niwas Bagh, Panch Batti, Ram Lila Ground, Sanjay Market etc.



(iv) Public Transportation System and Operations

The public transport that is available for the general public in the city are buses operated by Rajasthan State Road Transport Corporation (RSRTC), mini buses run by private operators, auto - rickshaws, Vikram (Tempos), and cycle rickshaws in the form of Intermediate Public Transport and personalized modes such as cars, two-wheelers and cycles. Rajasthan State Road Transport Corporation (RSRTC) operates all over the State having more than 5,000 buses and over 13,000 services to all important places in Rajasthan and adjoining States of Gujarat, Haryana, Punjab, Delhi, Uttar Pradesh, Himachal Pradesh. Around 40 mini bus routes operate in the city. There are 4 government bus depots namely, Vaishali, Sanganer, Jhalana and Vidhyadhar Nagar. At present there are 185 bus routes operating in the city.

(A) Public Transport System

At present the modal split of the Jaipur city for the base year 2009 is as follows.

Public transportation system facilities in the city are grossly inadequate. As of now public transport receive 18.5% patronage and to reverse the trend/situation a large investments in the public transportation system is to be made.

The city is basically remaining under low income (as per International standards) for next 20 years.

Table 4-23 modal split of the Jaipur city

Mode	Modal Share %
Walk	26
Cycle/cycle rickshaw	6
Two wheeler	27
Car	8
Auto	6
Taxi	8
Bus transport(both private and Public)	18.5
Train	0.5
Total	100

- Very high ownership of motorized two wheelers
- The cost of running/operating two wheelers determines the FSIs collection of public transport system and it will be difficult to attract users if the FSIs are set high
- Mixed land use patterns hamper the strict zoning



(B) Terminal Characteristics

Bus Terminal at Sindhi Camp

The expanding city of Jaipur and its growing mobility of population has created an increased demand for travel between different cities. To access this Sindhi camp bus terminal intercity long distance buses have to pass through congested city roads of Jaipur, resulting in delays and increased congestion on these roads.

Agra Road, Delhi Road, Ajmer Road and Bikaner Road are the most important intercity bus entry routes to Jaipur. In addition to RSRTC buses, private buses also operate from Jaipur to various cities from Polo victory Cinema that is also close to Sindhi camp bus terminal.

Boarding/Alighting of Passengers

Result of the boarding / alighting surveys at seven bus terminals and four rail terminals for 12 hours, which are indicative of the quantum of terminal users. It can be observed that about 43,000 bus passengers and more than passengers are boarding / alighting at study terminals.

(v.) Rail Network

Existing railway station in Jaipur is already handling about 80,000 passengers per day which is expected to grow to 200,000 by 2025. With the growth of Jaipur, the current railway station is now falling in one of the most congested part of the city with very limited scope for improving. The approaches to it are difficult without carrying out substantial land acquisition/ demolition of structures. The congestion at Jaipur Station is further expected to grow over time. Jaipur is identified as one of the station to be upgraded to a World Class Station for which consultants have been appointed by Railways.

(iv.) Goods Yard and Freight Stations

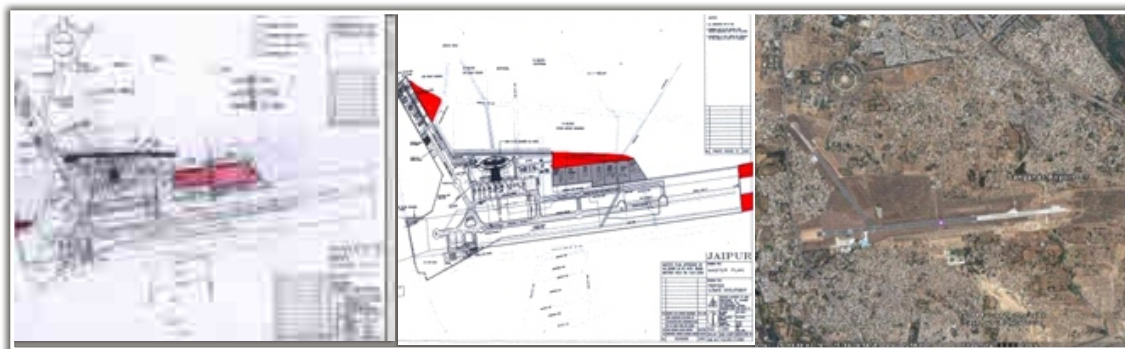
The Existing goods yard and ICD on Kanakpura are facing constraint in terms of movement of goods.

(vii.) Air Connectivity

The Jaipur Airport is developing into a major air traffic terminal. Jaipur is being near to Delhi an added advantage have is given to the proposals for expanding airport related activities.

- First Airport in India to get IMS (Integrated Management System) certification. IMS includes ISO 9001, ISO 14001 and OHSAS 18001 certificates.
- Jaipur experiences phenomenal rise in air traffic. Passenger traffic increase by 77% in 2006 -07 compared to 2005-06.
- It remains a preferred airport for diversions /training and charter flights.
- Being upgraded to cat II
- All major Airline operators (Domestics & Internationals) are operating through Jaipur.
- Jaipur is connected via air to : New Delhi, Mumbai, Kolkata, Gauhati, Hyderabad, Banglurur, Goa, Udaipur, Jodhpur, Jaselmer, Agra, Cochin, Chennai, Ahmedabad, Dubai, Sharjah, Muscat
- The terminal II started operating in the north of the airport.

At present total land available 716 acres, initially additional land requested from State Government 146 acres, due to people's agitation replanning took place for 64 acres instead of 146 acres. New requirement of 50 acres projected on vacant land.



For futuristic growth (15-20) years) in order to provide flight kitchens, HAJ terminal, RWY extension, cat II operations, new site for international / domestic cargo complex, helicopter landing area, IAF and Army area (authorities desire land at the airport for their operational requirements), additional parking bays, relocation of DVOR, runway extension, city side development through private participation, isolation bay for b747, hangars, mt. workshop, category ix fire station area is required. The prescribed expansion is taken into account in the preparation of the land use plan.

Mass rapid transit system, identification of right kind of system of BRTS/MRTS. Frequent bus connectivity (every 10 minutes), additional multilevel taxi/car parking and other such provisions required to enhance the present airport connectivity.

4.12 Social Infrastructure

The social infrastructure facilities include health care, education, recreational & socio cultural facilities, safety and public semi public. The available facilities are given below:

4.12.1 Health Care

The following table represents the type and number of health care facilities present in the city. The city has 29 allopathic hospitals with 5648 beds and 56 allopathic dispensaries.

Table 4-24: Type and number of Health Care Facilities-Jaipur

S. No.	Facility	No. of Service Providers	Number of Beds
1	Allopathic Hospital	29	5648
2	Allopathic Dispensary	56	98
3	Ayurvedic & Unani Hospital	8	30
4	Ayurvedic & Unani Dispensary	30	
5	T.B. Hospital + Sanatorium	2	280
6	Mother & Child Care Centre	17	592
7	Mental Hospital	1	332
8	Aids Control Centre	2	
9	Leprosy Care Centre	3	30
10	Counselling & De-Addiction centres	3	12

4.12.2 Education

Table 4.25: Educational Facilities-Jaipur

S. No.	Facility	Total Number
1	Universities	6
2	Medical Colleges	3
3	Engineering Colleges	13
4	Management Colleges	8
5	Polytechnics Colleges	3
6	I.T.I's	4
7	B.Ed. Colleges	14
8	Gen. Colleges	22
9	Sr. Sec. & Sec. Schools	845
10	High Schools	2414
11	Primary Schools	2952
12	Anganwaris	613
13	Adult Education Centres	176

There are 6 universities in the city providing quality education. Apart from the universities the city has 6 medical colleges and 13 engineering colleges.

4.12.3 Recreation and Socio Cultural Facilities

Number of recreation and socio cultural center's are present in the city meeting the needs of the people. Following table gives the detail list of the facility:

Table 4-26: Recreational and Socio Cultural Facilities-Jaipur

S. No.	Facility	Number
1	Auditorium	2
2	Planetarium	1
3	Convention Centre	3
4	Observatory	1
5	Science / Traffic Park	1
6	Technology Park	1
7	Cultural Centre	2
8	Museums	5
9	Art Galleries	40
10	Exhibition / Fair Ground	6
11	Sport Complexes	5
12	Amusement Parks	3
13	Resort & Clubs	25
14	Movie Theatres	22
15	Discotheques	6
16	Cafes / Coffee Shops	12
17	Gymnasiums	10
18	Florists'	25
19	Polo Club	1
20	Flying Club	1
21	Shooting Range	1
22	Archery	1
23	Forts	4
24	Public Gardens	4
25	Kite Flying Club	1



4.12.4 Safety - Disaster Management

(i) Soil Erosion

The soil erosion areas have been identified from the study of GSI (Geological Survey of India).

Map 4-11 Soil Erosion Zones



(ii) River Bank Erosion

Amanishah nalla shows Bank erosion in its upper reaches from Amer RF to Dahar Ka Balajee Railway Station and NW of Sodala. Bandi River shows bank erosion east and south of Kalwar.

(iii) River courses abstracted /encroached by urbano-industrial units

Amanishah nallah course has been obstructed throughout its course from north of Vidhyadhar Nagar to Goner by urbano-industrial development and agricultural activity in the nallaha bed.

(iv) Area Prone to Flash Floods

Jaipur urban area and is controlled by north-south geotectonic fault and has unpaired fluvial terraces, preserved mostly on and along the left bank of the river. These terraces are cultivated. At present there is no encroachment on the Dhund channel and its flood plain.

Amanishah nalla flows in the central part of the JDA region and has witnessed encroachments on its flood plain from its originating upper catchment area to its confluence with Dhund River SE of Goner. It has been shifting its course east and westwards, which is clear from trace of palaeo channels / abandoned channels and buried channels seen on the imagery of the area investigated. This delineated vulnerable zone may be considered as threat zone at times of flash floods, whereas the existing dry channel marked as unit 2a is the younger flood plain, which may pose flood hazard in during active monsoon rains in the area.

Map 4-12 River/Drainage in U1 area



(v) Seismotectonically Vulnerable Zones

The sector shows presence of N-S, E-W, NE-SW and NW-SE faults. Many of these faults are tectonically active (neotectonic) faults. Most of these features have been associated with low, but active seismicity of the region.

In view of the above and aeolian sand cover of few metres to 175 m thick west of Durgapura (Jaipur), the zone is vulnerable to seismic hazard. It is therefore, recommended that area falling between major lineaments and faults shall not be developed as high density residential or commercial activity centers.

They may be developed as institutional areas, special economic zones (SEZ) with suitable engineering measures for Zone II seismicity. The ideal land use recommended for lineament zones is the groundwater recharge sites and development of farmhouses, open recreation spaces, etc.

(vi) Fire

The Jaipur oil depot fire broke out on October 29, 2009 at the Indian Oil Corporation (IOC) on the outskirts of Jaipur, killing 12 people and injuring over 200 and damage of building taken place 500 mt around.



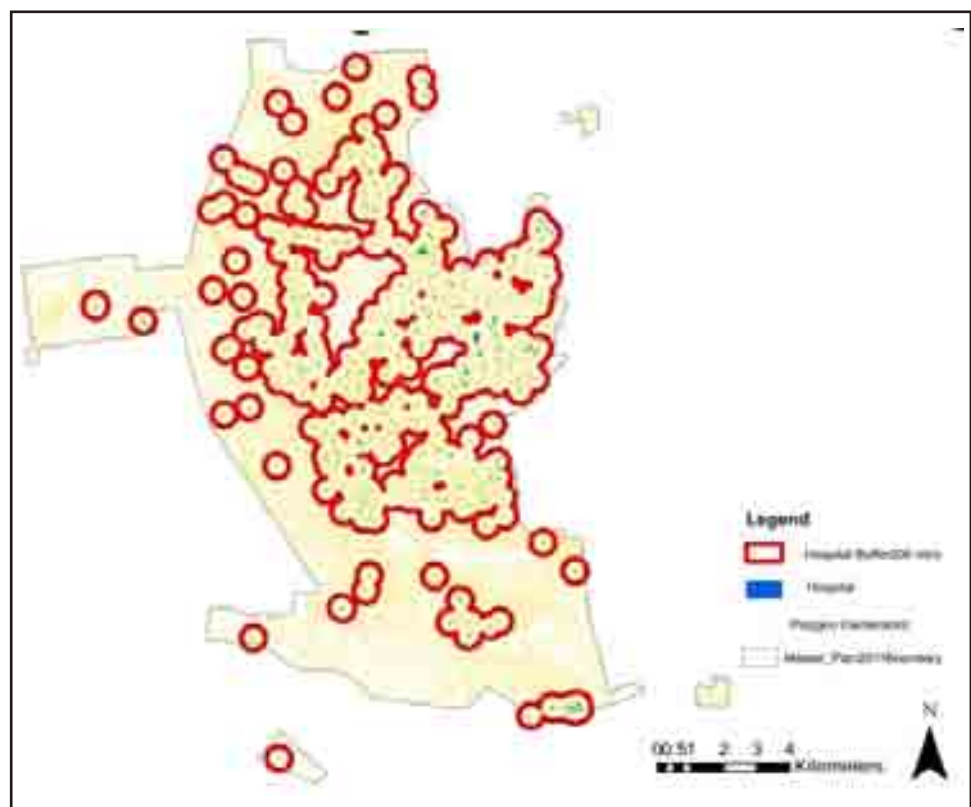
4.12.5 Public Semi Public

Table 4-27 Institutional Uses

Sl.	Land use	Proposed In 1991 (Ha.)	Development by 1991 (Ha.)	Proposal in 2011 (Ha.)	Develop in 2007 (in Ha.)
1	Governmental	178	158	602	340
2	Public and Semi Public	1045	858	3241	1200
	Total	1223	1016	3843	1540

From the above table it is evident that by 2007 around 1540 Ha. of land is under this category and a general spread of this use in to be made in the proposed U1 area. More over the development controls promote, liberally, these uses.

Map 4-13 Service Area Hospitals.



4.13

Physical Infrastructure

4.13.1 Water Supply

The Jaipur city is covered with Municipal water supply. The city water supply is dependant on Tube wells. There are many bore wells fitted with power pumps which supplies water to the Clear Water Reservoir (CWR). The water from tube wells fitted with power pumps are collected in CWRs before pumping to ESRs for distribution to system. The Existing situations of water reserviors distributed in city are detailed as:



- Walled city,
- Northern part of the city and
- Southern part of the city

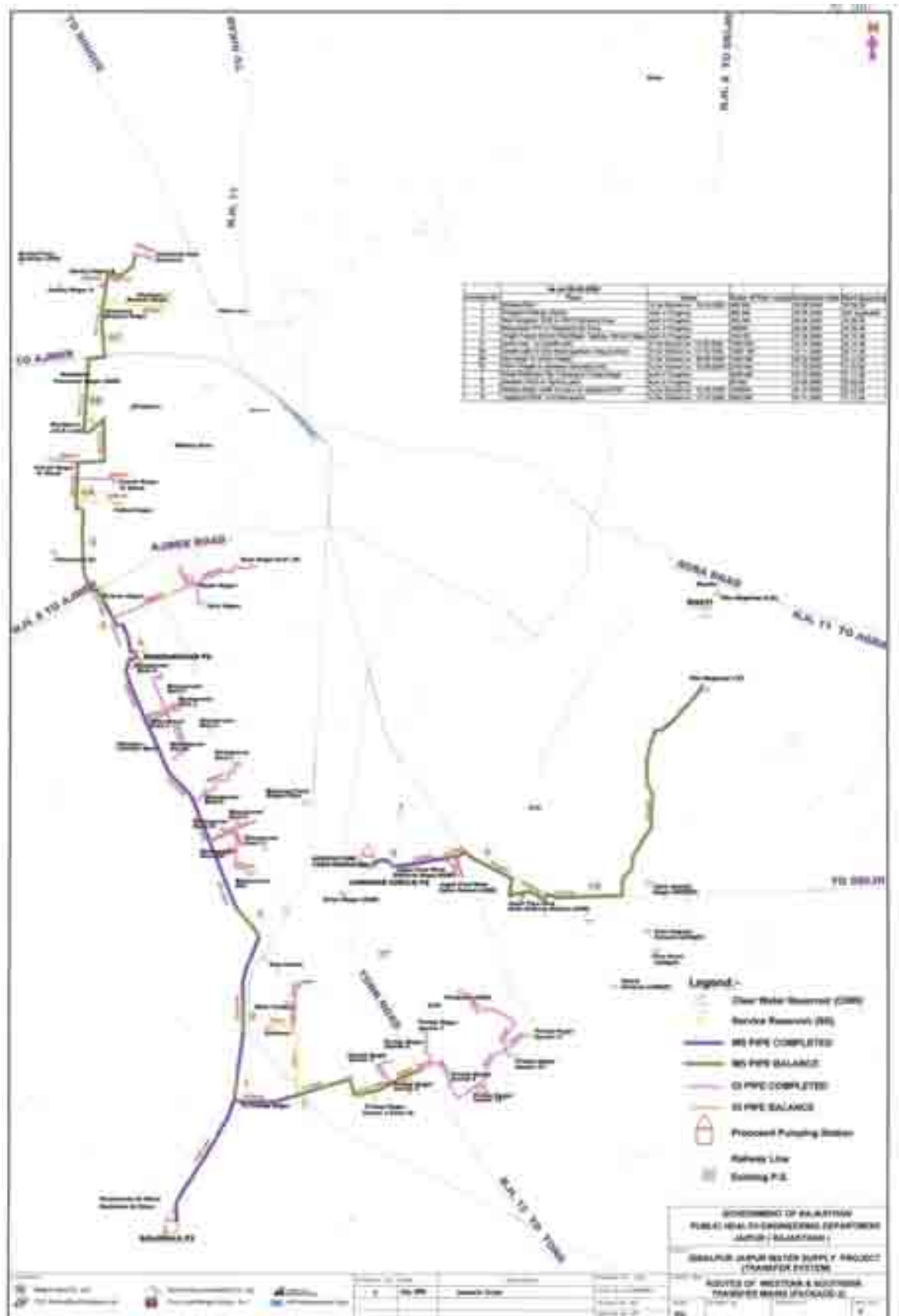
Walled City: There are about 5 numbers of CWRs and 5 numbers of ESRs in the Walled City.

Northern Part of the City: There are about 31 number of service reservoirs to supply water to distribution zones.

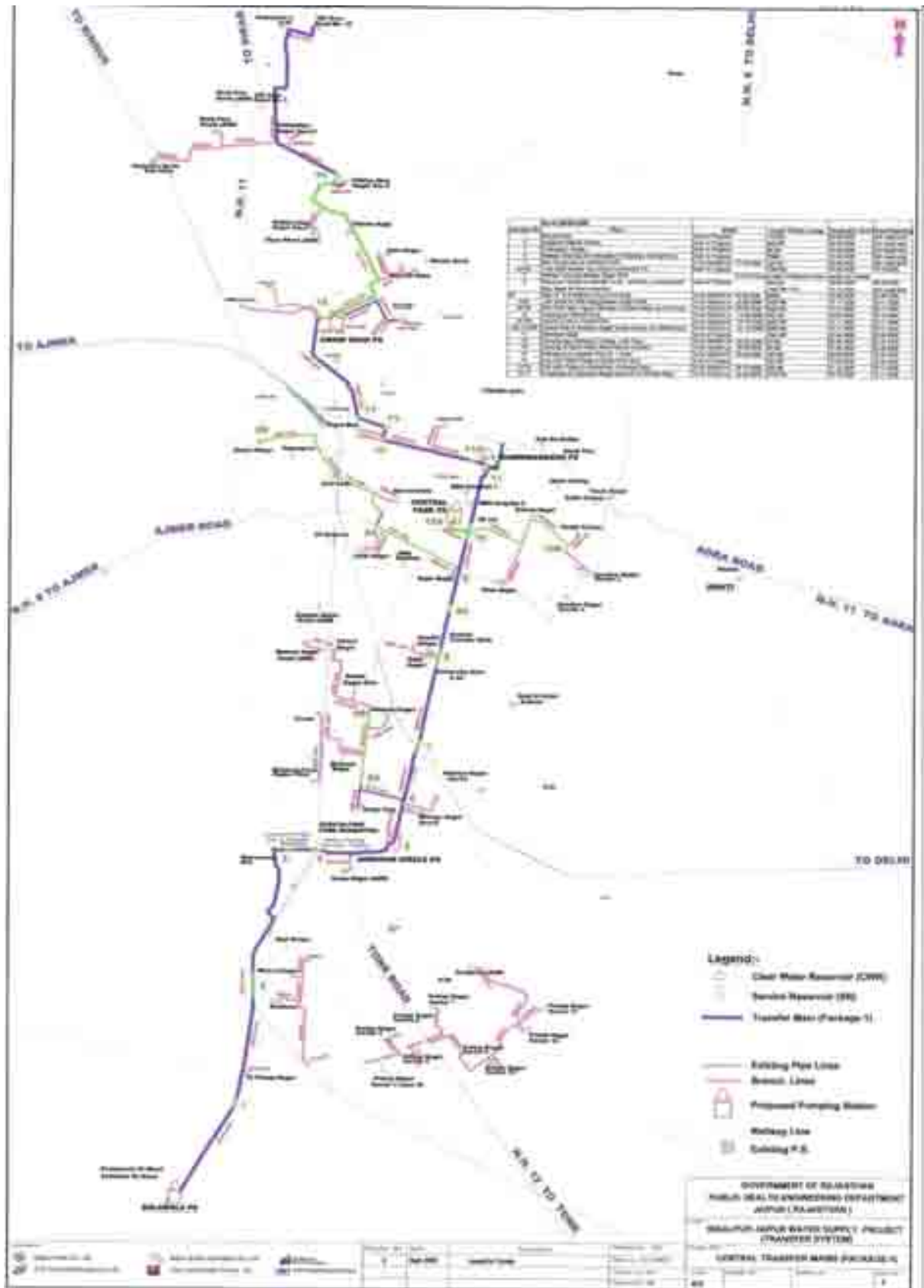
Southern Part of the City: There are about 64 number of service reservoirs to supply water to distribution zone.



Map 4-14 Routes of Western and Southern transfer water supply mains



Map 4-15 Routes of central transfer water supply mains



4.13.2 Drainage Network Plan

The drainage network of Jaipur includes 9 Nallah/Rivers, and their existing network is as follows:

In order to attend to the detailed drainage work plans, the study for preparation of Master Drainage.

Plan for Jaipur city was given to WAPCOS under JNNURM. The detailed plans when prepared in all its finality usher a new era in drainage planning of Jaipur City.

Chart : 4-5 Drainage Network of Jaipur



Map 4-16 Map Showing Drainage Zones



Plan for Jaipur city was given to WAPCOS under JNNURM. The detailed plans when prepared in all its finality usher a new era in drainage planning of Jaipur City.

This plan divided the entire Jaipur municipal area into 19 drainage zones. Each zone forms the subwatershed contributing towards the part of a certain drain. Thus the boundaries of each zone are formed by the water divide. These zones contribute towards the Ganda Nalla, Jawahar Nagar Nalla, Brahmpuri Nalla and Nagtalai Nalla. The Ganda Nalla and Jawahar Nagar Nalla ultimately drain into the main Nalla through the center of the Jaipur city which is called Amanishah ka Nalla.

The Amanishah ka Nallah discharges into Dhundi River which finally joins the Banas River. The other two Nallas join near the Jal Mahal and major portion of its discharge drains into the Jal Mahal and the remaining discharge flows into the existing drain. Some of the zone directly contributes to the Amanishah Nalla.

The rainfall data was procured from the Indian meteorological department (IMD) Jaipur. The design rainfall values of 2 years, 5 years and 50 years return periods were worked out. Following the recommendation of Indian Road Congress, drainage design of the colony networks for all the 19 zones have been carried out for rainfall values of 2 years return period. Whereas the main four Nalla viz; the Ganda Nalla, Jawahar Nagar Nalla, Brahmpur Nalla and the Nagtalai Nalla have been designed for a 50 year return period as recommended in central water commission report.

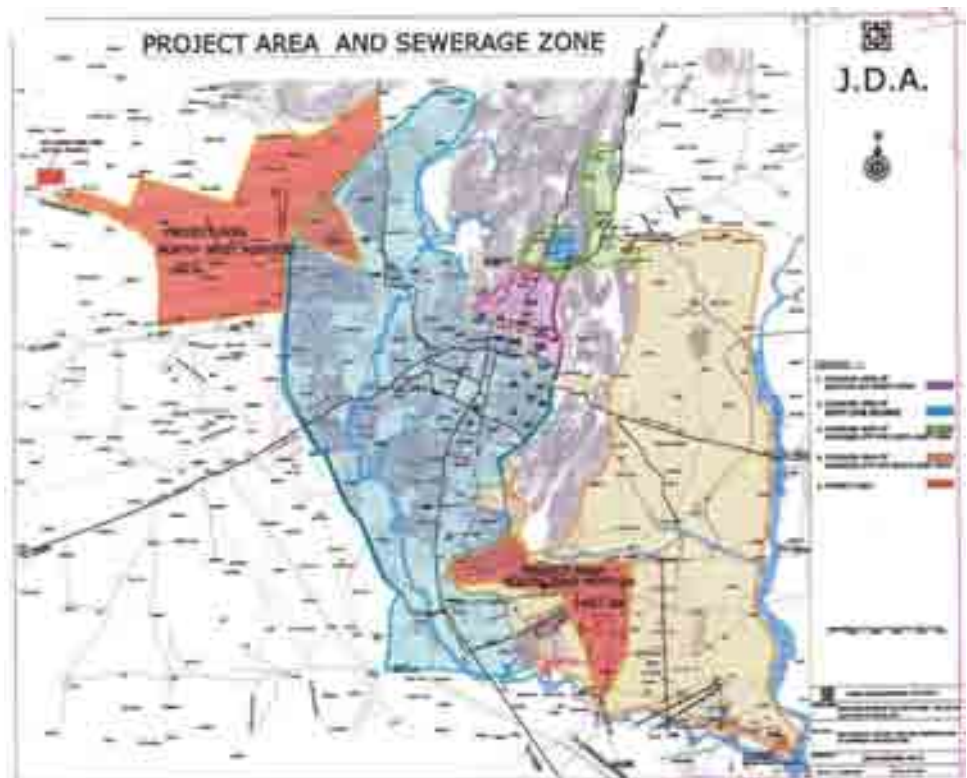
4.13.3 Sewerage

Jaipur municipal area is divided into 8 zones for administrative purpose which includes 77 ward. Laying of sewer lines in the Jaipur city is done by Jaipur municipal corporation, RUIDP, JDA and Rajasthan housing board. Maintenance of sewer line is done by JNN.

The existing sewerage system covers about 65 % of total area of Jaipur. In the areas uncovered by sewerage system septic tanks are used to dispose night soil. According to the studies conducted by Safage in 1998, the septic tanks cater to about 25 % of the population in Jaipur. Roughly about 1,20,600 septic tanks were in use in Jaipur.

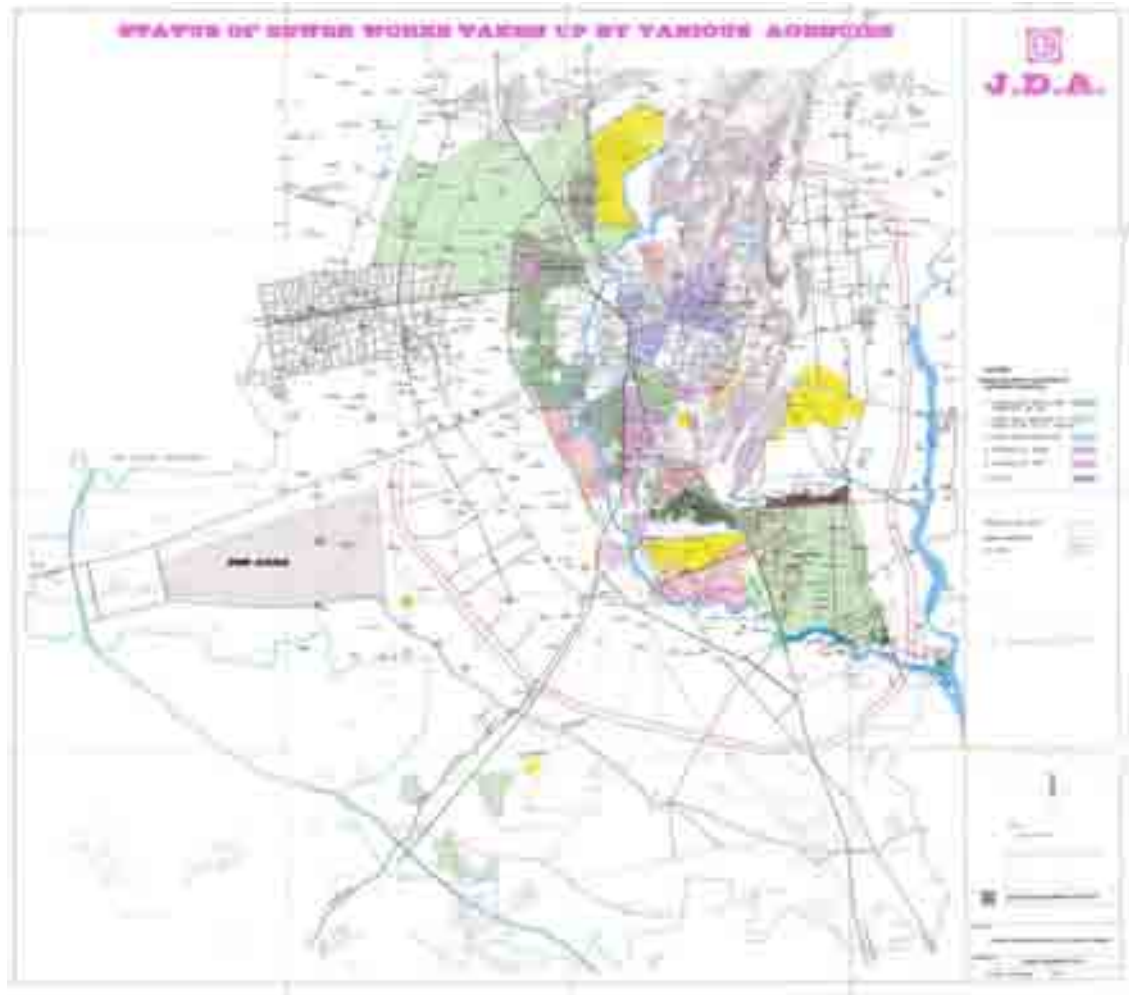
According to the census of India 2001, the percentage of households connected to open drainage system is 41.9% and those connected to closed drainage system is 37.7 %. 20.5 percent households are not connected to any drainage system.

Map 4-17 Project area and Sewerage zone



The city generates 200 MLD sewage. There are two existing Sewage treatment plants (STPs) constructed by Jaipur Municipal Corporation. One is at Bhramपुरi (North) with 27 MLD capacity and other is at Dehlawas (South) with 62.5 MLD capacity. The sewage treatment at these plants is with conventional treatment technology.

Map 4-18 Status of Sewer works taken up by various agencies



Cleaning and Maintenance of sewer lines

Whenever sewer line chokes or mainhole overflows it is repaired with the help of jetting machines. Sometimes even jetting machine is unable to open the sewer line than it is repaired with the technical help of engineering cell after finding the reason behind it. Detailed project report is being prepared for replacement of dilapidated and low capacity sewer lines. Cleaning and maintenance of Hawamahl zone west is given on contract. In Hawamahl zone east cleaning of sewer lines is being done through contract labour, in Vidhyadhar nagar and Amber zone cleaning is done by contract labour.

Considering the increasing complaint about chocking of sewer lines JNN has ordered to purchase 2 suction machine of 3000 liter capacity, 4 combined jetting machine of 850 liter capacity and 1 jetting machine of 800 liter capacity.

4.13.4 Solid Waste Management

Solid Waste Generation

The type of waste generated within the municipal areas can be largely classified as (i) MSW (ii) Biomedical Wastes, (iii) Industrial Wastes and (iv) Construction and Demolition Wastes. The Municipal Solid Waste contains the following wastes: Residential and Commercial sources including slums, Waste from Hotels, waste from slaughter houses markets and street sweeping/cleaning.

General references for projections of Solid Waste Generation

It was estimated that 1040 metric tones per day of solid waste was generated in 2001-02. Considering an annual increase of 1.5% per capita per day, solid waste generated by the city by 2025 would be 4671 MT/day as per RSPCB (As per table below)

Table 4-28: Estimated waste generation

S.No.	Population In 2001	Decadal growth rate 2001	Solid Waste Generated in 2001 (M.Tons/day)	Projected generation of Waste (M.Tons/day)		
				2010	2020	2030
1	2324319	59.37	1162	1848	2938	4671

Source: RSPCB, Dt. 26-02-2008

Per capita waste generation in developed countries is 0.7-1.8kg/capita/day as compared to 0.4-0.9 kg/capita/day in low to middle income countries (Central Public Health and Environmental Engineering Organisation, CPHEEO manual).

Service level bench marking study

Service level bench marking study by Jaipur Municipal Corporation conducted in 2010 which provided the following data:

Waste Generation		
Category		
Residential	Tons/ Month	14,400
Street Sweeping	Tons/ Month	12,000
Hotels & Restaurants	Tons/ Month	7,200
Special markets (e.g. Veg markets, Mandis)	Tons/ Month	9,600
Commercial establishments (incl. offices, institutions)	Tons/ Month	2,400
Other (C&D waste, horticulture waste, etc.)	Tons/ Month	2,400
Total	Tons/ Month	48,000

Door to door waste collection practiced in the Nagar nigam in which 84% area is covered by Private parties, 8% by resident welfare associations and 8% by NGO/CBOs. Numbers of establishment covered by Door to door service are:

Households	: 39,000
Hotels & Restaurants	: 100
Commercial establishments (incl. offices, institutions)	: 900
Total	: 40,000

Street sweeping is practiced in which 1861 km of road length is covered. Street sweepings are also collected in the community bins along with domestic waste. The staff sweeps the road and collect the waste in handcarts and baskets, which are emptied into the community bins. At some places community bin



collection system is the main practice used for waste collection. In this system, residents deposit their waste into the nearest community bins located at street corners at specific intervals. But sometimes, due to the absence of adequate storage capacity for generated refuse and poor discipline among the generators, waste is also continually dumped on the road. There is no segregation of dry & wet waste in Jaipur. There is also no facility for separate collection of bulk waste.

Table 4-29 Zone wise number of cleaning Staff

SI	Zone	Permanent staff
1	Vidyadhar nagar	998
2	Manssarovar	215
3	Moti Doongri	1200
4	Hawamahal East	952
5	Civil lines	801
6	Hawamahal West	965
7	Amber	164
8	Sanganer	250

Out of total waste generated only 40,000 MT/month waste is collected for processing/disposal, from which only 5000 MT/month is sent for Processing & recycling facilities and rest 35000MT/month of waste is disposed at disposal sites.

Table 4-30 Zone wise spatial distribution of waste collection

Ward/ Zone Name	DTD service coverage			DTD service coverage - Slum			Waste Collection Efficiency*		
	Total HH &	DTD	Cover age	Total	DTD	Cover age	Total	Total	Efficie ncy
	Establishment mts.	Serv ed	%	Slum HH	Serv ed	%	Generat ion*	Collect ed*	%
Moti Dungri Zone	75,204	0	0.00	12,367	0	0.00	5,317	4,732	89.00
Hawa Mahal Zone (East)	76,134	0	0.00	1,695	0	0.00	6,214	5,904	95.00
Hawa Mahal Zone (West)	57,234	0	0.00	2,926	0	0.00	3,857	3,664	95.00
Amber Zone	33,407	0	0.00	2,562	0	0.00	2,626	2,101	80.00
Vidhyadhar Nagar Zone	1,56,358	2,000	1.28	22,116	0	0.00	10,421	8,320	79.84
Civil Line Zone	1,12,588	1,000	0.89	3,682	0	0.00	8,252	6,602	80.00
Mansarovar Zone	66,168	30,000	45.34	1,119	0	0.00	5,323	4,365	82.00
Sanganer Zone	70,899	7,000	9.87	0	0	0.00	5,988	4,312	72.00
Total	6,47,992	40,000	57	46,467	0	0	48,000	40,000	83.33

Source: Jaipur Nagar Nigam

Solid waste management in walled city

Waste is collected in traditional tricycles in the walled city. This is deposited in temporary bulk storage at open sites, round cement concrete bins and masonry bins. The waste from these sites is transported via motorized vehicles. There is often spilling of waste on these sites. Bullock carts, three-wheelers, tractors and trucks are used to transport waste. Transportation within the walled city becomes difficult due to the narrow width of the inner roads. (ORP report, JMC)

Transportation of waste

Transportation of waste is done through Dumper placer, tractor trailer, Tipper trucks, compactor and hand carts etc.

Waste processing:

At present there is no waste to energy project in Jaipur, also composting/vermi composting is not practiced. JMC has a RDF plant of installed capacity 15000 Tons/Month, where the waste quantity input in RDF plant is 12000 Ton/Month. At intake point 7200 Ton/month waste is rejected by processing facility while, 5850 Tons/month waste is rejected after processing. Hence only 4800 Tons/month waste is processed in RDF plant. This happens due to lack of segregation of waste at source and collection point.

4.13.5 Power

By 2020 the requirement of supply of Power is expected to be met by the Jaipur Viduyat Utpadan & Prasaran Nigam Limited (JVUPNL). The proposal aims at the system as mentioned under.

Table 4-31: Proposed Transmission system for Jaipur Circle

Category/S.No.	Proposed GSS.	Transformation Capacity (MVA)	Area Required in Hectares
A.	765 KV & 400 KV GSS		
1	765 KV GSS Jaipur (south) Phagi	1x1500	43 Hectares
2	400 KV GSS Jaipur (North) Achrol	2x315	20 Hectares
B	220 KV GSS		
1.	Bhakrota	100	132 KV GSS upgraded to 220 KV GSS
2	Sirsi	100	132 KV GSS upgraded to 220 KV GSS
3	Sama Dungari	100	06 Hectares
4.	Kawar Road	100	06 Hectares
5.	Kunda ki Dhani	100	132 KV GSS upgraded to 220 KV GSS
6.	Bassi	100	6 Hectares
7	Sitapura	100	132 KV GSS upgraded to 220 KV GSS
8.	MES	100	6 Hectares
9	Jawahar Circle	100	6 Hectares
C.	New 220 KV GSS to be identified around the following GSS		
10.	Jawahar Nagar	100	132 KV GSS upgraded to 220 KV GSS
11.	Chambal	100	132 KV GSS upgraded to 220 KV GSS
12.	SMS	100	132 KV GSS upgraded to 220 KV GSS
13.	Vaishali Nagar	100	132 KV GSS upgraded to 220 KV GSS
D.	New 220 KV GSS to be identified around the following GSS		
14.	Vatika(Sanganer)	100	3.50 Hectares
15.	Goner	100	6 Hectares
16.	Kanota	100	6 Hectares
17.	Jaisinghpura Khor	100	6 Hectares
18.	Rampura Dabri	100	6 Hectares
E.	New 220 KV GSs to be initially charged on 132 KV voltage level		
19.	Shyam Nagar	2x50	6 Hectares
20.	Shivdaspura	1x50	6 Hectares
21.	MNIT	1x50	6 Hectares
22.	Pratap Nagar	1x50	6 Hectares
23.	Mahla	1x50	6 Hectares

The power being public utility is permitted in all use zones more over the M.D.P.-2025 Proposes 47.59 sq. km. area under Institutional uses. The requirement as met by the area under institutional use or any other location technically arrived at by the respective agencies.

4.14

Existing Land use U1

The existing land use of the city can be detailed at two levels.

(i) The Proposed U1 area of 945 square kilometer and

I(ii) Analysis of the land use of the proposed 2011 Urbanisable area.

4.14.1 Existing Land use U1

The table below gives the area and percentage of land under various uses in the U1 area.

Table 4-32: Existing Land Use U1

SI	Land Use	Area (Ha.)	% to developed area	% to total area
1	Residential	19072	68.02	
2	Commercial/ Mixed	1978	7.05	
3	Industrial	2119	7.56	
4	Public Semi Public	2029	7.24	
5	Army	1103	3.93	
6	Parks	543	1.94	
7	Circulation	1196	4.27	
8	Developed area	28040	100	35.14
9	Agricultural	30708		38.48
10	Water bodies	322		0.40
11	Forest	7445		9.33
12	Open Space	132 85		16.65
	Total Area (8+9+10+11+12)	79800		100.00

Of the total 798 square kilometer of land, the developed area is only 280 square kilometer i.e. 35.14 percent of the total area. Of the developed area, 68.02 percent of the use is residential and 7.05 percent of the land is under commercial, maximum among all the uses. When compared to the total area, the percentage of area under agriculture is also very high, being 38.48 percent.



4.14.2 Spread of uses

(i) Developed Area

Residential use accounts for 190.72 square kilometre and comprises the maximum developed land. The use is evenly spread in the centre of the U1.

Commercial uses i.e. retail, wholesale, commercial complexes and mixed uses make up 19.78 square kilometre and can be seen located in the core of the U1, in the walled city and along MI Road, with walled city generating the maximum commercial activities. Few isolated pockets of commercial exist in the U1 area with one of it being wholesale commercial in the south of the area.

Industrial use comprises of 21.19 square kilometre. One dedicated industrial area containing all the industries does not exist in the city. The industries are majorly located in the north and south of the developed area. Few small pockets of industries can also be seen spread out in the entire city.

Public Semi Public uses occupy 20.29 square kilometre of land and the major chunk is situated along the JLN Marg in the form of institutional area. Also, the dominance of the use exists near to the MI Road and from Statue Circle towards Vidhan Sabha where major government offices are locates. Small pockets of the use is also spread out in the city.

Army cantonment area exists in the city occupying the least area of 11.03 square kilometre of all the uses falling under developed area. The area lies west of Amanishah nallah from Sikar road to Ajmer road. One part of the cantonment is situated north of Niwaru Road.

Parks and open spaces are available in aplenty in the city. The percentage of open spaces is higher to the actually developed parks in the area.

Circulation makes up some percent of the total developed area, with area under it being 11.96 square kilometre

(ii) Other than Developed Area

Three uses namely agricultural land, water bodies and forests fall under the category of other than developed area.

A large chunks of land fall under the agricultural use which comprise of 37 percent of the total U1. The agricultural land exists all around the developed land.

Water bodies in the U1 area comprise of the Amanisha nallah which flows across the U1, and Dhund river and Jhalana river.

Forests are present in the form of open forests in the north of U1 on hilly terrain.

4.14.3 Previous Land Use Proposals

The Master Plan 2011 was prepared for 326 sq km and the mapping took place 1:32000 and it was supported with land use zoning code for reading the Master Plan. However the practice of change in land use of even smaller sized plots of 500 sq. mt. continued.

4.14.4 Existing Land Use against 2011 master plan

The land use comparison shows, that of 138.25 sq.km. area prescribed for residential, by 2007, the area under the use developed little more than prescribed, i.e. 140.00 sq.km. In case of the commercial use, of the 206.4 square kilometer that was prescribed, only 73 square kilometer remained, that too, it came down from what was there till 1991. The industrial use was also not achieved, as only 16 sq.km. developed as against the prescribed 18.62 square kilometer. The governmental use remained some 34 square kilometer as against 60.2 prescribed. Recreational and stadium use one of the uses which has achieved only 12 percent of the total prescribed use of 34 square kilometer. The mixed land use, public semi public and, tourist facility and circulation also remained FSI below the prescribed use. All this has resulted into the lesser developed area as otherwise envisaged in 2011.

Table 4-33 Existing land use as per 2011 master plan boundary.

S. No	Land Use	Area (Hectare)	% to developed area	% to total area
1	Residential	14000	66.22	
2	Commercial	730	3.45	
3	Industrial	1600	7.57	
4	Governmental	340	1.61	
5	Recreational and Stadium	448	2.12	
6	Mixed Land Use	620	2.93	
7	Public Semi Public	1200	5.68	
8	Circulation	2203	10.42	
9	Developed Area	21141	100	64.73
10	Govt Reserved	701		2.15
11	Agricultural	6900		21.13
11	Water Bodies	520		1.59
12	Other vacant and undeveloped	3396		10.40
13	Total Area	32658		100.00

Of the total of 326 square kilometer, 211 square kilometer is the area which falls under the category of developed land, making 65 percent of the total area approximately.

The comparative analysis of the prescribed land use as per 2011 and the existing land use is depicted in the following table:

Table 4-34 Comparative analysis of prescribed and the existing land use

Land Use	Land Use Proposed M.P. 1991		Land Use Existing in 1991		Land Use Proposed in M.D.P. 2011		Existing Land Use in 2007		Addition/ Deficiency percentage (2007-2011)
	Area in Ha	% Dev. Area	Area in Ha	% Dev. Area	Area in Ha	% Dev. Area	Area in Ha	% Dev. Area	
Residential	6064	51.3	6430	52.8	13825	44.8	17445	65.04	21.28
Commercial	1225	4.8	700	3.8	2064	6.32	625	3.12	-3.20
Mixed land use					1034	3.3	756	2.86	-0.44
Industrial	1805	13.3	1008	9.9	1862	6	1688	7.15	-1.15
Governmental Public and semi Public	1223	9.0	1010	9.9	3643	12.47	1630	6.93	-5.54
Recreational and stadium	405	3	214	2.1	3461	11.3	529	2.00	-9.30
Tourist facility	81	0.0							
Circulation	2437	18	1178	11.5	4741	14.5	3142	11.89	-2.61
Developed Area	13662	100	10230	100	30630	100	25415	100	
Government									
Services	1012		805		1027		1082		
Agriculture									
Health and Welfare	404		272		142		8681		
Waste disposal	586		142		701		203		
Other (unclassified)									
Undeveloped			467		358		9132		
Undeveloped Area			11026						
Proposed Area	15546				32658		32658		

The land use comparison shows, that of 138.25 sq.km. area prescribed for residential, by 2007, the area under the use developed little more than prescribed, i.e. 140.00 sq.km. In case of the commercial use, of the 206.4 square kilometer that was prescribed, only 73 square kilometer remained, that too, it came down from what was there till 1991. The industrial use was also not achieved, as only 16 sq.km. developed as against the prescribed 18.62 square kilometer. The governmental use remained some 34 square kilometer as against 60.2 prescribed. Recreational and stadium use one of the uses which has achieved only 11 percent of the total prescribed use of 34 square kilometer. The mixed land use, public semi public and, tourist facility and circulation also remained FSI below the prescribed use. All this has resulted into the lesser developed area as otherwise envisaged in 2011.

Map 4-19 Existing Land Use



The existing study is a point to the future proposals in terms of planning the Jaipur city with balanced development.

CHAPTER

5

**QUALITY
OF LIFE**

5.1

Introduction

“The Urban environment influences human physical, social and mental well-being, therefore, a healthy, supportive environment is indispensable to quality of life in cities”.

“People need to breathe clean air, have access to clean drinking water and adequate housing conditions, and enjoy quiet and peaceful places. Accessible, good-quality, well maintained green spaces and playgrounds, modern transport systems and safe, walkable neighbourhoods that encourage physical activity and social interactions are key constituents of urban quality of life”.

- (European Environment Agency; EEA)

To achieve a better quality of life sustainable development of a City is essential with ultimate goal to protect and improve the quality of life – which lies with interaction among the environment, the economy and society.

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Sustainable development recognises that our economy, environment and social well-being are interdependent. It promotes to meet four objectives:

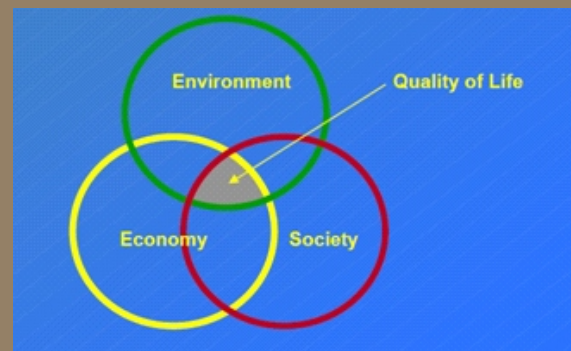
Social progress which recognises the needs of everyone;

Effective protection of the environment;

Prudent use of natural resources;

Maintenance of high and stable levels of economic growth and employment.

The desired impacts of sustainable development that promote the quality of life are: improved environmental health enhanced human health and reduced poverty.



5.2

Sustainable Development

These impacts can be measured to determine whether the environmental, economic and social spheres are moving together in the right direction and are resulting in objective and verifiable advances in the quality of life.



5.3 Environmental Considerations

"Climate change is increasingly recognized as one of the most critical challenges ever to face humankind. It is a global problem that requires a global response embracing the needs and interests of all countries".



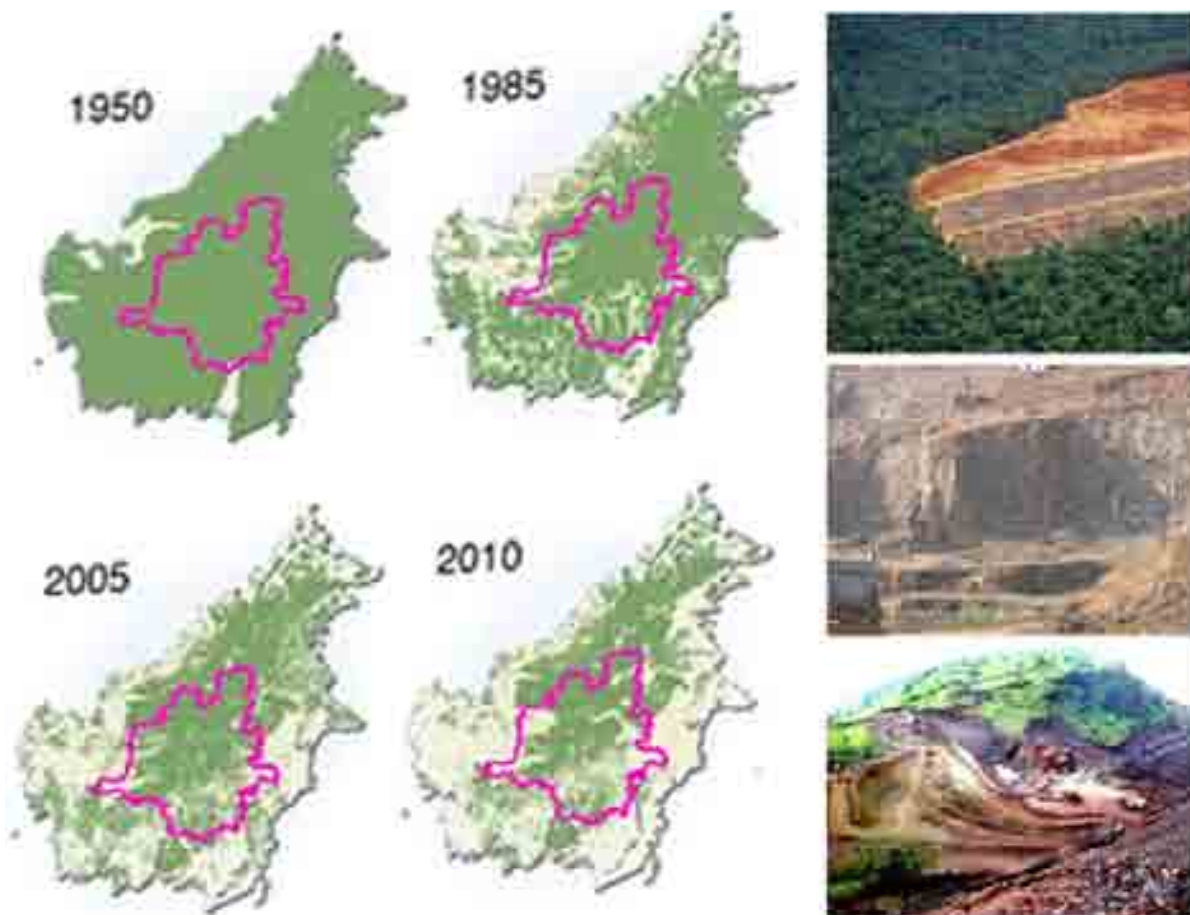
Environmental considerations, which are just as important for the well being of the people,

demand that the under forest cover be increased in region from the dangerously low level, that it has reached. Demands of urbanisation and industry too will eat into our cultivable land, though we should keep this to the minimum.

This Global warming is largely the result of emissions of Greenhouse Gases (GHG's) from human activities including industrial processes, fossil fuel combustion, and changes in land use, such as deforestation etc. To protect ourselves, our economy, and our land from the adverse effects of climate change, it is necessary to reduce emissions of greenhouse gases.

5.3.1 Deforestation/ Forest degradation

The forest area in 1995 was 404 SqKm which increased to 623 SqKm by 2005, due to various afforestation/plantation activities by forest department. In 2007 the forest area in Jaipur district was 948.68 hectare, which is 8.19% of total geographical area (11588 SqKm). In district 679.34 ha (71.66%) area is under reserved forest and 263.10 ha (27.75%) is under protected forest while rest 5.63ha (0.59%) is under unclassified forest.



(Source: State Forest department Rajasthan)

in 2009 the forest area is reduced to by 3.02 SqKm and also 6.23 SqKm land diverted to various purposes viz; Mining, Road/ Railways, Thermal/ transmission lines etc. the rest forest area 939.43 is only 8.10% of total geographical area. Considering the existing forest cover per capita forest area comes out to be 0.02ha, as per census 2001, which is well below the average. Also the forest cover in Jaipur is reducing day by day due to other deforestation, forest degradation activities. as per the map below the forest cover is reduced by more than 50% from 1950 to 2010.

In Jaipur city, as per the existing land use analysis the area under park, open space is around 5.43 Sqkm for a population of 3.30 million. Accordingly, per capita open space works out to be 1.60 m² per person. World Health Organization suggests ensuring at least a minimum availability of 9.0 m² green open space per city dweller.

There are Rock cut areas in Jaipur region which resulted due to mining on hills. These Rock cut areas in Eco sensitive zone are lying unused. These areas also should be considered for further development in green zone.



The forest department of Rajasthan is undertaking a project on PPP mode financed by JICA (Japan International Co-operation Agency). under Second phase of **Rajasthan forest and bio diversity project** 10 deserted district (Sikar, Jhunjhunu, Pali, Nagaur, Jaisalmer, Bikaner), 5 Non deserted district (Banswara, Dungarpur, Bhilwara, Sirohi, Jaipur) and 650 villages on 2 km periphery of Seven wild life sanctuaries (Kumbhalgarh, Fulwadi ki Naal, Jaisamand, Sitamata, Bassi, Kela devi, Ravali tadgarh) are covered. in this project tree plantation, bio diversity conservation, ground water conservation is under taken along with poverty reduction and employment generation works. In this project Nahargarh fort area will be developed as Biological Park.

5.3.2 Water harvesting/Recharging

The increasing demand for water in many regions around the world has led to the implementation of more intensive water management measures to achieve more efficient utilization of limited available water supplies. The natural replenishment of groundwater occurs very slowly. If groundwater is exploited at a rate greater than that of its natural replenishment this will cause declining groundwater levels and, in the long term, destruction of the groundwater resource.

To augment natural replenishment of groundwater reserves, the artificial recharge of groundwater has become increasingly important. In artificial recharge schemes aquifers are treated as a naturally-regulated system which may be used to store surface water, thereby levelling out seasonal variations in surface water availability and providing a steady supply of potable water. Furthermore, the soil can be utilized as a reactive agent for improving the quality of the surface water.

Injection Lines have been identified by Jaipur Development Authority with the help of Geological survey of India. These injection lines are recharge points for percolations of water to increase the level of ground water. The major locations of these injection lines in the Jaipur region are Chomu, Morija, Chonp, Bagwara, Jahota, Mundota, Watika, Shivdaspura & Chandlai, Kanuta, Goner, Mahapura etc.

Water harvesting also need to be practised by Construction of loose boulder gully plugs, field bunds, contour trenches, farm ponds, percolation ponds, subsurface dams, small masonry structures and other water harvesting **structures** in selected catchments, thus treating whole areas of the landscape.

There are about 1,000 bore wells drilled by Governmental agencies and an estimated 11,000 privately owned ones. Over withdrawal has resulted in serious decline in water tables in Jaipur city as well as other parts of Rajasthan. Thus, providing open urban spaces is necessary to facilitate the ground water recharge during monsoon.

5.3.3 Watershed management

Watershed management is the process of creating and implementing plans, programs, and projects to sustain and enhance watershed. It aims at optimising the use of land, water and vegetation in an area to alleviate drought, moderate floods, prevent soil erosion, improve water availability and increase fuel, fodder and agricultural production on a sustained basis.

“Without sustainable water management to ensure that there are sufficient supplies of clean, safe, water; the health of ecosystems and those who depend on them, especially people, suffer”.

There is an urgent need to improve watershed management and to educate the general public on watershed problems and actions to take measures for preventing repeated floods, excessive siltation, accelerated erosion with loss of soil and productive capacity.

5.3.4 Environmental Effects of Urban Traffic

Indian Institute of Remote Sensing, Dehradun, conducted a study on environment effects of urban traffic in Jaipur. Field verification survey was carried out to check the interpretation accuracy and to collect secondary data on traffic, pollution and population density. The physical development in Jaipur city categorized into two parts (i) Walled city area (ii) Outside walled city area. The walled city area is conventionally developed area having densely populated residential and commercial land uses with no scope for physical expansion. This has pressurized development in the southern and western side (as physical constraints are imposed by Aravali ranges in the north and east side of city).

It was found that significant numbers of population were affected by air and noise pollution (94.3% and 34.8% of total population respectively). 2.3% of total population (57,587) was subjected to maximum air and noise pollution. The maximum intensity of noise and air pollution was recorded at Hawa Sarak, M.I.Road and Jhotwara Road.

The high intensities of pollution in above-mentioned roads were mainly due to connection of these roads directly to commercial areas, industrial areas and offices. J.L.N. Marg where the Rajasthan University is located is also having high intensity of pollution during office hours because this is the only road linking the residential areas with the state and central offices and business centres. Agra Road is also having high intensity of pollution since it carries heavy inter-state traffic.

5.3.5 Jaipur National Ambient Air Quality Monitoring Project

In Jaipur National Ambient Air Quality Monitoring Project, Jaipur is being under taken by Rajasthan pollution control board. In this 6 Monitoring stations are established for assessment of the air quality. These places are Ajmeri gate, Vishwakarma Industrial area, Jhalana area, Chandpole, MIA, Vidhyadhar nagar the average ambient air quality of last 8 years is monitored at these stations.



The chart shows that SPM and RSPM level is reduced much after 2003 which become static after 2004-05 owing to various measures, while NOx and SO2 level is increased. These levels are on much higher side in industrial areas as compared to city area. other than this there are waste disposal sites which needs monitoring to assess level of other green house gases.

5.4

Initiatives for Energy efficiency

5.4.1. Global Initiative-Kyoto Protocol

To achieve the goal of reducing GHG emission United Nations Framework Convention on Climate Change (UNFCCC), to stabilize Green House Gas concentrations in the earth's atmosphere. The concept of **Clean Development Mechanism (CDM)**, has come into vogue as a part of **Kyoto Protocol**.

The objective is the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. The project aims to lower overall emissions of six greenhouse gases - carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, HFCs (Hydrofluoric Carbon), and PFCs.

Countries with commitments under the Kyoto Protocol to limit or reduce greenhouse gas emissions must meet their targets primarily through national measures. As an additional means of meeting these targets, the Kyoto Protocol introduced three market-based mechanisms, thereby creating what is now known as the “carbon market.”

- Joint implementation (Developed Countries)
- Clean Development Mechanism (Developing Countries)
- International Emission Trading (Emission Credit through special market)

1. CDM is an arrangement under the Kyoto Protocol allowing industrialized countries with a greenhouse gas reduction commitment to invest in emission reducing projects in developing countries as an alternative to what is generally considered more costly emission reductions in their own countries.

2. Kyoto Protocol is an agreement made under the United Nations Framework Convention on Climate Change (UNFCCC). The treaty was negotiated in Kyoto, Japan in December 1997, and came into force on February 16, 2005, under which the industrialised countries will reduce their collective emissions of greenhouse gases. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions.

3. carbon credit are certificates issued to countries that reduce their emission of GHG (greenhouse gases) which causes global warming. These are measured in units of certified emission reductions (CERs). Each CER is equivalent to one tonne of carbon dioxide reduction.

5.4.2 National Initiative

National Action Plan on Climate Change (NAPCC)

In 2008, the National Action Plan on Climate Change (NAPCC) for India was released, setting eight priority missions to respond to climate change; these include

- National Missions on Solar Energy,
- Enhanced Energy Efficiency,
- Sustainable Habitats,
- Water,
- Sustaining the Himalayan Ecosystem,
- Greening India,
- Sustainable Agriculture and
- Strategic Knowledge for Climate Change,

Covering a range of actions including adaptation and mitigation. For the realization of these actions at the state level, it was essential to juxtapose state-specific risks, impacts and opportunities to the national priorities and Missions.

5.4.3 Development of Solar Cities

The programme is initiated by **Ministry of New & Renewable Energy (Solar Thermal Group)**, Government of India, during 11th Plan period including 2010-11.

Goals and Objectives

The Goal of the program is to promote the use of Renewable Energy in Urban Areas by providing support/encourage the Municipal Corporations for preparation and implementation of a Road Map to develop their cities as Solar Cities in becoming 'renewable energy cities' or 'solar cities' or 'eco/green cities'.

5.5.4 Green Rating system in Buildings

Green Rating systems for buildings emerged in various countries to strike a balance between development and environment preservation. India has maintained this balance for centuries and can fallback on its architectural heritage and traditional wisdom to maintain this balance. Green Ratings can help sustain it by combining time-tested wisdom with scientifically rigorous validation procedures available today.

According to Indian Green Building Council *"A green building is one which uses less water, optimises energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for occupants, as compared to a conventional building."*

One of the best ways of achieving green building is to incorporate green initiatives in building bye laws, and one of these is to make rainwater harvesting and recharge mandatory for every construction. The other initiative would be to encourage use of solar energy in buildings for heating of water, which should be pursued strongly by State Governments.

Building rating systems are a popular tool to bring momentum in achieving energy efficiency and sustainability in buildings. The country has currently two rating systems namely, LEED and GRIHA.

5.4.5 Leadership in Energy and Environmental Design India (LEED) :

It is a nationally and internationally accepted benchmark for the design, construction and operation of high performance green buildings. LEED-India rates buildings on environmental performance and energy efficiency during the design, construction and operation stages. Ratings of platinum, gold, silver, or "certified", provides a roadmap for measuring and documenting success for every building type and phase of a building lifecycle.

5.4.6 Green Rating for Integrated Habitat Assessment (GRIHA):

The Ministry of New and Renewable Energy have adopted a national rating system- GRIHA which was developed by The Energy and Resources Institute (TERI). It is an indigenously developed rating system completely tuned to climatic variations, architectural practices, existing practices of construction and attempts to revive passive architecture. GRIHA stresses passive solar techniques for optimizing visual and thermal comfort.

5.4.7 State level Initiative

Rajasthan state falls within the areas of greatest climate sensitivity; it is prone to frequent droughts. It also has the maximum vulnerability and lowest adaptive capacity to climate change challenges. Harsh climatic conditions, abject poverty, low literacy level and an economy heavily dependent on rain fed agriculture contributed to poor economic performance. Besides social factors the poor natural resource base has played an important role in determining the development of the state economy.

Lack of opportunities in rural areas and small towns also saw an increase in rural to urban migration, and increasing urban growth in the larger cities, which could be attributed to population growth as well as migrants in search of better livelihood. the state's planning process also sought to broad base the economy by diversifying into non-agricultural sector, especially the industrial and service sector. With the diversification of economy, the need for power has emerged as an extremely important infrastructure for economic development. Various thermal, hydel and nuclear power station have been installed and are operating within the state to serve as the primary source of electricity.

The Rajasthan State Environmental policy (SEP) 2010

The policy identifies the key environmental challenges that address to ensure continued economic growth that is sustainable and equitable, and outlines strategies and actions to address them.

This policy includes the environment mission and climate change agenda (CCA) for this state for 2010-2014 to prepare for adaptation & mitigation. The purpose of the Environment Mission is to bring into focus the high priority issues emerging from the SEP and CCA, and mobilize government and nongovernment stakeholders to address these issues.

Taking proactive action, the State Government established a 'Climate Change and CDM Cell' in the State Pollution control Board to act as a nodal agency to deal with all the issues related with Climate Change in the State.

Policy for Promoting Generation of Electricity through Non-Conventional Energy Sources

The non-conventional sources of energy, Solar, Wind, Mini-Small hydel and Bio-mass have good potential for generation of electricity in Rajasthan and after having gathered the experiences from the earlier policies and identifying the impediments in the process of generation of electricity from non-conventional sources, State Government has decided to issue a comprehensive Policy for generation of electricity from various sources of non-conventional energy which offers solution to various problems faced by developers, investors and utilities, this Policy is being promulgated.

5.4.8 Initiative at Jaipur level

URBAN FORESTS AND OPEN GREEN SPACES: LESSONS FOR JAIPUR

It a collaborative effort by CAZRI, Jodhpur and RPCB, which reviews the present status of urban forestry across the world, and draw lessons that can be applied for the governance of urban green spaces. There is a critical necessity of green areas within urban social-ecological systems and it highlights the potential to develop urban forests in Jaipur.

Cities renowned for their urban green spaces have approximately 20 to 30% coverage of the total geographical area, and 15 to 25 m² urban green spaces per capita. World health organization (WHO) suggests ensuring at least a minimum availability of 9 m² green open space per city dweller. In Jaipur city open space is around 5.43 km² for a population of 3.30 million. Accordingly, per capita open space works out to be 1.60 m² per person which is well below the WHO norms.

As per the study, around the world, evidence is mounting that urban society is bound to further domesticate the natural systems and accordingly shape landscapes and ecosystems for human welfare. Tropical wild lands particularly urban natural systems and their biodiversity will survive in perpetuity only through their integration into human society. Thus, it would be prudent to implement this strategy by establishing multifunctional botanical gardens as urban green spaces in forest lands around Jaipur. This strategy would not only be useful for in situ conservation of biodiversity in small forest fragments that remain around Jaipur but also create multifunctional landscapes to enhance urban resilience and human well-being. It also relates to financial innovations for generating the resource to manage the urban green spaces sustainably.

International Conference on Renewable Energy (ICRE 2011)

The primary objective of ICRE 2011 workshop was to provide an intellectual forum for exchange of knowledge and information in relation to latest developments in renewable energy, as well as its related and enabling technologies. It benefited academics aspiring to provide a noble solution for the energy sustainability of mankind, as well as industries looking for economically sustainable renewable alternatives. The workshop covered the topics of Solar Energy (SE), Nuclear Energy (NE), Geothermal Applications (GA), Hydroelectric Energy (HYE), Bio Energy (BE), Hydrogen Energy (HE), Wind Energy (WE), and Energy Management (EM) etc.

5.4.9 Carbon footprint of urban population Jaipur: TERI

To understand the energy consumption patterns of the urban population in Jaipur, a study titled '**Estimating carbon footprint of urban household energy use**' was undertaken by TERI. The objective was to develop a tool to estimate the carbon impacts of urban household energy use in terms of an indicator that can be used by policy makers while developing energy strategies for urban areas. This study was undertaken in two phases.

- The first phase focused on developing a tool to assess the impact of energy consumption by urban households. Techniques such as Ecological Footprint (EF) and Carbon Footprint (CF) were evaluated as tools for assessing household energy footprint. These techniques were adapted and a framework developed to assess the CF of urban household energy use.
- In the Second phase, this framework was applied in Jaipur (India). In this a representative sample of 1500 households was surveyed in Jaipur to collect information on urban household energy use pattern and Key finding were:
 - The average per capita CF of sample population is about 0.4 tones.
 - The larger footprint of higher income classes is on account of more consumption of electricity, petrol, diesel, and LPG.
 - The largest contributor to households' footprint across all income categories is coal-generated electricity (about 50%), followed by transport fuels, and natural-gas-generated electricity.
 - In household, emissions due to production of fuels are about 1.5 times higher than those due to consumption of fuels.
 - With increase in household incomes, the CO₂ emissions from kerosene and biomass consumption decrease, while those for transport fuels show an increasing trend.

Annexure Settlements in Region

First List of 325 Villages

The Jaipur Development Authority was enacted with 342 settlement including 6 towns notification dt. 12.10.1982. In this list, there were 342 villages out of which 17 villages were deleted.

SI	Name of Settlement	SI	Name of Settlement
Towns			
1	Amber	4	Chomu (M)
2	Bagru (M)	5	Jaipur (M)
3	Bassi	6	Sanganer
Settlements of Amber			
7	Achrol	26	Jaisalya
8	Akeda doongar	27	Kherwari
9	Akhepura	28	Khora Meena
10	Amer Chak No.1	29	Khurad
11	Amer Chak No.2	30	Kishanpura @ Lalwas
12	Badarana	31	Kookas
13	Baragaon Jarkhya	32	Laxminarayanpura
14	Beer jaisala	33	Looniyawas
15	Beer Talera	34	Machera
16	Benarwith Daulatpura	35	Maila Bagh
17	Biharipura	36	Nangal Soosawatan
18	Bishangarh	37	Neendar
19	Chak Nangal	38	Nestiwas
20	Chimanpura	39	Raja Rampura
21	Daulatpura	40	Ramlyawala
22	Dweppura	41	Rampura
23	Harmada	42	Sewapura
24	Harwar	43	Sisiyawas
25	Jahota	44	Udaipuriya
Settlements of Bassi			
45	Boorthal	54	Kanarwas
46	Bhatesari	55	Kanota
47	Dudawala	56	Mohanpura
48	Dyorha Chor	57	Ramratanpura
49	Girdharipura	58	Ramsinghpura
50	Harchandpura @ Balyawala	59	Shri Rampura
51	Hardhyanpura	60	Sindoli
52	Hingoniya	61	Vijai Mukundpura @ Heerawala
53	Jeetawala		

First List of 325 Villages- Page 1

SI	Village name	SI	Village name
Settlements of Chaksu			
62	Chandlai	65	Khera Jagannathpura
63	Barh Ramzanipura	66	Kilkipura/Biharipura
64	Gordhanpura	67	Shivdaspora
Settlements of Jamwa Ramgarh			
68	Chak Mala Ki Nangal	79	Rampurawas Ramgarh
69	Dangarwala Khurd	80	Roopwas
70	Dhaupura	81	Barh Radho Das Pura
71	Hari Ka Bas	82	Chak Chainpura
72	Indragarh	83	Chak Kharchi Chainpura
73	Jamwa Ramgarh	84	Chawand Ka Mand
74	Kushalpura	85	Guwardi
75	Malawala	86	Langareeywas
76	Moondla	87	Mathura Das Pura
77	Naradpura	88	Palera
78	Natata	89	Saipura
Settlements of Jhotwara (Jaipur)			
90	Kilangarh	116	Charan_nadi
91	Manpura_sarwa	117	Choohavas
92	Badanpura	118	Dhauwas
93	Badarwas	119	Gajsinghpura
94	Bagrana	120	Galta
95	Balloopura	121	Girdharipura
96	Baori	122	Gokulpura
97	Barodiya	123	Govindpura
98	Basri	124	Harnathpura
99	Bassi sitarampura	125	Hasanpura
100	Beed sarkari	126	Hathod
101	Beer Hathod	127	Hathroi
102	Beer papad	128	Heerapura
103	Beermalpura @ Mukandpura	129	Jagannathpura
104	Bhavani Shankarpura	130	Jaipuriyon_ka_bas
105	Bhojpura	131	Jaisinghpura_khor
106	Bindayaka	132	Jamroli
107	Bishnawala	133	Jhotwara
108	Boytawala	134	Kanakpura
109	Chak Baori	135	Kartarpura
110	Chak Bhavani shankarpura	136	Khatipura
111	Chak choohavas	137	Kishanbagh
112	Chak hasanpura	138	Kishanpol
113	Chak sudarshnapura	139	Kishorpura
114	Chak sunder ka bas	140	Lalarpura
115	Chak peethawas_barar	141	Lalchandpura

First List of 325 Villages- Page 2

SI	Village name	SI	Village name
Settlements of Jhotwara (Jaipur)			
142	Madrampura	162	Rampura Rupa
143	Madrampura	163	Roopa Ki Nangal
144	Mahapura @ kukar kheda	164	Salivas
145	Malpura Chaur	165	Santok sagar
146	Malpura Doongar	166	Sarna Doongar
147	Manpura	167	Sewage farm
148	Mansa Rampura	168	Shajpura
149	Meenawala @Lavas	169	Shri murlipura
150	Moti Doongri	170	Sirsi
151	Moti Katla	171	Siwar
152	Mukandpura	172	Sodala
153	Nahargarh	173	Sudarshanpura
154	Nangal_jaisa_bohra	174	Sumel
155	Nanoosar	175	Talkatora
156	Neemera	176	Tijalpura
157	Niwaroo	177	Veer khatipura
158	Panchyawala	178	Vijay mahal
159	Parasrampura	179	Vijaypura
160	Peethawas	180	Vijaypura
161	Prempura		
Settlements of Sanganer			
181	Abhaipura	210	Chanpura
182	Acharawala	211	Chatarawala
183	Asarpura	212	Chatarpura
184	Asawala	213	Chimanpura
185	Badanpura	214	Chimanpura
186	Baksawala	215	Dahmi Kalan
187	Balawala	216	Dantli
188	Balrampura_khejra ka was	217	Dehlawas
189	Bambala	218	Deori
190	Barh Shyopur	219	Dholi ka vas
191	Barh_teelawala	220	Dhoola
192	Barhmohanpura	221	Durgapura
193	Bari Ka Bas	222	Ganpatpura
194	Beelwa Kalan	223	Ganpatpura_chak_no_1
195	Bhairon_karol	224	Ganwar Brahman
196	Bhankrota_kalan	225	Ganwar Jatan
197	Bhaogarh_bandha	226	Gatore
198	Bhaosinghpura	227	Ghega ka khera
199	Bhater	228	Goner
200	Bindayaka	229	Gopalpura
201	Budhsinghpura	230	Govindpura
202	Chainpura	231	Govindpura_rohpara
203	Chak Amjhar	232	Hajyawala
204	chak dhola	233	Hasampura_bas_bhankrot
205	Chak Harbanspura	234	Hirapura
206	Chak Saligrampura	235	Indrapuri
207	Chak_getor	236	Jagannathpura
208	Chak karol	237	jagat shiromanipura
209	Chakwatika	238	Jagatpura

First List of 325 Villages- Page 3

SI	Village name	SI	Village name
Settlements of Jhotwara (Jaipur)			
239	Jaichandpura	283	Narottampura
240	Jaipura	284	Narsinghpura@raksa
241	Jairajpura	285	Paldi meena
242	Jaisinghpura	286	Prahladpura
243	Jaisinghpura @ Buhariya	287	Purshottampura @ Dadiy
244	Jaisinghpura @ Tejawala	288	Ramchandpura
245	Jatawala	289	Ramjipura
246	Jeerota	290	Ramnagariya
247	Jhalana chaur	291	Rampura @ Kanwarpura
248	jhalana doongar	292	Ramsinghpravas maido
249	Jhujharpura mendla	293	Ramsinghpura dhaulai
250	Jotrawala	294	Ramsinghpura bas_sanganer
251	Kailashpur @Kokawas	295	Ratalya
252	Kalyanpura	296	Saipura
253	Kalyanpura khatipura	297	Salgirampura
254	Keshopura	298	Sanwant Ka Bas
255	Kheri Gokulpura	299	Sawai Jaisinghpura @ Bas Beelwa
256	Khetapura	300	Sawai jaisinghpura_Jeerota
257	Kho nagoriya	301	Seesyawas
258	Kho_rebariyan	302	Shikarpura
259	Khoosar	303	Shri Kishanpura
260	Khori	304	Shri Ram Ki Nangal
261	Kokawas	305	Shri Rampura
262	Lakhana	306	Shri_govindpura
263	Lakhesara	307	Shyampura Buhariya
264	Laxmipura	308	Shyopur
265	Laxmipura @ Nataniwala	309	Shyosinghpura @ Kallawala
266	Looniyawas	310	Singarpura
267	Maanpur devri @ Golyawas	311	Siroli
268	Madrampura	312	Sitapura
269	Mahal	313	Sitarampura
270	Mahasinghpura @ Keshyawala	314	Sriramgopalpura bhoj
271	Mandau	315	Srirampurabas_bhankrot
272	Mangyawas	316	Sukhalpura
273	Manohariya Wala	317	Sukhdeopura @ Nataniwa
274	Manoharpura	318	Sukhiya
275	Manpur Nagalya	319	Sukhpura
276	Mathurawala	320	Surajpura
277	Mohanpura	321	Teelawala
278	Muhana	322	Toda ramjanpura
279	Murlipura	323	Udaipur_gilhariya
280	Nagariyawala	324	Vidhani
281	Nanagpura	325	Vimalpura
282	Nandkishorpura@manyawas		

First List of 325 Villages- Page 4

Second List of 153

Villages Notification F7 (22) UDH/3/87 dated 25.10.1997 included 153 villages as listed here

SI	Village name	SI	Village name
Settlements of Amber			
1	Akeda Chaud	13	Labana
2	Ani	14	Maheshpura Rawan
3	Bhatton Ki Gali	15	Mothoo Ka Bas
4	Chak Kothiya	16	Nangal Turkan
5	Chhanwar Ka Bas	17	Rajpur Khanaya
6	Chimanpura	18	Rampura
7	Dabri	19	Hanumanpura With Chak
8	Dhand	20	Jagnnathpura
9	Dheengpur	21	Nangal Purohit
10	Gunawata	22	Nangal Siras
11	Kankrel	23	Rajawas
12	Kotra	24	Tantyawas
Settlements of Bassi			
25	Barh Swami	32	Kalyanpura
26	Beelwa Khurd	33	Mangarh Khokhawala
27	Bhaosar Isharwala	34	Mansar Kheri
28	Birajpura	35	Philsan Biharipura
29	Dayarampura	36	Ramsar Palawala
30	Geela Ki Nangal	37	Rohtaspura
31	Hari Rampura		
Settlements of Chaksu			
38	aaleewas @ Puroshottampura	55	Jaichandpura
39	Bajdoli	56	Janki Ballabhpora
40	Barkhera	57	Jhujharpura
41	Bhojya Dand	58	Kathawala @ Laxmipura
42	Biharipura(rural)	59	Kumhariyawas
43	Brijnathpura	60	Malwa
44	Chak Chandlai No.1	61	Nanjipura
45	Chak Chandlai No.2	62	Narharpura
46	Chak Laxmipura No. 1	63	Narya Ka Bas
47	Chak Laxmipura No. 2	64	Prahladpura @ Damakpur
48	Chak Shri Kishanpura	65	Rampura Bas Goner
49	Chakwatka	66	Ranipura
50	Chosla	67	Sadashivpura @ Yarlipu
51	Fatehpurawas Watka	68	Seemlyawas Watka
52	Gogyawas @ Sitarampura	69	Shri Sawai Jaisinghpur
53	Gopirampura	70	Udaipura
54	Jai Anandpura		
Settlements of Govindgarh (Chomu)			
71	Anatpura	72	Jaitpura

SI	Village name	SI	Village name
Settlements of Jamwa Ramgarh			
73	Bhanpur Kalan	81	Neemariyan
74	Chainpurawas Saiwar	82	Rampura @ Chamba Ki Nangal
75	Chak Indra Garh	83	Saiwara
76	Chaumukha	84	Teekampura
77	Heerawala	85	Balkrishna Pura
78	Lali	86	Daloo Ka Barh
79	Maid Rajsinghpura	87	Peepalawali
80	Nayabas		
Settlements of Jhotwara (Jaipur)			
88	Badocha	92	Maharajpura
89	Chak choohavas no 2	93	Srirampura
90	Govindpura @ Jaichandp	94	Sushilpura
91	Jaibhawanipura		
Settlements of Phagi			
95	Basri Jogiyan	100	Kundan Pura
96	Chandawas	101	Mohabbat Pura
97	Dabla Bujurg	102	Pahariya
98	Dabla Khurd	103	Renwal Manji
99	Ganeshpura		
Settlements of Sanganer			
104	Bagru Khurd	129	Shri Ramjipura
105	Balmukundpura @ Nada	130	Suratpura
106	Bhambhoriya	131	Teelawas
107	Chak ganpatpur no 2	132	Thikariya
108	Chakno.6	133	Watika
109	Chatarpura@ Lalya Ka Bas	134	Barh_chela
110	Chhitroli	135	Barh_karol
111	Chirota	136	Chak No.12
112	Dahmi Khurd	137	Chak_mata_shoola
113	Harchandpura @ Deoliya	138	Dayalpura
114	Hardhyanpura	139	Harbanshpura
115	Hasampura	140	Hargun Ki Nangal@charanwala
116	Hasampura Bas Neota	141	Jaisinghpura @ Roopwas
117	Jaijaspura	142	Khatwara
118	Jhanyee	143	Kishorpura
119	Kalwara	144	Mahapura
120	Lakhawas	145	Manpur Teelawala
121	Nangal Bar Goojran@pha	146	Manpura @ Bhatawala
122	Narsinghpura	147	Mohanpura
123	Narsinghpura @ Dadiya	148	Murlipura @ Mishra Ka
124	Palri Parsa	149	Neota
125	Ramchandpura	150	Peepla Bharatsingh
126	Rampurawas Deoliya	151	Ramsinghpura
127	Sarangpura	152	Sukhdeopura @ Nohara
128	Sawai jaisinghpura_neota	153	Surajpura

Second List of 153 Villages- Page 2

Third List of 243 Villages

247 villages were included in the Jaipur region vide notification F7 (22) UDH/3/87 dated 1.10.2007. Four villages were found non-existing and rest 243 villages are listed here:

SI	Village name	SI	Village name
Settlements of Amber			
1	Achhojai	45	Kushalpura
2	Arniya	46	Ladana
3	Atalbiharipura	47	Lakher
4	Badanpura	48	Lamya Mewal
5	Bagwada	49	Maheshwas Kalan
6	Barh Jahota	50	Maheshwas Khurd
7	Bas Baori	51	Manpura Mancheri
8	Beelpur	52	Mohanbari
9	Bheempura	53	Mori
10	Bhoorawali	54	Mukandpura
11	Bhuranpura @nestiwas	55	Mundota
12	Bilochi	56	Nakawala
13	Boodthal	57	Peelwa
14	Chak Degrawas	58	Pokharawala @ Anandpur
15	Chak Jaisinghnagar	59	Puth Ka Bas @ Chawa Ka
16	Chak Manoharpur	60	Rajpurwas Chandwaji
17	Chak Pokharawala	61	Rampura @ Baniyawala
18	Chak Rojda	62	Risani
19	Chandawas	63	Rojda
20	Chandwaji	64	Roondal
21	Chatarpura	65	Salarwas
22	Chhaprari	66	Sangawala
23	Chitanukalan	67	Sar
24	Chokhlawas @ Kacherawa	68	Sardarpura
25	Chonp	69	Seengwana
26	Degrawas	70	Sherawatpura
27	Deo Ka Harmara	71	Shri Govindpura
28	Deogudha	72	Shyampura
29	Dwarkapura	73	Sirohi
30	Ghatwada	74	Sundarpura
31	Harchandpura	75	Sunder Ka Bas
32	Harchandpura @kankarwa	76	Syari
33	Israwala	77	Chetawala
34	Jaisingh Nagar	78	Chirara
35	Jaitpura	79	Dalpura
36	Jaitpura Kheenchee	80	Datawata
37	Jiloi	81	Govindpura
38	Jugalpura	82	Hardattpura
39	Kalighati	83	Jairampura
40	Kalwad Kalan & Khurd	84	Khora Shyamdas
41	Kant	85	Khorabeasal
42	Kanwarpura	86	Kishanpura
43	Kanwarpura	87	Sindolai
44	Kiratpura	88	Subhrampura

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SI	Village name	SI	Village name
Settlements of Bassi			
89	Bala Ki Nangal	94	Lasariya Goojran
90	Gokulpura Lasariya	95	Phalyawas
91	Gudha phalyawas	96	Ralawata
92	Himmatpura	97	Ratanpura
93	Khijooriya Ahiran	98	Sankh Shyopuri
Settlements of Chaksu			
99	Ankeshpura	114	Manpur Doongri
100	Balloopura	115	Mansar
101	Beer Suratrampura	116	Nangal Pooran
102	Bhawanipura	117	Pachoor
103	Bhojyara	118	Peeplyabai Ka Barh
104	Chak Shivdaspura No. 2	119	Raipuriya Khurd
105	Chakshivdaspura No1	120	Salagrampura
106	Chatarbhujpura	121	Santoshpura
107	Dadanpura	122	Shri Daulatpura
108	Dahar	123	Shri Kishanpura
109	Deo Kishanpura	124	Surajpura @ Tootoli
110	Deokinandanpura	125	Swaimadhosinghpura
111	Dharmpura	126	Teetriya
112	Dhoral	127	Thooni Jailalpura
113	Maksoodanpura @ Bara P	128	Vinodilalpura
Settlements of Dudu			
129	Chak Nasnota	135	Kapriyawas Kalan
130	Chan Chukaya	136	Kapriyawas Khurd
131	Garota	137	Mahlan
132	Garoti	138	Nasnota
133	Girdharipura	139	Shyosingpura Basri
134	Kalyansar	140	Sitarampura
Settlements of Govindgarh (Chomu)			
141	Moriya		
Settlements of Jamwa Ramgarh			
142	Chak Nondpura	146	Nondpura
143	Harkishanpura	147	Rahori
144	Meeno Ka Barh	148	Ramji Pura
145	Nayla	149	Raniyawas

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SI	Village name	SI	Village name
Settlements of Jhotwara (Jaipur)			
150	Achanchukya	176	Nandgaon Barsana
151	Barh Fatehpura	177	Natlalpur
152	Begas	178	Pachar
153	Bichpari	179	Ramla Ka Bas
154	Chak Begas	180	Ramsingh Pura
155	Chak Ramsar	181	Sarang Ka Bas
156	Charanwas	182	Shrirampura @ Tewariwa
157	Dhankya	183	Shyosinghpura @ Shyopu
158	Dharmpura	184	Sitapura @ Ramoli
159	Durjaniasawas	185	Sundariasawas
160	Fatehpura	186	Baseri
161	Gajadharpura	187	Bhambori
162	Gurliya	188	Bhoodarpura
163	Himmatpura	189	Chak Barh
164	Indokiya	190	Chak Basri
165	Jaisinghpura Kankroda	191	Chak Boytawala
166	Kalwar	192	Chak Sarna Doongar
167	Kanarpura @ Khanga Ki	193	Champapura
168	Kanwar Ka Bas	194	Manchwa
169	Kapariasawas	195	Mundiya Purohitan
170	Keshyawala	196	Mundiya Ramsar
171	Kishorpura @ Kankroda	197	Nari Ka Bas
172	Lalpura	198	Pindolai
173	Laxmipura @ Chak Mauja	199	Sabrampura
174	Manda Bhopawas	200	Sanchoti
175	Mansinghpura	201	Sarna Chaur
Settlements of Phagi			
202	Barhali	208	Shri Jaipalpur @ Gooj
203	Bokrawas	209	Shrirajpur
204	Chittora	210	Sitarampur
205	Daloowala	211	Beer Ramchandrapur
206	Narayan Pura	212	Manpur Gate
207	Pratappur		

Third List of 243 Villages- Page 3

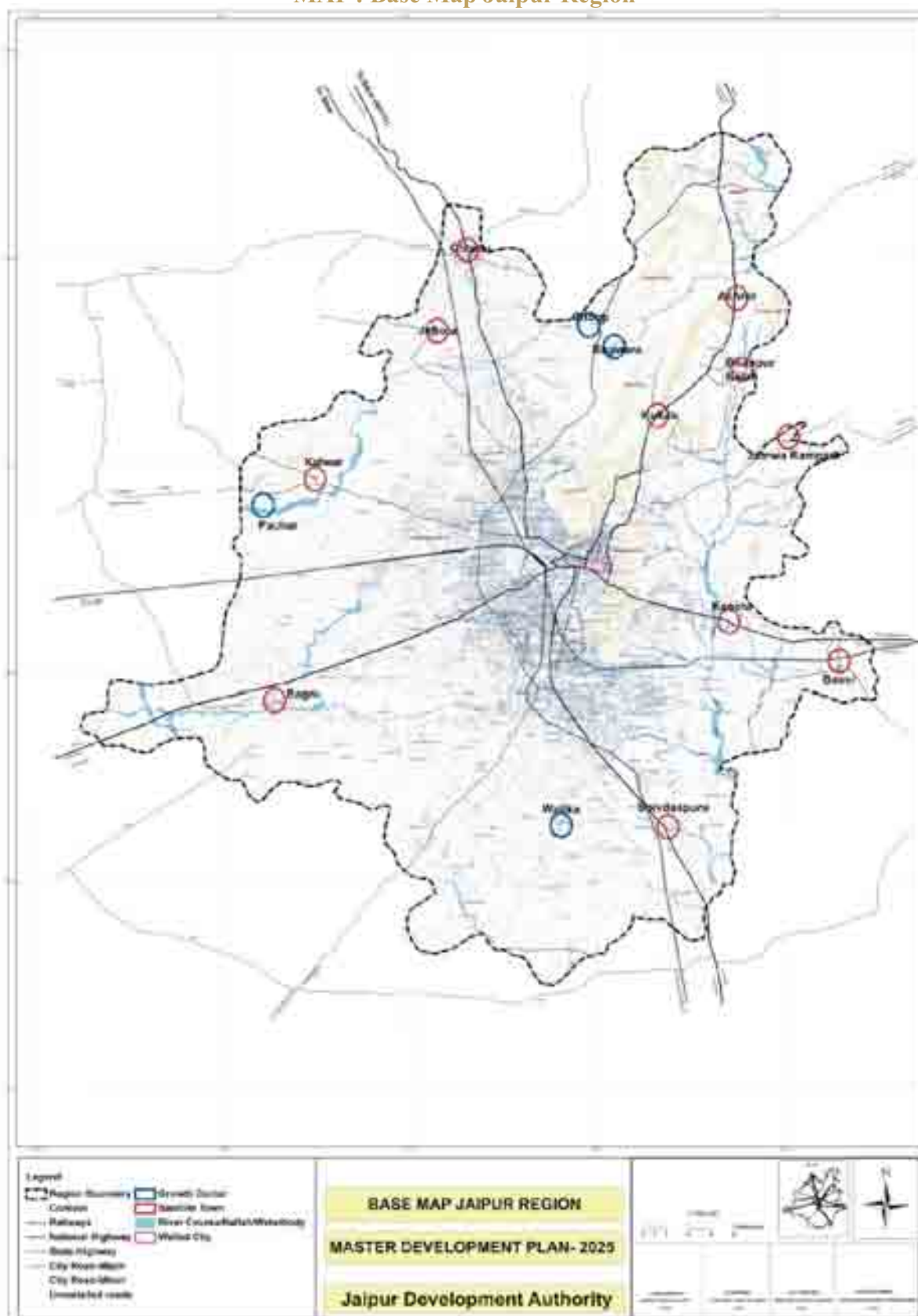
SI	Village name	SI	Village name
Settlements of Sanganer			
213	Anoppura	229	Kodar
214	Awaniya	230	Laxminarayanpura
215	Bagru Rawan	231	Narwariya
216	Barh Awaniya	232	Prempura
217	Barh hariharpura	233	Prithvisinghpura @ Naiwala
218	Bhankrota Khurd	234	Ramdattapura
219	Bhapura	235	Rampura Unti
220	Chak Basri	236	Sanjariya
221	Chak Sherwali	237	Shyosinghpura
222	Chatarpura	238	Sirani
223	Daulatpura	239	Sitapura Bas Sanjhariya
224	Devisinghpura	240	Ajairajpura
225	Hariharpura	241	Ganpatpura Chak No.1,2,3,4,5,8,14
226	Jagannathpura	242	Kapoorawala
227	Jhund	243	Pawaliya
228	Kishanpura @ Khatipura		

Third List of 243 Villages- Page 4

MAP : Villages in Jaipur Region



MAP : Base Map Jaipur Region





राजस्थान राज-पत्र
विशेषांक

संशोधित प्रकाशित

RAJASTHAN GAZETTE

Extraordinary

Published by Authority

भाद्र १८, शुक्रवार शाके १९३३-सितम्बर ९, २०११
Bhadra 18, Friday, Saka 1933-September 9, 2011

भाग ६ (क)

जिला बोर्ड, परिषदों एवं नगर आभोजन संघों की दिज्ञापित आदि

कार्यालय जयपुर विकास प्राधिकरण, जयपुर

अधिसूचना

जयपुर, सितम्बर ५, २०११

संख्या एफ.६४/जविप्रा/अति.मु.न.वि./रा.स्थान/२०११/डी-१००९-जयपुर विकास प्राधिकरण अधिनियम, १९९२ की १३२ २९ (१) में प्रदत्त शक्तियों के अनुसरण में एवं साधारण राज-पत्र एवं राजस्थान राज-पत्र भाग ६(क), उपखण्ड (II) दिनांक ०७-१०-१९९६ प्रकाशित अधिसूचना क्रमांक एस.ओ १३७ दिनांक ०७-१०-१९९६ के अधिनियम में जयपुर विकास प्राधिकरण साद्वारत "जयपुर" शीर्षक में आने वाले सम्पूर्ण क्षेत्र को "डवलपमेंट एरिया" घोषित करता है।

शुधि शर्मा,

सचिव,

जयपुर विकास प्राधिकरण, जयपुर।

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राज्य केन्द्रीय मुद्रणालय, जयपुर।



सत्यमेव जयते

राजस्थान राज-पत्र
विशेषांक

साधिकार प्रकाशित

RAJASTHAN GAZETTE

Extraordinary

Published by Authority

भाद्र 18, शुक्रवार, शाके 1933-सितम्बर 9, 2011
Bhadra 18, Friday, Saka 1933-September 9, 2011

भाग 6 (ख)

जिले: बीडों, परिषदों एवं नगर आयोजना संबंधी विज्ञापित; आदि।

जयपुर विकास प्राधिकरण, जयपुर

अधिसूचना

जयपुर, सितम्बर 5, 2011

संख्या जविप्रा/अति.मु.न.नि.(पा.प्लान)/2009/डी-1008 :- जयपुर विभाजित प्राधिकरण अधिनियम, 1992 की धारा 23 (योजना तैयार करने और उसे मंजूर किये जाने के सम्बन्ध में अपनाई जाने वाली प्रक्रिया) की उप-धारा (3) में प्रदत्त शक्तियों का उपयोग करते हुए मास्टर विकास योजना-2025 जयपुर रीजन तैयार कर प्राधिकरण की 80वीं बैठक दिनांक 05-09-2011 के द्वारा अनुमोदित की गई, जो धारा 24 (योजना के प्रवर्तन होने की तारीख) की अनुपालना में दिनांक 06-09-2011 से प्रभावी होगी।

मास्टर विकास योजना-2025, जयपुर रीजन, जयपुर विकास प्राधिकरण कार्यालय में नागरिक सेवा केन्द्र भवन की द्वितीय मंजिल पर कार्यालय समय में मास्टर प्लान शाखा में व जविप्रा की website : www.jaipurjda.org पर भी देखा जा सकता है।

शुषि शर्मा,

सचिव,

जयपुर विकास प्राधिकरण, जयपुर।

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राज्य केन्द्रीय मुद्रणालय, जयपुर।