

THE IMPACT OF SLUMS POPULATION ON THE ENVIRONMENT AND QUALITY OF LIFE POSES SIGNIFICANT IMPLICATIONS FOR DEVELOPMENT_ A CASE STUDY OF VADODARA

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ABSTRACT :

Expansion of urban populations and the rapid process of urbanization have caused cities to grow to accommodate both immigrants and natural population growth. Within urban areas, slums play a crucial role as buffers, absorbing the impact of the escalating urbanization. These slums emerge due to the dis-satisfied demand for housing and often spread into unsustainable areas with inadequate infrastructure. The primary goal of this research is to formulate a redevelopment strategy specifically designed for slums that were formerly villages. This will be accomplished by creating a slum typology. This will be established through a spatial analysis aimed at recognizing physical variations. The study will employ spatial metrics indicators to identify and analyse the spatial diversity within these slums.

Keywords: living quality and issues, income-generating activities, economic and social aspects.

INTRODUCTION:

A slum is characterized as a cluster of households that exhibit an unplanned and disorderly growth pattern, often in substandard living conditions. Efforts by the government to enhance slum conditions align with the goal of creating slum free cities. Various approaches are being employed to address and improve the state of slums. The practice of slum rehabilitation has evolved from slum clearance to more strategies such as slum upgrading and incorporating various rehabilitation models. In this study, the concept of poverty is evaluated from various aspects including health-demographic, economic, physical and social.

- 1) Socio-demographic variables: residential vicinity, age, gender, marital repute and education
- 2) Financial variables: employment pattern, household income, family expenditure, and household financial savings reputation
- 3) Physical diversity: access to land, good housing, infrastructure and environment
- 4) Social diversity: access to quality of social services, family structure and relationship

SLUMS IMPACT ON ENVIRONMENT AND THEIR LIFE:

- 1) Overcrowding and overcrowding: Slums are often caused by overcrowding and overcrowding . Overcrowding creates frustration and makes it difficult for residents to access basic amenities and services.
- 2) Inadequate infrastructure: slums typically lack proper infrastructure such as sanitation, clean water, and waste management system. The absence of these essential services not only poses environmental challenges but also directly affects the health and well-being of residents.
- 3) Environmental pollution: limited water disposal mechanisms in slums can lead to environmental pollution. Improper disposal ofw as contributing plastics and other non-biodegradable materials contributes to pollution in the surrounding areas, affecting both the local ecosystem and the heath of residents.
- 4) Health risks: the poor living conditions in slums can give rise to health risks, including the spread of diseases due to inadequate sanitation and insufficient access to healthcare services. This contributes to a lower quality of life for slum dwellers.

The research sheds light on the challenges encountered by slum residents in Vadodara and proposes solutions to address these issues. It also highlights the status of redevelopment of various slums and their implementation and provides guidance on how the redevelopment process can be effectively implemented to eliminate the slum areas of Vadodara. The study helps in examining the policies of the state and the VMC towards the slum. The study provides a valuable insight into the growth of slum areas in the Vadodara city and highlights various factors and issues that are important to slum dwellers. The three major issues plaguing slums in India are widespread unemployment, extreme poverty, and the prevalence of informal economic activities. Slums are areas characterized by limited choices, rundown housing, unhygienic conditions, inadequate ventilation, and the absence of essential amenities like lighting, toilets, and clean drinking water. The absence of basic hygiene facilities and the prevalence of unsanitary living conditions are major concerns. The continuous movement of people leads to a rise in the number of slum dwellers and worsens the sanitation issue. In this context, it is important to focus attention on the implementation of slum development programs and their impact on poverty reduction in urban areas. Various centrally and state sponsored slum development programs and poverty alleviation programs have been implemented for urban development, especially for poverty eradication, but the poverty level is still very high. Over the past three decades, the population of Vadodara city has experienced significant growth.

RESEARCH METHODOLOGY :

This study discusses slum-dwelling families' coping mechanisms for city life. This research assisted in determining the development of slum residents with the Rajiv Awas Yojana. Both in-person interviews and surveys were used to assist gather data. Furthermore, information gleaned from secondary sources was utilized in the literature review as well. To provide further details, the following survey was utilized in the study.

LITERATURE REVIEW :

The literature review provides an overview of secondary research and tries to understand the origin and development of slums, their characteristics, problems, and approaches to reconstruction. The literature review focuses mainly on different types of slums, slum morphology, and slum reconstruction programs.



Figure 1 the Chart Displays the Key Factors That Lead to Poverty

HISTORY AND GROWTH OF SLUM

The first official population census conducted by the Bombay government showed that about 8% of the population lived in slums in 1956. According to the 2011 census report, number was 41.3%. Another source says that in 1985, there were about 1, 25,000 people living on the sidewalk. Population of Vadodara slum, there are 18,180 slums with population of 84,804 as per the census 2011.

Source: Compiled by the author based on data collected during the primary survey in July 2023

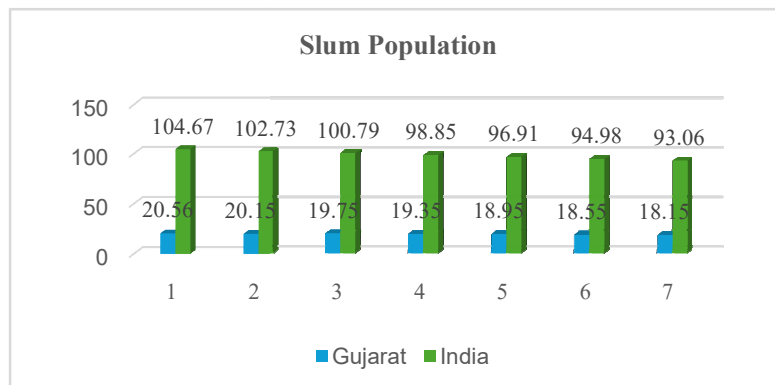


Figure 2 The Graph Presents the Trend of the Population Growth in Informal Settlements in the State of Gujarat and Across India.

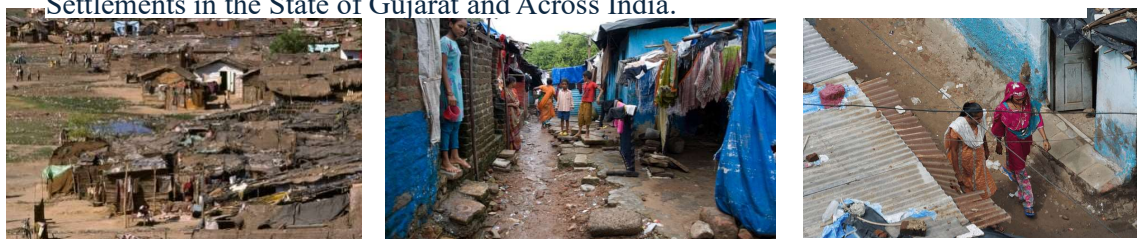


Figure 3 depicts the condition of slum areas

IMPACT OF SLUM IN THE CITY :

Slum residents' marginalized status has both causes and effects, and their isolation from the larger metropolitan community exacerbates these difficulties. By examining these issues, we can gain a better understanding of the difficulties slum people confront and possible ways to enhance their living circumstances.

AFFORDABLE HOUSING AND HOUSING FOR ALL FOR VADODARA:

1) Affordable Housing

Indeed, the provision of affordable housing is essential to both urban development and economic expansion, particularly in nations like India where the housing needs of lower-class citizens are great. Examine the idea of inexpensive housing in more detail, as well as the features of affordable housing developments and the possible effects they may have on the economy and society.

(<https://indianexpress.com/article/cities/ahmedabad/slum-dwellers-in-vadodara-move-in-their-new-homes-without-power-and-water-2797579/>)

	Household Income	Amount of Interest Subsidy
Economically Weaker Section	Up to Rs. 3 lakhs	6.50%
Lower-Income Group	Rs. 3 lakh – Rs. 6 lakhs	6.50%
Middle-Income Group I	Rs. 6 lakh – Rs. 12 lakhs	4%
Middle-Income Group II	Rs. 12 lakh – Rs. 18 lakhs	3%

Table 1 the Table Presents the Income Distribution among Residents of Informal Settlements

Source: Compiled by the author based on data collected during the primary survey in July 2023

Evaluate PMAYscheme in Vadodara and research will focus on the four verticals of PMAY in Vadodara identify potential challenges and recommend state-level policies and local-level implementation processes. PMAY scheme reveals both significant potential and considerable challenges effective implementation of affordable housing initiatives requires comprehensive

planning adequate infrastructure provision efficient administrative processes and active community engagement addressing these issues can help achieve the goal of a slum-free Vadodara and contribute to the overall success of the PMAY scheme in Gujarat.

Vadodara Municipal Corporation trying to effectively make Vadodara a slum free city with programs like BUSP, JNNURUM and PMAY with addressing infrastructure shortage and manage displacement impact and ensuring comprehensive planning for Vadodara that city can achieve its goal for becoming slum-free city. Slums significantly impact both the environment and the quality of life for their residents. Here are some keyways in which slums contribute to these effects:

Indeed, slum housing is often marked by unfortunate characteristics, including high pollution levels, inadequate provision of basic needs, and crowded living conditions. These attributes are inherent to informal settlements, where housing is constructed on land lacking legal ownership claims and without adherence to urban planning or zoning regulations. The absence of proper planning and legal frameworks contributes to a range of challenges that impact the well-being and living conditions of slum residents. High pollution levels can arise from inadequate waste disposal systems, while the lack of legal land claims often leads to substandard infrastructure and limited access to essential services, exacerbating the overall hardships faced by those living in slums. Addressing these issues requires comprehensive urban planning strategies and interventions that prioritize sustainable development, infrastructure improvement, and the provision of basic needs for slum residents.

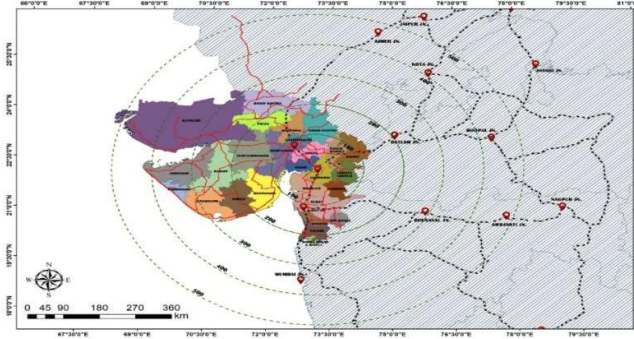
ENVIRONMENTAL IMPACT:

Waste Accumulation: Lack of Sanitation: Inadequate sanitation facilities contribute to the contamination of water sources, leading to waterborne diseases and environmental degradation. **Deforestation:** The need for fuel and building materials in slums can contribute to deforestation, further disrupting local ecosystems. **Quality of Life Impact:** **Overcrowding:** Slums are characterized by high population density and cramped living conditions, leading to a lack of privacy, increased stress, and a higher risk of the spread of diseases. Most of slum dwellers do not have access to basic services such as clean water and sanitation, medical facilities as well as education, which has a negative impact on their overall well-being. **Unsafe Living Conditions:** Poorly constructed housing and inadequate infrastructure pose safety hazards, making slum dwellers more vulnerable to accidents and disasters. **Cycle of Poverty:** Limited economic opportunities and access to education contribute to a cycle of poverty in slums, affecting the long-term quality of life for residents. **Social and Economic Disparities:** Discrimination Slum dwellers face social stigma and discrimination, which marginalizes them from mainstream society. Economic opportunities are limited, Lack of formal employment opportunities and education perpetuate economic disparities, hindering the residents' ability to improve their living conditions. Addressing the environmental and quality of life challenges in slums requires holistic interventions that focus on improving infrastructure, providing access to essential services, and promoting sustainable development. Additionally, addressing the root causes, such as poverty and lack of opportunities, is crucial for creating lasting positive change in slum communities.

ABOUT STUDY AREA :

1) Vadodara

One of the hubs of industrial expansion in western India is Vadodara, the third-biggest city in the state of Gujarat. When the city's population surpassed one million, it joined eleven other sizable cities nationwide in becoming a metropolis in 1991. Slums have sprung up across Vadodara because of the city's high rate of migration from primarily rural but also metropolitan areas, mostly because of the labour market. At an elevation of 128 feet (39 meters), Vadodara is situated in western India at 22.30 N 73.19 E. With 3.5 million residents and an area of 400 km², it is the tenth largest city in India, according to the 2011 census. Vadodara lies at the banks of Vishwamitri River.



Source: Prepared by the author from data given by Vadodara Urban Development Authority

KISHANWADI, VADODARA:

Location: Kishanwadi is situated to the east of Vadodara city. **Population:** The locality is reported to have 19,361 inhabitants, with a gender distribution of 10,088 males and 9,273 females. **Size:** The area covers approximately 1.32 square kilometres. It's essential to recognize that slum areas like Kishanwadi often face various socio-economic challenges, including inadequate infrastructure, limited access to basic services, and potential environmental concerns. Addressing these challenges

Figure 4 Map Illustrates the Connectivity and Interconnections within the City of Vadodara, Gujarat requires

comprehensive urban planning and development initiatives to improve the living conditions and overall well-being of the residents. Local authorities, community organizations and NGOs often play a significant role in bringing about positive change in these areas. For the most up-to-date and detailed information about Kishanwadi, it is advisable to refer to local government resources or community organizations actively involved in the area.

Area	1.32 km²
Population	19361
Population Density	14721 people per km ²
Male Population	10088
Female Population	9273
Nearest Airport and Distance	Vadodara Airport, 2.18 km
Nearest Railway Station and Distances	Pratap Nagar, 3.14 km

Table 2 the Table Displays Information and Data Related to Kishanwadi Slum

Area	1.32 km²
Jantri rate	2,500-3,178 / sq. Ft
FSI consumption	1
Maximum FSI permissible	4
Open space	5%
Amenities	3%
Built-up area of slum dwellers	35-40 sq.m
super built-up area for slum dwellers	45 sq.m
Total built up area require for redevelopment	171000 sq.m

Table 3 The Table Presents Information on the Jantri Rate, Floor Space Index (FSI), Open Space, Built-up area, and Required Built-up Area for Redevelopment.

Source: Compiled by the author based on data collected during the primary survey in July 2023



Figure 5 depicts the study area of research study

Source: Prepared by the author using GIS from the available data of census 201

DATA ANALYSIS OF PRIMARY SURVEY :

1) Age of the Slum Dwellers

The table contains information regarding the age of the slum dwellers. Only two respondents, which is 1.2 percent in 1 to 20 years, while many 82 respondents. This is 50.3% of the total population, in 21 to 40 years. In the age group of 41 to 60 years, 63 respondents and 16 respondents were identified, which is 38.7 percent and 9.8 percent of the total number respectively. 61 to 80 years. There was none in the age group above 80 years.

2) Occupation of the Slum Dwellers

The pie chart shows details regarding the occupation of slum dwellers. About 87 respondents, which are 53.4 percent of the total number of respondents, were found to be self-employed and 76 respondents, which are 46.6 percent of the total number of respondents, were employed by others, and had jobs. The analysis shows that most of the respondents who migrated to Pune were employed in some way.

3) Education of the Slum Dwellers

From the analysis 75% of slum dwellers were illiterate and due to this many of them were finding it difficult to make two ends meet. Also in most families, only one person who worked and therefore had not to earn enough to support more than 4 people, which put a burden on the slum dweller.

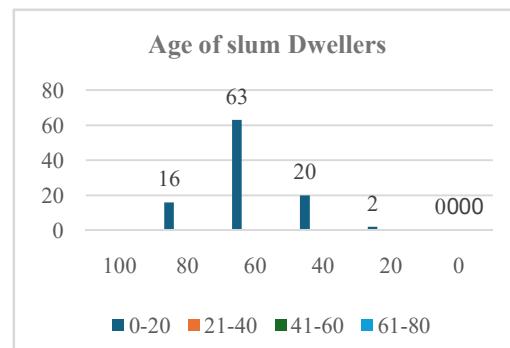


Figure 6 charts shows the data of Age of slum dwellers of study area

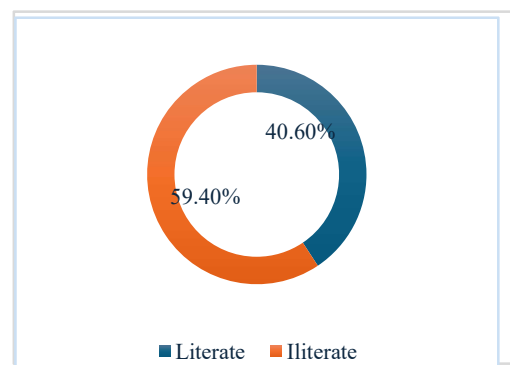


Figure 7 charts shows the data of Occupation of slum dwellers

Figure 8 chart shows the Literacy Rate among slum dweller

Education	Frequency	Percent
Below 5 th standard	19	14.9
5 th to 7 th	32	20.9
8 th to 10 th	10-15	8.9
11 th to 12 th	15-18	10.9
No education	45	39.9
	Literate	Illiterate

Slum Dwellers	40.6 %	59.4 %
Total		100 %

Table 4
The Table

e Displays the Educational Attainment Levels of slum dwellers

Source: Compiled by the author based on data collected during the primary survey in July 2023

4) Family Structure of the Slum Dwellers

The table shows the family structure of the slum dwellers. 73% of the respondents have a nuclear family structure, which accounts for 44.8% of all respondents: according to the analysis, it is seen that approximately 55.2% of the respondents have a joint family. The survey also revealed that most of the respondents have more than four members in their families.

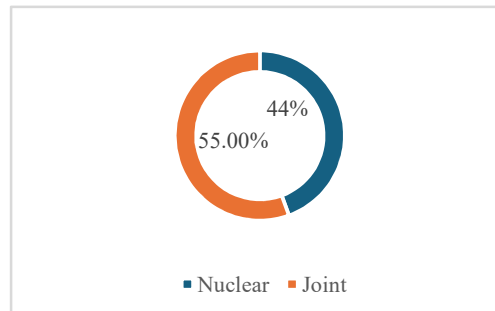


Figure 9 Chart shows the data of joint and nuclear living of slum dweller

TYPES OF SLUM DWELLINGS :

Sr.no	Types	Percentage
1	Pucca	19.3 %
2	Semi-Pucca	25.2 %
3	kutchha	55.6 %

Table 5the Table Provides Information on the Various Types of Dwellings within the Kishanwadi Informal Settlement

AVAILABILITY OF ELECTRICITY IN THE DWELLING:

The table shows information about the availability of electricity in the apartment. 161 respondents do not have electricity in their apartment, which is 55.6 percent of dwellers and roughly 25.6 percent stated that they have the device in their apartment.

Sr.no	Types	Percentage
1	No	55.6 %
2	Yes	25.2 %

Table 6the Table Presents the Percentage of Availability of Electricity in the Kishanwadi Area
Facility – Water Tap Provided:

The table shows information about the water tap equipment in the slum. The respondents accepted that they were provided with 65.6 percent water facilities in the facility but not sufficient as they were provided with water facilities only for 1 hour.

Sr.no	Types	Percentage
1	Yes	65.6 %

Table 7 The Table Displays the Percentage of Access to Water Taps Provided in the Kishanwadi Area.

Satisfaction with facilities provided by VMC

Sr.no	Satisfaction	Percentage
1	Satisfied	32.5 %
2	Non- Satisfied	66.9 %

Table 8the

table presents the level of satisfaction with the facilities provided by the Vadodara Municipal Corporation (VMC)
Respondents said that 66.9 percent were not satisfied with the facilities provided by the vmc. **Status of Kishanwadi slum:**



Figure 10 depicts the current condition of study area of Kishanwadi slum

DEMOGRAPHY :

Within the Vadodara metropolitan area the city of vadodara is managed by a municipal corporation. The city is growing at a rate of 40 it was unable to maintain the growth momentum though in the past ten years the growth rate has decreased to 26 the estimated population of 1754 lakhs is projected for 2011 based on the theory that the states increasing urbanization will cause the city to grow at a steady rate.

POPULATION GROWTH TREND OF VADODARA:

With a 2.06% growth rate, the current population forecasts for Vadodara City in 2023 are 2,324,000. The last census was conducted in 2011, while the 2021 census for Vadodara City was delayed because of COVID-19. Vadodara City's current projections are derived upon historical growth rates. The preliminary results of the 2011 Indian Census indicate that 1,670,806 people called Vadodara home. There are 1,82,221, or its urban/metropolitan population. To understand the growth of a city in terms of population and to calculate population estimates it is inevitable to understand the rate of population growth over the last few decades.

The decadal population and growth rate are shown in the below GIS Graph:



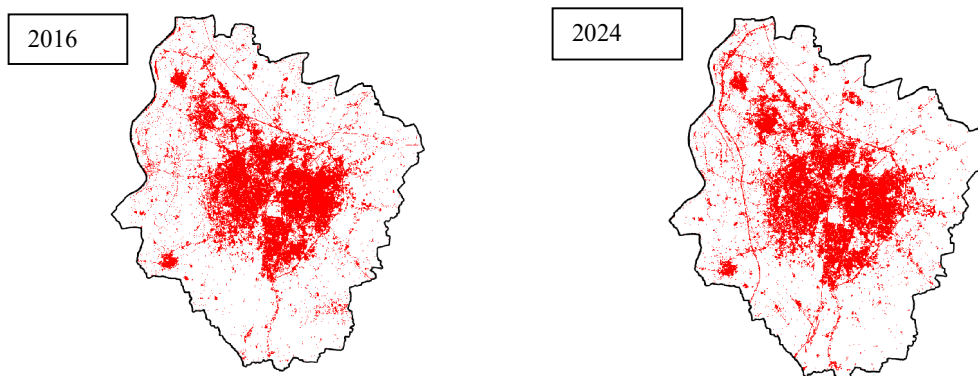


Figure 11 maps show population distribution across Vadodara

The general liveability of a place is dependent on its population density. within the case of Vadodara, as consistent with the provisional figures of the 2011 Census of India, the populace density is 2894 men and women in keeping with sq. km. the whole populace of Vadodara is 2,067,955, with a total area of 714. fifty-six sq. km. The populace density over time has increased manifold, from 1,436 men and women in line with sq. km in 1981 to two,894 humans in keeping with sq. km in 2011. From the desk beneath, it's far obvious that the populace density from 1981 to 2011 has been progressively increasing. The excellent urban infrastructure, water, sewage, rainwater collection, transportation, etc., that Vadodara City enjoys is what keeps it alive. in the initial ten years of the 1900s. Vadodara was designated as the cultural and educational hub of Western India during the nation's independence. Significant population and economic growth, as well as the development of urban infrastructure to support it, have occurred in the city since its independence. Migrant communities from all over India and the world are drawn to this city by its natural beauty. Not only do migrants come from nearby nations, but also from other nations.

Literacy rates indicate the level of economic growth in a region. Vadodara district has the highest literacy rate compared to the entire state. The average literacy rate of Vadodara was 78.92 in 2011, compared to 78.92 in 2001. The total number of literate people in Vadodara district is 2,893,080, of which 1,614,087 are male and 1,278,993 are female. In 2001, the population of Vadodara district was 2,228,008.

The table gives the age structure of Vadodara district by the 2011 Census information.

AGE GROUP	2001	%	2011	%
Child Population (0-6)	209934	11.95	212719	10.29
Male Population (0-6)	114167	12.39	114771	10.65
Female Population (0-6)	95767	11.46	97948	9.89

Table 9 the Table Presents Data on the

Population of Children Aged 0-6 in Vadodara.

Source: Compiled by the author based on data collected during the primary survey in July 2023

HOUSEHOLDS PROFILE OF THE SETTLEMENT:

This section aims to provide certain profiles of the sampled households, outlining their various socio-economic and demographic characteristics. The desk gives the distribution of 120 sampled households across selected slums, categorized by the wards of the city in which they are located. The findings revealed significant variations in the number of families residing in different slum areas of Baroda. These slums encompassed a wide range, including small slums with as few as one family and larger slums with up to 1560 families.. To this survey, slums were referred to as households, and

this terminology will be used henceforth. The total slums were subsequently classified into three sections based on the number of households they contained:

- Slums with fewer than 30 households,
- Slums with 31 to 360 households, and
- Slums with 361 to 1560 household

Table 10 the table shows the Slum Population of Vadodara

City	Zone	Ward Name	Ward No.	No. Notified slums	No. of Recognised slums	No. of Identified Slums
Vadodara	east	1	1	80	114	114
Vadodara	north	2	2	65	104	104
Vadodara	south	3	3	29	84	84
Vadodara	west	4	4	42	94	94

Source: Compiled by the author based on data collected during the primary survey in July 2023.

There are 18,180 slums in the Vadodara metropolis and its outlying areas, home to around 84,804 people. At least 1,752,371 individuals make up the mixed population of Vadodara metropolis and its outlying areas, of which those slums account for around 4.84%. The statistics that follow give information on the reasons behind migration to Vadodara.

Approximately 7 individuals, accounting for 4.3 percent of the total respondents, relocated to Vadodara with the intention of establishing a business and securing their livelihood. 32 respondents, representing 19.6 percent of the total participants, migrated to Vadodara in search of employment opportunities and means to sustain themselves financially. A total of 45 respondents, corresponding to 27.6 percent of the participants, chose to migrate to Vadodara with the primary goal of earning money through various means and supporting their livelihoods. Additionally, 3 respondents, equivalent to 1.8 percent, reported migrating to Vadodara due to other factors such as adverse circumstances in their villages (such as famine or drought), experiences of casteism, or marriage-related reasons. Lastly, 76 respondents, comprising 46.6 percent of the total participants, have not migrated to Vadodara as they have been residing there since birth.

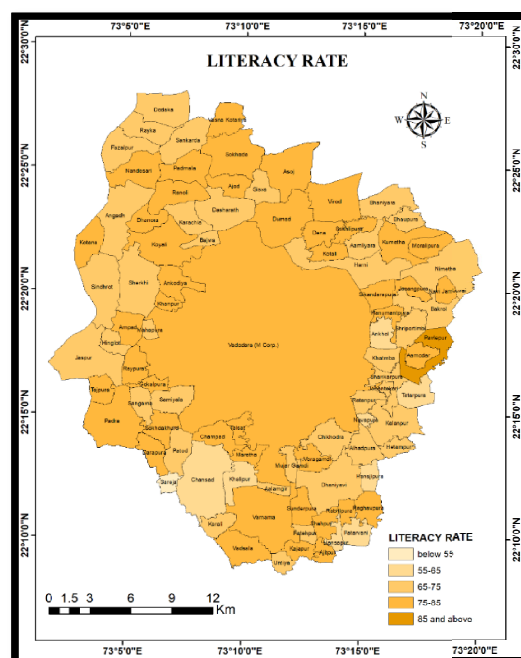
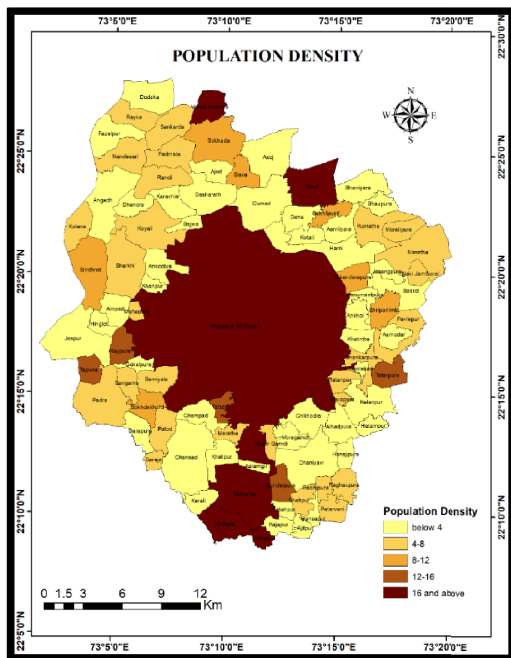


Figure 12 maps shows the population density and literacy rate of Vadodara
Source: Prepared by the author using GIS from the available data of census 2011.

Reasons	Frequency	Percent
Business	7	4.3
Job	32	19.6
Earn Money	45	27.6
Other	3	1.8
Not Migrated	36	46.6
		100.0

Table 11 the Table Presents the Reasons for Migration among Households

Source: Compiled by the author based on data collected during the primary survey in July 2023. Around 12.7 percent of household heads are employed in skilled occupations such as factory or garage mechanics, electricians, factory or workshop workers, etc. Comparatively, a smaller proportion, approximately 15.3 percent, engage in self-employed activities such as cobbling, barbering, laundry services, selling vegetables and fruits, and tailoring. Additionally, about 3.3 percent of households in the sampled slum were found to have unemployed or retired individuals.

Sr. no	Name of slum	Skilled	Semi-skilled	unskilled	other
1	Kishanwadi	12%	18%	3%	-

Table 12 The Table Presents the skill Among Households

The monthly income distribution of the households living in the slums is shown in the table. It is noteworthy that almost 12 individuals, or 8% of all respondents, had a monthly salary of up to Rs. 5000. Furthermore, 19 respondents, or 12% of the total, state that their monthly salary falls between Rs. 5001 and Rs. 10,000. Moreover, about fifteen individuals, or 19% of the total, have a monthly income of between Rs. 10,000 and Rs. 15,000. Finally, 22 respondents, or 27% of the total, state that their incomes are between Rs. 15,001 and Rs. 20,000. Based on the data, it can be inferred that 39.5 percent of the respondents earn a maximum of Rs. 20,000 each month. Considering the makeup of the household and how many.

SUGGESTIONS FOR SLUM REDEVELOPMENT :

Schemes and Policies in Vadodara

1) Pradhan Mantri Awas Yojana

Under the Ministry of Housing and Urban Affairs, PMAY is being implemented. The mission seeks to alleviate the scarcity of urban housing for low-income and middle-income groups (LIG and MIG), as well as slum inhabitants, within the economically disadvantaged sections (EWS). By 2022 the year of the country's 75th anniversary of independence it seeks to guarantee that every eligible urban household has access to a sturdy home. Affordable Housing in Partnership (AHP): The Central Government assists families in the EWS category with the purchase and construction of houses up to Rs. 1.5 lakh through the Pradhan Mantri Awas Yojana 2022, a special PMAY-U program.

2) In-Situ Redevelopment of Slums (ISSR):

The goal of the In-Situ Slum Redevelopment (ISSR) initiative is to make slum inhabitants' living conditions better. It requires the following crucial steps:

- Slums are identified by the designated authorities.
- Plans for the reconstruction in place.
- Making lists of the families living in slums.

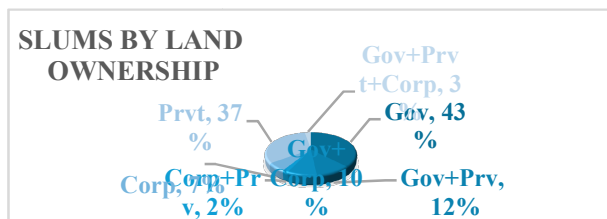
3) Basic Services to Urban Poor

This initiative aims to provide affordable housing, secure tenure, improved water supply, sanitation facilities, and access to education, healthcare, and social security services. The objective of the program is to reduce urban poverty in participating cities and towns through urban policy reform. The program focuses on:

- In covered cities, the integrated development of essential services for the urban poor.
- The supply of essential services, such as reasonably priced housing, sanitary facilities, water supply, and integration with the government's current social security, health, and education programs.
- Creating strong connections between the development and administration of assets to guarantee the long-term, sustainable upkeep of essential services.

CONCLUSIONS AND RECOMMENDATIONS:

There are a total of 397 informal settlements within the limits of the VMC (Vadodara Municipal Corporation). According to the VMC, there are more than 336 clusters of informal settlements, accommodating over 51,439 families and comprising approximately 257,195 individuals, which accounts for around 20% of the city's total population. However, the distribution of these settlements is uneven. The older parts of the city naturally lack any informal settlements due to the absence of available space in the already overcrowded residential areas. The following graph illustrates the percentage breakdown of the total 336 informal settlements in the city based on land ownership. It can be observed that the highest number of settlements, 43% (146), is located on government-owned land. Then come the 37% (124 villages) on private land and the 20% (66 settlements) on land controlled by the municipality.



Source: Compiled by the author based on data collected during the primary survey in July 2023

Current policies targeting slums primarily prioritize housing, relocation, or the construction of multi-story complexes that free up valuable real estate. However, these approaches overlook the socio-economic challenges faced by slum dwellers. The urban poor, with limited financial resources, still lack the necessary financial support to acquire stable housing. Additionally, the government has yet to acknowledge larger groups due to concerns over identity verification and illegal migration risks. Local political, social, and economic issues have a big impact on urban slums. A fresh approach to redevelopment is required now, one that considers the socioeconomic effects of eviction and incorporates slum residents. Effective implementation will necessitate strong partnerships among governments, investors, and private developers to improve the overall quality of life for both individuals and communities. Policies and practices must be action-oriented, considerate, and sustainable, providing low-income families with quality homes and access to essential services. The current initiatives do not accurately reflect the realities on the ground in India. The Rajiv Awas Yojana (RAY) relies heavily on interest subventions and subsidies. This program aims to enhance the living conditions of slum dwellers and eliminate slums in cities, while ensuring everyone has adequate shelter. Alongside housing, RAY focuses on creating a healthy environment that can lift people out of poverty and improve their standard of living.

Conditions needs to be focused on:

- 1) To address the issue, it is necessary to widen the internal roads within the Kishanwadi slum.

- 2) The VMC should develop a comprehensive plan to raise awareness in slums, in collaboration with voluntary and social organizations, to tackle epidemics and preventable diseases through precautionary measures.
- 3) Kishanwadi Slums should undergo redevelopment, providing an increased number of homes to slum dwellers.
- 4) The VMC should lower taxes and charges associated with slum redevelopment housing schemes, reducing construction costs and enabling affordable housing for slum dwellers.
- 5) Increase the Floor Space Index (FSI) for slum redevelopment schemes.
- 6) Conduct a survey by the VMC to assess the financial and social conditions of slum dwellers, enabling the government to formulate appropriate policies.
- 7) Implement decentralized services for drinking water supply and solid waste disposal within the slum design.
- 8) Create a one-stop shop for expedited procedures in in-situ and BSUP programs for slum rehabilitation.
- 9) Create a settlement plan that segregates automobile and pedestrian traffic to guarantee efficient and safe mobility across the slum.
- 10) Create plans for low-income and economically disadvantaged groups so they can qualify for home loans.
- 11) Provide extra Floor Space Index (FSI) and Floor Area Ratio (FAR) under the current policy framework.
- 12) Provide houses with proper electricity and water supply connection to slum dwellers.

Sr. no	Scheme	Approach	Model
1	Pradhan Mantri Awas Yojana	In-Situ Redevelopment	1- Multi storey with unit size -25 sqmt 2-Provision of basic service as per norm
2	Housing For All	In-Situ Redevelopment	Multi storey with unit size -30 sqmt

Table 13 The Table Provides Recommendations for the Approach to Slum Redevelopment in Kishanwadi.

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