Assessment of zonal urban area in terms of planning and its regularization: A case of Prithvi Raj Nagar, Jaipur

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Abstract: Land is a vital natural resource essential for human survival and development. Growing population and expanding human activities have increased the demand for limited land for agriculture, forestry, urbanization, and industry. Indiscriminate use leads to haphazard development, environmental degradation, and loss of fertile land. Understanding land use and land cover is crucial for sustainable planning. Urbanization significantly shapes societal structures, but when unplanned, it can render areas unliveable. This study focuses on the unplanned urbanization of the Prithvi Raj Nagar (PRN) area in Jaipur, which faced development challenges due to the failed implementation of the PRN scheme. Despite being designated a special area in the master plan, policy lapses led to unchecked growth, inadequate public services, environmental issues, and unauthorized settlements. The study evaluates the impact of these failures on the socio-economic conditions of residents and explores how proper planning and policy implementation can help regularize and improve the area through development plans.

Keywords: Unplanned uncontrolled urbanization, socio-economic impacts, regularization.

1. Introduction

Well-planned urbanization plays a significant role in the progress and development of human civilization because it radically changes the basic foundation of the ingredients of social, economic, political, and cultural structures of society and the country. Urbanization increases the area of urban centers and the proportion of people living in that area. Sustainable urbanization depends on proper land use/land cover, planning, management, and ordination of the assets.

Social activities and various events mainly prejudice land use/land cover (LULC) changes to regions. The Land utilized for human activity is Land use, and the natural cover of the earth's surface is called Landcover. Activities that majorly influence the LULC are population growth rate, demand/consumption of agriculture, technology development, social development, and urban development. Accurate demand of LULC information data is necessary to collect for analyzing, designing, planning, and managing field and work area.

In the past, LULC data were collected by the conventional method, which was not much reliable and high rate of inaccuracy. However, a drastic and significant impact was observed in LULC data collection after utilizing remote sensing investigation on this study field. In today's time, where there is rapid growth in development, remote sensing is the foremost tool for data collection and analysis.

LULC can be classified into different parts, mainly built up and semi builds up regions considered urban growth by society. These build-up areas are generally for residential, market, Transportation, commercial, industrial, social and economic purposes for human beings. The location and rate of this LULC are directly affected by rural and urban regions. Due to development and modern society's needs, exponential growth in land use is found in the twenty-first century. This rapid land-use growth generates social and environmental impact by adversely affecting natural resources. These problems mainly originated due to the uncontrolled and rapid development of urbanization and high population density in this region. Controlled and planned development of land use is significantly monitored and regularized by various governing bodies in such a manner so that proper land management is done there is no exploitation of natural resources. Due to rapid population growth, the need for urban development is not fulfilled by governing bodies that generate decentralized and unplanned development. This unplanned development by local or private contractors generates haphazard and hotch-potch in the area.

Unplanned development will inevitably lead to the depletion of socio-economic resources. Hence, it is necessary to modify urban development plans to associate them with sustainability and achieve sustainable socio-economic development. The principle of sustainable socio-economic development embodies a road map toward securing society's present and future by well planned development. It does provide valuable ideas for the ideal utilization of the sources and sustaining them. The philosophy of sustainable socio-economic development aims to provide the needs of the current residents of society and develop living conditions that do not affect the needs of the future residing society. In order to achieve sustainable socio-economic development, there must be an effective and responsible management project policy of the Governmental and the Private sectors to orient their activities properly in quest of the fulfillment of better socio-economic development goals for the society.

1.1. Irregular Settlement and their Impact on Society

These progressions have been emphatically affected by the rising prevalence of monetary advancement and by the weight of primary change programs. Thus, significant projects for creating and adjusting urban Land have been raised doubt about due to the sharp expansion in the cost of Land and the turn of events, broadening and expanding commercialization of sporadic land and lodging creation frameworks, and the executives. The degree of unpredictable lodging fluctuates from one country to another, containing 20% to 80% of urban development and influencing 15% to 70% of the metropolitan populace of emerging nations (the average figure is more than 40%). Issues are most forcefully felt in the more prominent metropolitan regions. Unpredictable lodging confines the social and financial combination of low-pay metropolitan families, making admittance to credit for lodging more troublesome and lessening individuals' ability for valuable exercises. The expression "sporadic settlement" incorporates a broad scope of neighborhood circumstances and elements. It may be characterized as a space or settlement where improvement (spatial extension) and inhabitance are inconsistent with the legitimate, metropolitan, and ecological norms set by open specialists. Three issues are usual to occupants of sporadic settlements: (a) secure residency is not officially ensured; (b) the suitable exchange, sell, or home loan property might be rejected or challenged; (c) the right of admittance to metropolitan framework and administrations is not entirely perceived. Sporadic settlements are to be seen as one item or part of a more complete land and lodging conveyance framework, which incorporates the conventional public and private areas just as everyday practices.

Three typical unpredictable settlement designs:

1. Sporadic regions: these settlements are by and large on whole or local Land that has been split into plots that are sold or leased. Development and the deal or rental might have been completed by the land-proprietor or by a mediator following up for his sake. These reasons for the inconsistency are various and by and large aggregate, hence increasing the hardships in giving the region administration offices and regularizing its tenants' legitimate residency. The deal or rental of the parcel might be unlawful: the dealer will most likely be unable to demonstrate he has a legitimate title to the Land; the region and the limits of the part may not be plainly outlined. Be that as it may, by and large, the deal is an ordinary lawful exchange (with a saw deed or one confirmed by a public accountant). The abnormality might lie somewhere else: maybe the exchange was not appropriately recorded, or the improvement did not follow arranging and land-use guidelines, or the development plan was not endorsed, or administration foundation principles or the structure and development standards and norms not agreed with. In different cases, oftentimes saw as in francophone nations of sub-Saharan Africa, public specialists apportion land plots and the recipients get a "license to involve", which might be changed over into a freehold title later the plot has been properly evolved. In such cases, notwithstanding, the allottee can seldom meet the particulars specified (size and sort of development), and afterward, following a couple of years, he is in a "sporadic" circumstance.

2. Vagrant settlements: in the severe feeling of the term, vagrants possess Land without the proprietor's consent. The proprietor might be a private individual or an administration organization. The level of resilience of vagrants fluctuates significantly in various urban communities and settlements, and at various moments and will decide how problematic the occupation is. The property involved by vagrants has been continuously involved, or the consequences will be severe "attacked". The control of plots might keep a bunch of guidelines set up by the prominent families on the site or by the local area of tenants or its agents. By the by, in specific settlements, inhabitants who are occupants might become vagrants, assuming the proprietor of the property doesn't recharge the rent or will not gather the lease.

3. Control of haggard structures in downtown areas: as a rule, these are rental units. The inconsistency lies fundamentally in (a) the situation with the "occupants", or, all the more once in a long while, vagrants (no rent, of a verbal agreement without any certifications); or (b) resistance with wellbeing and disinfection standards (seepage, thickness of occupation) and security (broken down structures).

4. The social construction of sporadic settlements: the social design of unpredictable settlements is a long way from homogeneous inside a solitary city or even inside one settlement. Sporadic settlements are not generally involved only by the metropolitan poor. Center pay individuals to get comfortable in such regions when the conventional real estate market can't satisfy their needs; in such cases, a certain "right to anomaly" might be perceived, and the circumstance occasionally put directly through mass regularization by lawful measures. In São Paulo, 1992 assessments uncovered that 66% of possessed lodging units were based on developments with some type of abnormality. In excess of a fourth of these units were involved by center pay inhabitants This peculiarity happens most much of the time in urban communities in which the accompanying variables agreed: critical 20 development of the working classes, fast spatial development, an ascent in land costs going with the advancement of a land market and a lenient State demeanor. Contextual investigations show an immediate connection between families' financial status (pay, social standing, and so forth), the underlying cost of admittance to the settlement concerned, and frailty of occupation. The guide of metropolitan destitution might be superimposed on that of sporadic settlements decently precisely.

1.2. Objectives and Scope of study

The primary objective of the study is to investigate the planning and regularization of Prithvi Raj Nagar (study area) with emphasis upon:

- To find out the negative impact of unplanned development in Prithvi Raj Nagar on society.
- To identify challenges generated due to uncontrolled development in Prithvi Raj Nagar for future growth.
- To assess the land regularization process in PRN area.
- To compare and assess planning policies for PRN.
- To study the socio-environment impact of planning and regularization in PRN.

The present study assess the uncontrolled development of Prithvi Raj Nagar due to non-execution of PRN scheme. Study also focuses on the regularization process of the un-planned and un-serviced settlements. The uncontrolled development generates significant problems in planning and regularization process and preparation of planning policies of PRN. It also created hurdles in planning of road network and other infrastructures for the local people. The scope also covers the assessment of benefits and limitations of the regularization policies and its implementation. More than 50 percent land of the proposed area was occupied by the peoples by means of developing un-authorised colonies and construction of houses creates enormous challenges based on provision for proper Transportation facilities, sewerage system, electrification, water supply, parks, playgrounds and other public amenities were also covered in the study.

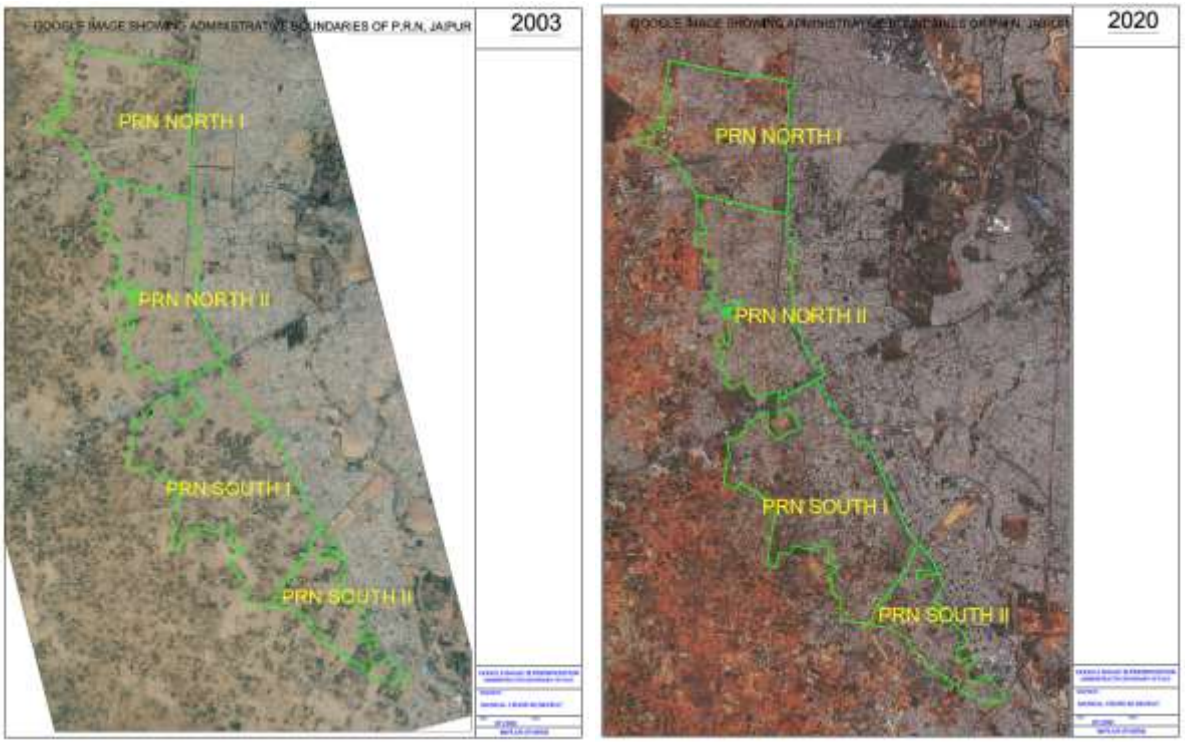


Figure 1.1. (a) Google maps of Prithvi Raj Nagar in 2003 (b) 2020

2. Materials and Methods

Rajasthan's capital, Jaipur, is located in India. It pays homage to the royal dynasty that previously dominated the region and created what is now known as the Old City, often known as "Pink City" because of its distinctive building color.

2.1. Master Development Plan 2011

This Master Plan was created to satisfy the city's and region's future needs and address the city's current issues. The Land Use Plan and the zoning regulations were developed to make the Master Plan ideas easier to execute. The Jaipur region's satellite towns were included in the Master Plan preparation. Appropriate restrictions were enacted to encourage private developers to pursue residential and other development projects. With three stages of growth, the 2011 Master Plan included three physical planning components: urban, rural, and ecological. The initial Master plan, drawn up in 1971, was for 156 square kilometers. However, new neighborhoods like Prithvi raj Nagar (PRN), Pratap Nagar, Sitapura, and the South of Jaipur have been created. The total area, including diversions, was roughly 190 sq km, representing a 21.80% increase. These variations were not documented in 2011 during the drafting of the Master Development Plan-2011, which was designed based on an ideal population for an area of 326 square kilometers (which should have been about 400 square kilometers). As a result, when haphazard development occurred, sector planning was used to deliberate interventions to bring order to the development process. Even though the development area was supposed to be 326 square kilometers up to 2011, it is now 600 square kilometers, percentage deviance of 84.05 percent. Following the completion of the Master plan, this plan lacked follow-up measures such as the drafting of functional plans, zonal development plans, and zoning rules.

2.2. Master Development Plan 2025

The Master Development Plan 2025, prepared under JDA Act, covers 2940 square kilometers and includes 725 villages, urban communities, and two city councils. Remote sensing and GIS technology were taken into accounts to create the master development plan. Satellite images were used to create the base map to enable up-to-date planning. The master plan is based on a detailed survey at the district, region, and city levels.

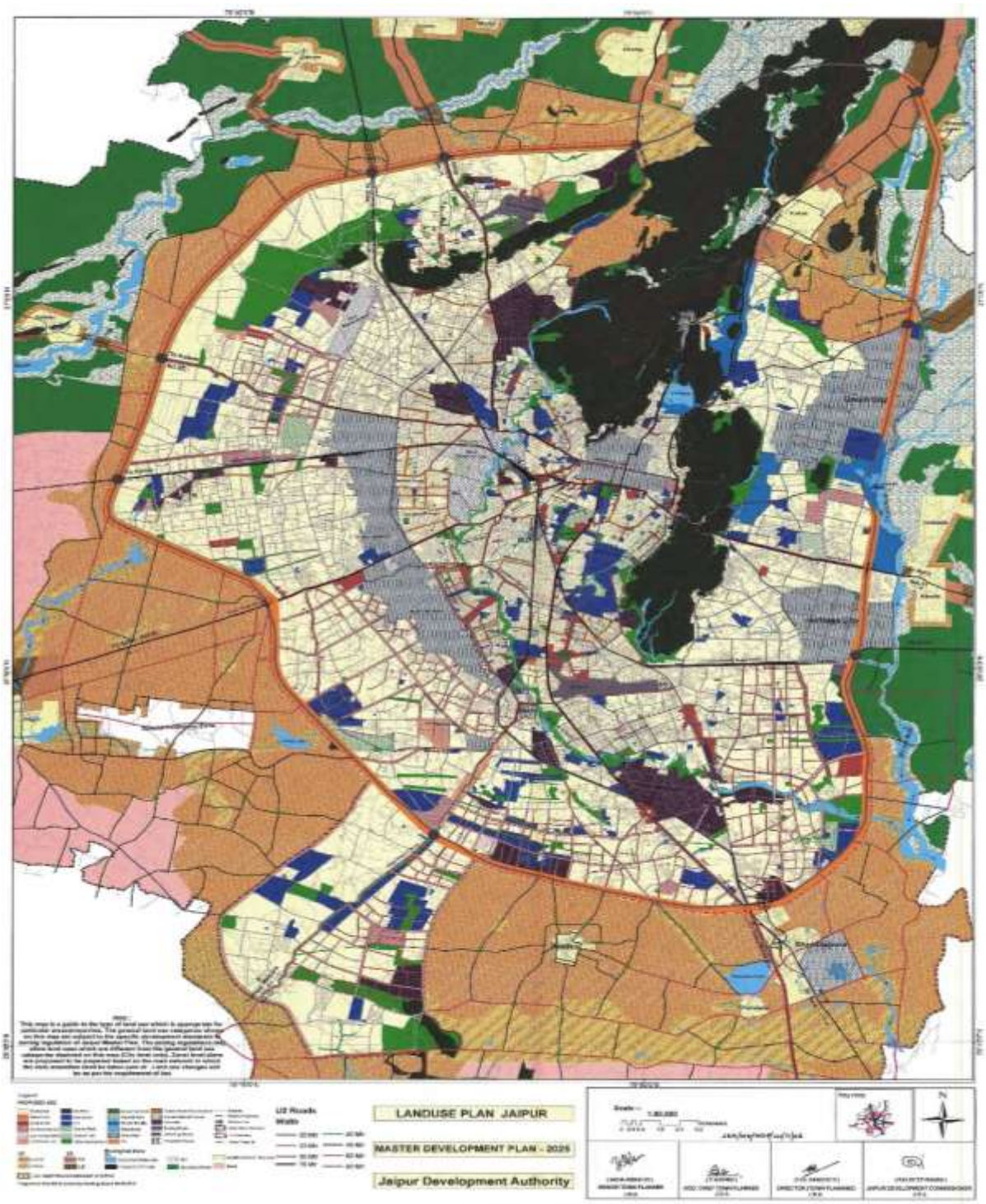


Figure 2.1. Land utilization of Jaipur (Replace with MDP 2025)

*Source: Jaipur development Authority Documents

2.3. Regularization Objectives and Procedures

An increase in uncontrolled and unplanned development results from a lack of planning and regulations. The significant characteristic of unexpected developments is irregular urban settlements with haphazard construction. Town or city development authorities have generated several objectives and planning for sustainable development. However, irregular settlements generate problems in the development plan. For these problems, development authorities should implement strict policies regarding urban infrastructure, deblocking, and land tenure regularization of uncontrolled development. The reduction of urban infrastructure and housing deficit is a primary objective of regularization. Regularization can be

done by reducing the land demand from low-income households in central urban regions. Regularization process is dived in to five steps as shown in below figure.

2.4. Regularization policies

The guiding principles are those which, on the one hand, aim to improve people's living conditions by providing them with secure access to housing, urban infrastructure, and services, and, on the other hand, are designed to have long-term effects on social policy, management, and administration, at least on a legislative and regulatory level.

When it comes to irregular, informal settlements, the best practices provide residents with secure land tenure (on the site or elsewhere with equal benefits) and access to the bare minimum of urban services and infrastructure. In addition, best practices acknowledge residents' rights of irregular settlements to Land, providing them with credit and the option to transfer or pass such rights on.

Despite the wide range of scenarios, general case studies demonstrate many characteristics that contribute to the effectiveness of regularisation initiatives.

2.5. Remote Sensing

Data from remote sensing are major sources for analyzing development and environmental processes on a local or global scale. These statistics are used to detect changes in recent decades. Remote sensing data are extremely important for area visualization, classification, and analysis the particular location. These data are classified according to their resolution, electromagnetic spectrum, energy source, imaging medium, and number of bands. The higher the degree of precision achieved during classification, the higher the resolution of satellite data (spatial resolution, spectral resolution, radiometric resolution, and temporal resolution) is achieved.

Normalized Difference Vegetation Index (NDVI):

The Normalized Difference Vegetation Index (NDVI) is the most widely used vegetation index for measuring greenery around the particular location. Other popular vegetation indices are the Enhanced Vegetation Index (EVI), Perpendicular Vegetation Index (PVI), and Ration Vegetation Index (RVI).

In general, healthy vegetation is an excellent absorber of the electromagnetic spectrum for obvious reasons. Chlorophyll in greeneries absorbs the blue (0.4 – 0.5 m) and red (0.6 – 0.7 m) spectrums and reflects the green (0.5 – 0.6 m) spectrum. As a result, healthy foliage appears green to human eyes. Plants that are healthy have a high reflectance in the Near Infrared (NIR) range of 0.7 to 1.3 m. This is related to the interior structure of plant leaves. NDVI is calculated using two bands with high reflectance in the NIR spectrum and high absorption in the red wavelength. The NDVI rate can be calculated using raster calculator in ArcGIS 10.5.

Normalized Difference Built-up Index (NDBI):

There are lots of indexes for the analysis of built-up area. The most commonly used indexes for analyzing built-up regions are the Built-up Index (NDBI), Built-up Index (BU), Urban Index (UI), Index-based Built-up Index (IBI), Enhanced Built-up and Bareness Index (EBBI), and Index-based Built-up Index (IBI). Each of these indices has its own formula and calculating technique. SWIR is emitted by built-up areas and bare soil, while NIR is emitted by bare soil. Water does not reflect in the infrared range. In the case of a greenie surface, NIR spectrum reflection is greater than SWIR spectrum reflection. One can improve their results by using the Built-up Index (BU). The Build-up Index is an index used to analyze urban patterns using NDBI and NDVI. Built-up index is a binary picture in which only greater positive values indicate built-up and lower positive values indicate barren, allowing BU to automatically map the built-up region.

In addition, the Normalize Difference in value of the Build-up Index ranges from -1 to +1. Negative NDBI values represent water bodies, while positive NDBI values represent built-up regions. Vegetation has a low NDBI value.

2.6. Study Area

The locality of Prithvi Raj Nagar falls in Jaipur district situated in Rajasthan state, with a population of 13074. The male and female populations are 6862 and 6212 respectively. The size of the area is about 2.14 square kilometres.

Table 2.1. Basic Data of Prithvi Raj Nagar

Area	2.14 km²
Population (2020)	13074
Population Density	6108 people per km²
Male Population	6862
Female Population	6212
Nearest airport & distance	Jaipur International Airport, 11.99 km
Nearest Railway Station & Distance	Kanak Pura, 1.69 km

The study area for assessing the objectives is Prithvi Raj Nagar, Jaipur, as this area was once considered for planned development in year 2010. The Hon'ble High Court has passed a decision about the Prithvi Raj Nagar scheme on 29.10.10 and directed to the State Govt. to develop all the area according to law provisions. Later the planning and development of this area is forecasted in master development plan 2025. The action plan is to be detailed out separately by the State Government in compliance of the Hon'ble High Court's decision, and in furtherance:

- To designate Scheme Area as a special area in the plan.
- To propose road network plan as was suggested by the committee. The constitution of committee will be done by State government for PRN scheme. Further changes should be made with respect to road network and existing construction's effects while implementing the plan, it shall be treated as part of MDP 2025 proposals.

Thus, the Prithvi Raj Nagar was proposed as a special area in MDP-2025. The New Sanganer road from Gopalpura bye pass to Sanganer ROB was proposed to be 260 ft. later on it is reduced to 200 ft., and the land use abutting this road shall be proposed for commercial use. Prithvi Raj Nagar was replanned as per site conditions into schemes administrative zones viz. North-I, North-II and South-I, South-II. North-I and North-II of Prithvi Raj Nagar comes under JDA administrative zones 16 and 17 respectively. North-I shares boundaries with Jothwara and Vaishali Nagar, whereas North-II boundary extends to Vaishali Nagar. While, South-I and South-II of P.R. Nagar are in JDA administrative zones 18 and 19 respectively and shares the boundaries with Mansarovar. In this scheme, the Jaipur Development Authority considered 22 village lands of 7201 acres to develop in a commercial and economic zone.

The policy of Prithvi Raj Nagar was dropped back in 2012 by the government due to uncontrolled and unplanned constructions at the existing site. Many private constructions have settled in scheme zone due to delay in policy implementation. Haphazard settlements have raised challenges for implementations of planned road network at PRN. These unexpected developments are the primary concern of issues for the prospects and growth of the city. After a long time of judicial approaches from public and government offices, in year 2016 JDA reconsidered Prithvi Raj Nagar as a primary concern for developing the city and future population needs. The regularisation of new policy has been considered on the approach where minimum damage will be apportioned on existing construction and planning will done in accordance with the existing construction.

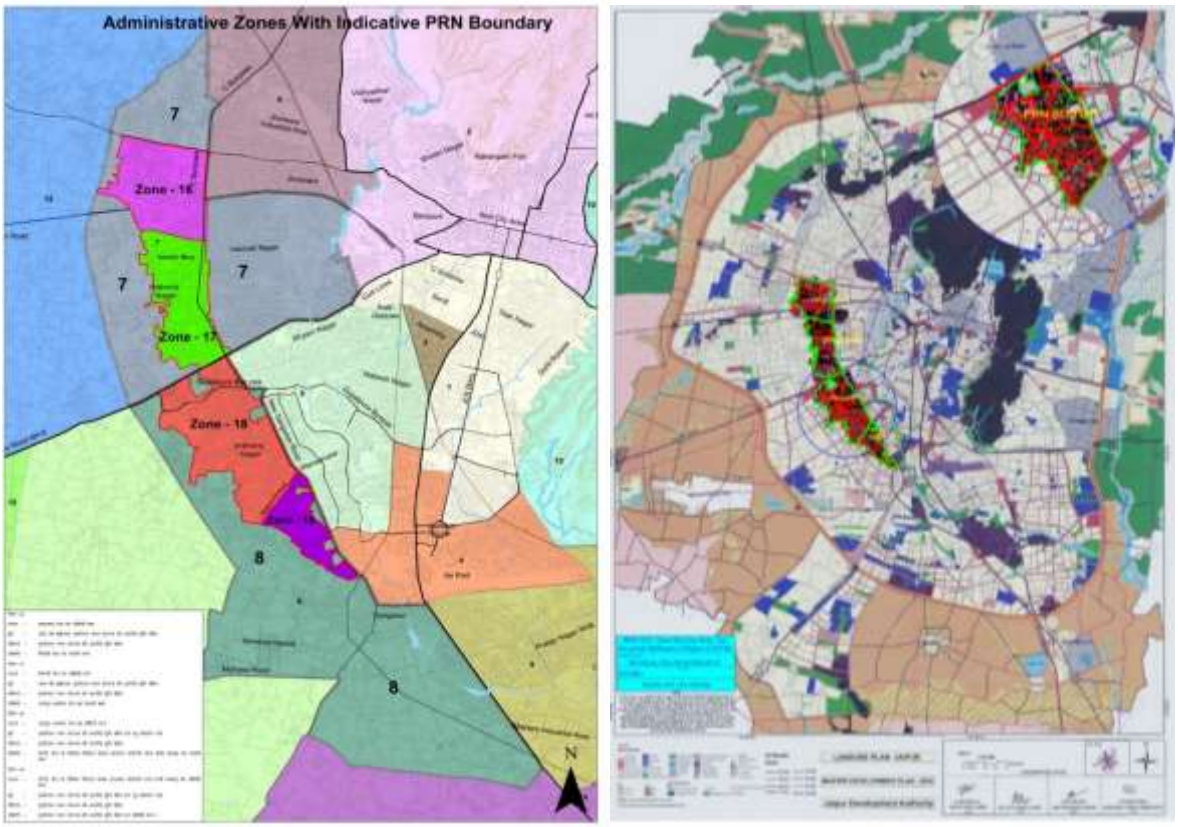
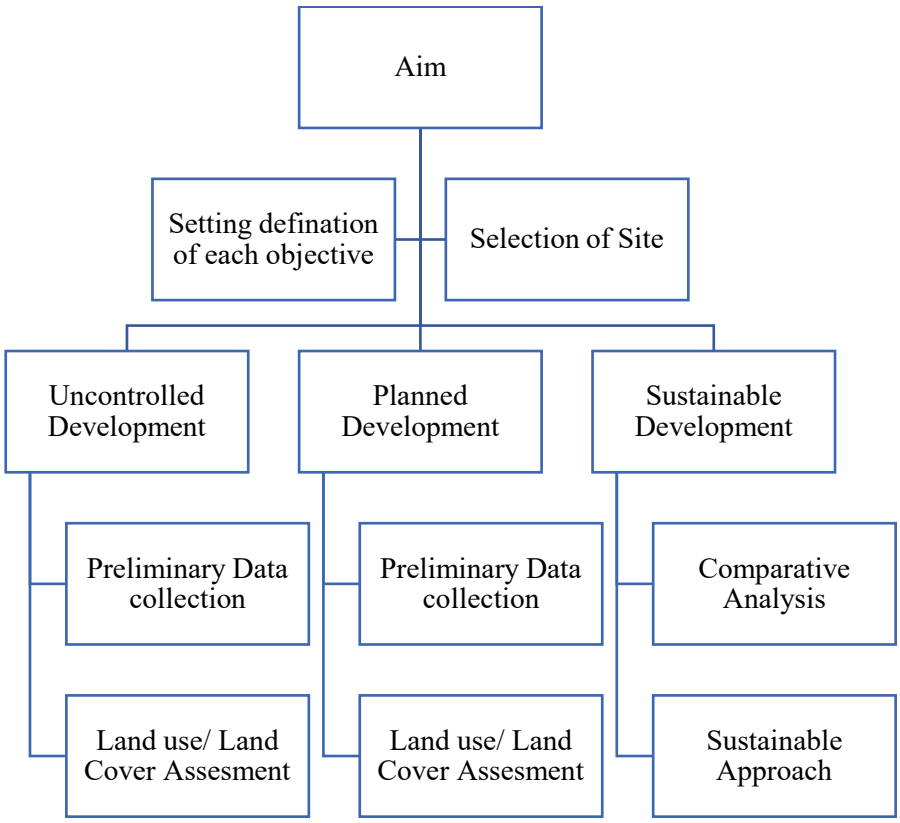


Figure 2.2. (a)Plan of Prithvi Raj Nagar Showing Admistrative Zones Boundaries (b) Master Development Plan 2025 Showing study area (Prithvi Raj Nagar)

The development plan by JDA in year 2016 for Prithvi Raj Nagar was subdivided into different subdivision for the proper zoning of Land in that region. The new subdivision of these zones is bifurcated in the table below as per the documentation of Jaipur Development Authority in year 2016. From this table, it can be easily understood that North-I is a combination of six colonies, North-II is combined of ten colonies, South-I is a combination of seven colonies and South-II is combination of four colonies merger. The master development plan 2025 by the Jaipur development authority for Prithvi Raj Nagar is displayed below. This master plan is developed to form planning and execution for sustainable and well planned development.

2.7. Methodology

Analysing the literature and previous works related to this investigation with different models helps in preparing the most convenient methodology for any investigation. Designing the methodology is an essential task as this follow the results and discussion of the study.



2.8. Factor considered

Following factors are considered for comparative study as sustainable development.

1. Construction (controlled & uncontrolled)
2. Road Network
3. Water supply and sanitation
4. Drainage and Sewerage System
5. Market and commercial zones
6. Parks and Activity centres
7. No. of School and Hospital
8. Opportunity for employment
9. Environmental impact

3. Results

Data was analysed yearly to evaluate the impact of new policies on the study area. Classification of analysed data is done on parameters based on construction, road development, sanitary, water supply, commercial, economic, and other variables to assess the sustainability of development in a period.

3.1. Construction or built up

The construction of societies regularly was seen whether it was governed by government or private sector. Before implementing the new policy, a high rate of uncontrolled construction was observed. However, the reduction was noticed after implementing of regularization on unplanned and uncontrolled construction. The new scheme restricts improper development, which is visible in the figure. An increment in controlled construction is observed, which leads to sustainable and well-planned development. Controlled development took tremendous growth after 2016, whereas uncontrolled development quickly dropped after 2014. In 2020, there was a slight increment observed in uncontrolled construction. This increment occurs due to pandemic situation and thus regularization policy implementation cannot be monitored. Overall, it can be stated that proper regularization of policy with clear goals sustainable development is achieved.

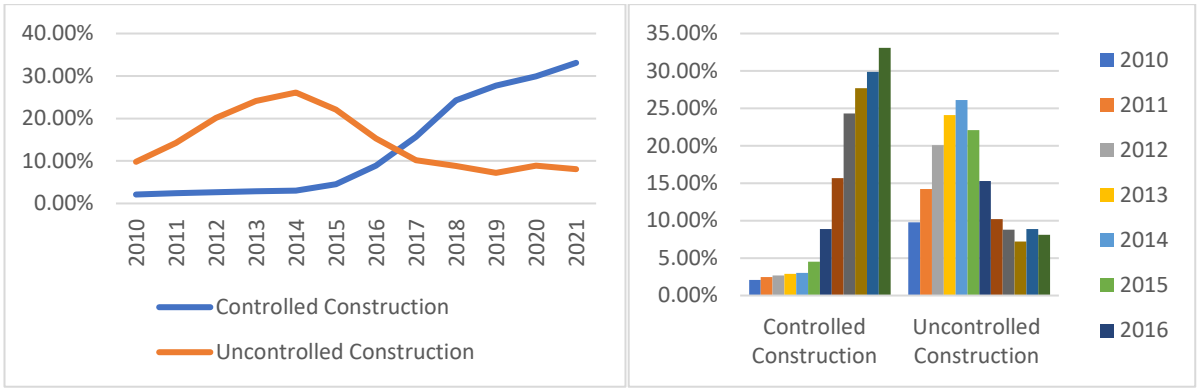


Figure 3.1.(a) Controlled and uncontrolled development, (b) Distribution of development with years

Remote sensing images of Prithvi Raj Nagar are displayed below to analyse the constructed and non-construction area during the period of study. The black part in images shows the constructed area and green part shows the non-constructed area. Rate of construction in Prithvi Raj Nagar is increased with course of time which can be analysed from these images.

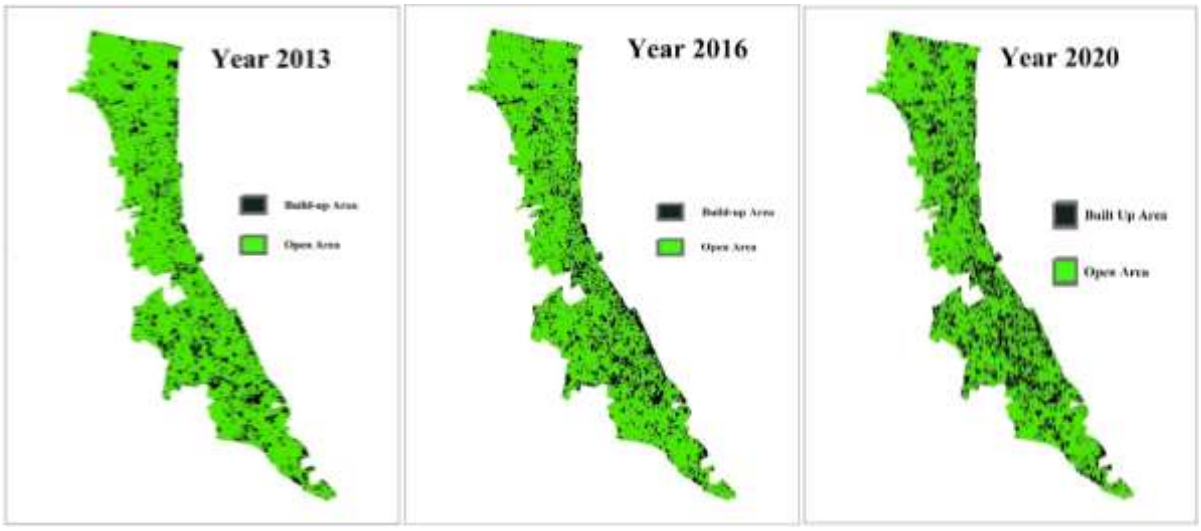


Figure 3.2.(a)Remote sensing image of Development in 2013, (b) 2016 & (c) 2020

3.2. Road network and Transportation

Road network and connectivity are the essential parameters for the development of any area. The town's growth is directly influenced by the road network and connectivity to other cities and towns. Road development in Prithvi Raj Nagar exponential took place after the new policy announcements, till 2104 there was minor road construction and these are not so well developed. The Road network plan was a primary concern in the new regularization policy. In that, planning and designing of the road network are proposed for north and south administrative zones separately. North and south zones are subdivided into four-parts.

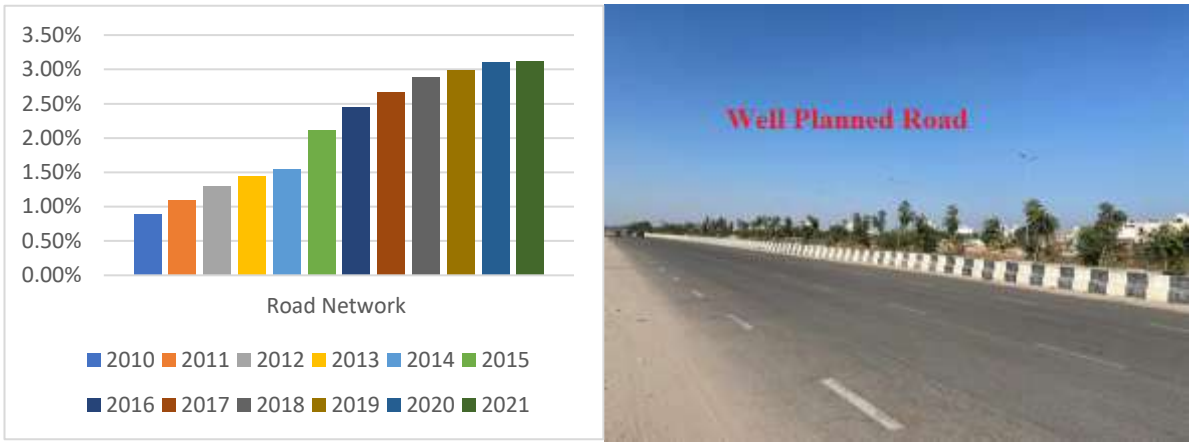


Figure 3.3(a) Road network development (b) Site image of well-planned road at PRN in Recent Year

3.3. Water Supply and Drainage System

Freshwater supply systems are essential parameters for the livelihood of people. Water is required for drinking, bathing, and food preparation. Before 2014, below 10% area was connected with the water supply system. From 2014 to 2021, the coverage area is increased from 10 to 40%.

Properly designed drainage and sewerage system are the basic requirements of any society. Improper or lack of sewerage system generates health issues. Similar observations are in the case of the sewerage system. This growth was essential for settled societies living at PRN. Jaipur development authority plays a significant role in providing these essential services to the peoples of Prithvi Raj Nagar. After implementing the new policy for scheme, these essential services are reached to Prithvi Raj Nagar.

These improvements in water supply and sanitation were achieved at PRN due to the separate budget allocation of 564 crores by The Rajasthan Chief Minister Ashok Gehlot.

Figure 3.4.(a)Water supply and sewerage system development (b) Site image of installation of water supply lines.

3.4. Commercial, School, and Hospital

Availability and accessibility of commercial centers are a prominent part of the planning and designing of the new township. Commercial centers are pre-decided and allocated at the time of planning. However, in this case, local and self-governed shops were established during the backlash of previous policy. These unplanned constructions of shops lead to haphazardness in the town and conjunction on the roads. These local vendors encroach on the roads for various purposes. The development of new commercial centers and local vendors' development has rapidly increased in recent years.

Education and medical services are essential parameters for evaluating the town's growth. Education services comprising the kinder garden, primary, secondary, senior secondary, and colleges in the town. Prithvi Raj Nagar school is taken accounts for estimating the growth. Similarly, this study considers private and government dispensaries as medical services in town. There is a gradual increment observed in education and medical services.

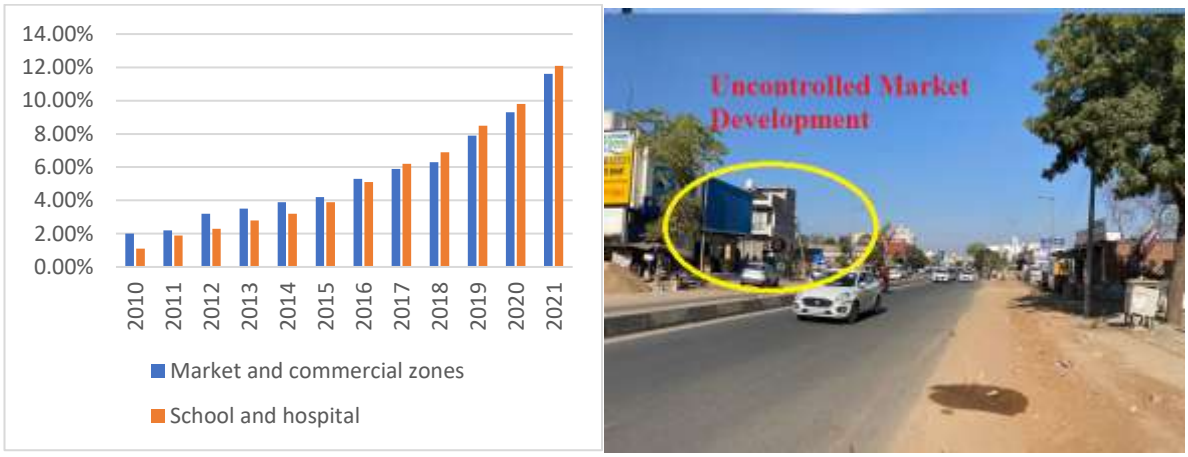


Figure 3.5.(a)Commercial, school and hospital development (b) Site image of uncontrolled market development.

3.5. Public Parks and Activity Centers

Public parks and activity centers are a feature of town that encourages and attracts society along with enhancing the environmental features of the location. These centers are placed with proper planning and design to fulfill the goals and provide an aesthetic look. Before 2014 there was improper, and lesser public gathering zones were available, due to the negligence of private developers. Therefore, after the scheme implementation, exponential growth is observed in all these features. However, due to the lack of space availability some community hall infrastructures has to be replanned.

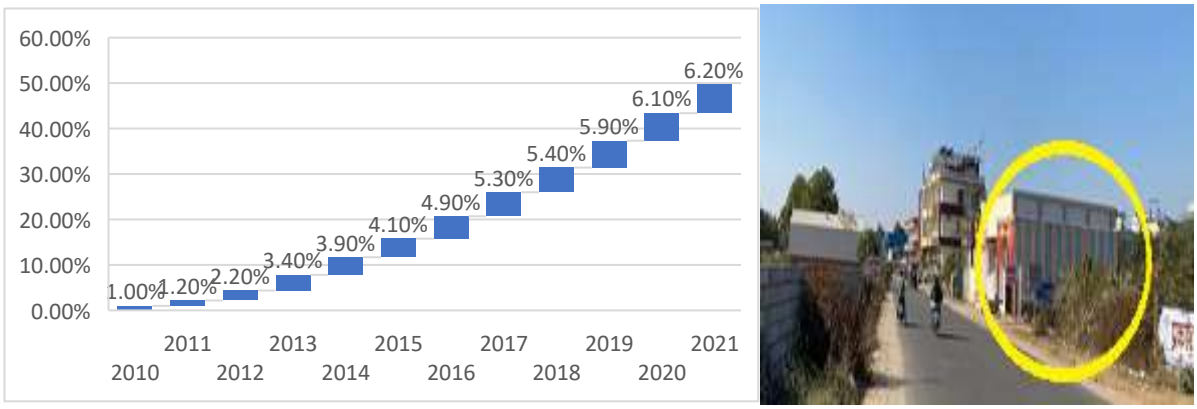


Figure 3.6.(a)Rate of Development of public parks and activity centres (b) Site image of activity centre

3.6. Employment Opportunity

Employment opportunities are increasing with the rate of development in Prithvi Raj Nagar. The location of Prithvi Raj Nagar is nearby to industrial areas and Special economic zone, which leads to a rise in employment opportunities with time to the locals of PRN. A higher rate of opportunities attracts new residents to the PRN. In 2020 slight decrement was observed due to a pandemic hitting the country. In 2021 increment in these opportunities is observed.

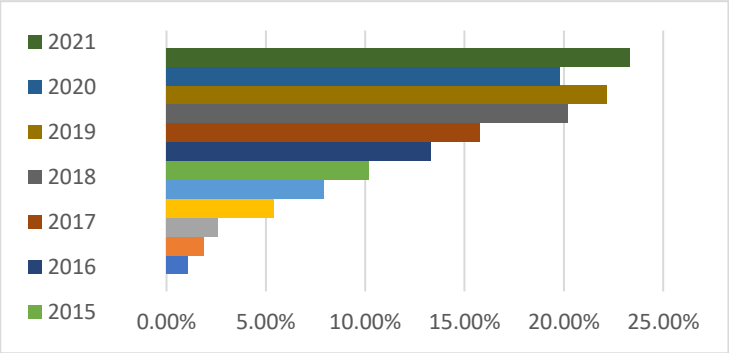


Figure 3.7. Rate of employment opportunity

3.7. Raises in Land Cost

Well-planned development of town raises the prices of Land, While the uncontrolled and un-planned development leads to unbalanced land costs with an improper division of class. The planned development increases the land price but in a substantial manner, and thus enhances the socio-economic feature of any location. The land price growth concerning time for PRN is represented in the table below. By the passing years of development, land prices are booming in Prithvi Raj Nagar.

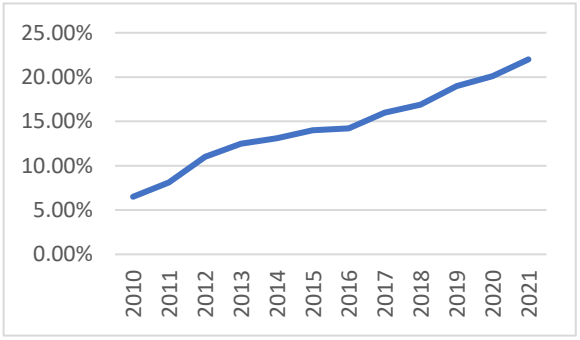


Figure 3.8. Growth rate in Land cost at PRN

3.8. NDVI Images of PRN

NDVI images are the representation of the green areas and constructed areas. Green zone represents the vegetation or green area across the PRN. Red zone represents the reflection of all the material other than vegetation like roads, houses, stone or dry land.

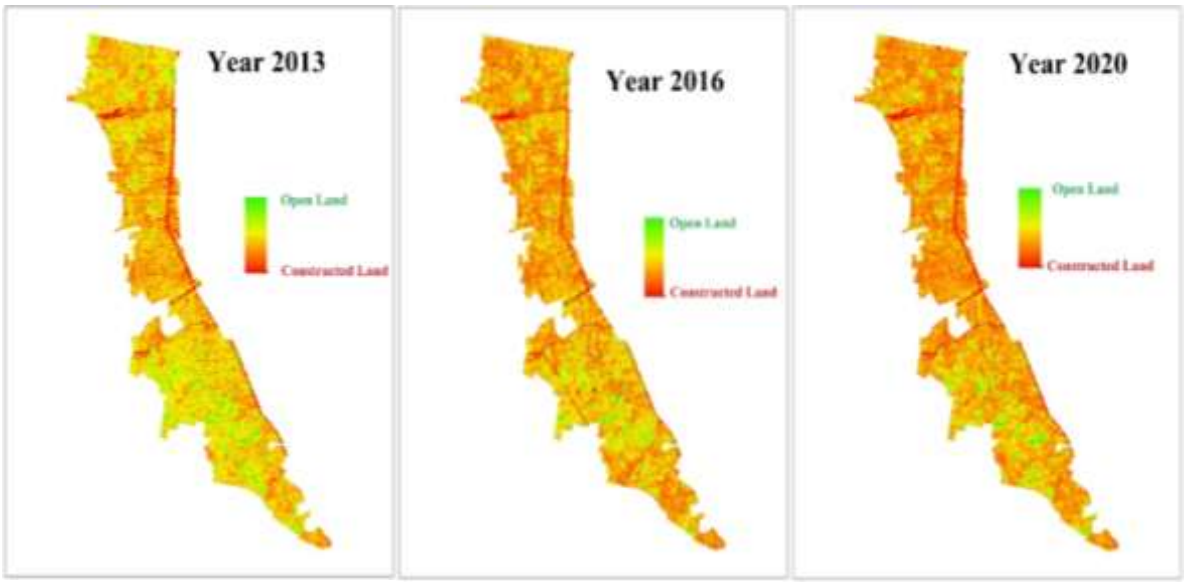


Figure 3.9. Remote Sensing Image constructed and non-constructed land at PRN in year 2013, (b) 2016 & (c) 2020

3.9. Environmental impacts

Environmental impact is also assessed in this study by consideration of various parameters. Lower the percentage in the figure shows better performance to society. Uncontrolled development from 2010 to 2014 increased the environmental impacts. Reduction in impact is observed with controlled and planned development with more open spaces in the areas.

3.10. Impacts of Regularization in PRN Scheme

After the regularization policy implemented in Prithvi Raj Nagar, the conversion of urban-fringe lands from rural to urban uses, usually takes place by the Jaipur Development Authority in administrative boundaries of the Jaipur. Separate landholdings is subject to the problems of scattered land and haphazard building development, poor planning, backlogs in the provision of public utility and road works, land shortages, excessive land speculation and high land prices. Land regularization policy can reduce these problems. It can provide many of the benefits of large-scale land development projects. Regularization can improve the process of land subdivision for urban development in following stated possible ways. The consolidation of small landholdings for their unified planning, servicing, subdivision and redistribution by a government agency provides the opportunity:

- To achieve a good standard of planning, design and engineering works.
- To design the planned layout for the maintained urban land uses.
- To carry out the land servicing and zonal works (i.e., the construction of the roadworks and public utility reticulation works within the project area) efficiently and economically.
- To provide the land for public streets and open spaces at no cost to government.
- To provide the land zoning works at no cost of government.
- To share the costs and returns of land subdivision between the landowners in an equitable way.
- To recover the costs of land subdivision from the related land value increases within the project.
- To create new sites with clear land titles when the ownership of landholdings is disputed.
- To achieve the timely subdivision of urban-fringe landholdings for orderly urban expansion.
- To counter excessive land speculation and ensure an adequate supply of land for new housing development.

Regularization policy can therefore provide real benefits, but they are not automatic benefits. Each project has to be soundly conceived, properly organised and well-managed and the implementation should be ensured and volunteered for time-bound completions. The well planned roads and sectors in PRN are enhancing the livelihood features in the study area, along with this the rate ease of connectivity to the essential services has increased for the residents of the PRN.

4. Discussion

The main objective of this study was to understand the issues due to the non-implementation of scheme and problems aroused due to this along with assessing the impact of planning and sustainable development. Study also focuses on challenges generated due to uncontrolled development in Prithvi Raj Nagar during the time period of policy gap and their impacts on society. The challenge also was to address the pressure on land in a way which does not cause further deterioration in land resources or impair their essential functions. Failure of Prithvi Raj Nagar scheme was mainly due to non-possession of land which was acquired for the purpose and lack of management and vigilance by the concerned authorities, which generated unplanned and haphazard development. However, after the policy measures taken by Jaipur Development Authority and preparation of development plans for PRN area and accordingly process of implementation of plan and regularization of unplanned settlement's which led to the overall community development.

In this study the different parameter is taken into consideration of urban development process over 12 years. The proper planning and integrated policy lead to improving living standards of residents in unplanned and un-serviced settlements of Prithvi Raj Nagar and bringing the informal and unauthorised settlements with in official, legal and administrative system of land management through land use planning, land registration, surveying, service improvement and finally granting right of occupancy (title deeds) to residents in their local areas. Development of road network with adequate

road width as per the plan helps in improvement of people, goods and other services. The study helps in understanding the planning process which increases urban social inclusion through creating employment, social safety nets, housing provision and spreading the benefits of economic development and within the area and between city. There is substantial growth in employment opportunities observed at the study area in comparison with past years which helps in improving livelihood of the residents. After a critical review it has been found that there are closely interconnections between planning, land regularization and community development.

Following recommendations can be suggested after analysing the results and discussion of the study:

- Uncontrolled development is required to be managed appropriately and observed in future years.
- Restriction to be done on unapproved and unplanned development in the future.
- Proper utilization of Land should be done to benefit society.
- Implementation of policy should be done timely.

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