

# **VALUE OF COMMON OPEN SPACES FOR URBAN POOR: A CASE OF AHMEDABAD**

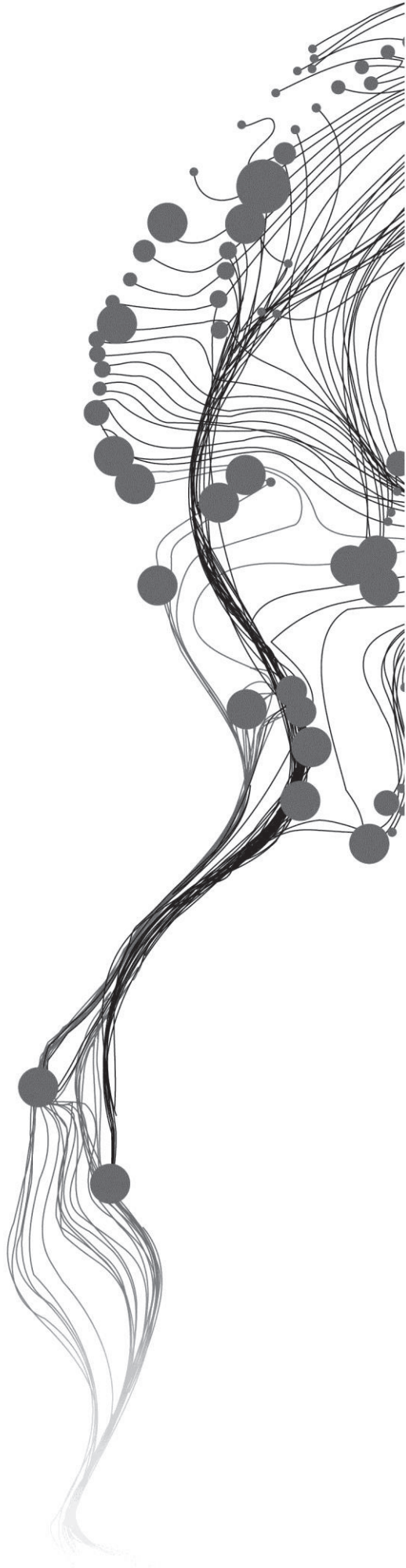
DEVASHREE ROYCHOWDHURY

March, 2013

SUPERVISORS:

Dr. R.V. Sliuzas

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# **VALUE OF COMMON OPEN SPACES FOR URBAN POOR: A CASE OF AHMEDABAD**

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Thesis Proposal submitted to the Faculty of Geo-Information Science and Earth Observation of the University of Twente in partial fulfilment of the requirements for the degree of Master of Science in Geo-information Science and Earth Observation.

Specialization: Urban Planning and Management

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#### DISCLAIMER

This document describes work undertaken as part of a programme of study at the Faculty of Geo-Information Science and Earth Observation of the University of Twente. All views and opinions expressed therein remain the sole responsibility of the author, and do not necessarily represent those of the Faculty.

*Dedicated to the 'Urban Poor' of Ahmedabad; the slum dwellers, the relocated dwellers and the Homeless*



## ABSTRACT

Slum development initiatives by Indian Government to improve conditions of urban poor in the country are practiced since the commencement of planning. With poverty alleviation being the central focus of development since last few decades; numerous policy measures, schemes and programs have been initiated considering poverty alleviation as the most important goal. It has been realized with time that securing shelter for urban poor and low income groups is a vital aspect of urban development in the Indian cities.

Although with several slum upgradation programmes in place a huge proportion of poor in India have reached above poverty level, they lack quality basic services and amenities. Urban Poor well-being is dependent on many aspects, one of which is ensuring adequate urban open spaces. It plays a significant role and attains considerable importance in their lives. The existing housing policies and guidelines for Urban Poor in India has much emphasis over housing and infrastructure development, improvement of basic services like water supply, sewerage, community toilets and baths, improvement of civic amenities like community halls, and convergence of health, education and social security schemes, but development of open spaces as an urban amenity and an essential part of housing has been noticeably neglected; especially common open spaces as a part of their housing.

This study intended to find out how Urban Poor valued their common open spaces in the city of Ahmedabad by studying the 'Basic Services for Urban Poor' scheme implementation with respect to common open spaces. A comparative study was carried out between the use of common open spaces at the slum areas (pre-settlement site) and the BSUP Relocated site (post-settlement site). The focus of this research was at studying use of common open spaces by urban poor, conflict over common property resources, their perception and preferences of common open spaces at both the sites. The research also intended to analyze the existing housing schemes, policies and designs with relation to designing common open spaces and stakeholder participation in the planning of the same. The potential stakeholders involved Government, Site dwellers, Academia and NGOs.

In order to capture the views and ideas of the relevant stakeholders, a mixed approach was adopted to map their perception and preferences about the open spaces. A combined approach of qualitative and quantitative analysis was taken up to understand the situation at the site. The methods involved were general observations, FGD's, semi structured surveys of the slum dwellers, semi structured interviews of other stakeholders, mapping with google earth and GIS, mapping activity pattern through gps and documenting via photographs.

The findings of this study intends to assist in formulating recommendations for planning, designing and management of common open spaces for the housing of Urban Poor in the city now and in the future.

*Keywords: Common Open Spaces, Urban Poor, Slum, Slum Relocations, Housing policies and schemes, Housing Designs*

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## ABBREVIATIONS

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C.O.S: Common Open Spaces

C.O.P: Common Open Plot

N.G.O: Non-Governmental Organisation

BSUP: Basic Services for Urban Poor

MoHUPA: Ministry of Housing and Urban Poverty Alleviation

JnNURM: Jawaharlal Nehru National Urban Renewal Mission

MoUD: Ministry of Urban Development

FGD: Focus Group Discussion

GDCR: General Development Control Regulations

EWS: Economically Weaker Section

LIG: Low Income Group

RWA: Resident Welfare Association

CIDCO: City and Industrial Development Corporation of Maharashtra Limited

HH: Household

CEPT: Centre for Environmental Planning and Technology

BRTS: Bus Rapid Transit System

PHC: Primary Health Centre

CSO: Civil Society Organisation

RAY: Rajiv Awas Yojana

IHSDP: Integrated Housing and Slum Development Program

MASY: Mukhyamantri Awas Samriddhi Yojana

AMC: Ahmedabad Municipal Corporation

AUDA: Ahmedabad Urban Development Authority

# 1. INTRODUCTION

## 1.1. Background

Slum development initiatives by the government of India to improve conditions of urban poor are practiced since the commencement of planning. With poverty alleviation being the central focus of development since last few decades; numerous policy measures, schemes and programs have been initiated considering poverty alleviation as the most important goal. (AMC, AUDA, & CEPT University, 2009)

It has been realized with time that securing shelter for urban poor and low income groups is a vital aspect of urban development in the Indian cities. The living quality of slum dwellers is perceived to be poor and miserable, and they also represent urban distress (Joshi & Sanga, 2009). As urban poverty has grown with time, it becomes difficult to address the issues of the urban poor and additional attention needs to be directed for the betterment of the same; especially access to basic infrastructure services for them is the most prominent concern in developing slum up gradation strategies in the country. (Menendez, 1991)

The improved housing conditions and availability of basic services constituting the physical environment of urban poor determine the development and subsequently their standard of living. Although with several slum upgradation programmes in place a huge proportion of poor in India have reached above poverty level, they lack quality basic services and amenities. (AMC et al., 2009)

Urban Poor well-being is dependent on many aspects, one of which is ensuring adequate urban open spaces. It plays a significant role and attains considerable importance in their lives. These open spaces act as ecological assets and contribute to the quality of life in numerous ways. Urban open spaces can be categorized at many levels such as city, zonal and neighborhood; however it has been observed that neighborhood level open spaces for urban poor in particular have huge benefits for them as they can get linked to their livelihood opportunities. (Chiesura, 2004; Menendez, 1991)

According to Campbell (2001), "Open spaces in neighborhoods are defined as 'any unbuilt land within the boundary or designated envelope of a neighbourhood which provides, or has the potential to provide, environmental, social and economic benefits to communities, whether direct or indirect'". It could be broadly classified into two types mainly Greenspace consisting of any vegetated land or structure, water or geological feature within neighborhood, and Greyspace consisting of paved or hard landscaped areas with a civic function (Campbell, 2001). It has been gradually recognized that common open spaces (C.O.S) are a key element in the lives of the urban poor; however its importance in developing policies for their housing is largely ignored (Solomon-Ayeh, 2011).

The existing housing policies and guidelines for Urban Poor in India has much emphasis over housing and infrastructure development, improvement of basic services like water supply, sewerage, community toilets and baths, improvement of civic amenities like community halls, and convergence of health, education and social security schemes, but development of open spaces as an urban amenity and an essential part of housing has been noticeably neglected. (Bystedt, 2011; Governance, 2010; Ministry of Housing & Urban Poverty Alleviation - Government of India; Ministry of Housing and Urban Poverty Alleviation - Government of India, 2005, 2011)



## 1.2. Urban Poor and Common Open Spaces

As per The World Bank (2011), Urban poor mostly live in slums of cities, with other deprivations like food and education they face daily challenges of income due to unemployment. As the urban poor live in slums, they are excluded from basic municipal services and left to unhealthy environments. Moreover insecure housing and limited social protection mechanism in slums make urban poor vulnerable to violence as well.

According to UN-Habitat (2007), A slum household is a group of people living under the common shelter, which lacks resilient housing and is vulnerable to extreme climatic conditions. Slum dwellers living in these houses are more than the reasonable number of people sharing the house. Slum dwellers in these housing conditions lack individual and collective services, like shared or communal toilets and water supply. In the case of Ahmedabad the slums are poorly built compact housing and generally temporary in nature, lacking basic municipal services like water and sanitation, setting an unhygienic living condition.(UN-Habitat, 2003)

Shabak, Norouzi, Abdullah, and Khan (2012) defines Common Open Spaces to be the main places for social interactions. According to the Author they create sustainable urban living spaces and are an important factor of quality of life, provided these public/semi-public spaces fulfill the key requirements of being well designed, accessible and pleasant in the residential areas. The Author also elaborates that these spaces are mostly used by the residents it is a private space for them but on the other hand, the spaces are used by all the residents and people visiting them they can be considered as semi-public space. It is very essential to understand that the definition of a 'Common Open Space' is relative to its context and is based on how it is being used there depending upon its type. With reference to Ahmedabad the below has been realized for common open spaces in the slum settlement site and the new site after relocation referred as the 'relocated site';

*Common open space (C.O.S) in the relocated site is defined as open spaces in the newly constructed low income housing for the slum dwellers known as Basic Services for Urban Poor (BSUP) Sites in Ahmedabad wherein the space is allotted as a part of the housing with common properties like community hall, child centre and water tanks but the space is abused and often not being used in most of the sites.*

*Common open space (C.O.S) in the existing slum sites is defined as open spaces jointly used in the slum areas of Ahmedabad by the slum dwellers which were not designed but naturally formed with the course of time. Though these spaces often lacked other common infrastructure like community hall or child centre but also acted as a zone for interaction and carrying out multiple activities.*

Common open spaces are reserved spaces, which may consist of land, and water areas, which are used as a common resource by the houses nearby. These spaces form an integral part of communities and houses for communal gathering and usage (Fairbanks North Star Borough). Woolley (2003) describes one of the open spaces as domestic open spaces elucidating is as a kind of open space being physically nearer to homes. These spaces might form an integral part of a housing area, or could be categorized as private gardens, community gardens and allotments.

As per Shabak et al. (2012), Elements of common open spaces include form, surrounding buildings, location, dimension, proportion, and scale, and landscape, movement of people, materials, lighting and furniture. Evaluation of common open spaces requires measurement of physical, and cognitive and social dimensions. Physical refers to provision of feasible open spaces, accessibility and safety aspects; cognitive

meaning attainment of a state of comfort and pleasureability in a space; and social dimension refers to social affiliation of open spaces to connection and relationship of people with the space.

### 1.3. Research Problem

Ahmedabad is the seventh largest metropolitan in India with 5,570,585 population, area of 464 km. sq., and density of 12,005 per km. sq. The slum population in the city is 906000 which is 16.7 % of the total population (Government of India, 2011). Rapid urbanization in Ahmedabad is generating land scarcity which is resulting in forced land acquisition for projects, causing major relocations of slum dwellers in city areas. For the city it might be a positive economic change but due to slum relocation slum dwellers undergo a sudden transition with the risk of social, economic and cultural impoverishments, which is quite prominent in the case of Ahmedabad slum relocations. (Patel et al., 2013)

In order to understand slum relocations and its consequences it is essential to develop an understanding of the contemporary perspectives of India on urban development; the central and state government initiatives. There is a national initiative by Government of India which is Jawaharlal Nehru National Urban Renewal Mission (JnNURM). Under the mission there are two ministries working; Ministry of Housing and Urban Poverty Alleviation (MoHUPA) and Ministry of Urban Development (MoUD). MoUD is responsible for all development taking place in the cities like Riverfront developments, BRTS, Road Construction etc. and MoHUPA is responsible for Housing and Poverty Alleviation. Basic Services for Urban Poor (BSUP) is a scheme that takes care of slum relocations and provision of basic services to them. There have been many forced land acquisition cases for big development projects initiated in the major cities like Mumbai, Delhi, Pune, Vishakhapatnam and others and Ahmedabad is no exception to this. There have been large scale displacements of urban poor living in informal self-built neighborhoods within the city; negative repercussions being loss of shelter, loss of livelihoods, restricted access to basic social services and public utilities in relocated sites and social disarticulation. (Mahadevia, 2013; Patel et al., 2013)

In this process of relocating urban poor in the city, 29,000 households were displaced out of which only 14,382 new units were constructed under the ongoing slum upgradation scheme 'Basic Services for Urban Poor'. On these relocated sites, wherein the different communities from distinct slums are mixed; common property resources are not used and maintained properly. As per the study carried out by Patel et al. (2013), "Most of the common spaces have become abused and covered with garbage, water pilferage from common water tanks has become a routine, and fights between neighbors over common property issues have become frequent". It has been observed that even after facing such issues, the beneficiaries of the relocated sites were not willing to resolve their problems due to community differences. It further resulted in dilapidation of common property resources and infrastructure. (Patel et al., 2013)

There is a need to research why the common spaces are not being used properly and the reasons behind them being abused; the factors responsible for the use and non-use of these spaces and the kind of spaces the dwellers prefer if given a choice. Also there is a need to study and analyze the gaps in the existing housing schemes for Urban Poor in India with relation to Common Open Spaces.

*This study intends to find out how Urban Poor value their Common Open Spaces. The focus of this research is at studying their level of access to common open spaces; use of common open spaces, conflict over common property resources, their perception and preferences of common open spaces, before and after relocation and most importantly to analyze the existing housing schemes and policies with relation to designing common open spaces and stakeholder participation in the planning of the same.*

In order to capture the views and ideas of the relevant stakeholders, participatory GIS approach was adopted. The potential of using GIS was utilized to involve all participants and in turn mapping their perception, preferences and priorities to come up with a win-win solution for the problem. (Elbondira, 2013) The participatory methods ranged from simple ones to the most updated ones like by means of interviewing them, focus group discussions, mapping with google earth and GIS by using google maps, ground truthing through gps for few locations and documenting via photographs.

The potential stakeholders involved Government, Beneficiaries, Academia and NGOs. It was important to know from the beneficiaries about their present conditions and issues, access to basic services, and use of community spaces. Government was involved in the overall economic and physical development of the city so it was important to know their opinion regarding this issue. NGOs were visited and the members were interviewed as they had a direct relation with the slum dwellers. They motivated them to take part positively in these relocation projects and were responsible for community development. This in a way reflected what they expected and what was happening. Academia was always researching over bottom up assessment of slum dweller's aspirations and was into developing planning guidelines and manuals for slum free cities so it was very essential to know their understanding of the situation.

The findings of this study intends to assist in formulating recommendations for planning, designing and management of common open spaces for the housing of Urban Poor in the city now and in the future.

#### 1.4. Conceptual Framework

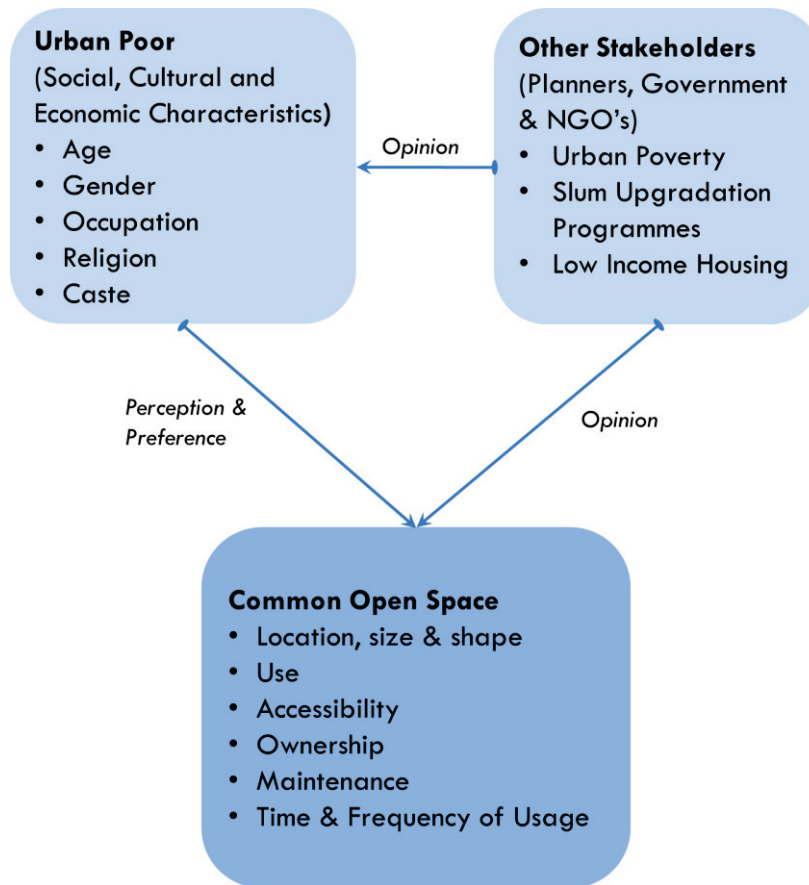


Figure 1: Conceptual Framework

The above conceptual framework is a matrix between the ideas and perception of the Urban Poor (that is both, the slum dwellers still living in the Slums in the city and the relocated ones shifted to low income housing by government), opposite Planners and other stakeholders like Government and NGOs.

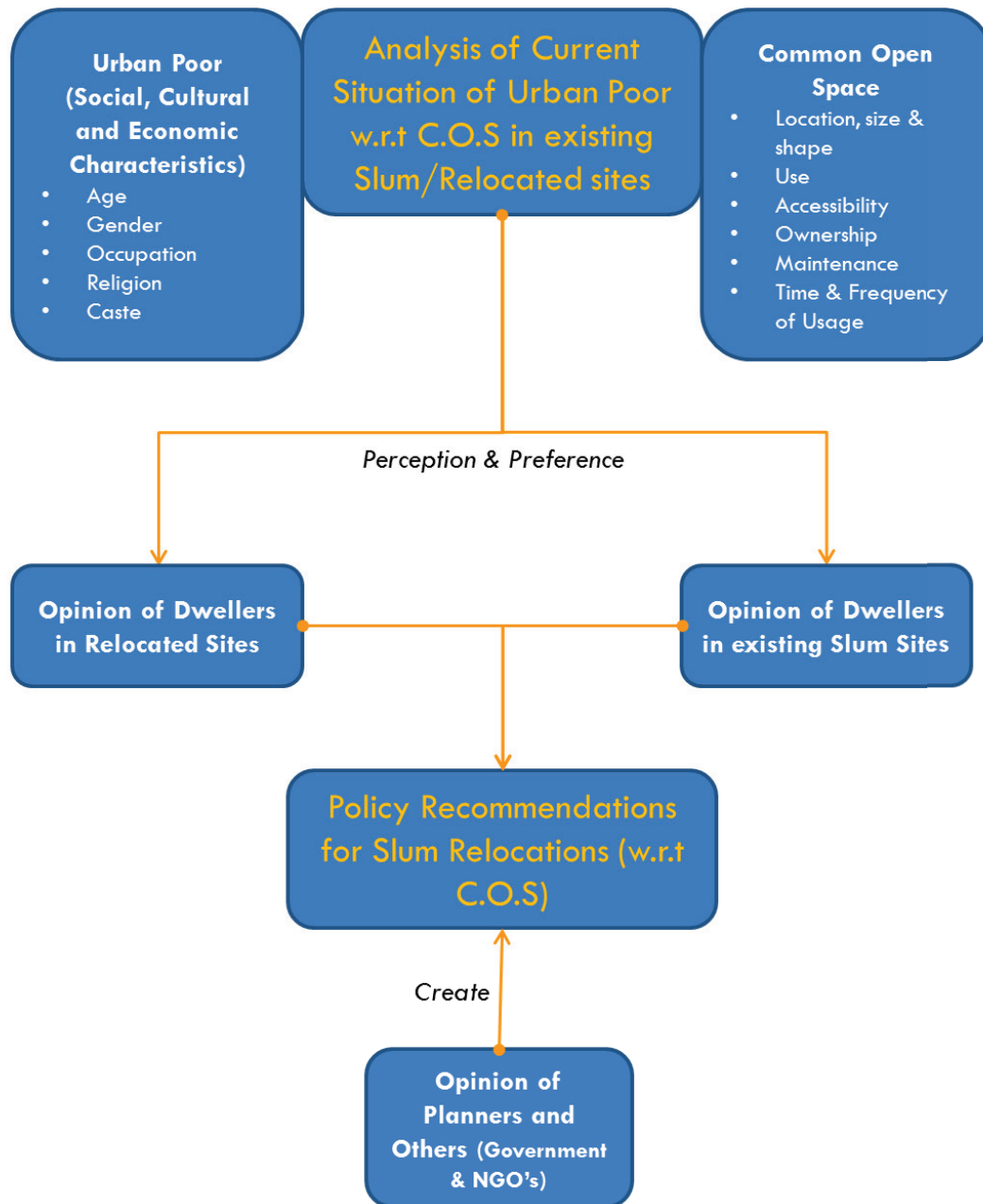
This framework shows the way this study intends to analyze 'how Urban Poor valued the common open spaces in their previous slum sites' and 'how they value it in their relocated sites' in terms of several factors, essential ones being location, size and shape, use, accessibility, ownership, maintenance, and time and frequency of usage .

There could be numerous factors that influence the perception and desires of how Urban Poor value Common Open spaces like Age, Gender, Occupation, Religion, and Caste.

On the other hand the study also analyzed the perception of Urban Poor living in the previous slum sites with respect to using C.O.S, in comparison to their perception, use and preference of C.O.S in the relocated sites.

Another important element in the framework was to understand different opinions of stakeholders; Planners being the most important ones as they are principally responsible for developing guidelines for the Housing of Urban Poor. The study thus tried to analyze how they define and create Common Open Spaces in Urban Poor's Housing.

It was also relevant to analyze whether Planners take into account the desires and needs of the Urban Poor while designing such guidelines and their opinion about existing slum/relocated settlements. Most significantly it was assumed that when all the corners of the framework are well-defined revealing the desires of the Urban Poor and the other stakeholders especially Planners, a common solution is derived. This common solution will be close of the requirements of all that is ‘recommendations for relocation policy’ with special emphasis to the design of common open spaces.



**Abbreviations**

**C.O.S:** Common Open Space

**w.r.t:** with respect to

**Relocated Sites:** New sites after slum relocations in Ahmedabad under Basic Services for Urban Poor (BSUP) Scheme

Figure 2: Research Approach

## 1.5. Research Objectives and Questions

### Main Objective

The main objective of the study is to determine how policies and designs for common open spaces in low income communities (slum settlement sites and relocated site) could be made more sensitive to resident's needs.

**Sub Objective 1:** *To identify factors that affect Urban Poor's perception and preference of common open spaces in the relocated sites in Ahmedabad*

Q1: How Urban Poor use common open spaces?

Q2: What are the factors that influence the use of common open spaces?

Q3: What are the factors that influence non-use behavior of common open spaces?

Q4: What are the factors that influence the choice of common open spaces?

**Sub Objective 2:** *To identify factors that affect Urban Poor's perception and preference of common open spaces in the existing slum sites in Ahmedabad*

Q1: How Urban Poor use common open spaces?

Q2: What are the factors that influence the use of common open spaces?

Q3: What are the factors that influence the non-use behavior of common open spaces?

Q4: What are the factors that influence the choice of common open spaces?

**Sub Objective 3:** *To identify the reasons that initiate problems and conflict over using common open spaces in the relocated sites and existing slum sites in Ahmedabad*

Q1: What is the level of access to common open spaces by different users?

Q2: How are the common open spaces owned?

Q3: How are the common open spaces maintained?

Q4: What is the average time spent by the users in the common open spaces?

**Sub Objective 4:** *To understand how different stakeholders comprehend the perception and preferences of the Urban Poor in developing planning guidelines for their housing with respect to design of common open spaces*

Q1: What are the present guidelines for design of common open spaces for Urban Poor in the existing schemes for their relocations?

Q2: What are the gaps in the existing guidelines with respect to the perception and preferences of Urban Poor?

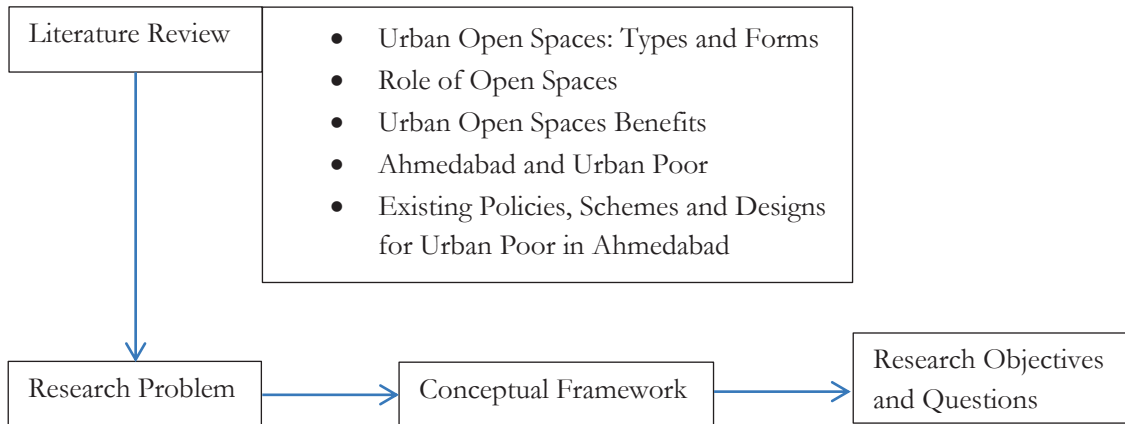
Q3: What is the difference in the perception of type and quality of existing common open spaces between Urban Poor and other stakeholders (Planners, Government, and NGOs)?

Q4: What is the level of involvement of the users of the common open spaces in its design and planning?

## 1.6. Research Design

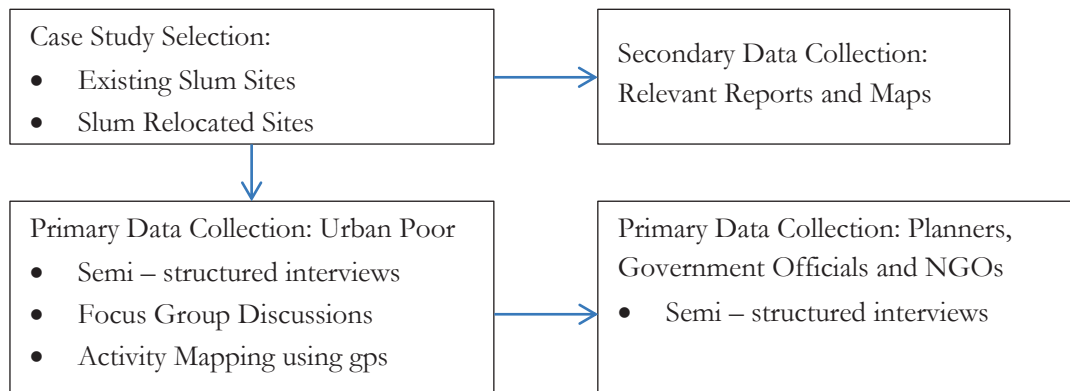
### Phase 1

#### Concept Development



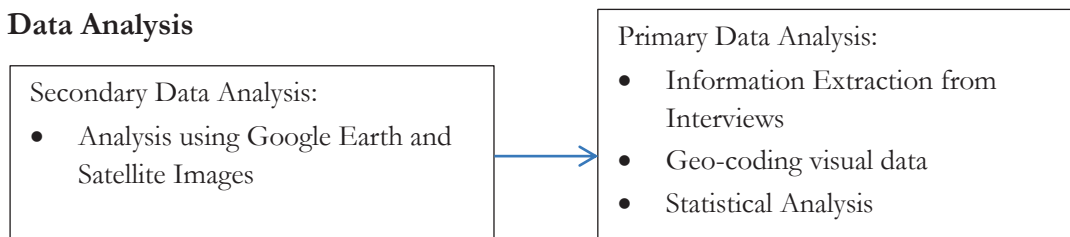
### Phase 2

#### Field Work



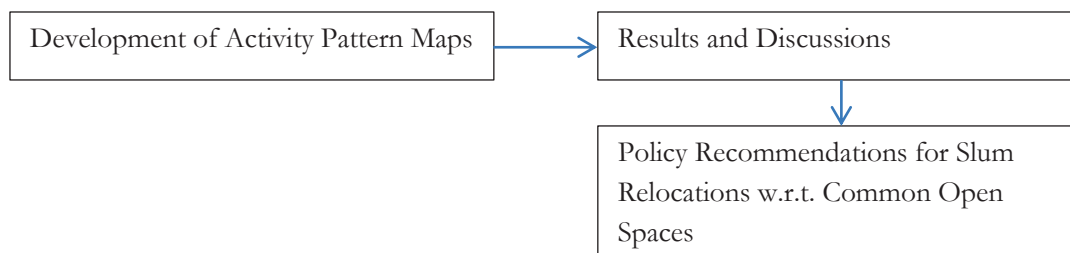
### Phase 3

#### Data Analysis



### Phase 4

#### Communication of Results





*The research design is divided into 4 phases:*

#### Phase 1: Concept Development

This phase focused on carrying out an intensive literature review and developing conceptual framework on its basis. The literature review intends to have an understanding of urban open spaces, its types and forms, role of open spaces, relation between urban Poor and open spaces, urban poor in Ahmedabad, and existing policies and schemes for urban poor in Ahmedabad to help undertake this research.

#### Phase 2: Field Work

This phase focused more on case study selection from existing slum locations and slum relocated sites and preparing for the field work like making questionnaires for semi-structured interviews, and keeping ready the available maps for survey, also preparing questions for focus group discussions. In this phase the sampling criteria and sampling size was also finalized.

After going to the field, the perception of the urban poor about common open spaces were realized with the help of focus group discussions and interviews. The activities in the study area were captured with the help of photos and videos and using gps.

For interviewing the other stakeholders like Planners, Government officials and NGOs, another set of semi structured interviews were prepared.

#### Phase 3: Data Analysis

This phase is divided into two parts, secondary data analysis and primary data analysis. In the former, the first set of analysis were carried out with the help of google earth and satellite images in both the sites to get an idea of the location, size and shape of the common open spaces. Also few assumptions were formed with the help of existing reports available. In the latter, information was extracted from the interviews by using statistical analysis related to usage and non-usage of common open spaces, overlaid with activity pattern maps linked with geo-coded visual data. The interviews of the other stakeholders were also interpreted and analysed.

#### Phase 4: Communication of Results

In this phase the results of all the data analysed were communicated by means of maps and necessary findings from the statistical analysis. The results were discussed in the form of comparison in the perception of the Urban Poor in both the sites and the opinion of Planners, Government and NGOs in the same. The findings were helpful in deriving policy recommendations for Common Open Space Design for Urban Poor.

*The other details of research design are mentioned in detail in the Research Methodology Chapter.*





Table 1: Research Matrix

Sub Objectives	Research Questions	Data Needed	Source of Data	Methodology
1. To identify factors that affect Urban Poor's perception and preference of common open spaces in the <b>relocated sites</b> in Ahmedabad	1. How Urban Poor use common open spaces?	Activity Pattern of dwellers in Common Open Spaces	Primary Data	Field Observations
	2. What are the factors that influence the use of common open spaces?	Reasons behind common open spaces getting used	Primary Data	Semi-structured Interview Statistical Analysis
	3. What are the factors that influence non-use behavior of common open spaces?	Identification of Problems in using common open spaces	Primary Data	Semi-structured Interview Statistical Analysis
	4. What are the factors that influence the choice of common open spaces?	Reasons behind the preference of a common open space	Primary Data	Semi-structured Interview
2. To identify factors that affect Urban Poor's perception and preference of common open spaces in the <b>existing slum sites</b> in Ahmedabad	1. How Urban Poor use common open spaces?	Activity Pattern of dwellers in Common Open Spaces	Primary Data	Field Observations Semi-structured Interview
	2. What are the factors that influence the use of common open spaces?	Reasons behind common open spaces getting used	Primary Data	Semi-structured Interview Statistical Analysis
	3. What are the factors that influence the choice of common open spaces?	Reasons behind the preference of a common open space	Primary Data	Semi-structured Interview
3. To identify the reasons that initiate problems and conflict over using common open spaces in the relocated sites particularly and existing slum sites in Ahmedabad	1. What is the level of access to common open spaces by different users?	Approachability level of common open spaces	Secondary Data Primary Data	Google earth and satellite images Semi-structured Interview
	2. How are the common open spaces owned?	Ownership specifics of common open spaces	Primary Data	Semi-structured Interview
	3. How are the common open spaces maintained?	Maintenance specifics of common open spaces	Primary Data	Semi-structured Interview
	4. What is the average time spent by the users in the	Distance of job locations of	Primary Data	Field Observations

	common open spaces?	the dwellers from the dwelling site	Secondary Data	Semi-structured Interview Statistical Analysis
4. <i>To understand how different stakeholders especially 'Planners' understand the perception and preferences of the Urban Poor in developing planning guidelines for their Housing</i>	1. What are the present relocation guidelines for design of common open spaces for Urban Poor?	Study of existing relocation schemes and policies for Urban Poor in India	Secondary Data	Literature
	2. What are the gaps in the existing guidelines with respect to the perception and preferences of Urban Poor?	Identification of strengths and weaknesses in the existing relocation policy design with respect to the needs of the Urban Poor	Secondary Data Primary Data	Literature Field Observations Semi-structured Interview
	3. What is the difference in the perception of type and quality of existing common open spaces between Urban Poor and other stakeholders (Planners, Government, and NGOs)?	Differences in the ideas and perspectives of different stakeholders about Urban Poor and their common open spaces	Secondary Data Primary Data	Literature Semi-structured Interview
	4. What is the level of involvement of the users of the common open spaces in its design and planning?	Urban Poor participation in designing and planning common open spaces	Secondary Data Primary Data	Literature Semi-structured Interview

## **1.7. Thesis Structure**

The thesis is divided into 8 chapters elucidated below:

### **Chapter 1: Introduction**

This chapter gives an overview of the need of the study, the objectives to be achieved and the methods by which it is carried out. This chapter explains the societal relevance of the research, need of the research, conceptual framework in which the concepts and key ideas are graphically described, research objectives and questions, and research design in which the methods to be applied in the research are defined.

### **Chapter 2: Urban Open Spaces**

This chapter includes the study of the concepts of the research, establishing the previous studies with respect to what is done and what is yet to be explored. The literature consists of study of urban open spaces and its types, role of open spaces, forms of open spaces, and study of benefits of open spaces

### **Chapter 3: Ahmedabad and its existing housing schemes and policies for Urban Poor**

This chapter highlights the facts about Ahmedabad and the slum dwellers of the city, Urban Poverty initiatives taken by the government and existing housing schemes and policies for slum dwellers with respect to common open spaces.

### **Chapter 4: Research Methodology**

This chapter comprises the methods and approaches used for collecting primary and secondary data during the field visit and different ways by which analysis was carried out.

### **Chapter 5: Perception and Preferences of Urban Poor in existing Slum and Relocated Sites**

This chapter elucidates the perception and preferences of Urban Poor in both, slum areas and BSUP relocated sites after interviewing them and analysing the situation with the help of interviews, use of existing GIS maps, satellite images and google earth and also by means of pictures and videos of the site.

### **Chapter 6: Role of Planners and other stakeholders in Housing Development for Urban Poor**

This chapter highlights the ideas and perception of Planners, Government, and NGOs about Urban Poor and the existing housing schemes and policies for them. It also includes the opinion of these stakeholders about slum and slum relocations and current relocation sites. This chapter also explains the role of these stakeholders in developing housing policies for Urban Poor in the past and in the future.

### **Chapter 7: Conclusion and Recommendations**

This chapter elucidated the inferences derived from the findings which indicated the answers to the research objectives. After analysing the entire situation from various perspectives, relocation policy design was reformulated / modified for Urban Poor. This chapter also highlights the limitations of this research and recommendations to take up the study further.

*The chapter highlighted the importance of common open spaces for urban poor and the need for this research. The conceptual framework to carry out this research was derived which focussed on the relation between social, cultural and economic characteristics of urban poor and the different characteristics and features of a common open space, and also the opinion of other stakeholders regarding the same. The chapter also gave an insight about the way to proceed in the form of phases and data needed to achieve the objectives.*

## 2. COMMON OPEN SPACES

### 2.1. The Role of Urban Open Spaces

Open spaces are the essential backbone of an urban structure and heritage and have the potential to influence the development of a region in a sustainable way. It also acts as a component in enhancing the architecture of the city and makes it look aesthetically appealing. It has been realized with time that open spaces in the urban context have a lot of importance in our daily life. Most of the developed countries have appreciated and valued its significance which the less developed countries could not because of the other potential issues that need to be addressed. (Lopes & Camanho, 2012; Maruani & Amit-Cohen, 2007; Woolley, 2003)

Open spaces are the key areas for social interaction and community development. It is environmentally significant and plays an important informative role. Open spaces play a major role in facilitating social interaction within people and help know each other better. It is through these spaces by which social gatherings and meetings are systematized and cultural differences minimized; helps create a dialogue between the users. (Thompson, 2002; Woolley, 2003)

Furthermore open spaces play the role of 'breathing areas' in the concrete jungle, and are also the ways by which the cities remain sustainable fully integrated with the design of housing. Open spaces add to the quality of life of people by providing them with substantial social, environmental and economic benefits. They have also been categorized as recreational and leisure areas to relax and to carry out different activities. (Stanley, Stark, Johnston, & Smith, 2012; Sutton, 2008; Woolley, 2003)

It has been established through literature that for improved well-being and high quality of life a strong sense of community is needed with greater partaking in community matters and civic obligations; a well-designed open space will be able to ensure that. (Francis, 2003)

The open spaces that we come across nowadays are the results of spaces left over after planning or the plain outcome of the development control regulations. Considerable thinking should be incorporated in the design of these spaces such that they could be used in an effective way. (CSIR Building and Construction Technology, 2000; Oktay, 1997)

### 2.2. Benefits of Open Spaces

Open spaces have significant number of benefits in numerous forms such as social, environmental, health and economic and also in the form of short and long term. Short term benefits are those by which one receives happiness and contentment in short span of time like social benefits and the latter are those which show their effects over a long period of time like health benefits. (Francis, 1987; Woolley, 2003)

They are broadly divided into 4 categories explained below:

### **2.2.1. Social Benefits**

Social benefits are inclusive which are enjoyed by people of all age group and gender that is from children to elderly, and are also of various kinds like in the form of educational opportunity for all. It is important for children to devote enough time in playing in and using the open space every day which is essential for his growth and development at this stage. Similarly for elderly, it acts as a medium to interact, sit and relax with others to pass time and feel good. People may learn more about nature from the well-designed open spaces. In addition to this there is a concept of active and passive; a child playing is active while watching him play is considered as passive. Both are beneficial in their own ways. Thus they also are used for recreational and leisure activities by all. As mentioned above a well-designed open space not only forms the focus or the heart of the community but is also able to minimize the cultural differences like social class barrier and variation in ethnicity. They can act as green hubs for all and offer huge benefits such that they can come out of their barriers and think beyond. (Francis, 1987; Sherer, 2006; Woolley, 2003)

*It has been observed in developing countries for example India that for low income housing with more informal activities and jobs the open spaces can also act as spaces to extend the spill-over activities of the residents and there is a scope to also connect the space with their livelihood.*

### **2.2.2. Health Benefits**

There can be two ways by which health benefits can be categorized; physical and mental health benefits. The former one is direct by which people can improve their health and remain fit by using their open spaces effectively. This will include jogging, walking and doing exercises. Also green open spaces act as noise and smoke absorbent and helps purify the surroundings. Pollution free areas will also bring good health to the people residing. On the other hand mental health is dependent upon cleanliness and openness of our surroundings; the significance of nature around. Green aesthetics can help improve eye sight and mental health to a great extent. (Thompson, 2002; Wentz, 2011; Woolley, 2003)

*The matter of concern is that the developing countries do not realize these advantages of open spaces which are extremely essential. There is a lack of awareness that needs to be created within people. Living in a clean and green environment and breathing fresh air is the right of all.*

### **2.2.3. Environmental benefits**

Environmental benefits can again be categorized into two kinds; climatic and inviting nature (flora and fauna). The former one is enjoyed by everyone living nearby, whether or not coming to direct use with the space. In a way it has been observed that the quality, quantity and linkage between the open spaces would directly or indirectly lead to positive climatic effects short term or long term. The latter explains the benefits of living with nature and attracting more species of flora and fauna in the vicinity; to create more habitat opportunities for them. (Solomon-Ayeh, 2011; Surprise; Woolley, 2003)

*In the developing countries, the environmental benefits of open spaces for everyone are yet to be realized. There is a need for an awareness spread to understand its short term and long term benefits.*

#### **2.2.3.1. Economic Benefits**

Economic benefits that can be attained from open spaces are the increasing property values of the surrounding areas and thus directly beneficial to some. Few people also have the opportunity to connect agriculture with places they are living in like crop production and in turn help themselves financially. Also if an open space is well maintained and unique that is it can attract tourists from other cities; it has the capacity to bring in more money to the government. (Chiesura, 2004; Sherer, 2006; Thompson, 2002; Woolley, 2003)

*Lastly for the urban poor who have started to reside in low income housing leaving the slum areas behind, this kind of designed localities with open spaces help them to get jobs in applicable firms and institutions which they could not get through earlier because of non-reliable background and location.*

*They can also get bank loans on the basis of their new housing as collateral. Also the open spaces can be used as plots for organizing marriages which is a costly affair while approaching the general party plots. In these ways open spaces can bring ample economic benefits for urban poor.*

### **2.3. Abuse of Open Spaces**

Abuse in this context is referred as misuse and exploitation of open spaces; improper treatment and its usage. There might be several ways of abusing open spaces like dumping garbage, no maintenance, vandalism, and control of one user group over others. These kinds of issues arise due to conflicts between different user groups and cultural differences. This in turn may be influenced by group of people with diverse food habits, religious background, social class and usage type of open spaces. Other reasons of abuse could be no authority/association in place for maintenance of open spaces or gender conflicts. It is extremely important for the open spaces to be safe and secured as women are one of the most potential users. (Francis, 2003)

*If an open space is well – designed and maintained such that it can provide ample amount of benefits for all be it social – health – environmental and economic, it will have the ability to overcome the differences and unite all.*

### **2.4. Types of Open Spaces**

Many researchers have written and shared their opinion on the types of open spaces. It is interesting to analyze the ways by which they are different and also similar. Firstly they can be defined on the purpose they fulfill; secondly on the basis on landscape and thirdly on the basis of level of restriction to access.

On the basis of function the open spaces provide, they can be divided into Domestic, Neighborhood and Civic urban open spaces. Domestic Urban Open Spaces can be called the local open spaces which are near to the houses or a part of housing/community. Private Gardens also fall under this category.

Neighborhood Urban Open Spaces are the ones which are bigger in scale than the domestic and cater to a larger population mostly to an entire neighborhood. Examples of this category are Parks, Playgrounds, Streets, and natural green spaces. Civic Urban Open Spaces are the public open spaces that are at a city

level and cater to a huge mass of population. This will comprise of squares, plazas, waterfronts and office grounds, city parks, cemeteries and other commercial grounds. (Thompson, 2002; Woolley, 2003)

Open Spaces can also be divided into two types hard landscape and soft landscape. The former will comprise of open spaces that are paved like squares, plazas, some of the playgrounds, streets and any other of similar category. The latter will include green spaces like gardens and parks. (CSIR Building and Construction Technology, 2000; Woolley, 2003)

On the basis of level of restriction to access, the open spaces can be classified into Public, Semipublic and Private. Civic urban open spaces will come under the category of public open spaces like squares and plazas. They are of city wide importance and mostly managed by the municipality. Neighborhood open spaces will fall under the category of semipublic spaces like parks and playgrounds which are open to the inhabitants of the neighborhood and the visitors but not everyone. And lastly the private spaces include the domestic urban spaces like private gardens and the common open spaces in housing. (Buharali, 1983; Woolley, 2003)

*The chapter focussed on the open spaces especially the common open spaces describing their roles and benefits in our lives. It discussed in detail the social, health, environmental and economic benefits of open spaces, also with respect to urban poor. It also highlighted on the abuse of open spaces and the ways by which it can be caused. And lastly threw some light over the types of open spaces on the basis of function, landscape and restriction to access.*



### 3. THE CITY OF AHMEDABAD: EXISTING HOUSING SCHEMES AND POLICIES FOR URBAN POOR

#### 3.1. Ahmedabad and Urban Poor

The city of Ahmedabad with approximately 5.5 million inhabitants and an area of 464 sq. km. is the 7<sup>th</sup> largest metropolis of India. It has a density of 12,005 per km. sq. (Government of India, 2011)

The city was also known as the Manchester of India because of the set-up of 64 cotton textile mills that were working during 19<sup>th</sup> and 20<sup>th</sup> century and occupied 80% of the workforce. The number of cotton textile mills went down drastically due to restructuring of the textile industry, leading to the number decreasing to 10 currently. The informal sector boomed at that time because of the unemployment that followed in which street vending emerged as one of the core opportunities. This informal sector did not exclude any; women and young girls got engaged in the activities like hawking, garland making, embroidery, food processing, bag making and domestic services; young boys got involved in shop keeping, manufacturing works, kite making, as cobblers, artisans and barbers and men got involved in the jobs like barbers, auto rickshaw drivers, diamond polishing, shop keepers and other recycling works and food processing. Many children were also included in such activities. However this kind of informal sector does not ensure any long-lasting job or minimum wage which clutches them to be highly vulnerable and poor (Bhatt, 2003). According to Our Inclusive Ahmedabad (2010) 75 per cent of the total workforce of 1.5 million of Ahmedabad contributes to the informal sector.

Also it was observed that amid this vast majority of poor, there existed a lot of differentiation; from their income to their life style and the kind of work they were involved in. A shop keeper considered himself to be superior from the one cleaning the road and the gutters and the one collecting the garbage. The poor got segregated into different classes and preferred living in different lanes and groups belonging to their own community and relatives. This kind of settlement pattern has existed since always and is still continuing wherein the inhabitants have got used to living with their own set of people and being dependent on them in carrying out various activities together like building temples, celebrating festivals, organizing marriages by taking help from each other. They have been recognized as the vulnerable with very strong integrated communal settlement pattern that does not have the capacity to face any kind of abrupt change in their livelihood option or living form. (Our Inclusive Ahmedabad, 2010)

In the context of slum relocations, it is important to define social disarticulation,

**Social Disarticulation:** In the above context social disarticulation would mean communal displacement. “Displacement fragments the social fabric of a community including its spatial, temporal and cultural determinants. As kinship groups become scattered, the capacity for collective action or social capital is lost as informal networks of reciprocal help, voluntary associations and mutual help groups are disrupted. Their vulnerability increases as they rely heavily on such social networks rather than formal and administrative frameworks. Cernea (2003) termed this as net loss of social capital which compounds the loss of natural, physical and human capital. Social capital lost through social disarticulation invariably remains unperceived, uncounted and unreconstructed leading to long term consequences.” (Cernea, 2003)

*The map of Ahmedabad, slum locations and relocated sites are inserted in Appendix A for better understanding of the study area.*

### 3.2. Housing Schemes and Policies for Urban Poor

Housing schemes and policies are divided into two parts - Central Government initiatives and State initiatives.

#### 3.2.1. Central Government Initiatives

The Central Governments Initiatives are massive schemes and policies launched by Government of India for the benefit of Urban Poor in the country. They are implemented in most of the cities in all the states of the country depending upon the city selection criteria and other necessities and their key features are discussed below:

##### 3.2.1.1. Rajiv Awas Yojana (RAY)

*The mission is to free India from slum and work towards inclusive India with an equitable coverage of housing including elementary amenities and infrastructure.*

The prime objectives of the scheme are mentioned below:

- to have the provision of social amenities, basic civic amenities and housing for all in slum settlements
- to have reforms to prevent slum formation
- to raise a platform to help urban poor in institutional credit linkages
- to encourage capacity building programmes and to reinforce resource networks at city, state and municipal levels
- to empower the communities through development of resident welfare associations for slum dwellers

Source: (Ministry of Housing & Urban Poverty Alleviation - Government of India)

The status of Slum Survey under Ahmedabad Municipal Corporation is 100% completed and 2 In situ Slum Redevelopment Pilot projects are in place which comprises 1087 dwelling units; appraisal pending at GoI level. (Àloria, 2013)

*General Development Control Regulations (GDCR) will be applicable for the design of common open spaces in the site.*

##### 3.2.1.2. Basic Services for Urban Poor (BSUP)

*The mission is to deliver basic services to the urban poor in the form of holistic development of slums via housing and other necessary projects that will benefit them.*

The prime objectives of the scheme are mentioned below:

- to have projects which promote integrated development of slums in the form of projects related to housing, basic services and infrastructure for urban poor; rehabilitation plans
- to provide schemes related to water supply, drainage and community toilets
- to have affordable housing programmes for Economically weaker section (EWS) / low income group (LIG)
- to include solid waste management schemes and programmes
- to upgrade the environment and street lighting

- to provide necessary civic amenities such as child care centres and community halls
- to operate and maintain the properties raised under the scheme
- to merge social aspects like health, education with social security
- to be clear to know that the projects related to creating employment opportunities, power and telecom will not be dealt with

Source: (Governance, 2010; Ministry of Housing and Urban Poverty Alleviation - Government of India, 2005)

There are 5 mission cities covered under BSUP namely Ahmedabad, Surat, Rajkot, Vadodara and Porbandar. In Ahmedabad under BSUP 33824 Dwelling Units have been sanctioned, 32232 Dwelling Units have been completed and 1592 Dwelling Units are under progress. (Àloria, 2013)

*Every plot measuring more than five hundred DUs are provided with common open space, park for amusement, School, health care center Anganwadi and garden. This typology of habitation is done by keeping the aim of clean and green habitations to the urban poor at affordable price. (Ministry of Housing and Urban Poverty Alleviation - Government of India, 2005)*

*Out of the total area allotted, 45% is for built-up and 55% is for open area including margins. From this 55% allotted for open areas, 10% is reserved for Common Open Plot/ Spaces*

Below figures show the floor plan, elevation and dwelling unit plan provided to the people under BSUP

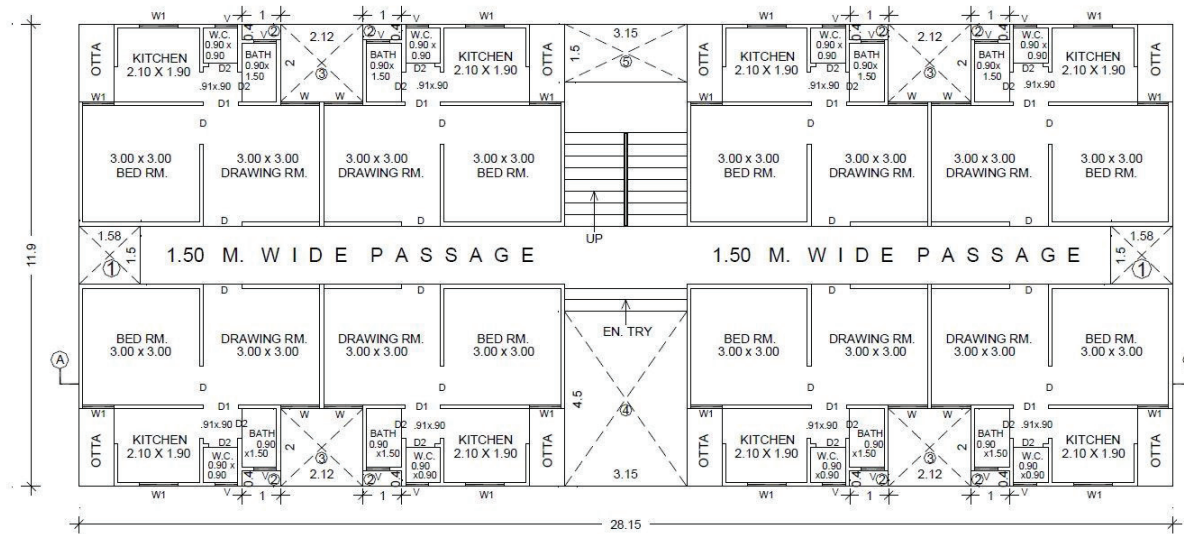


Figure 3: Ground Floor Plan of Houses provided to the urban poor under BSUP  
Source: (Ministry of Housing and Urban Poverty Alleviation - Government of India, 2005)

As observed in the above figure, each floor has 8 houses which equals to a total of 32 houses in each block wherein people of all mixed communities and religion are living together.

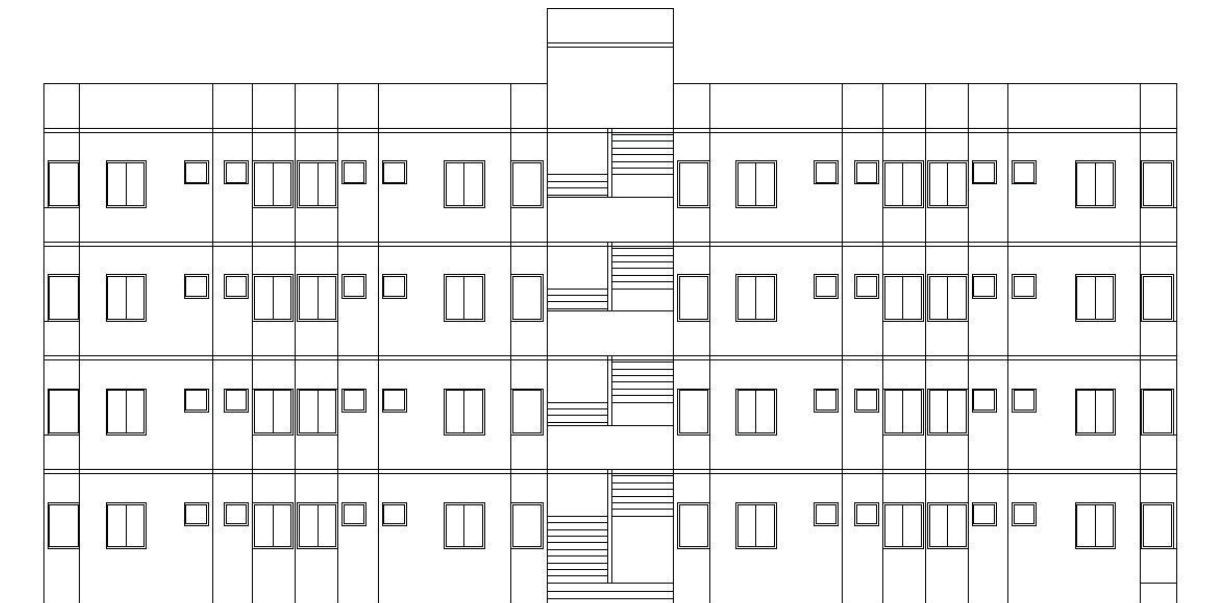


Figure 4: Elevation of one block constructed under BSUP  
Source: (Ministry of Housing and Urban Poverty Alleviation - Government of India, 2005)

The above figure shows the front elevation of a block which is G+3 in the BSUP relocated site.

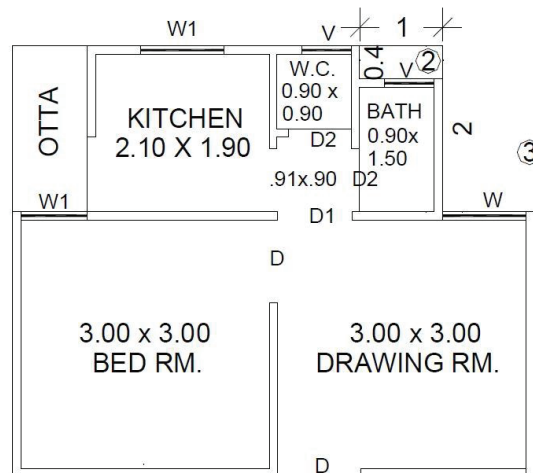


Figure 5: Dwelling Unit Plan under BSUP

Source: (Ministry of Housing and Urban Poverty Alleviation - Government of India, 2005)

The above figure shows the typical plan of a house in a block in BSUP relocated site. The plan has all the basic necessities needed in a house but a well-designed common open space will add further to their quality of life for extending their spill over activities.

### 3.2.1.3. Integrated Housing and Slum Development Program (IHSDP)

*Mission: to improve the slums in the towns and cities which are not covered under JnNURM*

Objectives:

- to have improved development in terms of infrastructure and greater public and private investments in housing
- to have projects which promote integrated development of slums in the form of projects related to housing in the areas not covered under JnNURM (Government of Gujarat, 2014)

It deals with only in-situ housing provision of 25 sq. m.t. plinth area with two rooms, kitchen and toilet at a cost of Rs.80, 000/- per unit and included provision of physical infrastructure like water supply, Roads, Drains, Community Toilet, Community Bath, Street Light and Solid Waste Management and social infrastructure like community centre.

*Design of Common Open Spaces not much discussed in detail but there is a provision of constructing park and a playground if sufficient space is available on the site.*

### 3.2.2. State Government Initiatives

Below mentioned are some examples by state government initiatives. The central government schemes are also applied in the state but in addition to that these are some further regulations for the betterment of urban poor initiated by the state.

### 3.2.2.1. Regulation for slum rehabilitation and redevelopment 2010

The regulation is applicable to slum settlements on lands or its parts on those lands irrespective of the ownership under the authority of Gujarat Town Planning and Urban Development Act 1976.

The prime objectives are mentioned below:

- to identify slum area and to notify the slum area by recommending it to the government
- delineating the notified area as a slum rehabilitation zone and evaluating the respective proposals
- provision of benefits under any state/central government scheme

*For applying this initiative General Development Control Regulations (GDCR) will be applicable including Parking area and Common plots.*

*‘Common Plot’ is defined as a “common open space exclusive of margins and approaches, at a height not more than ground level of the building unit. The owner shall have to give an undertaking that the common plot shall be for the common use of all the resident or occupants of building unit, free of cost.” (Government of Gujarat, 2010)*

*In a residential area, minimum of 10% of the building unit (2000 sq. mts. or more) to be provided as Common plot, including high rise buildings.*

### 3.2.2.2. Mukhyamantri Awas Samridhi Yojana (MASY)

The scheme intends to provide housing and necessary social and urban infrastructure facilities to the urban poor and also facilitates the participation of private sector towards in-situ development of slums and making available the incentives to promote the housing for low income group. (Manthan, 2013)

The first phase will focus on slum dwellers and their rehabilitation programmes by providing housing for them, also including economically weaker section and low income group category by building houses as accommodation. The policy is prepared and waiting to be declared soon. (Manthan, 2013)

*There is no information on the design of common open spaces yet.*



The schemes described above were the initiatives by the central government of India and the state government of Gujarat towards eradication of urban poverty. However there are also other examples of housing designs by different architects for urban poor with some consideration towards their needs and lifestyle. These examples are presented below.

*The chapter discussed about Ahmedabad and its history with urban poor. It highlighted the central and state government initiatives for the urban poor and the regulations for the design of common open spaces. In addition to the above it also looked upon the case studies by architects in India with special emphasis on urban poor and their specific lifestyle.*

## 3.3. Housing Projects by Architects for Urban Poor

These case studies were selected as they were sensitive towards designing the housing for urban poor with special consideration to the design of open spaces.



	Aranya Low Cost Housing, Indore, India <i>Source: (Doshi, 1995)</i>	Belapur Housing, Mumbai, India <i>Source: (Correa, 1987)</i>	CIDCO Housing, New Mumbai, India <i>Source: (Ral Rewal Associates, 2012), (WordPress, 2011)</i>
<i>Year</i>	1983 - 1986	1983 - 1986	1993 - 1998
<i>Architect</i>	B.V Doshi	Charles Correa	Raj Rewal
<i>Client</i>	Indore Development Authority	City and Industrial Development Corporation of Maharashtra Limited	City and Industrial Development Corporation of Maharashtra Limited
<i>Site Area</i>	88.72 Ha	5.4 Ha	
<i>Number of Dwelling Units</i>	12847	100	1000
<i>Special Components with respect to open spaces</i>	<ul style="list-style-type: none"> <li>Housing inclusive of all neighborhood facilities like schools, medical centres and shops</li> <li>Amenities overlapped with open spaces for usage throughout the day</li> <li>Pedestrian network formed by interlinking the open spaces connecting the whole settlement</li> <li>Creation of small clusters in the form of cul-de-sacs or open streets by grouping the dwellings</li> </ul>	<ul style="list-style-type: none"> <li>Possibility for expansion and modification for each unit</li> <li>Housing scheme for a range of income groups; from \$1700 to \$15,000 per unit (Rs. 20,000 to Rs. 180,000)</li> <li>Formation of community spaces through the arrangement of clusters</li> <li>Hierarchy of open spaces formed with different forms of usages and provision of amenities</li> <li>More open to sky spaces</li> <li>Hierarchy of spaces adjoining clusters: 8X8mts. to 12X12mts. to 20X20mts.</li> </ul>	<ul style="list-style-type: none"> <li>In harmony with the social stratum</li> <li>Different types of spaces created by fragmenting large number of dwelling units into smaller aggregations.</li> <li>Creation of dense residential clusters to facilitate social interaction</li> <li>Concept of housing units opening to an outer space</li> </ul>
<i>Snapshots</i>			

## 4. RESEARCH METHODOLOGY

This chapter intended to describe the methodology adopted in this research and the process by which the objectives and the questions were answered. The chapter defined the case – study selection criteria, sampling strategy and criteria to decide the sample size. It also dealt with data collection and preparation methods and highlighted the data analytical methods.

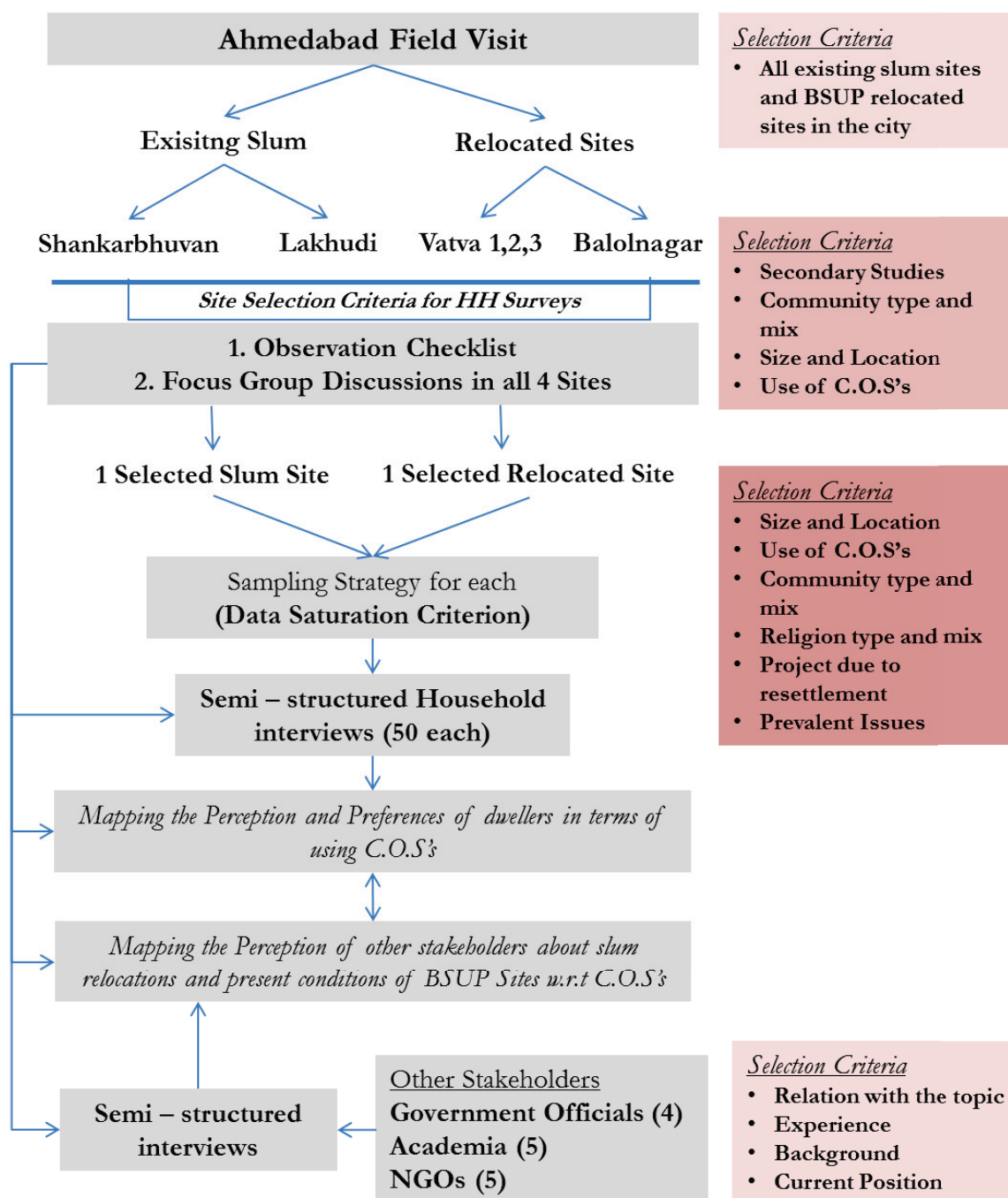


Figure 6: Site Selection Criteria



#### 4.1. Case-study Selection

Out of 28,000 households displaced from 2003 to 2010, 3275 were identified as relocated on the BSUP sites presented in the map below (Patel et al., 2013) :

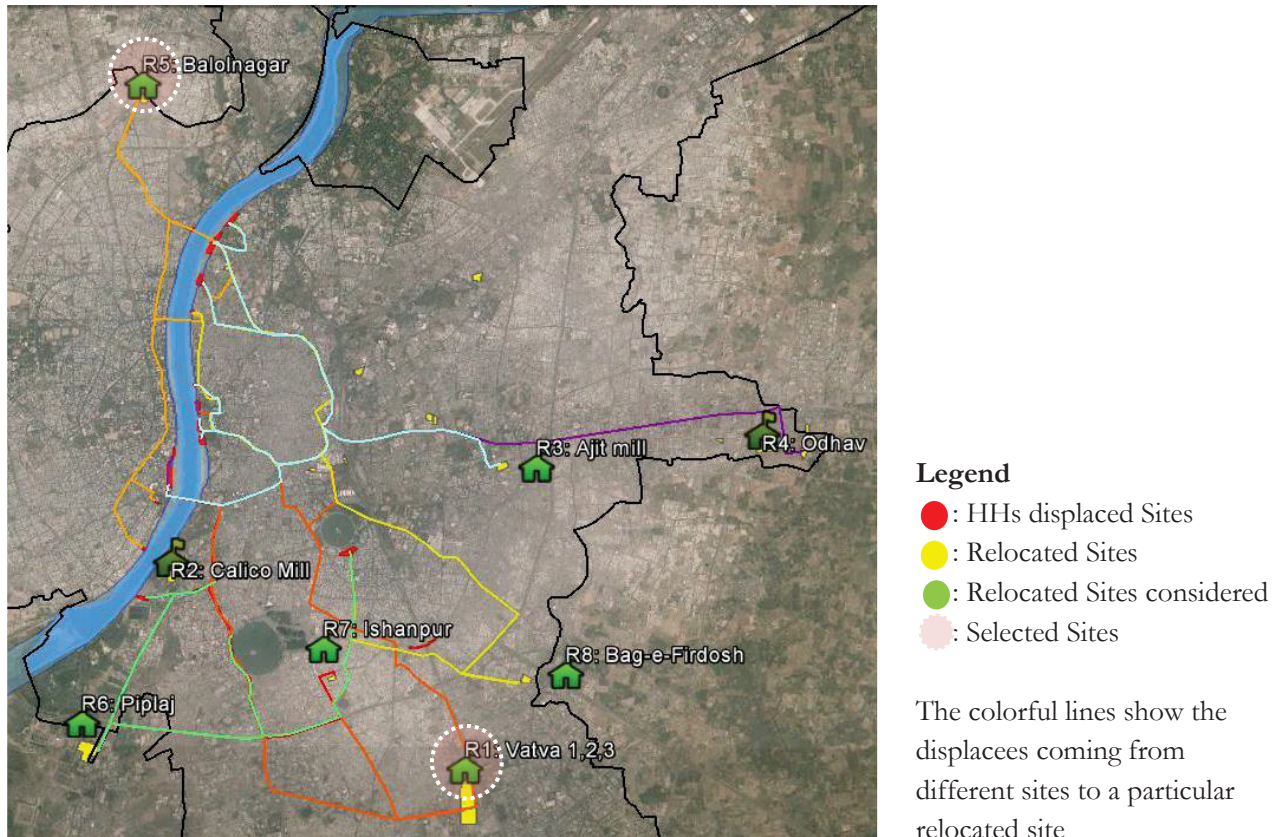


Figure 7: Selection of BSUP Relocated Sites

Source: Google Earth, Map to Scale

Out of all these sites, 'Vatva' (R1) was selected as one of the relocated sites as according to the study carried out by Patel et al. (2013), the common open spaces in the site were not getting used by the dwellers; rather abused. There was a need to test the findings and to have an in depth understanding of the reasons behind the same.

Social Disarticulation being one of the assumptions, Vatva site had the potential as the site comprised of dwellers dislocated from many of the slum sites that existed. Vatva had people from most of the Hindu and Muslim communities in the city.

Balolnagar (R5) was also selected as a relocated site as the dwellers in this site had come from different slum locations in Ahmedabad forming mixed communities. Also R5 was the sample BSUP site, so it was be interesting to compare and analyze the variation between Balolnagar and Vatva (Site at the Periphery). Also it was interesting to compare factors involved like size and number of dwelling units involved; Vatva being very large and Balolnagar being small.

The study of these two sites helped realize how the Urban Poor value common open spaces and the reasons behind its non-use. The mixed communities in the relocated sites helped test the assumptions. Moreover the two sites were present on two opposite sides of the river, east and west Ahmedabad which were completely different from each other in character and enabled to check other factors involved in using the C.O.S's.

On the other hand, in case of existing slum settlements, one of the remaining slum locations at the riverfront was selected as the case study called ‘Shankar Bhuvan’ (O1) which helped in understanding the previous situation (at the riverfront) of the relocated site dwellers in the city. The other slum settlement called ‘Lakhudi’ (O5) was chosen as it was known as a site with an integrated community and usage of common open spaces in a creative way. The map is presented below:

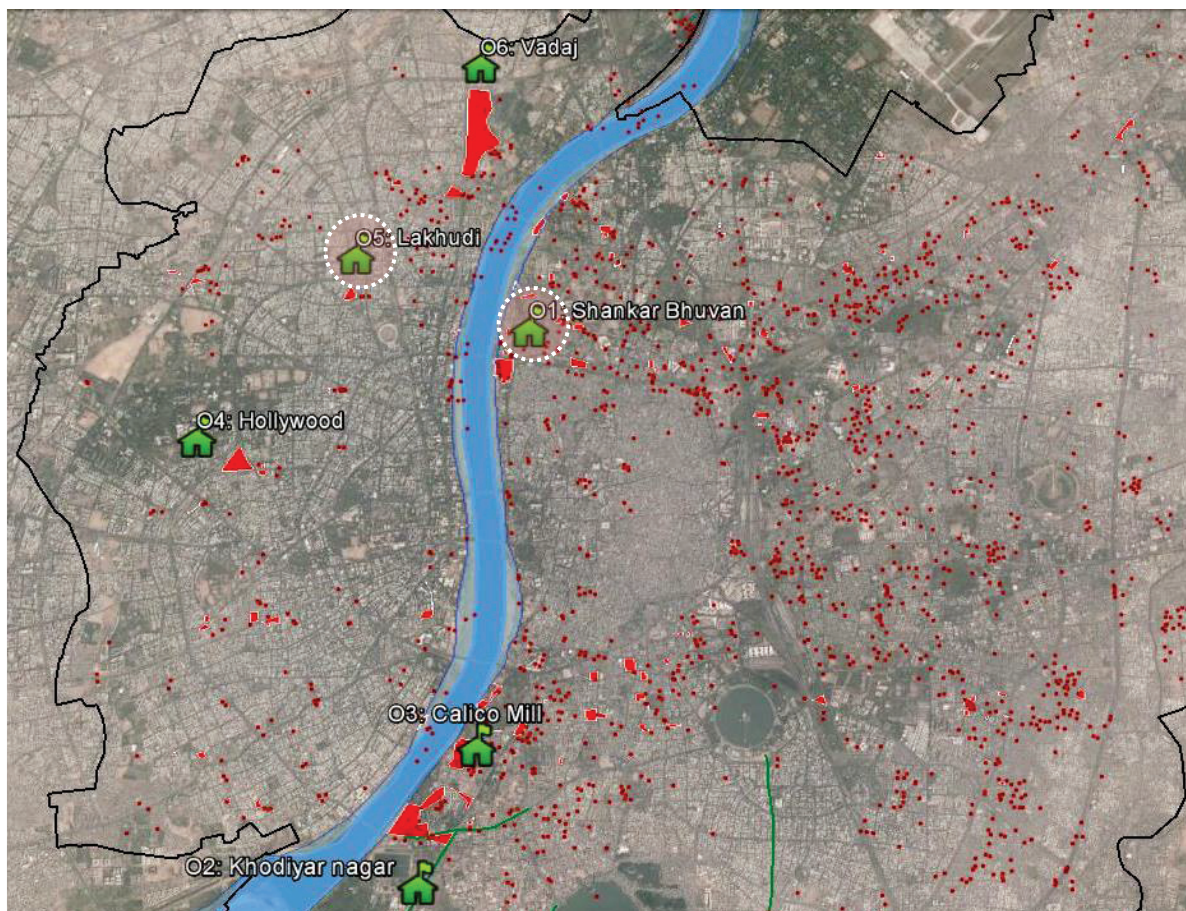


Figure 8: Selection of Existing Slum Sites,

#### Legend

- : All Slum Sites
- : Slum Sites considered
- : Selected Sites

Source: Google Earth, Map to Scale

Out of the above sites selected from the relocated BSUP and existing sites the following strategy was adopted to choose 1 site each for HH Survey and detailed analysis:

As mentioned above, two sites each were selected from existing slum sites namely Shankar Bhuvan and Lakhudi; and two from relocated sites namely Vatva1,2,3 and Balolnagar. Vatva was a large site with 3 BSUP site locations; all of them were visited to get an overview of the entire area. After visiting all the 6 sites and observing the activities taking place, an observation checklist was filled at all these places. Also FGD's were carried out to understand the variations in the strengths and limitations in all these sites.



After the preliminary analysis of all sites, 1 site each in relocated and existing sites were chosen for Household surveys, and mapping the activity pattern which demonstrates the usage of Common Open Spaces in the two sites.

The details of all the sites and comparison of the factors considered are worked in the next chapter.

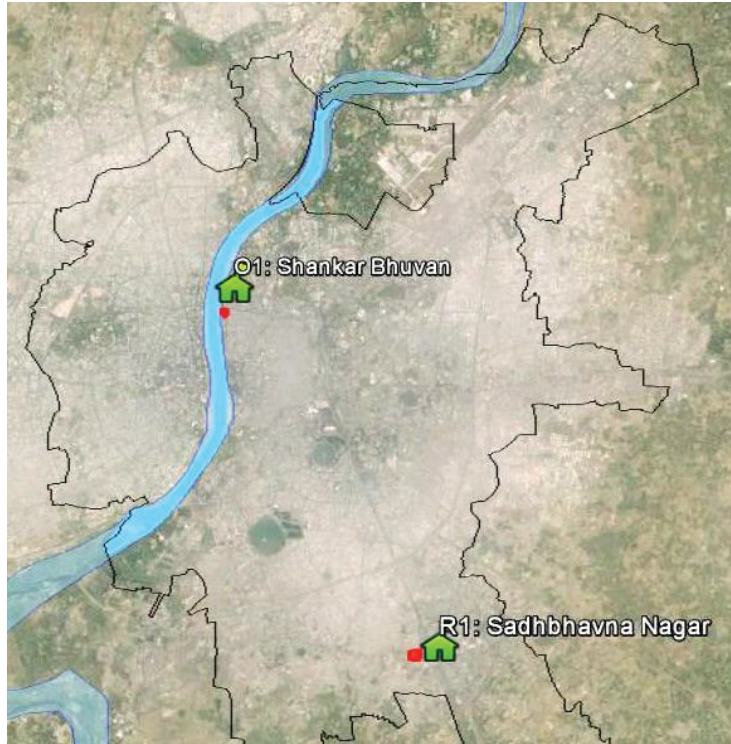


Figure 9: Sites selected for HH Survey

*After the preliminary analysis by comparing the factors under observation checklist and inferences from Focus Group Discussions it was realized that Vatva 2 Sadhbhavna Nagar under relocated sites and Shankar Bhuvan under existing sites were the best sites for carrying out Household surveys and documenting the activity pattern of the dwellers.*

The existing slum site Shankar Bhuvan happened to be located at the riverfront and relocated site Vatva 2 had mixed communities (Hindu-Muslim); few of them moved from the part of the Shankar Bhuvan that got demolished. The other part was still remaining, so it was interesting to relate the former and the latter such that the usage of Common Open Spaces was compared.

It was understood that for an inclusive comparison it was important to check both types of BSUP sites; the ones working and the ones not working. But for identifying the issues within the sites wherein the scheme was not implemented properly, it was important to analyse the site which was not in a good condition; Sadhbhavna Nagar emerged as a potential site.

Similarly in case of existing sites, Shankar Bhuvan emerged as a large site with many different communities mixed and also religion. The site was more complex in terms of strengths and weaknesses concerned. Strength was in being situated at the riverfront with ample open space at one side and weakness was in being very compact and dense from inside. It was also interesting to analyse the interaction between people of different communities and religion at a common site. Lakhudi on the other hand was a very small settlement with a particular character. As a result Shankar Bhuvan was selected.

## 4.2. Sampling Strategy

The sampling strategies for both existing and relocated sites were different depending upon the number of dwelling units at each site and the kind of information available for both. Both the strategies are explained below in detail:

Relocated Site ‘Sadhbhavna Nagar’: This site had 2464 dwelling units with all of them allotted a specific unit number and block. A chit system was used to decide the first unit to initiate the survey then the HH after every 49<sup>th</sup> HH was selected for survey covering all 2464 units on the site.

Existing Site ‘Shankar Bhuvan’: This site had approximately 3500 dwelling units without any information on unit and block number, so a direct chit system was not possible. In this case, lanes were selected through google earth image. Out of every lane, the approximate numbers of houses were counted with the help of google images and then a chit system was used to select 4 households for interview. The 4 HH’s in every lane of the site were adjusted/ replaced (if not convenient for survey) in such a way that it covered the entire lane and portrayed the character of each space. Each lane belonged to a different community. The internal areas, the riverfront area, road side area, backside areas, areas with all the Hindu and Muslim communities were covered at the time of survey.

### 4.2.1. Sample Size

Deciding sample size for this research was difficult as it is a study on perception and as per the literature it was not easy to decide upon the sample size in case of qualitative studies. As a result a data saturation criterion was adopted to decide the sample size for this research. The saturation point in a research is achieved when all the defined groups of people are represented and there are no new themes emerging from the data anymore that is it has reached the phase of thematic exhaustion in relation to the targeted categories of participants.

For both existing and relocated sites a thematic saturation was achieved after interviewing 30-35 dwellers as a HH Survey and covering respondents from all defined groups of people. Thus it was decided to keep a sample size of 50 each in both the sites to balance the situation; Shankar Bhuvan had 3500 dwelling units approximately and Sadhbhavna Nagar had 2464 dwelling units, which were comparable to certain extent.

## 4.3. Data Collection Methods

### 4.3.1. Primary Data Collection

Primary data collection is divided into two types; semi structured interviews of the dwellers in both exiting and relocated sites and semi structured interviews of the other stakeholders like Government Officials, Academia and NGO’s.

Semi-structured interviews with the dwellers as a part of HH Survey: After visiting both the sites it was realized that undertaking interviews at the common open spaces or on the streets were not possible as there was a lot of crowd around. There was always a problem in documenting the perception of an individual as it ended up in a group interview; semi-structured household interviews emerged as a solution. Inside the household it was easier to talk to the individual and interview him/her.

The questionnaire started with quantitative questions like gender, religion, Household size, distance to job locations, years of residence etc. but ended with open ended questions which were more qualitative like their perception about the common open spaces, the ways by which they are using it and etc. So it was a mix of quantitative and qualitative approach which got developed as ‘Semi-structured Household Interviews’.

Semi-structured interviews with other stakeholders: The other stakeholders involved were also interviewed by means of open ended questions. The focus was to understand their perspectives on slum relocations and the criteria for deciding BSUP sites for people from different slums, the current situation of the site with respect to the usage of common open spaces, and etc.

The members of the stakeholders were selected depending upon their relation with urban poor and the scheme implementation. For Government officials, few directly linked people were selected and few not directly linked. The latter had a say in the development of the city and more of a general opinion. Thus it was important to keep the selection unbiased. Academia members were selected depending upon the experience of the member with urban poor, slum relocations and BSUP sites. In this case also both kinds of members were selected; directly and indirectly linked. Heads of the NGOs working in the chosen sites were selected to relate the situation and also other NGOs working in other sites were chosen such that it remained unbiased. Also the other workers of NGOs were interviewed such that the actual knowledge of the site and the situation was derived.

Government officials (4): Town Planner, Senior Town Planner, Additional Civil Engineer, and Assistant Town Planner, Ahmedabad Municipal Corporation

Academia (5): Assistant Professors, Professor, and Research Heads

NGO Members (5): ‘Saath’ Head and workers, ‘Sewa’ Head and workers

The tools used for the survey were:

Semi structured interview household questionnaires

GPS Device to mark places and nodes

Google Maps to understand the site and to document important elements and activity pattern

Photos to capture the activities and actual site situation and to support the analysis

#### **4.3.2. Secondary Data Collection**

Documents, reports, maps and other relevant materials were collected from different sources like CEPT University studio work, and individual student works; maps and relevant details about the site from the NGOs active and relevant books and standards from CEPT library.

#### **4.4. Data Analysis**

Coding: The information collected was put into descriptive manner with the help of comparative matrix, descriptions and supporting pictures. The household survey was coded into excel and SPSS format for further analysis.

Geo-coding: The gps points were converted into points/places marked on the maps and linked with the rest of the analysis.

## 5. PERCEPTION AND PREFERENCES OF URBAN POOR IN EXISTING SLUM AND RELOCATED SITES

### 5.1. Introduction to all Sites

#### Visit to Lakhudi: Existing Slum, Site 1

Existing slum site known for good usage of common open spaces



Basic Observation: Compact, sense of community living and spaces well maintained than usual slum sites but numerous issues still prevalent mentioned in the comparative matrix later. The existing spaces in use but there was a tremendous lack of common open spaces.

#### Visit to Shankar Bhuvan: Existing Slum at Riverfront, Site 2

Existing Slum Site at a private plot located at the riverfront, managed to escape the relocation process.



Basic Observation: Busy and a bit unsafe as situated in the old crowded city but enormously enjoying the vast open spaces opening towards the river Sabarmati. The open spaces were in use, rather multiple uses mentioned in the matrix. The inhabitants felt lucky and happy.

#### Visit to Vadaj, Jay Mahadev Nagar: Resettlement Site, Site 3

Resettlement Site mostly used as a sample site as the scheme implementation was successful here. Mixed Communities, victims of BRTS implementation, Over-bridge construction, Road Widening and Riverfront development



Basic Observation: Clean and Safe (drunken people not around), most of the open spaces were paved and were in use. Water logging at few places due to rains but not a major problem as such. There were few issues (described in the matrix) but in general the inhabitants were not very disappointed. They had the same religion but belonged to different communities.



#### Visit to Vatwa 1, Ushabhao Thakre Nagar: Resettlement Site, Site 4a

Vatwa was an area with maximum resettlement sites, 3 of them with 77, 49 and 30 blocks were already occupied. Each block had 32 Houses. Many other sites were under construction. The area looked like a jungle of resettlement sites. Out of the 3, 1 site was occupied by Hindu, 1 was mixed with Hindu and Muslims (around 50% each) and the last 1 was occupied by Muslims.

The below site 4a is the Hindu site with mixed communities, victims of BRTS and Kankaria lake development



Basic Observation: The Resettlement Site belonged to the Hindu Community. The site was far, unclean and not maintained, lot of frustration within the inhabitants because of loss of livelihood and Municipal Corporation not paying attention. Open spaces were not in use which was partially because of social disarticulation but more because the open spaces were not maintained and there was water logging throughout the year due to water tank overflows. The common open spaces were not paved nor preserved as green spaces. There were numerous other issues prevalent. Primary school and health centres were not in use.

#### Visit to Vatwa 2, Sadhbhavna Nagar: Resettlement Site, Site 4b

The below site 4b is the Mixed site with mixed communities of Hindu and Muslims, victims of Riverfront Development





Basic Observation: Issues same as Vatwa 1, though the site had very different communities they were living peacefully. The open spaces were not in use and were in poor condition as they were not maintained and there was water logging. Primary school and health centres were in use at the site unlike Vatwa 1. Many different kinds of activities were observed as inhabitants were from extremely varied background and communities.

#### Visit to Vatwa 3, Vasant Gajendra Garkar Nagar, Resettlement Site, Site 4c

The resettlement site completely belonged to Muslim community. The issues were the same as others. The open spaces were not in use and abused because of water logging and no maintenance.



## Observation Checklist Comparison

Relocated Sites: Comparative Matrix				
	Balol Nagar	Vatva 1-2-3		
Name	Jay Mahadev Nagar (Sample Resettlement Site)	Ushabhao Thakhre Nagar	Sadhbhavna Nagar	Vasant Gajendra Garkar Nagar
Location	Balol Nagar Road, Near Hari Om Appt.	T.P No. 88, Near Vatva Railway Station, Vatwa	T.P No. 88, Near Vatva Railway Station, Vatwa	T.P No. 88, Near Vatva Railway Station, Vatwa
Key Map				
Blocks	18	30	77	49
Number of Floors	G+3	G+3	G+3	G+3
Religion	Hindu	Hindu	Hindu -Muslim	Muslim
Communities	Vaghri, Rabari, Banjara, Thakore, Harijan, Choyadh, Bhaiya,	Vaghri, Dattandi, Sharma, Bhaiya, Pandey, Rajput, Rabari, Thakore, Harijan,	Pathan, Sheikh, Malik, Miya, Marwadi, Sindhi, Parmar, Pandit, Thakore, Ansari, Mansuri, Qureshi, Saiyyad, Harijan, Gupta, Vaghri, Dattandi, Sharma, Pandit, Bhaiya, Thakore, Rabari	Pathan, Sheikh, Malik, Miya, Ansari, Mansuri, Qureshi, Saiyyad
Project Type in shifted Areas	1.Old vadaj: BRTS & Overbridge 3.Paldi: Roadwidening	1.Kankaria-Sindhi Camp: Kankaria Lake Extention, 2.Mahakali Nagar- Asha	1.Dudheshwar 2.Shankar- Bhuvan 3.Khadivadi	1.Khadivadi 2.Khanpur 3.Laldarwaja



	4.Dudheshwar: Riverfront 5.Shahpur: Riverfront 6.Vasna: Roadwidening	Nagar, Ram limbda, banashnagar slums: BRTS 3.Kodiyar nagar: BRTS	4.Khanpur 5.I.aldarwaia 6.Ramwadi 7.Gurjaribazar 8.Raikhad: Riverfront 9.Machipeeeth: Kankaria Lake Extension	4.Ramwadi 5.Gurjaribazar 6. Raikhad: Riverfront
<b>Shape</b>	7 sided Irregular Polygon	V-Shaped	Distorted Rectangle	Trapezium
<b>Size (in sq. mts.)</b>	11584	27335	66250	48300
<b>Number of Houses</b>	576	960	2464	1568
<b>First Impression</b>	Clean and Safe	Unclean and safe	Unclean and unsafe	Very Unsafe
<b>Use of C.O.S</b>	Garba, Playing, Parking, Meetings, selling eatables / products	Above watertank meetings, Garba, Playing, selling eatables/products, shops, Temple	Above watertank meetings, Garba, Playing, selling eatables/products, shops, Temples/Masjid	Above watertank meetings, Garba, Playing, selling eatables/products, shops, Masjid
<b>Accessibility:</b>				
<b>Number of Access Points</b>	3	3	6	4
<b>Condition of Access Points</b>	Good	Bad	Very Bad	Very Bad
<b>Restriction if any</b>	No	No	No	No
<b>Shade</b>	No	No	No	No
<b>Ventilation</b>	Yes	Yes	Yes	Yes
<b>Maintenance</b>	Yes	No	No	No
<b>Landscaping:</b>				
<b>Bench</b>	No	Yes	Yes	Yes
<b>Trees</b>	No	No	No	No
<b>Water body</b>	No	No	No	No
<b>Paving on C.O.S</b>	Yes	No	No	No
<b>Shelter</b>	No	No	No	No
<b>Play Area for children</b>	No	No	No	No

Road Condition	Few patches not in proper condition	Bad	Bad	Bad
<b>Layout Pattern</b>	4 blocks enclosing a C.O.S	4-6 blocks enclosing a C.O.S	5 blocks enclosing a C.O.S	3-6 blocks enclosing a C.O.S
<b>Number of Open Spaces</b>	4	5	16	8
<b>Area of Non-built</b>	5536	17255	40378	31836
<b>Builtup Area approx.</b>	6048 (50%)	10080 (35%)	25872 (35%)	16464 (35%)
<b>Anganwadi</b>	Not in use	Not in use	1/3 in use	Not in use
<b>P.H.C</b>	Not in use	Not in use	1/2 in use	Not in use
<b>Prevalent Issues related to C.O.S</b>	Water logging, Garbage Dumping at few spots	Serious water logging, water tank overflow, drainage, and garbage dumping issues	Serious water logging, water tank overflow, drainage, and garbage dumping issues, construction of religious structures prohibited	Serious water logging, water tank overflow, drainage, and garbage dumping issues
<b>Other Issues</b>	No paint-water damping, job availability issues with few	Drinking water, Hard water problem, theft, eve teasing, bad health, no job availability, water damping inside houses issues	Drinking water, Hard water problem, theft, eve teasing, bad health, no job availability, and issues of water damping inside houses	Drinking water, Hard water problem, theft, eve teasing, bad health, no job availability, and issues of water damping inside houses
<p>Unclean: Dumped with Garbage</p> <p>Unsafe: Situated at remote area, Gangs of drunken people roaming</p> <p>Good: Roads without potholes therefore no water logging</p> <p>Bad: Road with potholes therefore water logging issue</p> <p>Very Bad: Road with potholes and waterlogging; not of any use at all</p>				

Existing Slum Sites: Comparative Matrix		
	Lakhudi	Shankar Bhuvan
<b>Name</b>	Lakhudi Lavadni Na Chappra	Shankar Bhuvan
<b>Location</b>	Sardar Stadium, Navrangpura	Gandhi Bridge Corner, Shahpur
<b>Key Map</b>		
<b>Number of Floors</b>	Only Ground	G, G+1
<b>Religion</b>	Hindu	Hindu-Muslim
<b>Communities</b>	Marwadi, Rabari, Vaghri, Banjara, Harijan, Thakore, Datandiya, Vankar, Bhaiya	Vankar, Datandiya, Vaghri, Marwadi, Rabadi, Vaghri, Parmar, Bhaiya, Thakore, Malik, Saiyyad, Sheikh, Ansari, Pathan, Harijan
<b>Shape</b>	Triangular	D-Shaped with a handle
<b>Size (in sq. mts.)</b>	8915	38700
<b>Number of Houses</b>	500	3500-4000
<b>First Impression</b>	Clean and Safe	Unclean and Unsafe
<b>Use of C.O.S</b>	Playing, Meetings, House Spill over	Garba/other functions, cattle keeping, meetings, chatting, selling eatables/products, house spill over, playing area for kids, parking, sleeping, eating, playing cards/leisure time for adults
<b>Accessibility:</b>		
<b>Number of Access Points</b>	7	7
<b>Condition of Access Points</b>	Good	Good

<b>Restrictions if any</b>	No	No
<b>Shade</b>	Yes	Yes
<b>Ventilation</b>	No	Yes for Houses facing the riverfront
<b>Maintenance</b>	No	No
<b>Landscaping:</b>		
<b>Bench</b>	No	Yes
<b>Trees</b>	Yes	Yes
<b>Water body</b>	No	Yes
<b>Paving on C.O.S</b>	No	No
<b>Shelter on C.O.S</b>	No	No
<b>Play Area for children</b>	No	No
<b>Road Condition</b>	Good except Monsoons	Good except Monsoons
<b>Layout Pattern</b>	Organic and informal	Organic and informal
<b>Number of Open Spaces</b>	4	1 Huge riverfront space, 10 others
<b>Area of Non-built</b>		
<b>Builtup Area approx.</b>		
<b>Anganwadi</b>	In Use	In Use
<b>P.H.C</b>	In Use	In Use
<b>Primary School</b>	In Use	In Use
<b>Prevalent Issues related to C.O.S</b>	Not sufficient	Mosquitoes, Not sufficient in the internal areas, water logging
<b>Other Issues</b>	Garbage dumping at few spots, water logging, lack of bigger houses, Gutter problem	Garbage dumping at few spots, water logging, lack of bigger houses

Unclean: Dumped with Garbage

Unsafe: Situated at remote area, Gangs of drunken people roaming

Good: Roads without potholes therefore no water logging

Bad: Road with potholes therefore water logging issue

Very Bad: Road with potholes and waterlogging; not of any use at all

## 5.2. Group Perception and Preferences: Focus Group Discussions



Figure 10: FGD's in Existing Slum Sites with people of different Age Group and Gender

From the FGDs on the existing slum sites it can be inferred that:

*Lakhudi* – Emerging issues were more or less common for the focus groups. As a community they felt there was a serious lack of C.O.S's and also most of the part of the surrounding street was used in carrying out activities that should be taking place in a C.O.S. The dwellers of different age groups and gender faced the problems of Garbage Dumping at few of the sites, water logging and gutter problem. The inhabitants recognized their site as safe and most of them were happy living there.

*Shankar Bhawan* – Issues prevalent were diverse in nature depending upon people of different age group and gender and also the location of the houses. People living at the periphery facing the riverfront had more spill-over space for various activities but the people living inside felt there is serious lack of C.O.S's in the site especially mid-aged and young females. The activities carried out were also of mixed types like dancing (garba) during festivals, cattle keeping, meetings, chatting, selling eatables/products, household spill-over, playing area for kids, parking, sleeping, eating, and playing cards/leisure time for adults.





Figure 11: FGD's in Relocated Sites with people of different Age Group and Gender

From the FGDs on the relocated BSUP sites it can be inferred that:

**Balol Nagar** – It was the sample resettlement site and was also maintained properly as compared to other relocated sites. The reasons for this was AMC responsible for paving the C.O.S's so there was no water logging issue over there and also because Resident Welfare Associations had been formed in the site through NGO's who were responsible for maintaining common property resources. This site was a small one with 576 dwelling units. Issues identified through FGD's were more or less similar for all like garbage dumping at few spots and job availability problem with only a few, most of them were happy. Somehow it was realized that real issues were not emerging from this relocated site therefore it was not a potential option.

**Vatva 1, 2, 3** – Vatva was located at the periphery of the city, very far from the centre and thus faced many of the severe problems. Vatva had 3 BSUP sites which were already constructed and used, and many more which were coming up. The site was situated far and in the remote area of the city which made it a bit unsafe. Out of the 3 sites, Vatva 2 Sadhbhavna Nagar was the largest site with 2464 dwelling units and comprised of people from mixed communities and religion. The problems identified were varied in nature and differed based on Age Groups, Gender, Community and Religion. Most of the dwellers were unhappy with Garbage dumping at all C.O.S's and the issue of overflowing of water tank and in turn water logging. Kids wanted more space to play and most of the C.O.S's were not in the condition to be used. The young females preferred the backyards and the space between two blocks as there was more privacy and they felt safe to be near their houses. They were upset about the fact that they were not able to use the open spaces during night time as there were many cases of eve teasing. The elderly living on the upper floors did not find it feasible to come down for using the spaces and climbing up again. The young boys were engaged in some or the other work or remained jobless; they used the C.O.S's and the roof tops for drinking and gambling purposes. The Muslim men were unhappy because the construction of their religious structure was prohibited at the C.O.S's in the site.

Though most of the issues were common in all the 3 sites of Vatva, Sadhbhavna Nagar emerged to be the most potential site for HH Survey.

### 5.3. Individual Perception and Preferences: Household Interviews and Activity Pattern

#### 5.3.1. Selection of Indicators and Analysis

Indicators for measuring value of Common Open Spaces

Social Cultural and Economic Characteristics	Common Open Space Characteristics
Age	Location
Gender	Size
Occupation	Shape
Distance to Workplace	Use
Religion	Accessibility
Caste	Ownership
	Maintenance (AMC or by own?)
	Time spent in using
	Frequency of Usage

Based on the above the below mentioned indicators were selected for further analysis.

##### 5.3.1.1. Site location

Site Analysis: Sadhbhavna Nagar, Vatva (Relocated Site)

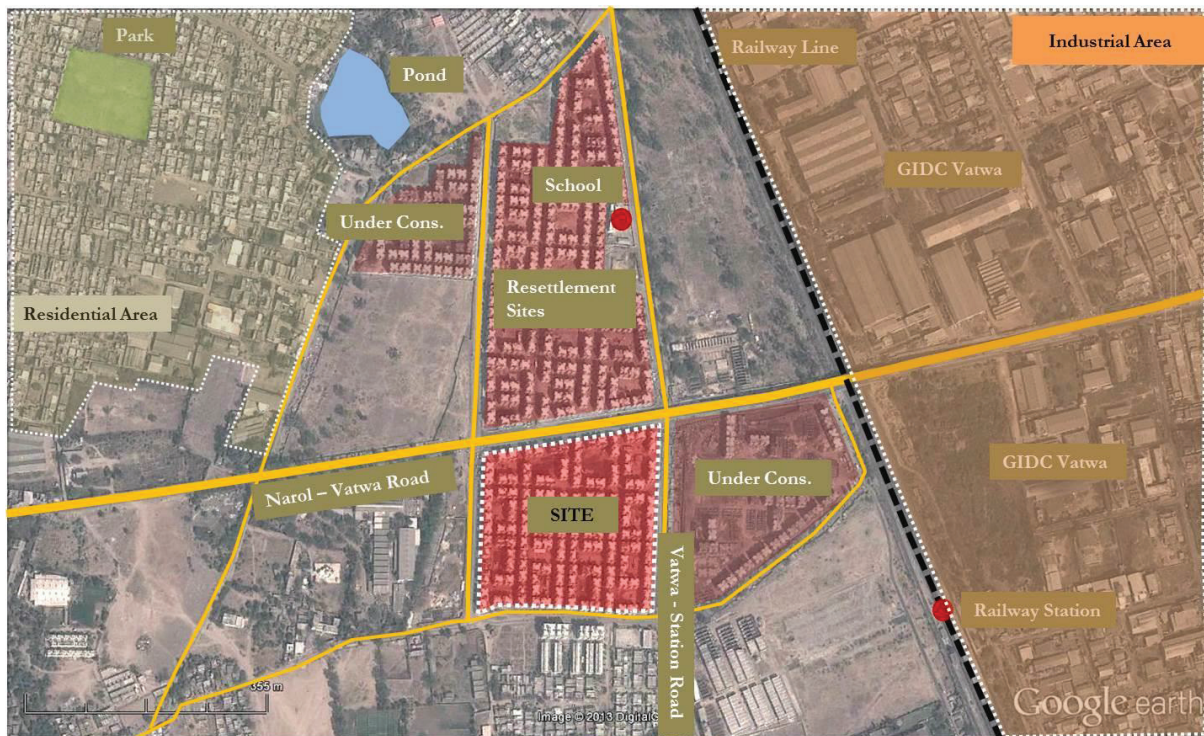


Figure 12: Site Analysis, Sadhbhavna Nagar

well connected by primary and secondary roads. It was surrounded by other BOP resettlement sites; new and old, industrial area on the right and residential area on the left. The relocated dwellers were not able to



acquire any employment opportunities due to the lack of skills and training sessions though the residential areas were able to provide jobs to a few.

The site currently lacked the potential to get developed as a platform for hawkers and vendors as it was predominantly occupied by low income dwellers that belong to the same category. The site was located near to Vatwa Railway Station but was not used as an option for commuting by the people living in area. There was a Primary/Middle school present near the site which had students from adjoining areas including Sadhbhavna Nagar.

#### Site Analysis: Shankar Bhuvan, Shahpur (Existing Site)

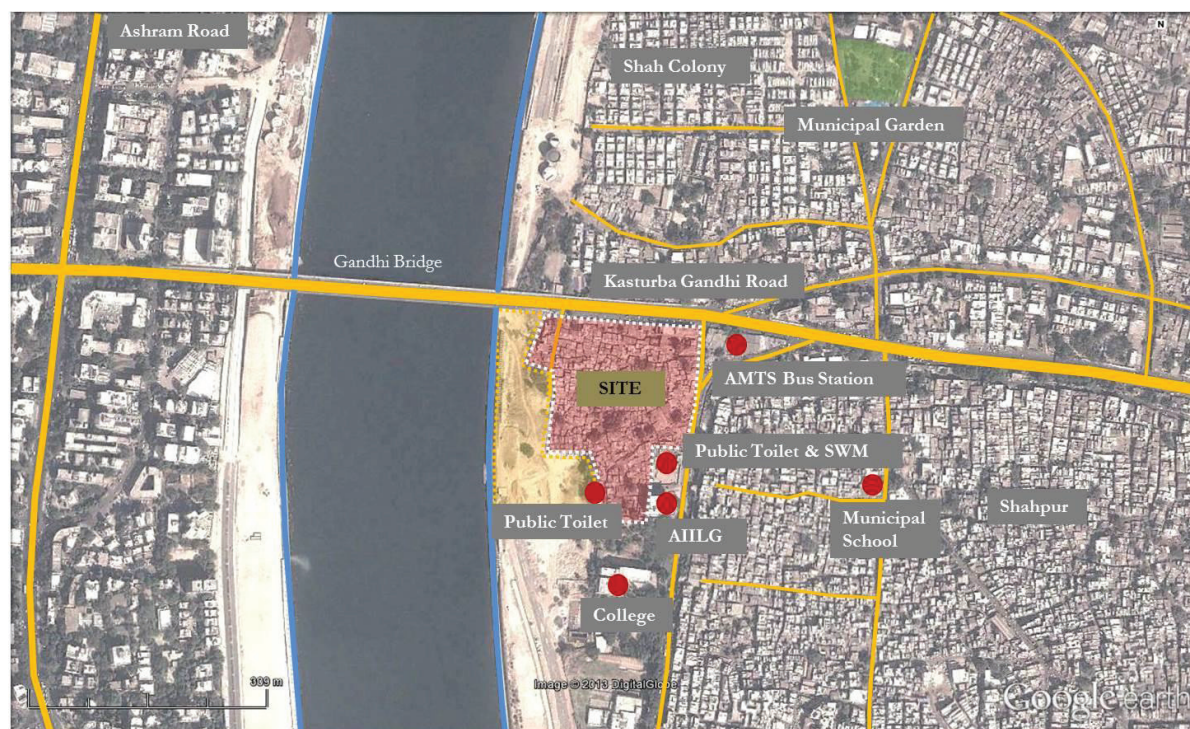


Figure 13: Site Analysis, Shankar Bhuvan

The site was situated at the city center and was well connected by all primary and secondary roads. The railway and bus stations were also situated in close proximity. The site valued the situation of being located at the riverfront with ample open spaces around wherein a lot of informal activities took place. The site was adjacent to the old city and commercial/residential areas which provided enough opportunities to the dwellers to earn their livelihood. On the opposite side just after crossing the bridge, the dwellers had the option to move in to the institutional and residential areas of the new developed Ahmedabad. The site had 2 public toilets and a solid waste management site, and was also facilitated with Primary Health Centre and Primary School. The yellow patch in the figure shows the open space which got developed after the dwellers were relocated to BSUP resettlement sites; one of them was Vatwa.



### Site Comparison: Existing Slum Site and Relocated Site

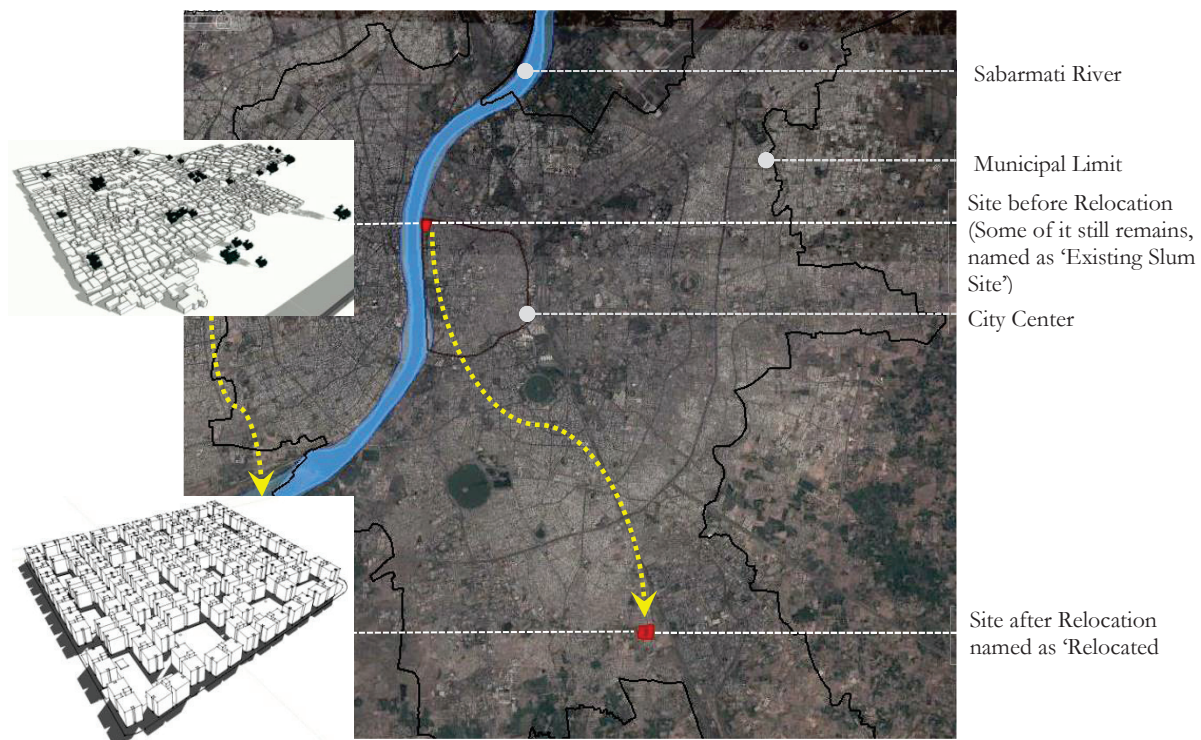


Figure 14: Site Comparison

The above figure shows the previous site location of the slum dwellers and the new site location after the relocation process. The previous location wherein the people were living since many years was situated in the city center with ample opportunities by having potential commercial, institutional and residential areas around. The new site was situated at the periphery of the city with limited benefits. The remaining part of the previous slum settlement still remains at the riverfront. The 3d views in the figure represent the site typology and conditions before and after.

### Built vs. Open

Existing	Relocated

After comparing the above two existing and relocated images, it was realized that open spaces developed in the former were concentrated on one side because of the riverfront development, and subsequent slum relocation that took place toward the end of 2011. But the open spaces formed in patches inside the slum settlement were not enough to cater to the population residing within the area. It highlighted towards the fact that dwellers with a specific purpose (hawker who needed to put up his stall) and who were living at the riverfront side had more probability of using the large space formed, and had an edge over the others. On the other hand the open spaces in the latter were well distributed and allotted in the relocated site. These open spaces were comprised of common open spaces, parking spaces, social amenities like primary health centres and religious structures, solid waste management site, water tank and circulation spaces like roads and margins. The built vs open ratio was well balanced.

Thus from the above it was clear that ample amount of distributed open spaces were provided at the relocated site which was not the ideal case in the existing slum site but the usage and non-usage of these spaces in the relocated site were influenced by many other factors.

### 5.3.1.2. Social Amenities

Relocated Site

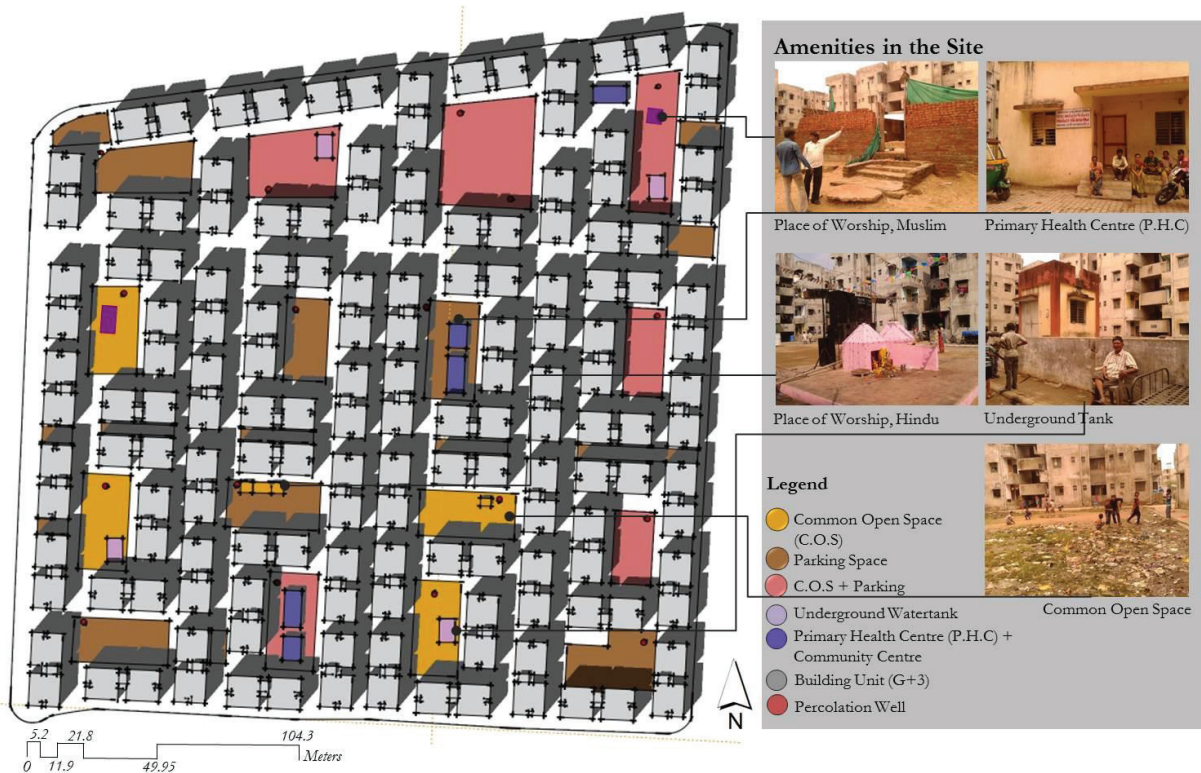


Figure 15: Social Amenities, Relocated Site

The site had 55% open spaces out of which 10% was specifically allotted as common open spaces. The grey colored boxes are the buildings and pink and yellow colored patches in the site were the common open spaces with/without parking whereas the brown patches were specifically chosen for parking but were not observed to be used in that manner. The vehicles were parked near their respective houses at the closest open space found. The blue patch structures are the Primary Health Centre and Anganwadi (which



means a 'Courtyard Shelter' which is a part of a program under child development and intends to fight child hunger and malnutrition (Wikipedia, 2014) ). There are 2 primary health centres and 3 Anganwadi's in the site, of which only 1 each is working. The light purple colored patches are the underground water tanks and are 4 in number in the site. The small yellow colored small squares are temples that got constructed by a group of Hindu dwellers living in the site and the dark pink ones are Muslim Religious structures constructed by a group of Muslim dwellers in the site. There are 16 percolation wells in the site present in all the open spaces to manage storm water runoff.

#### Existing Slum Site

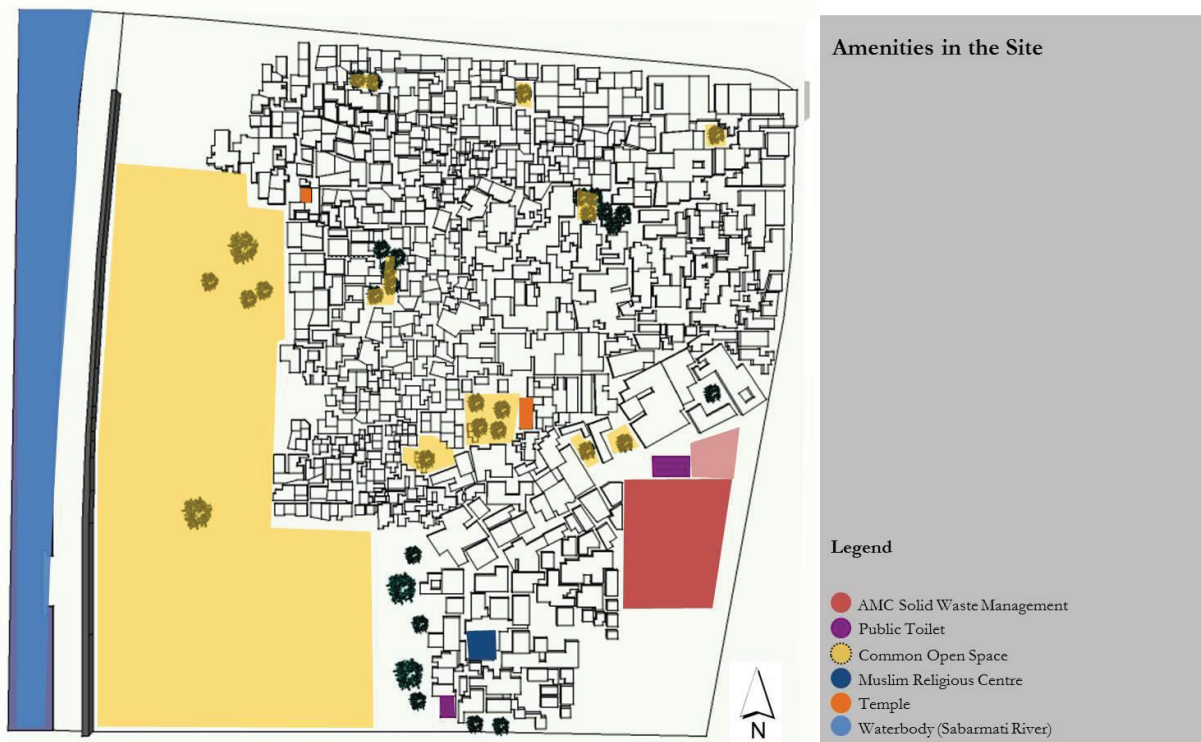


Figure 16: Social Amenities, Existing Slum Site

The existing slum site appreciated the open space formed due to the riverfront development that took place and the part of the settlement that got demolished and relocated. There were several small pockets of open spaces in the internal areas of the site as well and were found to be much in use. In the form of amenities, the site consisted of a Primary Health Centre and 2 Anganwadi's. There were 2 public toilets built at the two sides including a solid waste management site as presented in the map above. There were also presence of primary and secondary schools situated very near to the site.

### 5.3.1.3. Usage and Non-Usage of Common Open Spaces

To extract the perception of the dwellers about usage and non-usage of common open spaces in the relocated and existing slum site people from all age groups were selected and equal participation from both gender types were considered (presented in the below figures). However in the relocated site out of 100%, respondents of the age group between 10 and 20 were 14%; 16% each between 50 and 60 and 60 plus; and rest of them were 18% each. There was an equal participation between male and female with 50% each.

In the existing slum site the respondents from the age group between 20 and 30 were the maximum with 20% and minimum of 14% for the age group between 50 and 60 and 60 plus each. The rest of the age groups had more or less equal contribution of 16% - 18%. In case of gender division the female participation was 52% and male participation was 48% for the survey conducted on the site.

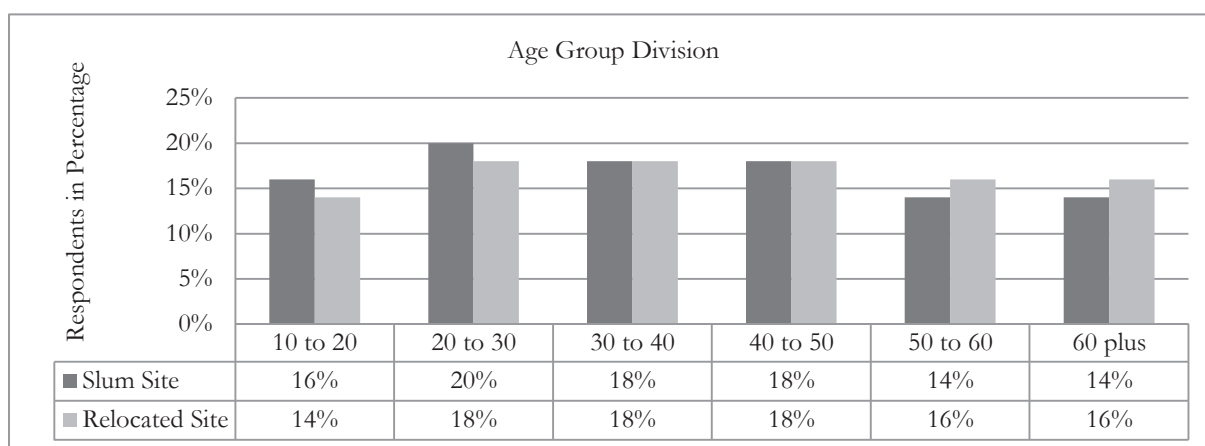


Figure 17: Age Group Division

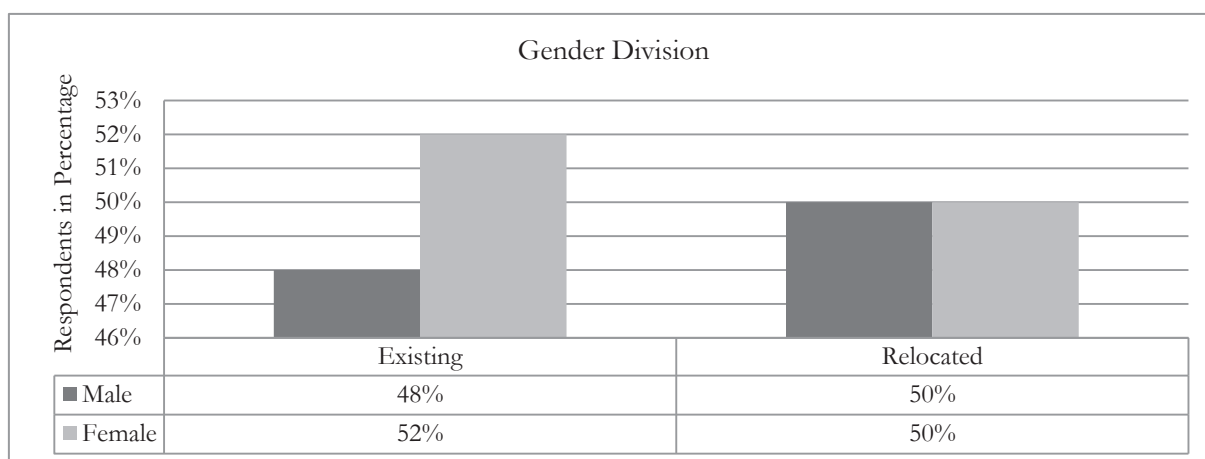


Figure 18: Gender Division

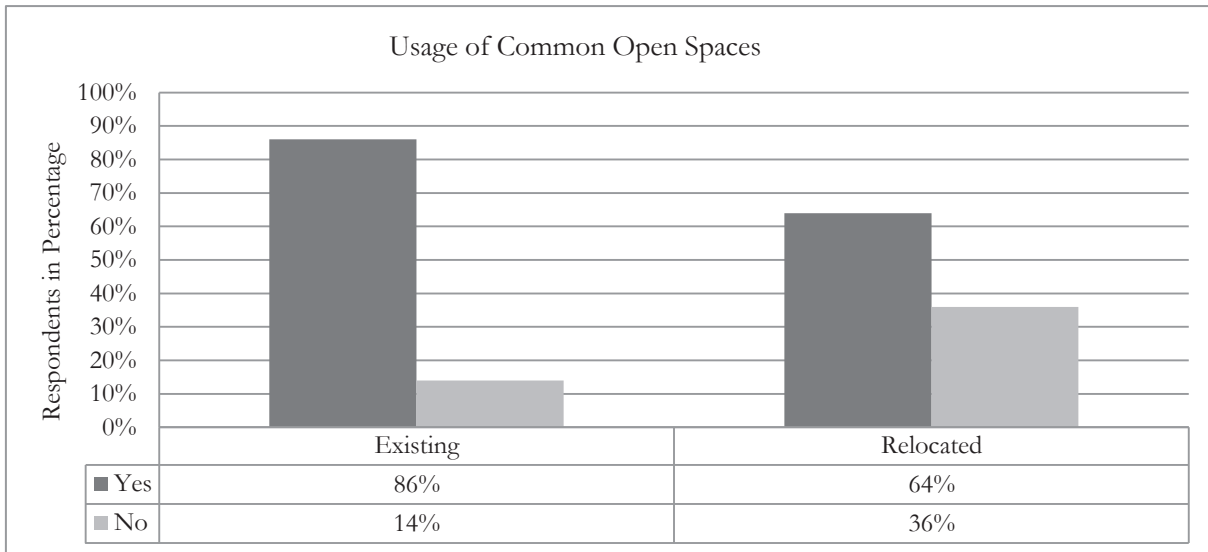
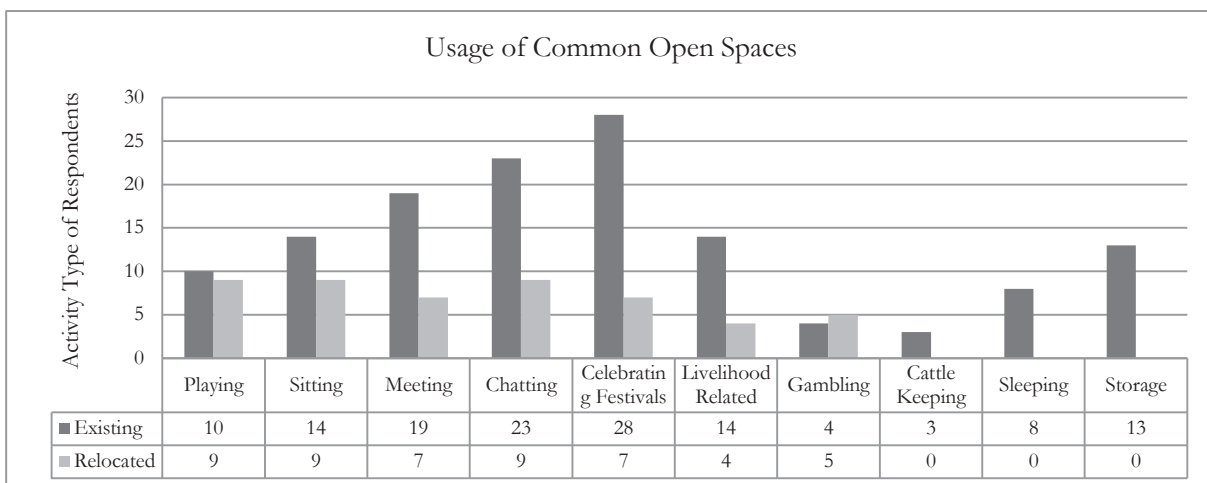
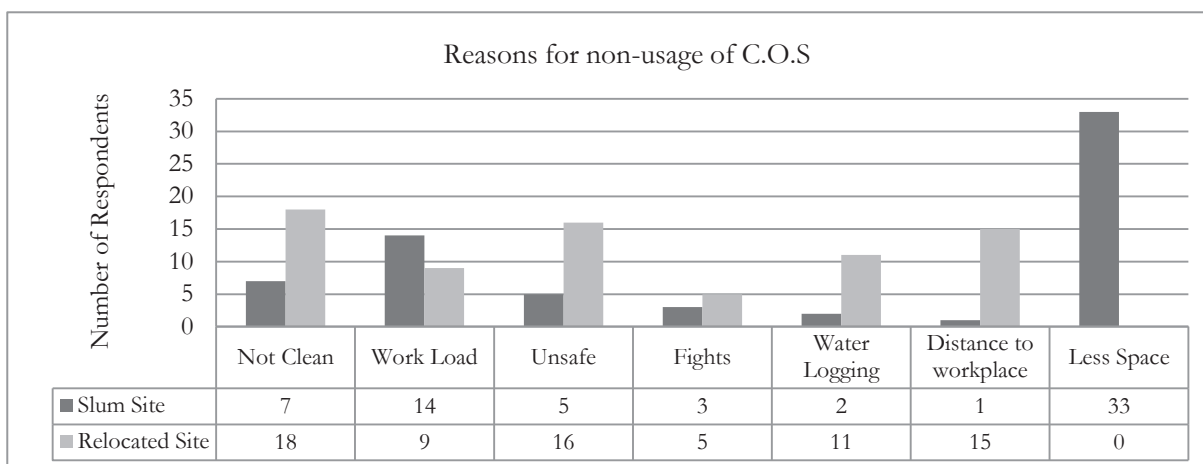


Figure 19: Usage of Common Open Spaces

It was evident from the survey that the usage of open spaces in the existing site is much more than that in the relocated site. From the above figure we can see that 86% of the dwellers were using the open spaces and 14% of them were not using in the existing slum site. On the other hand in the relocated site only 64% of the dwellers were using the open spaces and 36% were found to be not using it.

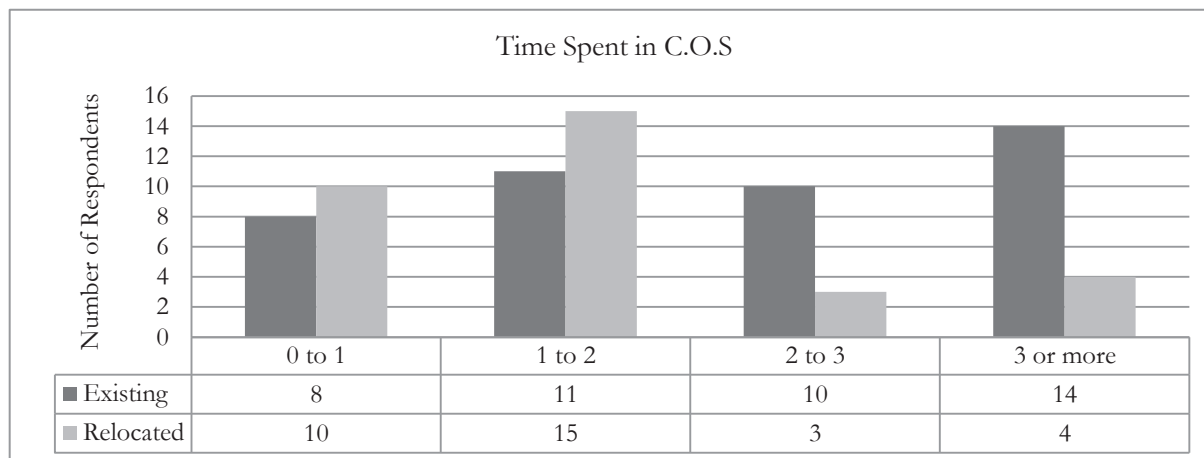


From the above figure it can be inferred that many different types of activities were taking place in the existing slum site and the number of people involved in undertaking these activities were also more in the existing slum site. Whereas in the relocated site both activity type and people involved in the activity type were found to be limited in number. The above figures show the number of dwellers involved in the particular activity type taking place in the open spaces. These were the results of the total number of different types of activities chosen by the respondents with reference to usage of common open spaces in a checklist format.



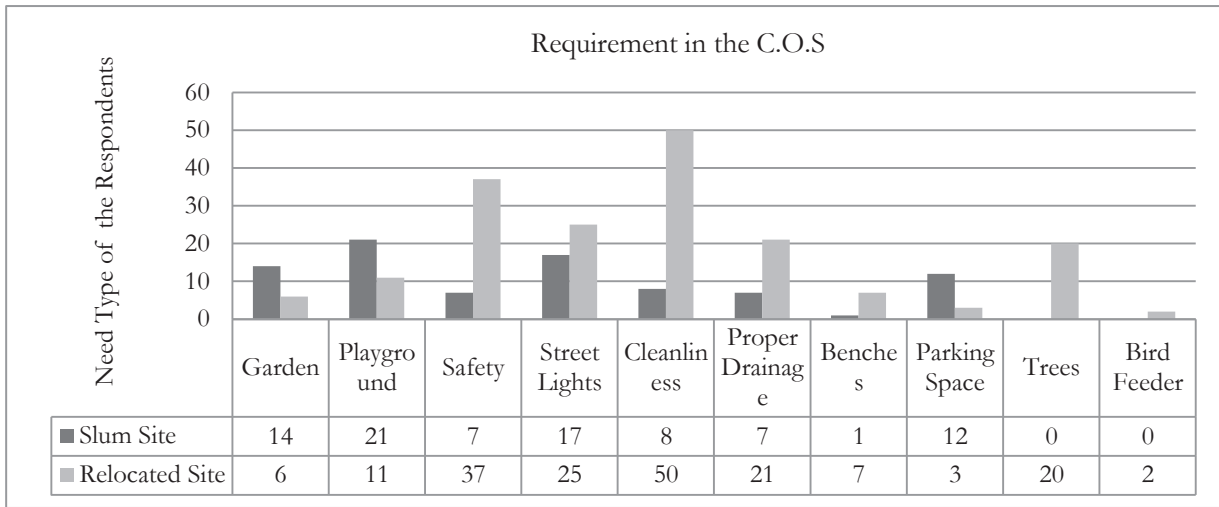
The above figure illustrates the reasons behind the non-usage of common open spaces in both sites as stated by the dwellers by selecting the reasons they felt applied for them in the questionnaire and by adding the new ones they thought were necessary. On the slum site, the most prominent reason for non-usage emerged to be the lack of space and work load. On the contrary in the relocated site none of the respondents felt any lack of space, rather the reasons for the non-usage as stated by them were site being not clean and unsafe at many pockets. Many of them also found the issue of ‘distance to their workplace’ being very far also one of the reasons for non-usage, as they did not get enough time to use the open spaces. The issue of ‘water logging’ in the open spaces also came out as one of the potential reasons for disregarding it.

#### 5.3.1.4. Frequency of Usage of C.O.S: Time Spent



The above figure shows the comparison between the numbers of hours spent by the respondents in the open spaces in both the sites. It is evident after the survey that in the slum site the people are spending more hours than on the relocated site. For the former the average time spent is more towards 2 to 3 hours or more and for the latter it is more towards 1 to 2 hours.

### 5.3.1.5. Needs in C.O.S: Likes and Dislikes



The requirements in the common open spaces in the existing sites emerged to be lack of parking spaces, and needs in the form of playgrounds and gardens and street lights. In the relocated site, safety and cleanliness issues were more prominent with need for street lights and proper drainage systems.

Table 2: Likes and Dislikes in both sites

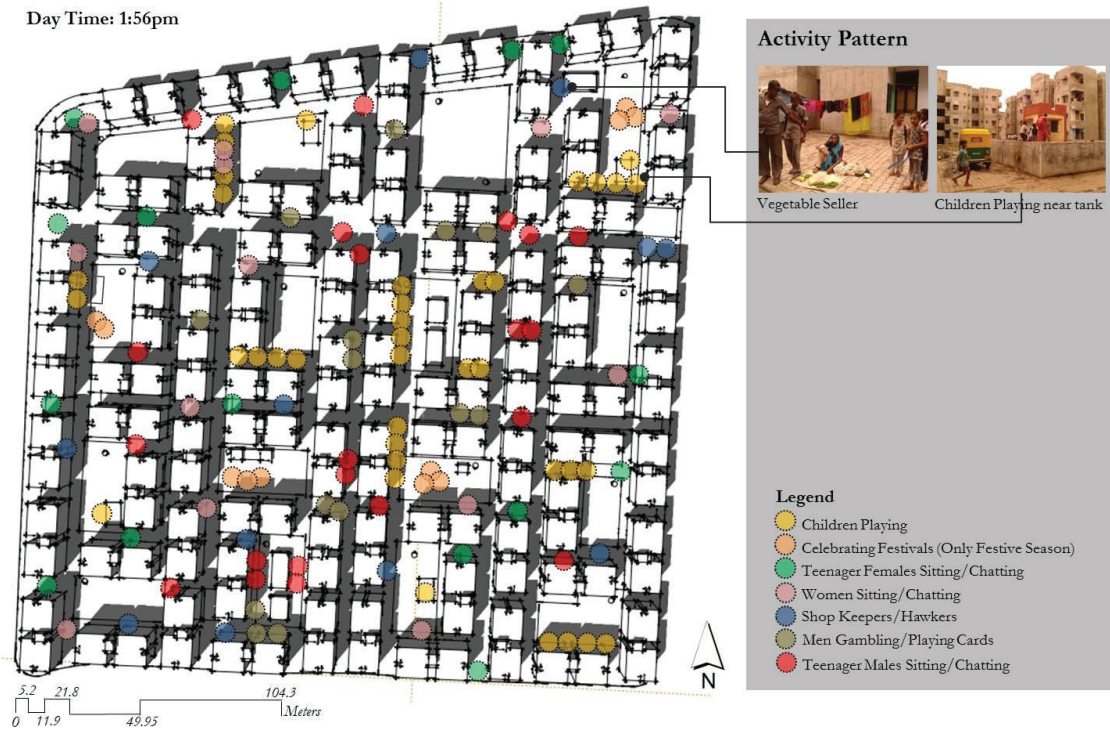
Relocated	Existing
<b>Most Liked w.r.t C.O.S</b> 1. Spacious	<b>Most Liked w.r.t C.O.S</b> 1. Familiar Area and People
<b>3 Dislikes</b> 1. Garbage Dumping 2. Water Logging 3. Unsafe	<b>3 Dislikes</b> 1. Less space 2. Mosquitoes 3. Water Logging

In the relocated site, most liked characteristics were the spaciousness and in the existing site it was the familiar area and people. The 3 most common disliked characteristics are mentioned above in the table.

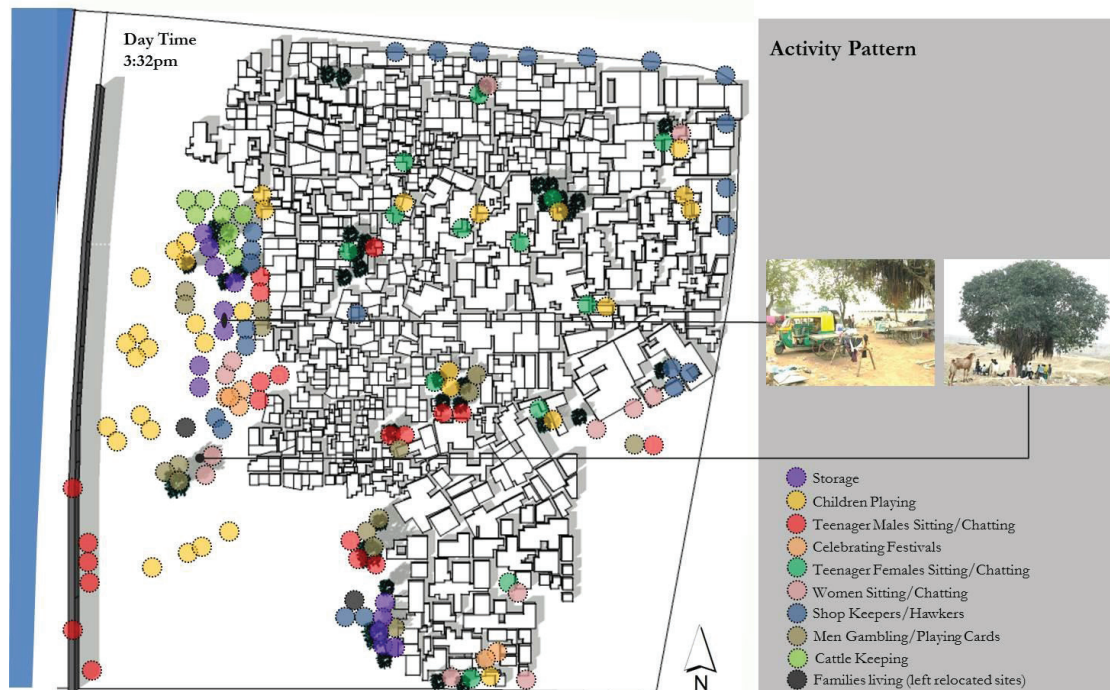
### 5.3.1.6. Activity Pattern

#### Relocated Site

Day Time: 1:56pm



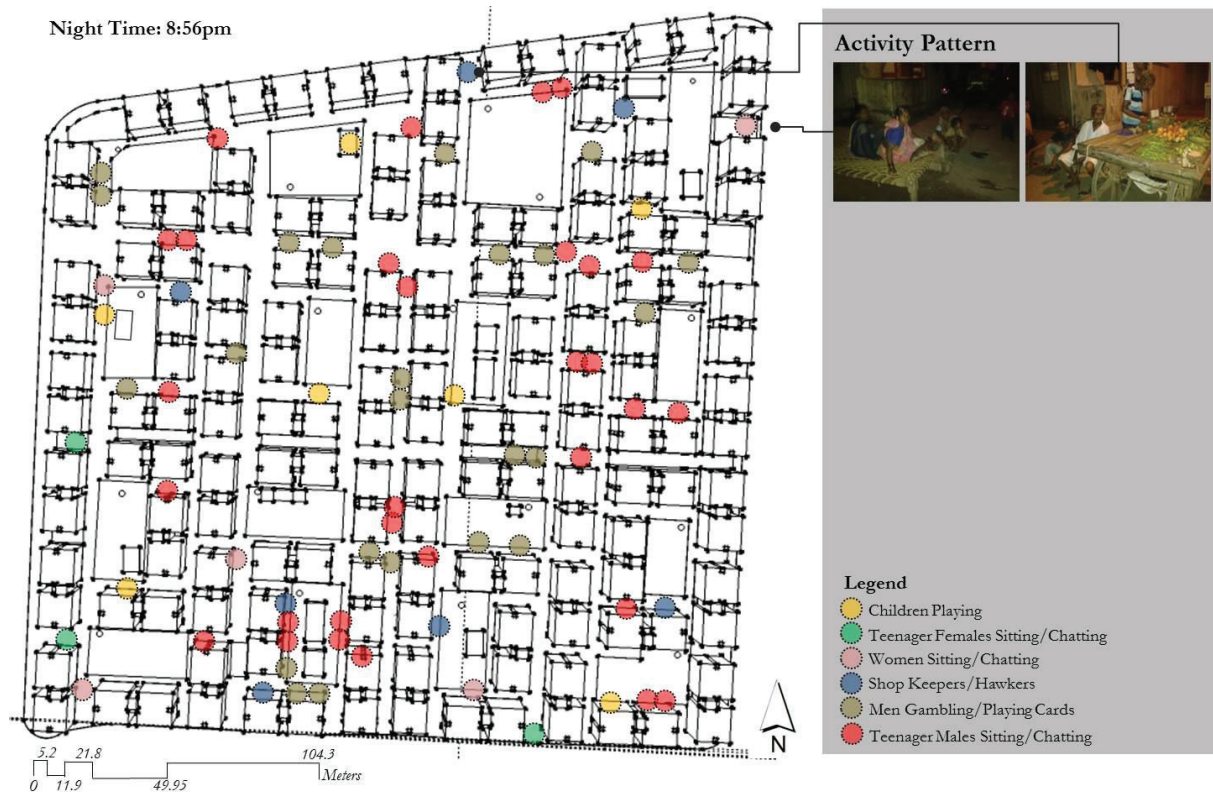
#### Existing Slum Site



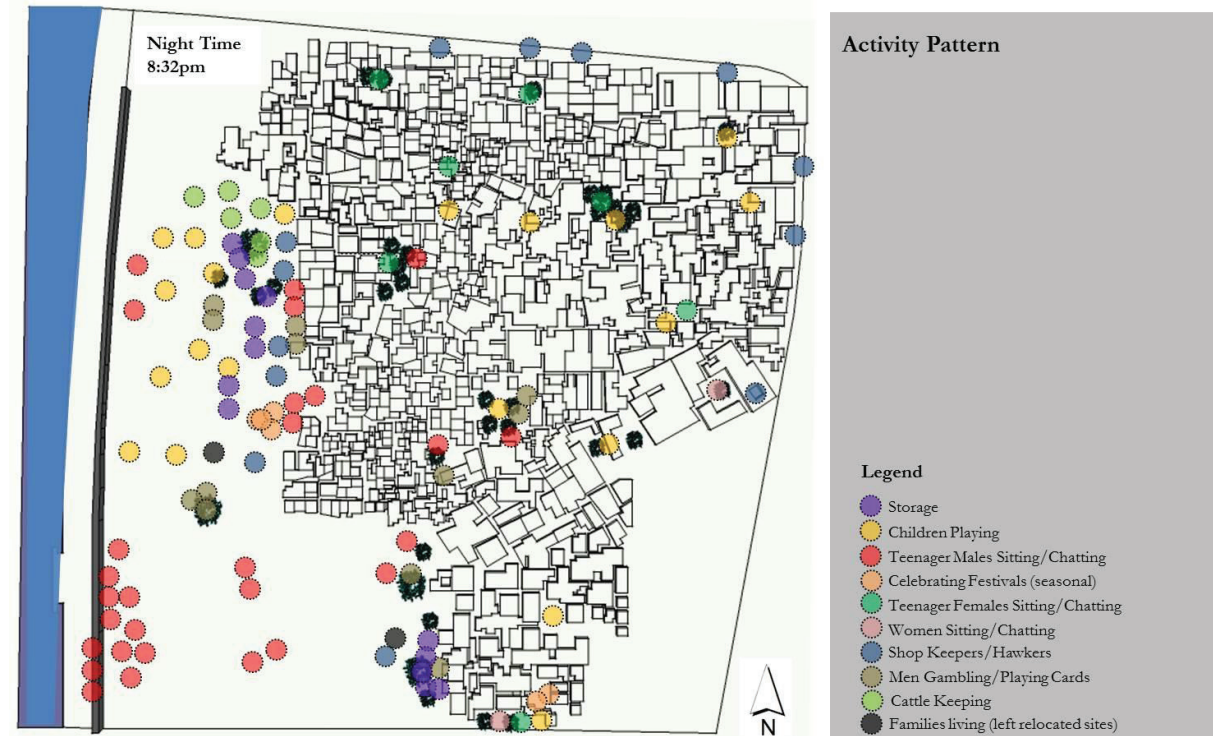
The activity pattern maps at both the sites are presented above during day time. It is observed that there are more activities occurring at the existing site compared to the relocated site. Also the mix in the user groups is more visible in the existing site. On the contrary the relocated site demanded different kinds of spaces for different users as the teenage females looked for backyard and introvert areas whereas teenage males looked for open extrovert areas. In the existing site many different types of activities were seen which were missing in the relocated site.



## Relocated Site



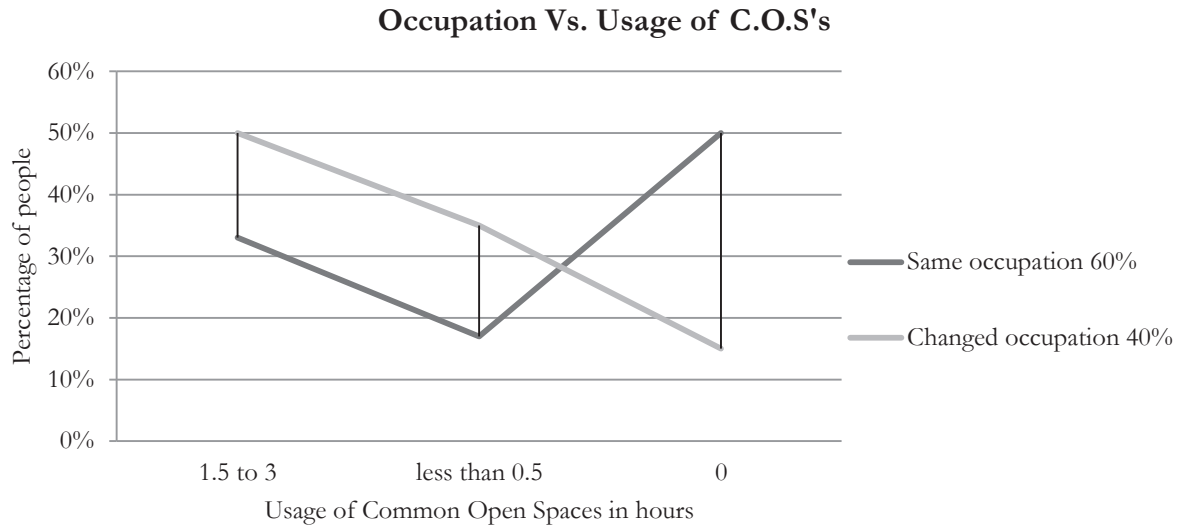
## Existing Slum Site



The activity pattern maps during the night time for both sites were quite contrary to each other. At the existing site even more activity was observed at the common open spaces with lot of interaction between different users whereas in the relocated site not many people were found outside their houses due to safety issues as elaborated by them.

### 5.3.1.7. Occupation and Usage of C.O.S

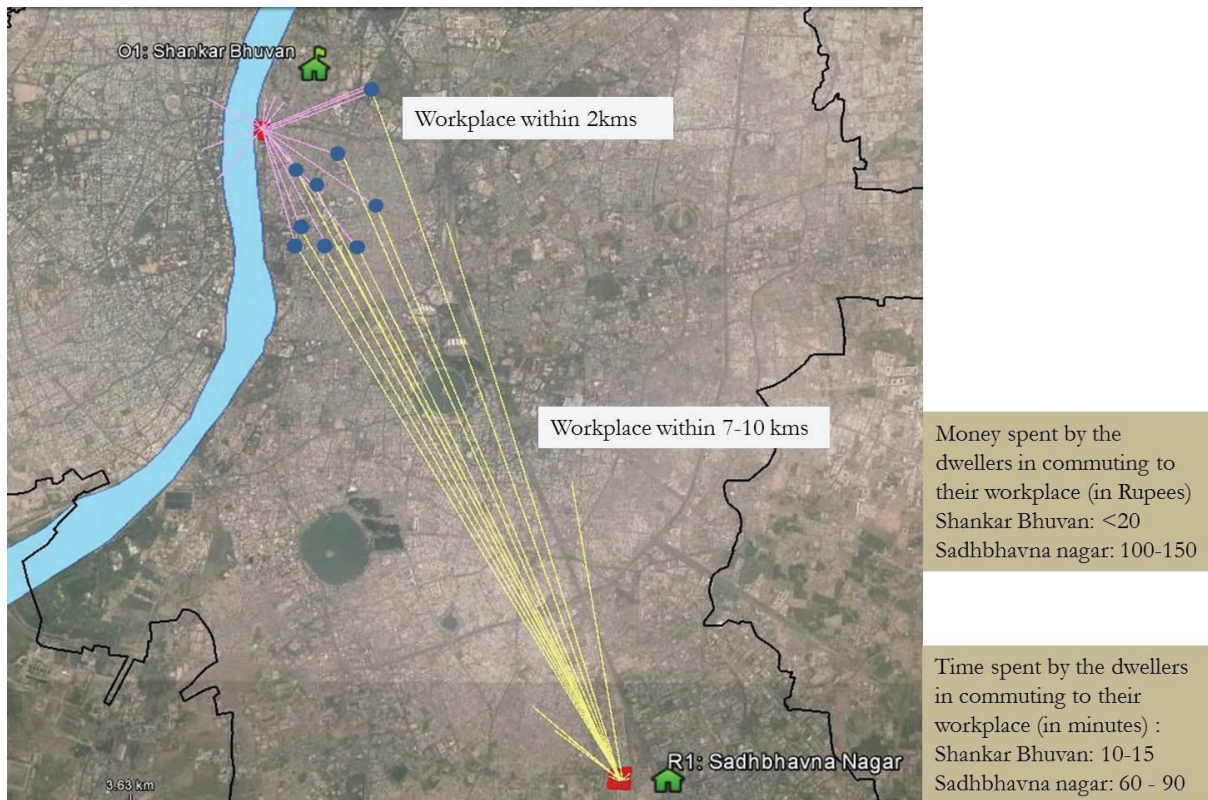
Specifically for Relocated Site: Dwellers who continued their occupation vs. dwellers who changed their occupation



Out of the 50 interviews taken at the relocated site, 40% had changed their occupation and 60% continued with the same. Under the changed section there were female students who had to leave their studies in order to take up Household works or other random works that will fetch them some money. Men within age-group 50 to 60 had a hard time finding jobs near the relocated sites. Few people with food vendor as occupation had to change their jobs to become a labour or find random jobs, and also many of the people who were working as servants could not find jobs at the relocated site.

This indicator is indirectly related to measure the value of common open spaces for urban poor as these people are more occupied with livelihood issues to even deal with issues related to common open spaces.

### 5.3.1.8. Distance to Workplace and Usage of C.O.S



The above figure showed difference in the distance to workplace from the previous site in comparison to the new relocated site. Earlier the workplace distance was within 2 kms. And now it has increased to 7-10 kms. The increase in the commuting time indirectly influenced the usage of common open spaces in the relocated site as affected dwellers did not find enough time to interact with other site dwellers.

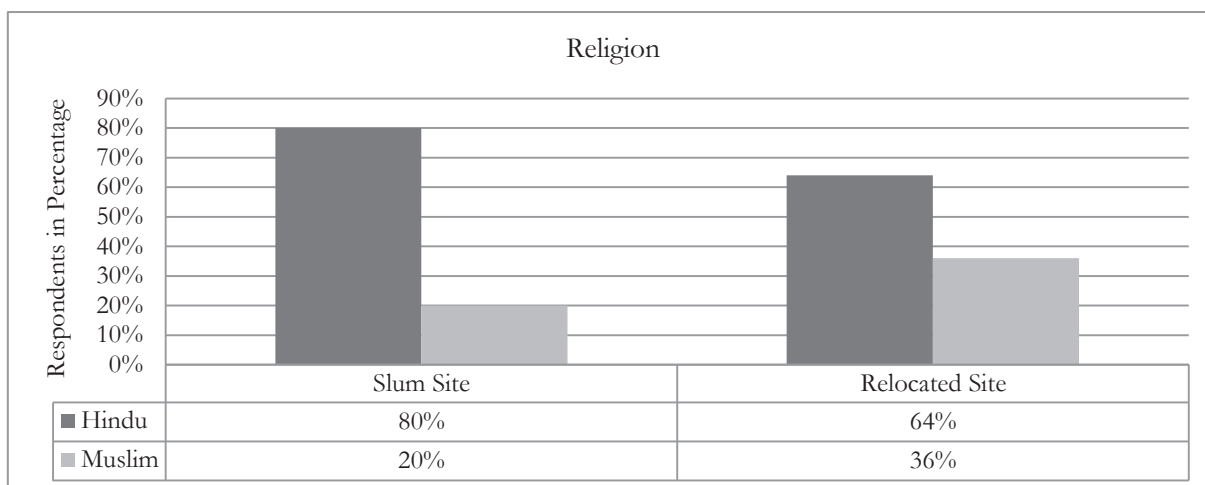
### 5.3.1.9. Caste vs. Usage of C.O.S

Many different castes and communities were living together in the existing and the relocated sites. They were Pathan, Sheikh, Malik, Miya, Marwadi, Sindhi, Parmar, Pandit, Thakore, Ansari, Mansuri, Qureshi, Saiyyad, Harijan, Gupta, Vaghri, Dattandi, Sharma, Pandit, Bhaiya, Thakore, Rabari. It was observed that people of a particular community were not comfortable living with other community people because of different beliefs and lifestyle. In the existing site each lane belonged to a particular community. This is how they developed a mutual understanding and lived happily with each other. On the relocated sites, all the communities were mixed which created a problem in a way that initiating joint ventures became difficult, formation of self-help groups were not initiated and no more associations were visible. This factor directly influenced the usage of common open spaces as the interaction between people became limited.

Thus it was realized that maintenance of social fabric was very important for healthy living and enhanced quality of life.



### 5.3.1.10. Religion vs. Usage of C.O.S



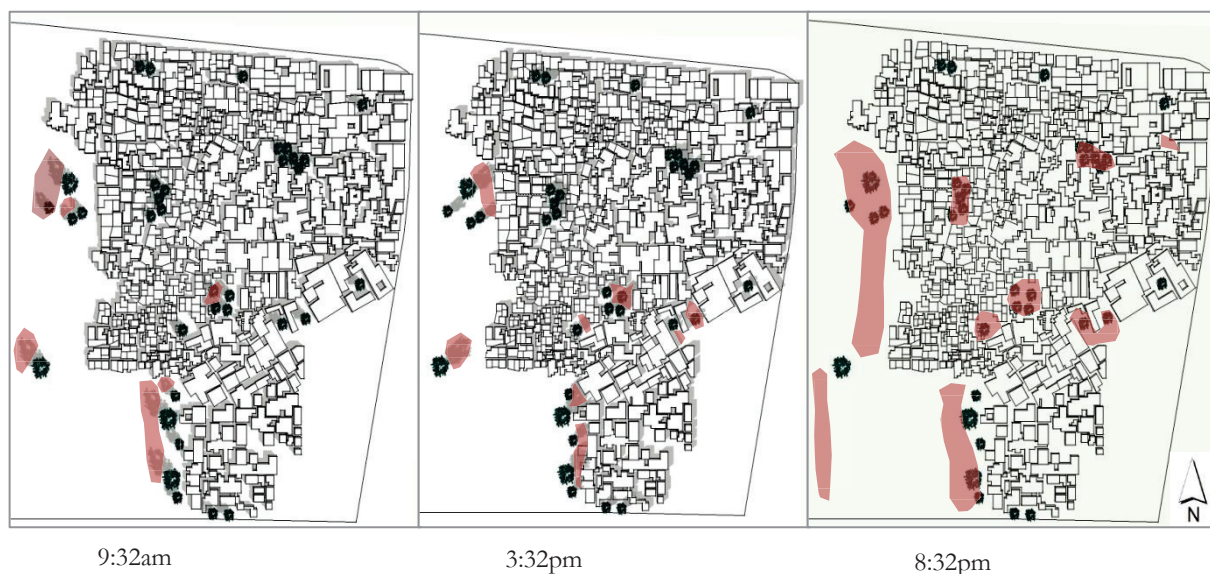
Out of the total respondents 80% of the Hindus were interviewed in the existing site whereas 64% were interviewed in the relocated site. It was found that the issues regarding usage and non-usage was same for both the religion but the Muslims were found to be less involved in gambling observed as one of the prominent activities in both the sites.

### 5.3.1.11. Sense of Ownership and Maintenance: AMC vs. own responsibility

On the existing site 100% of the respondents believed the maintenance of their nearby spaces including the common open spaces were their responsibility as the houses were built by them and the spaces were created by them. On the contrary in the relocated site 80% of the respondents believed the municipal corporation was responsible for maintenance of the common open spaces as the houses were allotted to them by the corporation. This sense of ownership and maintenance was found to be very less as compared to that in the existing site. This factor too had an influence over maintaining and using common open spaces in the site.

### 5.3.1.12. Design Considerations

Sun and Shade





9:56am

12:56pm

8:56pm

The visible change in the activity pattern at both the sites at different times of the day was also influenced by the movement of the sun and availability of shaded areas. Hence it was important to have more trees on both the sites and ample shaded areas for the urban poor to carry out their daily routine. The design of common open spaces in the north east direction of the site and protecting with buildings could emerge as a solution to this problem.

Many other design elements that were important to be incorporated in both the sites as observed during the survey and as per analysis are mentioned below:

Hierarchy of open spaces

Landscaping (Benches, Trees, hard and soft landscapes)

Linkage between social amenities (P.H.C & Primary School) and C.O.S Design

Security (Street lights)

Conditions/ Maintenance (Paving)

*In this chapter all the sites were introduced and basic observation matrix and FGD's were compared to select the two sites for detailed case study and survey. The common open spaces in the existing site at the city centre and the relocated site at the city periphery were analysed on the basis of 12 indicators described above to understand the situation of urban poor and usage and non-usage of common open spaces at both these sites.*

## 6. ROLE OF OTHER STAKEHOLDERS

### 6.1. Introduction to the Stakeholders

The potential stakeholders in the slum relocation process and development of schemes and policies for urban poor involved Government, Urban Poor, Academia and NGOs. It was important to know from the slum/relocated dwellers about their present conditions and issues, access to basic services, and use of community spaces.

#### 6.1.1. Government

Government was involved in the overall economic and physical development of the city so it was important to know their opinion regarding this issue. It was also responsible for related scheme and policy development and implementation

#### 6.1.2. NGOs

NGO's acted as facilitators and catalyst for creating awareness about relocation and usage and maintenance of common open spaces. They created a dialogue between the government and the people. NGOs were visited and the members were interviewed as they had a direct relation with the slum dwellers. They motivated them to take part positively in these relocation projects and were responsible for community development.

#### 6.1.3. Academia

Academia was found researching over bottom up assessment of slum dweller's aspirations and was into developing planning guidelines and manuals for slum free cities so it was very essential to know their understanding of the situation.

## 6.2. Opinion of the Stakeholders

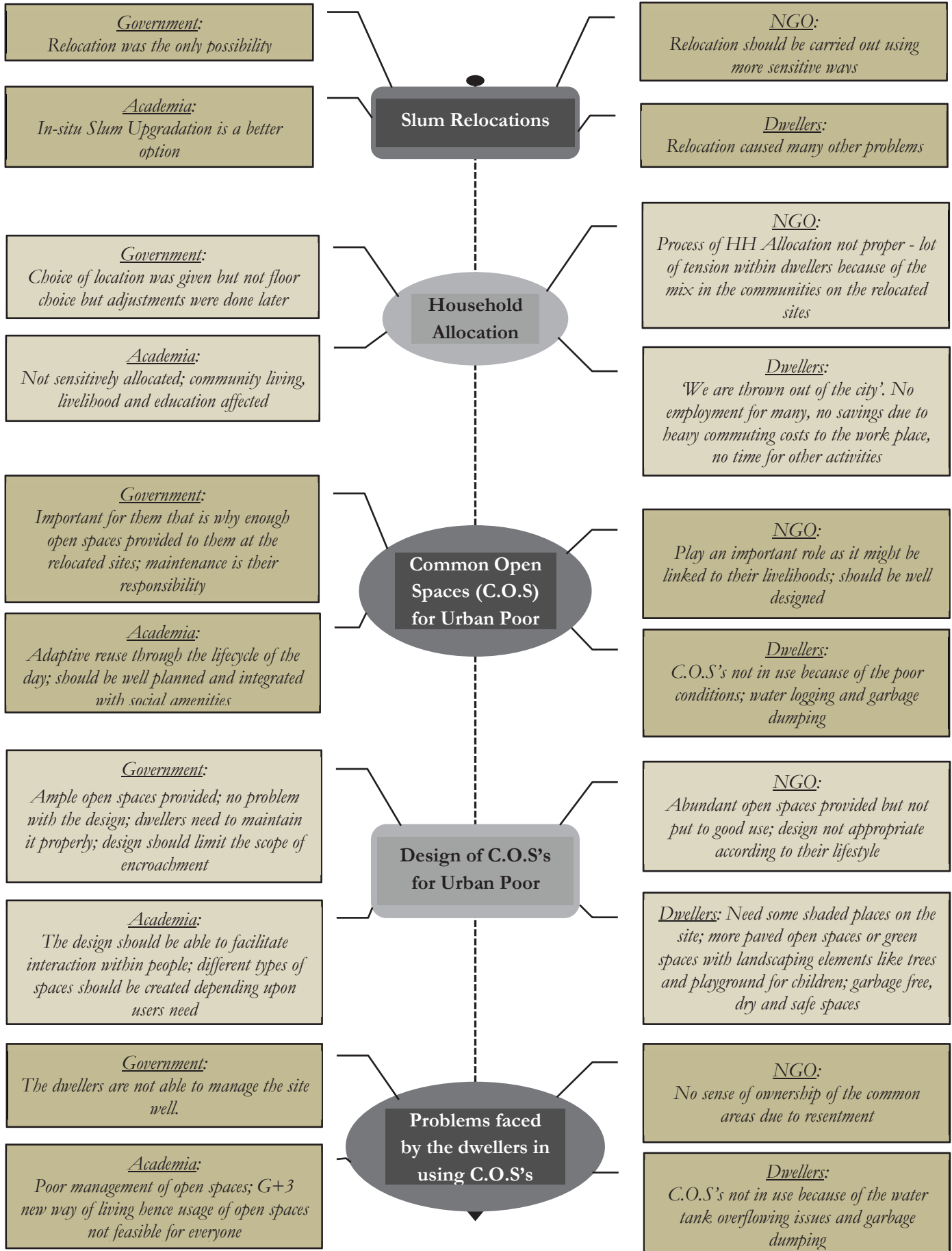
Table 3: Opinion of Stakeholders

Subject	Government	NGOs	Academia
Slum Relocations	In situ upgradation not possible as not enough space in the site; relocation was the only option; relocation within 2-3km not possible, no vacant land available.	It was indeed needed but it should have been done with multiple approaches and by using more sensitive ways	Not a good idea; insitu upgradation is the correct option; there are examples from other states in the country
C.O.S's for Urban Poor	Important for the urban poor as a lot of activities are carried outside their house. Enough common open spaces in the relocated sites for them; maintenance is their own responsibility. Resident welfare Associations should be formed, AMC is helping by bringing in NGO's	C.O.S's play a very important role as they are linked with their livelihoods but the provided C.O.S's on the relocated sites are not as per their lifestyle	Adaptive reuse through the lifecycle of the day. C.O.S's are lacking and should be planned; should be integrated with social infrastructure; not aesthetically but also functionally
HH Allocation in Relocations	Choice of location was given but not for ground floor or above. Do not deserve a choice as they are encroachers.	Process of house allocation was not proper; a lot of tension created because of the community mix in the relocated site	Inevitably bound to fail, could have been sensitively designed; community living, livelihood and education affected
Design of C.O.S's in Relocations	Ample amount of C.O.S's which they can use in multiple ways. No problem with the design as such. The dwellers are not able to maintain it properly. Design should be such that there shouldn't be any scope of encroachment.	Too much of open spaces provided which is not being put to good use, design not appropriate according to their lifestyle	Should be designed and maintained in such a way that it can facilitate a lot of interaction within people which is important and needed; should be safe
Guidelines for design of C.O.S's	10% Common Open Space out of 55% Open; other important parameters met, no further guidelines	General Development Control Regulation does not allow much flexibility; need proper guidelines for the design of C.O.S's	Guidelines do not exist; need robust guidelines
Problems faced by the relocated dwellers in using C.O.S's	There is indeed more transportation cost now but they have a house which is	No sense of ownership due to resentment.	Open spaces poorly managed; far from their work spaces; G+3 (different way

	costlier.  The dwellers were not able to maintain the site well	The dwellers are not able to use the spaces because of water tank overflowing issues and gutter line. Also there are no street lights at few of the sites.  C.O.S's in the site are not managed	of living); no connectivity; still lack basic facilities; relocation resulted in community disintegration hence livelihood issues, no self-help group formations, associations existed.
Role of Other Stakeholders	NGOs: Act as facilitators as the poor trust the NGO workers, help in depositing the installments by dwellers and registration of societies.  Planners: They should give us better housing designs and better ideas of developing open spaces such that it can stop encroachment.	Government: Pre implementation survey needs to be done to make it more participatory  Planners: They in their academic work/design studios should encourage more of such cases like relocation projects and housing schemes	NGOs very imp; can play facilitator, catalyst, create awareness and create dialogue between government and people; should be involved from the beginning  Planners shouldn't think of solving the urban poor issue rather complimenting is a better approach; 'incremental planning' is the key  Government shouldn't misuse the money for relocation scheme when it was allotted for in situ slum upgradation, should be able to manage/utilize the money for urban poor welfare
Solution if any	Not any but having participatory approach in this kind of massive scheme development and implementation is not possible; will never turn into reality	The best framework will be: Academia work + Non-Governmental Organization Implementation + Ahmedabad Municipal Corporation Execution + Management  By spending 10% more time and money, a well-designed housing scheme with well-planned C.O.S's and other facilities can be created	Appropriate policy needed with right to live as the key factor; emphasis to skill development and training, health and education



### 6.3. Opinion Intersection



## 7. CONCLUSION AND RECOMMENDATIONS

This study intended to determine how policies and designs for common open spaces in low income communities living in slums and relocated sites could be made more sensitive to resident's needs. In order to achieve this objective, four sub objectives were worked out. The first and the second sub objectives intended to identify the factors that affected urban poor's perception and preferences of common open spaces in the existing slum site and relocated site. The third objective focused on identifying the reasons that initiated problems and conflicts over using common open spaces in both the sites and last objective was to understand how different stakeholders comprehended the perception and the preferences of the urban poor in developing planning guidelines for their housing especially design of common open spaces.

The chapter was divided into two sections; conclusion and recommendations. The first part tried to highlight the findings of the literature review in comparison to what was observed on the two sites. Also the inferences from general observations, FGD's, Household interviews and Activity Pattern were discussed. Lastly the inferences about the perception of different stakeholders regarding urban poor and usage of common spaces were also explained. In the second part some policy recommendations were suggested for slum relocations with respect to the design of common open spaces.

### 7.1. Literature findings and observations at the site

From the study of the history of urban poor in the city it was realized that majority of urban poor worked in the informal sector, and with time had developed certain type of differentiation with the kind of occupation they were involved in. The arrangement in turn decided the caste they belonged to and also reflected strong sense of community living and varied lifestyle. This kind of mutual understanding had a potential impact on their settlement pattern which was prominently visible in the existing slum site. As observed at the relocated site this social fabric was broken by mixing all the communities together which resulted in various problems like non usage of common open spaces, no initiative for joint ventures, less social interactions, less sense of maintenance and ownership, and not any initiative towards formation of resident welfare associations for the neighborhood betterment.

From the study of housing schemes and policies for urban poor by central and state government it was understood that even though their core intention was to free India from slum and to work to deliver basic services to urban poor; there remained few loopholes at the implementation level as observed on the site. The properties raised under 'basic services for urban poor scheme' at the relocated site were not operated and maintained properly at the site as one of the prime objectives of the scheme. These properties included child care centres and community halls, water tank and common open spaces.

Also from the study of the schemes and policies it was clear that not much consideration was given to the design of the common open spaces; general development control regulations were adopted which only specified the amount of open spaces to be provided for the total area of the site allotted (10% of C.O.S) and nothing beyond. There was a need to have proper guidelines for the design of common open spaces as observed on both the sites. The lack of well-defined guidelines was affecting the usage of C.O.S's as discussed in the next section.

It was interesting to analyze the housing case studies by the Architects for urban poor and the special components considered with sensitive designs keeping in mind the user group. Open spaces were given

special importance and different kinds of these spaces were created to cater to the needs of different users and type of activity. The open spaces were overlapped with the amenities and were in harmony with the social stratum. They were also given the possibility for expansion and modification. It was realized that this kind of sensitive design approach also needs to be adopted for the central/state schemes and policies initiated by the government which was missing in the relocated site when visited.

## **7.2. Key Inferences from General Observations, FGD's, HH Interviews and Activity Pattern**

As observed on both the sites, the factors behind the usage and non-usage of common open spaces were not only dependent on its physical design but also social aspects, their livelihood opportunities and distance to their workplaces.

In the relocated site it was found that the main reasons for the non-usage of C.O.S's were the site not being clean due to water logging and garbage dumping and not maintained properly and being unsafe. Though there were ample open areas in the relocated site these issues were too prominent and affected its usage in a potential way. Thus it was observed that all the activities that should be taking place in the C.O.S's were actually occurring on the streets or at the backyards or at the leftover spaces in between. The dwellers used the streets, backyards, and underground water tank plinth for playing, sitting, chatting, and selling products and few of the selected C.O.S's for celebrating festivals occasionally.

On the existing site the reasons for non-usage of C.O.S's emerged to be lack of enough C.O.S's in the internal areas of the site and work load for a few. The slum site observed much different kind of activities occurring like storage, sleeping and cattle keeping which were not possible in the relocated site anymore.

From the activity pattern it was clearly understood that different user groups preferred different kind of spaces for their type of activity and as a result certain hierarchy was needed for the design of these spaces; variety was important to facilitate its usage. This was observed at both the sites but was more prominent in the relocated site.

The dwellers whose occupation remained the same couldn't find much time for using the spaces and interacting with others as the distance to the previous workplace at the city centre was more and a lot of time got wasted in commuting. This problem with the dwellers however did not exist at the existing slum site.

The socially disarticulated communities found it difficult to interact with others the way they used to do in the previous sites. These dwellers were dependent on their community people for joint ventures, marriages, loans, formation of self-help groups. When this fabric was broken in the new relocated site it was reflected in their usage of C.O.S's.

On the existing slum site, they were living in total harmony with the social stratum and found themselves to be independent and to have full control over various situations.

It was also realized that certain design considerations that dwellers felt on the site were necessary to facilitate the usage of these C.O.S's. Provision of shaded areas in the site was important as the activity pattern was understood to move throughout the day along the shaded areas. Incorporating trees and benches in the site, proper management of hard and soft landscape, and strengthening the connection with other social amenities would help in facilitating the usage of C.O.S's.

Though certain elements like trees and benches were present in the existing slum, few of the above mentioned considerations could be much helpful in facilitating the usage of C.O.S's on the site

On the relocated site the sense of ownership and maintenance was not seen to be much. The dwellers felt it was the corporation's responsibility to maintain and clean the nearby areas as the houses were allotted by them and this type of settlement pattern was new to them. This in turn influenced the maintenance of the open spaces and its usage. On the contrary on the existing slum site they took the total responsibility to clean the common areas as the houses were built by them and the open spaces created by them. This sense of ownership and maintenance was found to be very strong in the existing slum site.

### **7.3. Key Inferences about the Perception of Stakeholders**

The stakeholders involved in the slum relocation process and in the development of schemes and policies for urban poor had very distinctive ideas on slum relocation process, household allocation to the urban poor and design of common open spaces at both the sites. It was realized that all of them had an important role to play in this process and the best could be achieved if all of them can work together for the betterment of urban poor. The best framework will be to have well researched academia work as the plan, to be implemented by the NGO's as the facilitators, and properly executed and managed by the government with total cooperation from the slum dwellers.

### **7.4. Recommendations**

The recommendations can be divided into four parts depending on different stages of the scheme development and implementation, and design and usage of common open spaces.

#### **7.4.1. Development of schemes**

As realized on the site from the dwellers and also after having a dialogue between the stakeholders it is important to develop this process of slum relocations as 'participatory'. Though this process might be time consuming it might also have long lasting benefits. The slum dwellers could be made more involved from the beginning of this process, certain choices for choosing household location and floor could be made applicable but most importantly all necessary information could be made available to them at every step of the process.

It was also understood that a further holistic research on the user group was important before developing any scheme and policy for them. Urban poor have had a very different lifestyle and living pattern, their housing including the common open spaces could be designed in a more sensitive way keeping in mind their requirements.

To develop such schemes and policies it could be beneficial to involve all the stakeholders from the beginning that is from the time of scheme development. A positive situation at the time of scheme development will have more chances of having smoother scheme implementation.

In-situ upgradation of slums could be seen as the first preference to provide basic services to them. Only if the former is not possible, relocation could be adopted as an idea. The 'relocation' has many negative repercussions as discussed in the thesis. The relocation process could be made smoother by providing urban poor enough buffer time to absorb the upcoming changes.

#### **7.4.2. Scheme Implementation**

A phase wise implementation of the scheme and relocation process might be helpful in preparing the urban poor for the approaching event. A comprehensive training session during this time could be helpful in creating awareness about the new style of living and the ways to go about it.

Before implementing the relocation it could be helpful to develop the site and the surrounding areas as per their requirements with availability of sufficient social amenities and infrastructure. It could add further to their welfare if certain job opportunities for them are looked upon at the new site such that it solves their livelihood issues.

The household allocation process could be made 'participatory' by knowing the opinion the opinion of the dwellers regarding their location and floor preference. The final HH allocation could be worked out gradually with multiple discussions keeping intact their social fabric and the idea of community living.

Formation of Resident Welfare Associations (RWA) could be the first step of developing bond with the others. This step could be applied as a procedure as soon the relocation process is over. RWA's could help bridge the gaps between different communities.

#### **7.4.3. Design Parameters of C.O.S's**

At the time of designing C.O.S's it could be essential and helpful to pay attention to certain design parameters. After going through a robust site analysis the open areas could be designed at north eastern sides to avoid the harsh sunrays throughout the day in Ahmedabad. Different kinds of spaces could be created for different user groups and for varied purposes; introvert spaces for teenage females and extrovert spaces for teenage males. The proper size and shape of the open spaces might also add value and could emerge as more useful. One large common open space for the site for all major functions might be able to unite the neighborhood as a whole. For facilitating interaction, the connection between the social amenities and open spaces could be strengthened in terms of physical design of these elements and spaces. In addition to the above, proper street lighting throughout the site will promote usage of the open spaces during night time and will also help make the neighborhood safer. A police station as an amenity could be provided near the site for restricting the dwellers from getting involved in any kind of illegal works. Most of the surfaces on the site can be paved to avoid water logging as maintaining green spaces under such schemes become very difficult. As a part of landscaping, trees could be grown in most of the areas especially in the open spaces with provision of benches for interacting, and provision of fun park for children for playing.

#### **7.5. Way forward**

This research limited itself to the case-studies of housing schemes, policies and designs from India. It will be interesting to study the policies and designs for the urban poor from other countries as well. The basic service for urban poor scheme (BSUP) is also implemented in other states of India. It might be interesting to undertake an interstate study or comparison of the scheme implementation for those particular states.

*This chapter aimed at elucidating the necessary findings of this research from literature review and the qualitative and quantitative analysis carried forward to achieve the objectives. The findings in turn were helpful in suggesting policy recommendations for slum relocation with respect to the design of common open spaces*



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## APPENDIX A: Ahmedabad Before and After Slum Relocations



Figure 20: Location of Ahmedabad

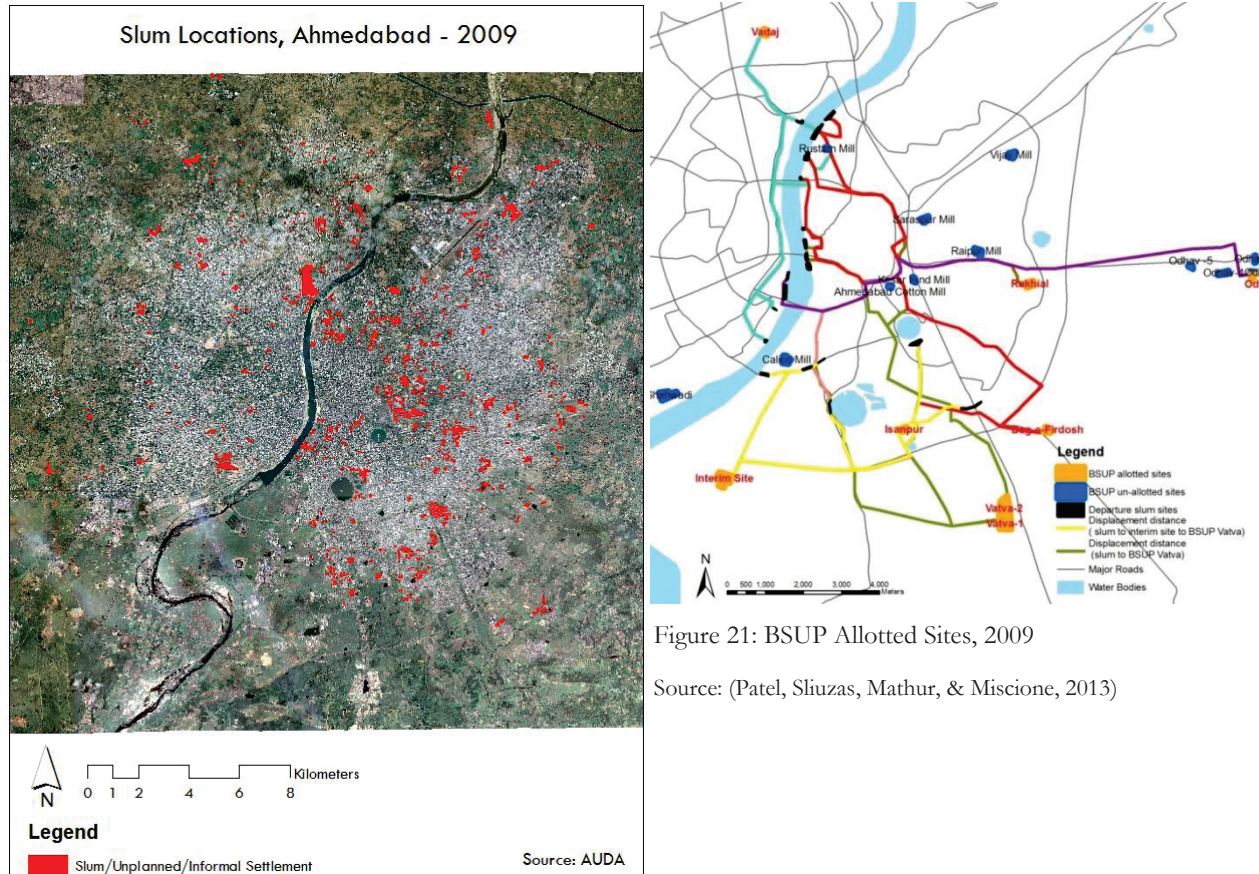
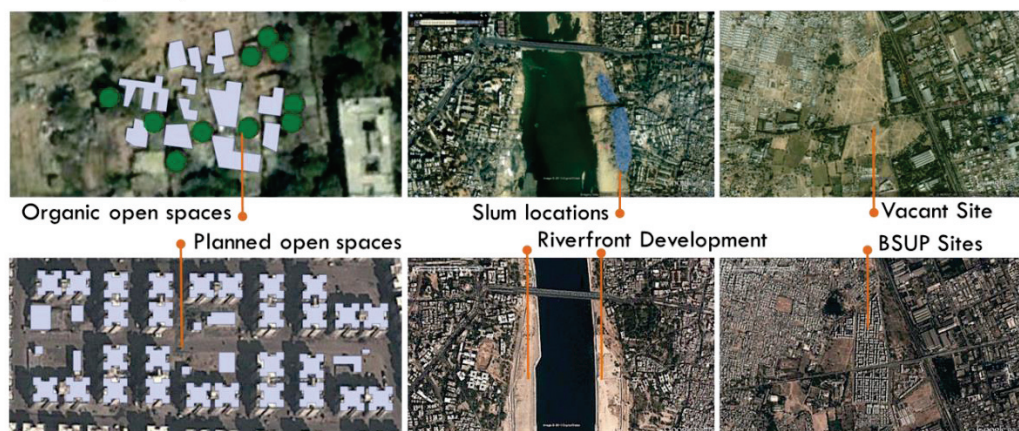


Figure 21: BSUP Allotted Sites, 2009

Source: (Patel, Sluizas, Mathur, & Miscione, 2013)

Figure 22: Slum Locations, Ahmedabad 2009

### Before (2001)



### After (2013)

Figure 23: Ahmedabad before and after Slum Relocations