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**DELHI'S LEISURE SPACES: PATTERNS OF SPATIAL USE  
IN A MIXED-INCOME INFORMAL SETTLEMENT**

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by

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## ABSTRACT

During the past two decades, scholars in critical geography, urban planning, and sociology have been intrigued by urbanization challenges, inequity in housing opportunities, and informal modes of urban development in the Global South. Countries such as India struggle with equitable development challenges, particularly from exponential urban growth and prevailing informality, making the desire for inclusive development practices a rallying cry.

In Delhi, challenged by the inadequate supply of formally developed housing, the urban poor and middle class have sought alternate housing solutions. While slums and squatter settlements primarily develop on encroached land, in contrast, unauthorized colonies are developed on privately owned land. Their development violates land-use regulations as laid out in state master plans. While researchers are drawn to the complexities of slums and squatter settlements, there is little understanding of this other type of informal development, which is mixed-income, unlike the segregated informal developments seen across the Global South.

Previous research has shown that recreation is essential for social, physical, and mental health and well-being. However, even at a city level, there is an uneven distribution of open spaces for recreational purposes in Delhi. On a settlement level, unauthorized colonies lack designated outdoor recreation, social interaction, and entertainment venues. The proposed initiatives by the state to improve living conditions in unauthorized colonies present an opportunity to seek insights into the heterogeneous resident populations' use of and preferences for recreation.

Using a case study, this research examines what kind of spaces are used by two social class groups of residents for social interaction and recreation, within and outside the settlement. This research adopts a mixed-method approach for data collection, including site observations conducted before the COVID-19 pandemic. It also includes surveys and phone interviews conducted after the onset of the COVID-19 pandemic, with participants recruited using the

snowball sampling technique. From a theoretical and empirical perspective, this research is at an intersection of three key study areas: urban informality, social class, and recreational space.

This research presents the perspective of informal community members. It contributes to understanding how residents of a mixed-income informally developed settlement use open public spaces for recreation and social interactions. In addition, it highlights the challenges faced by residents in accessing open public spaces during and before the pandemic. The findings draw attention to the need for small-scale interventions such as pocket parks within such settlements.

The findings also contribute to our understanding of what the different social classes prefer towards meeting their social and recreational needs. The study found that while middle-class residents' criteria for selecting recreation spaces outside the neighborhoods are focused on social acceptability and social control, the serving class is more limited by physical and financial accessibility concerns. These findings can serve to inform planners and policymakers on the need for strategies to ensure equitable access to recreational spaces at the city and district levels.

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## LIST OF ABBREVIATIONS

1. DDA: Delhi Development Authority
2. DUEIIP: Delhi Urban Environment and Infrastructure Improvement Project
3. EWS: Economically weaker section
4. HIG: Higher income group
5. JJ Cluster- *Jhuggi jhopdi* cluster (squatter settlements)
6. LIG: Low-income groups
7. MCD: Municipal Corporation of Delhi
8. MIG: Middle-income group
9. MPD: Master Plan for Delhi
10. NCT-National Capital Territory of Delhi
11. PPP- Purchasing power parity
12. RWA: Resident Welfare Association
13. UAC: Unauthorized Colonies

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## Chapter 1

### Introduction

India's population is estimated to be 1.39 billion in 2021. Of this total population close to a third live in urban areas<sup>1</sup>. In India, urban areas are growing, as a sizeable population of 78 million people have moved from rural areas or small towns to urban areas, according to the 2011 Census. This reported rural to urban migration by people is in the quest for a better quality of life and 'perceived' upwards mobility.<sup>2</sup>

In India, cities such as Delhi and Mumbai are coping with various challenges that stem from exponential urban growth, rural to urban migrations, high density, and prevailing informality. The unprecedented urbanization has not allowed the formal housing sector (state-led and authorized developments) to keep up with the demand for affordable housing, resulting in alternative forms of development by people themselves.

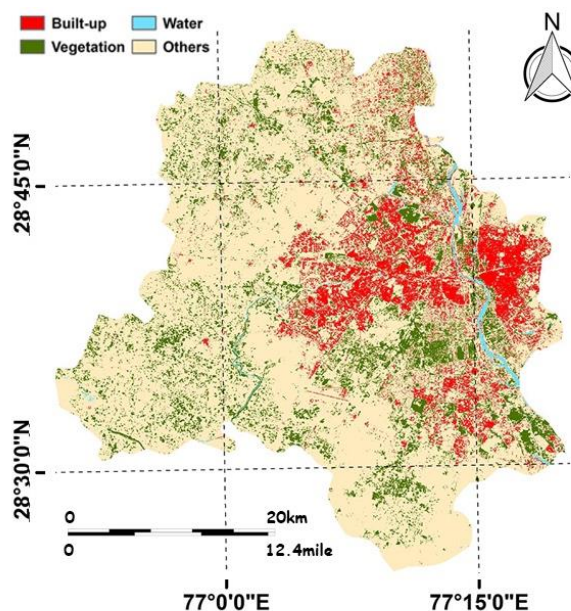
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<sup>1</sup> Urban areas, as defined by the Census of India 2011, are the areas having a population of 5000 or more, a density of 400 persons per square kilometer (1,000/sq mi) or higher, and where the three-fourth percent of the working men are employed non-agricultural activities.

<sup>2</sup> The formal development efforts have struggled to adequately meet the demands/needs of this rapidly growing urban population's demands/needs in terms of employment, affordable housing, infrastructure, and basic services (such as access to healthcare, safe drinking water, and sanitation). Even with the government's efforts and initiatives to offer employment and shelter to the incoming population, urban poverty and homelessness are significant challenges for urban development and planning.

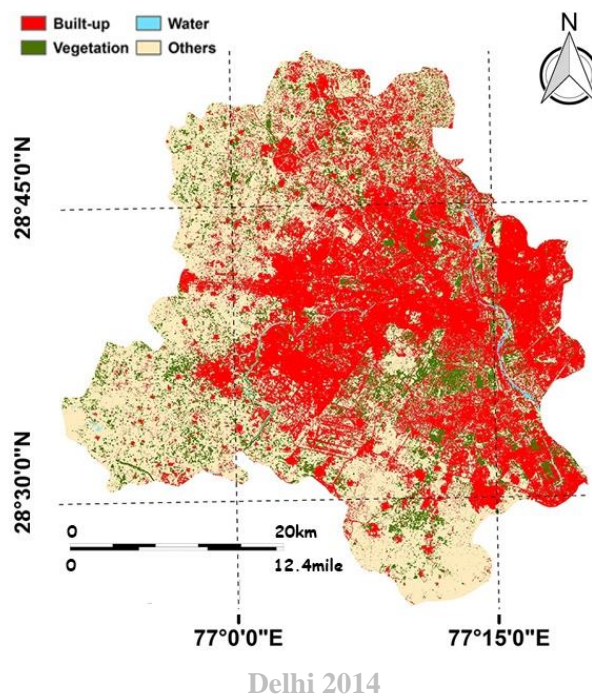
### Delhi: An overview

Delhi, the capital city of India, is one of the fastest-growing metropolitan areas in the world. With a population of over 29 million inhabitants Delhi is projected to become the world's most populous city by 2028. The exponential urban growth of the city is attributed to the increased migration influx along with the city's natural growth (See figure 1.1).<sup>3</sup> The two combined have resulted in an urban expansion occurring at the city's periphery, and densification of existing urban fabric.



Delhi 1989

<sup>3</sup> As per the “MPD 2021”, the net increase in the population of the National Capital Territory of Delhi, was by a 39.82% addition by migration influx in 2001, 45.2% in 2011 and is estimated to be 50% of the share of population increase by migration in 2021 based on the projections by DDA Sub Group (Delhi Development Authority, 2007 pg. 13). According to a 2019 Hindustan Times report, (i)23.6% of the inter-state migrants moved to Delhi with their families, (ii)19.8% moved o Delhi for work, employment, or business, (iii) 12.2% for marriage, and (iv) 1% for education, the remaining (V) 6.8% are listed as other reasons (Kawoosa 2019).



Figures 1-1: Delhi's urban growth 25 years apart from 1989-2014 (Map Source: Tripathy and Kumar 2019)

In this chapter, through an analysis of Delhi's master plans, I briefly introduce the history of formal planning and the informal growth of the city.<sup>4</sup> In Delhi's context, I use the term 'informally developed' to encompass all forms of developments that fall outside the city's formally planned developments according to the planning agencies and government records. I use the term 'formally planned' to refer to the developments laid out according to the state master plan.

### **Formal planning and developments in Delhi from 1947-2021**

After India's independence from the British and the country's division in 1947, Delhi experienced a rapid influx of refugees from newly formed Pakistan and migrant workers from other

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<sup>4</sup> Master plan is a statutory document. It is a 20-year perspective planning document for an envisioned development and growth of the city.

states (See Appendix A for urban growth map). In post-colonial India, the first master plan for Delhi envisioned for 1982 (published in 1962) was formulated by Delhi's Town Planning Organization under the body Delhi Improvement Trust. The purpose of this plan was to check the "haphazard growth" of the post-colonial city (DDA 1962, pg. i).<sup>5</sup>

The master plan summarized what was already present till 1962 and divided the city into eight planning divisions. The same also provided guidelines for land use and developments for an estimated population of 5 million people by 1981. However, the population of Delhi exceeded the estimates by 1.22 million in 1981. The formal housing stock developed by the planning department for low- and middle-income residents could not meet this growing housing demand.

The second master plan (called "The Perspective Plan -2001" or "MPD 2001") released in 1990 introduced the concept of partially built plotted housing and the need for low-income so-called "community modules" (DDA, 1990, p. 14). It also identified other emerging forms of housing and the need for social and physical improvements (DDA 1990, pg. 15).<sup>6</sup> The plan promoted planning ideas that balanced regional development and recognized rapid city growth and the influx of immigrants into cities.

In 1967, DDA launched a housing initiative for three income groups: the economically weaker section (EWS), low-income groups (LIG), and middle-income Groups (MIG); it included

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<sup>5</sup> "On the 30th December, 1957, the Delhi Development Authority-an 11-member body with the Administrator of the Union Territory of Delhi as the ex-officio chairman, was constituted by an Act of Parliament, called the Delhi Development Act, 1957, to promote and secure the development of Delhi according to plan. The Act required the Authority to carry out a civic survey of, and prepare a Master Plan, for Delhi." (DDA 1962, pg. i).

<sup>6</sup> Overall, the planning document categorized housing types as squatter settlements, slums, unauthorized colonies, resettlement colonies, slum rehousing, individual plotted developments, general group housing, employee housing, villages, and traditional areas (Delhi Development Authority 1990, pg. 115).

the higher Income group (HIG) in 1977 (See Maitra 1991).<sup>7</sup> However, the population of Delhi in 2001 once again exceeded the “MPD 2001” estimate of 12.8 million, an increase of nearly 1 million. The formally developed housing stock could not meet the demand, putting pressure on existing settlements and paving the way for more informal development in the city.

The third and current master plan, “MPD-2021”, analyzes the achievements and challenges faced in implementing the earlier two master plans. The master plan was formulated to make Delhi “a global metropolis and a world-class city” (DDA 2007, pg. i). This vision toward making the city ‘world-class’, appeared to be seen as justification enough for forcible evictions and slum demolition for the appropriation of land for the Commonwealth games village<sup>8</sup> (Williams 2010). These evictions and demolition have roused scholars' attention to the inequality of urban housing opportunities and aroused concern and doubts about the rights of the urban poor.<sup>9</sup> It also raises questions about the disparities in development efforts and the subjective understanding of what is development and for whom.

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<sup>7</sup> According to DDA, the EWS stands for Economically weaker section, LIG are the low-income groups, MIG are the Middle-Income Groups, and HIG stands for Higher Income Group.

<sup>8</sup> The Commonwealth games village was developed as the athletes' residence for the 2010 Commonwealth games in New Delhi. It is spread over an area of 157 acres (63.5 hectares).

<sup>9</sup> “As a projected global city...the aim is to ‘clean up’ and ‘beautify’ the capital's landscape, to rid it of disturbing elements such as, for example, the view of a slum from the window of a deluxe hotel welcoming potential foreign investors.” (Dupont 2011, pg. 546); “The significance of converting evacuated slum sites into parks and green areas further illustrates the priority given to a ‘clean-green-beautiful’ vision of the city at the expense of poor people's right to housing.” (Dupont 2011, pg. 548); “This reduction of the slum to a flat image without history has to be seen in conjunction with the emergence of the discourse of the ‘world class city’ in millennial Delhi.” (Bhan 2009, pg. 140)



## **History of recreational space planning post-independence**

In 1961, LR Vagale from the School of Planning and Architecture in Delhi presented a paper in the Annual Town and Country Planning Seminar held in Madras, where he analyzed the recreational land use in 25 cities in India.<sup>10</sup> (See Appendix B for the list of cities and recreational are distribution). The findings showed that for a population of 2.1 million people in Delhi, open spaces were only 2.1 percent of the total land area compared to the 3.8 percent average recreational area in all 25 cities studied. This meant that the recreational open spaces per 1000 people were about 3278sqm (0.32ha), or 3.2sqm per person in Delhi.

The first master plan for Delhi indicated 9101hectare as the recreational area at the master plan level. This plan identified and proposed regional parks, district parks, local parks and playgrounds, picnic spots, and the agricultural green belt under recreational areas (DDA 1962, pg. 32-34).

For Delhi, at a regional level, ‘the ridge’ is a prominent natural feature. It is a rocky outcrop of a mountain range called the Aravalli Range (See Fig 1.2). The first master plan recommended that the ridge be developed as regional parks. The plan also recommended the development of district-level parks, picnic spots, and playgrounds at walkable distance. The first master plan also proposed an agricultural green belt around the urban developable limit set for 1981(DDA 1962).

The second master plan “MPD 2001” recognized that a considerable portion of this belt had been used for both “planned and unplanned development” (DDA 1990, pg. 66). It also acknowledged the loss of 34% of the recreational area during the implementation of the first master plan. The plan envisioned 8722ha area as 9.7sqm per person for recreational purposes. The master plan also emphasized the development of neighborhood play areas and elaborated on the categories

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<sup>10</sup> He did not explicitly define recreational spaces but discussed parks, playgrounds, and water fronts as recreational areas.

under the regional park use zone to include the zoological park, bird sanctuary, and botanical garden, amongst others. See Table 1.1.

**Table 1-1:** Recreational area categories and recommendations in the Delhi master plans

Category	Master Plan Proposals	Present Status	
		Number	Total area
Regional Parks	Regional Parks, in particular the upper ridge to be developed as a central public park like the “Hyde Park in New York [ <i>sic</i> ]” (Source: DDA, 1962, pg.34)	4	7777ha
District Parks	District Parks of 30,000sqm (1.2ha) / 1000 people to be developed by 1982 (Source: DDA, 1962), including area around historical monuments (Source: DDA, 1990)	111	630.78 ha
Other neighborhood parks and playgrounds,	Local parks and playgrounds 2-0.81 Acre/ thousand people based on varying residential density envisioned for 1982 (Source: DDA, 1962). Neighborhood play area development emphasized for 2001 vision (Source: DDA, 1990)	Data unavailable	
Agricultural / Green Belt	Agricultural / Green Belt- Zoning regulation to sustain agricultural activities proposed in the first master plan document (Source: DDA, 1962) It comprises of 21,000ha of area (Source: Dey and Greeshma 2014)	Master Plan for 2021 identifies green belt as a separate category.	
Sports Complex	Sports complex were under recreational use category till the second master plan for 2001 and were later removed in the third master plan for 2021 (Source: DDA, 2007)		

The third master plan “MPD 2021” stated that Delhi has the largest greens as compared to other Indian metropolitan cities and could hence be called a “green city” (DDA 2007, pg. 95). The total area of the state of Delhi now is 1,48,639 hectares, of which a total of 4,777 hectares is under the urban cover.

According to the Delhi Development Authority website, the 7777 ha. Of the area under the regional parks comprises the northern ridge (87 ha), central ridge (864 ha), south central ridge (626 ha), and the southern ridge (6200 ha). All the regional parks are under the jurisdiction of the Delhi Development Authority. The Delhi Development Authority states that it has 111 district parks of 630.78 ha total area in the urban limits of the city and 255 neighborhood parks of 316.06 ha total area.<sup>11</sup> (See figure 1.2)

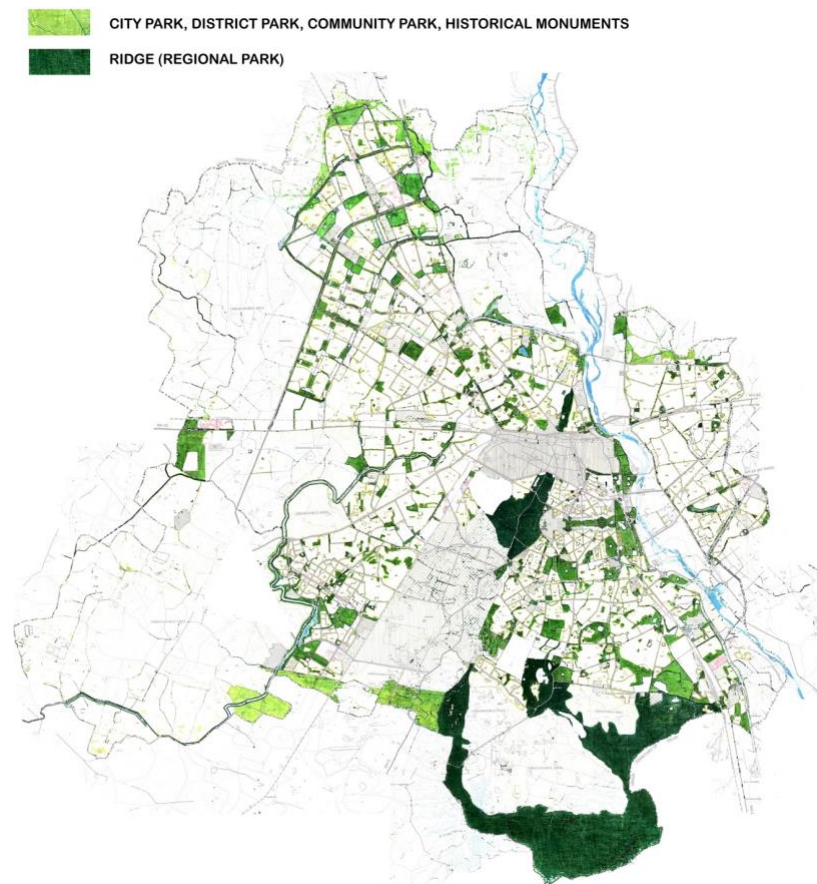


Figure 1-2: Delhi ridge and proposed recreational areas under the present master plan for 2021 (Base map source: DDA, 2007)

<sup>11</sup> These parks are being developed as 1.5 ha. /15,000 people.

In a recent study, Acharya et al. (2016) highlight the inequity in Delhi's spatial distribution of recreational facilities. They conducted an accessibility analysis with Delhi's Zone E as a case study. The research findings showed that more than half of the residents could not access recreational facilities (such as city parks, district parks, community parks, and historical monuments) within 10 minutes (500 m walking distance) of travel time.

Even in 1962, Vagale identified the poor distribution of existing recreational areas in cities as the most significant issue in city planning in India (See Appendix B). The cities had more large-scale recreational areas than smaller open spaces that could cater to neighborhood needs (Vagale 1962). A recent study by Kaur (2019) re-emphasized Vagale's observations noting uneven distribution of "planned open space" in Delhi.<sup>12</sup>

We can perceive that open space planning and in the city is formulated for the formally planned urban developments; the informally developed settlements do not have open spaces designed for recreational purposes at the neighborhood level.

### **Delhi's informal growth**

A review of the master plan documents shows that the established population growth projections and formal development do not match the actual population increase. Both natural growth and in-migration surpass official population growth estimates. (See Table 1.2).

**Table 1-2:** Master plan population projection and actual population growth

Master plan	Master plan projection (in million)	Actual population (in million)
MPD 1982	5	6.22
MPD 2001	12.8	13.8

<sup>12</sup> Kaur (2019) found that only 2% of the city's "planned open space" is in East Delhi, which is the densest part of the city.

MPD 2021	23	-
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Owing to the lack of formally developed affordable housing stock, informally developed settlements continue to spread across the city. The state planning body recognizes seven settlement types apart from the formal developments listed as “planned colonies.”<sup>13</sup> These settlement categories include squatter settlements (*jhuggi jhopdi* clusters), slums (categorized as slum designated areas), JJ resettlement colonies, unauthorized colonies, regularized unauthorized colonies, rural villages, and urban villages (Center for Policy Research 2015). See figure 1.3 for an example of a formally developed housing complex (“planned colonies”) and figure 1.4 for examples of informally developed slum and squatter settlements.



Figure 1-3: Example of a formally developed housing complex in Delhi (Source: Shranghi 2017)

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<sup>13</sup> The term ‘colony’ is used to refer to neighborhoods in Delhi.



Figures 1-4: Examples of informally developed settlements in Delhi, India (Source: Author)

The available records of the population distribution among these settlements date back to 2001. These were reported by the Delhi Urban Environment and Infrastructure Improvement Project. According to these records, only 23.7% of Delhi's total population resides in the formally planned developments. Delhi's informally developed settlements hence house most of the city's population. Table 1.3 shows the percentage distribution in the various settlement types.

Table 1-3: Settlement Types in Delhi (Data Source: Center for Policy Research 2015 / Data Records: DUEIIP, 2001)

Settlement Type	Description	Estimated Population in 2001 (in millions)	Percentage of total population of the city
Planned Colonies	Formally developed housing	3.308	23.7
Slum Designated Areas	Settlements on encroached land having have some form of tenure and services provided by the state	2.664	19.1
JJ Cluster/ Squatter settlements	Temporary shelter located on public land	2.072	14.8
JJ Resettlement Colonies	Settlements established by the state for the relocated squatters	1.776	12.7

Unauthorized Colonies	Settlements developed on privately owned, mostly sub-divided agricultural land in violation of the master plan zoning regulations.	0.74	5.3
Regularized Unauthorized Colonies	Unauthorized colonies formalized by the state.	1.776	12.7
Rural Villages	Villages engulfed within the city limits, 'characterized by agricultural activity'	0.740	5.3
Urban Villages	Villages engulfed by the rapid urbanization, adapted to the needs of the densifying city, no longer agricultural	0.888	6.4
Total		13.964	100

These settlements differ in legality or land ownership, building materials, construction techniques, building height/density, and availability of physical infrastructure (such as electricity/sewage treatment system/road/water supply). They also differ in the exemptions provided by the master plan in terms of building codes and transfer of ownership (Bhan 2013).<sup>14</sup>

Researchers across various disciplines have been intrigued by the informal organizations and complexities of slums in urban India.<sup>15</sup> A large focus has been on the most detrimental and unfavorable living conditions of the urban poor in settlements identified as 'slums' and 'squatter settlements' (See for instance: Bhan 2009, and Datta, et al. 2012).<sup>16</sup>

While slums and squatter settlements primarily develop on encroached land, in contrast, unauthorized colonies have developed on privately owned land. Unauthorized colonies are developed violating the master plan zoning regulations. In most cases, they are developed on land

<sup>14</sup> The planning bodies' approach towards each settlement type differs with respect to the process and provisions of formalization.

<sup>15</sup> See, for example, Bhan 2009, and, Saglio-Yatzimirsky and Landy 2014.

<sup>16</sup> Urban poor are identified as the most vulnerable population group.

designated for agricultural purposes, bought from farmers, and sub-divided into smaller plots by private buyers<sup>17</sup>. In this thesis, I focus on the unauthorized colonies in ward 102S, as an example of these informally developed mixed income settlements.

### **Mixed-income informal settlements: Unauthorized colonies**

Singh et al. (2005, pg. 28) describe unauthorized colonies as a “strange urban phenomenon” due to the socio-economic heterogeneity within such developments, including the “middle and high-income groups” who hold legal titles of the land, even though the developments are in violation of the master plan envisioned by the state development agency. Even though unauthorized colonies are understood as lower middle-class or middle-class neighborhoods, they house a broad spectrum of people who live and/or work there<sup>18</sup>. This is the most distinctive aspect of these settlements. Unauthorized colonies offer affordable housing solutions, including (both owner-occupied and rental) apartments, rental rooms for the “working poor”, and even “elite single-family homes” (Bhan, 2013). However, the current literature does not adequately examine the heterogeneity across the resident population in such settlements.

According to the Census 2011 data, about 25 percent of the total population of Delhi resided in unauthorized colonies. In 2014, the then Delhi Deputy Governor Najeeb Jung was quoted as saying that nearly 30 percent of the population lived in such settlements (Sheikh and Banda, 2014). As the urban immigrant population grows, the percentage of the population living in

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<sup>17</sup> These settlements have emerged “within thirty years of independence,” (Delhi Development Authority 2007, p 36).

<sup>18</sup> At the locality level, the unauthorized colonies have resident welfare associations registered under the Co-operative Societies Act to represent the residents' interests. But does it include just the owners or the renters and other people living and working in these neighborhoods is a question beyond the scope of this research.



unauthorized neighborhoods is unclear. With the increase in the number of unauthorized colonies from a reported 1639 in 2012 to 1797 in 2020, the actual population share residing in unauthorized colonies can be estimated to be a large share of the city's total population.<sup>19</sup>

These settlements have uneven plot sizes and shapes, building height and densities, and are essentially mixed-use developments with residential, commercial, and religious spaces.<sup>20</sup> The physical characteristics of unauthorized colonies vary with the density, location, and financial status of residents.

Figure 1.5 is a schematic representation based on personal observation of the growth of an unauthorized colony in Delhi (called Abul Fazal Enclave). It shows the growth from an agricultural field to a plotted division by one or more private buyers, roads, and basic infrastructure laid out by the people themselves, and plots further subdivided as property rates increase. The result is a dense settlement with different shapes and sizes of plots and mixed-use development all within 40 years' time.

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<sup>19</sup> About 25% of the city's population estimated to be 3 million was living in unauthorized colonies by 1998 (Dupont 2004). The Unauthorized Colonies Cell of the Department of Urban Development of Delhi reports that almost 0.7 million families were residing in unauthorized colonies in 2014. The Economic Survey of Delhi 2017-18, 2018-19, and 2020-21 all list the population in unauthorized colonies as 4 million. There are no new officially issued data records.

<sup>20</sup> Mixed land-use pattern is a characteristic feature noted in traditional Indian cities. "The association of residential use with commercial and small-scale manufacturing activities is also observed in the urbanized villages, and in informal types of settlements: in the unauthorized colonies of the urban periphery, as well as—to some extent—in the squatter settlements." (Dupont 2004, pg. 161).

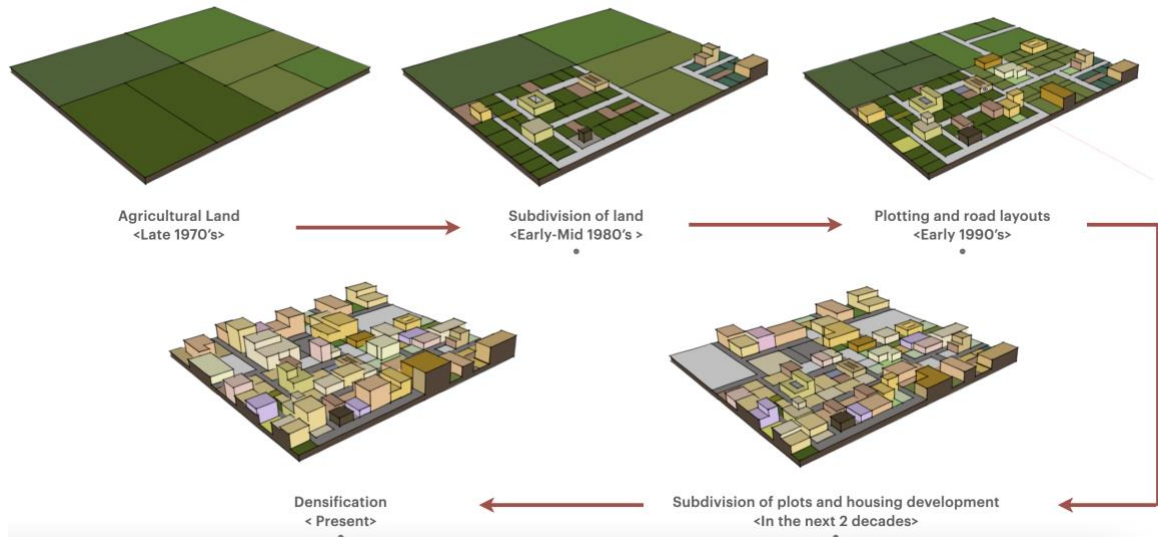


Figure 1-5: Schematic representation of unauthorized colony growth (Source: Author)

## Summary

To cater to the rising demand for housing, even though planning authorities have created master plans over the years, people have countered the planning by developing housing informally. All three master plans (“MPD 1982”, “MPD 2001”, “MPD2021”) envision what the city’s future growth should be like along with what measures it could take to control the informal developments that are simultaneously growing. In this way, the planning body is trying to plan while also reacting to developments already taking place.<sup>21</sup>

<sup>21</sup> According to the Economic Survey of Delhi 2018-19, almost 0.1 million people in-migrate to the city annually. To cater to the rising demand of housing, even with the Delhi Development Authority’s attempt to provide housing for different economic groups, informal developments have grown across the city, housing a considerable population share. The authority has drawn guidelines towards including the various informal developments into the planning framework. For unauthorized colonies the formalization process is called regularization.

Within the planning authority's formal-informal categorization, the unauthorized colonies remain poorly defined and understood as they continue to densify to meet the housing needs of the migrant population. The result is smaller plots, more vertical growth, and fewer open spaces within the settlements. The population residing in these settlements includes both the middle class and groups that do manual work for the middle class.

The Delhi State government has recently announced "schemes" (initiatives) to improve living conditions in unauthorized colonies and slums and for the "in-situ rehabilitation of slum dwellers" (The Hindu 2020).<sup>22</sup> According to "MPD 2021", the previous regularization initiatives have brought little improvement to unauthorized colonies, apart from the "de-facto tenure rights" received by the landowners and basic infrastructure provision (Delhi Development Authority 2007, pg. 36).

Recreation is essential for social, physical and mental health and well-being (Schallock and Kiernan, 1990; Schwarzenegger et al., 2005; Gulam, 2016). However, previous studies have reported an uneven distribution of recreational and open space in the city (Vagale 1962; Acharya et al. 2016; Kaur 2019). Acharya et al. (2016) highlight the need for studies on people's recreational choices in the lack of accessible recreational facilities in the city.

From the analysis of the master plan and the existing literature, we can infer that the informally developed settlements do not have open spaces designed for recreational purposes at the neighborhood level. Thus, the proposed initiatives (to improve living conditions in unauthorized

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<sup>22</sup> The agencies involved include the "Delhi Urban Shelter Improvement Board" (DUSIB), among others. DUSIB provides civic amenities and resettlement of slum settlements. Several studies have been undertaken in the past, including by the Delhi Urban Art Commission, to pilot studies to advise the local bodies on improving informally developed settlements. The DUAC plays a prime advisory role to the government planning and implementation bodies.

colonies) present an opportunity to seek insights into the heterogeneous resident population's preferences for social interaction and recreation spaces within and outside the settlement.

The research findings contribute to our understanding of the complexity and preferences of the social classes living in unauthorized colonies towards meeting their social and recreational needs. They also highlight the necessity for considering the needs of various socio-economic groups in the planning interventions at the settlement level and in open space planning at the city and district levels.

This thesis is organized into five chapters. The first chapter gives a historical overview of the planning approach by the state authorities and the informal growth of the city. The second chapter comprises the literature review and defines the various terms and concepts for this research. The third chapter presents the research questions, introduces the research setting, and describes the detailed methodology. The fourth chapter comprises the research findings while the fifth presents a discussion and conclusions.

## **Chapter 2**

### **Literature review**

This chapter introduces the various themes that contribute to this research, including the dichotomy of formal-informal development, and class as a socio-economic stratification system. Following this, it discusses public space perception as a site of social interactions as highlighted by authors in international and Indian settings. In the literature and planning documents reviewed, various terms are overlapping or unsuitable for the context of this research. This chapter defines these terms for this study and introduces the theoretical frameworks contributing to this thesis.

#### **Urban informality as a concept**

The notion of informal housing in India stems from a regulation or governance standpoint where the state or planning authority categorizes developments not conforming to the set guidelines and regulations as formal and every other form as informal. In her seminal works, Ananya Roy re-interprets the logic of informality as a “mode of metropolitan urbanization” (Roy 2005). Banks et al. (2020), further suggest that informality is not merely the absence of regulation; instead, it is constructed by the negotiations of a different set of rules by multiple actors who hold decisive powers such as the state and the elites.

Many researchers in urban development, sociology, and economics describe urban informality as a negotiation form. De Soto (1989) describes informality as a survival strategy that is an alternative path for development. Following which, Herrle et al. (2011) reflect on the

complexity of the different actors and sectors to understand informality along the dimensions of power, legitimacy, and resource negotiations.

Banks et al. (2020) take the discussion further and assert that urban informality is much more than the informal channels and strategies of the marginalized groups and includes aspects of political economy. They emphasize the need to identify multiple actors' roles in the decision-making process, governance, and power dynamics involved in formal-informal categorizations and development processes. Furthermore, they dwell on the idea of the advantages and opportunities availed by more privileged groups that fall under what they describe as the "selectively informal" category. Banks et al. (2020) reason that builders, politicians, developers, and even entrepreneurs use urban informality as a strategy towards their gain, and hence it is not restricted to the urban poor. This assertion is supported by the literature where authors discuss how in different contexts and groups involved, the state's approach towards instances of informality varies (Roy 2005; Roy 2009; Ghertner, 2008; Bhan 2013).

Asher Ghertner (2008), who has written extensively on subaltern urbanism and gentrification in post-colonial Delhi, questions the different stances of the state on two instances of violation of zoning laws.<sup>23</sup> Further, Roy (2005, pg. 149) argues that housing on encroached land such as squatter settlements and self-help housing on informally subdivided land both violate the land-use regulations, but the "divide here is not between formality and informality but rather a differentiation within informality."

The notion of middle-class informality as a transformation process beyond state control is an emerging area of inquiry in the domain of urban development and geography (Herrle and Fokdal, 2011; Schindler, 2016; Chien, 2019). An emerging discussion in urbanism is based on

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<sup>23</sup> Ghertner (2008) brings up the case of a slum demolition in Delhi that was demolished for encroaching on the river's floodplains, while modern developments (such as Akshardham temple and Commonwealth Games village) were granted an exemption by the state.

understanding the logic and functioning of informal communities instead of just focusing on their negative attributes (Yasser 2019; Ahrar and Staub 2020). Building on this line of thought, Gurran et al. (2020) describe informal housing as an affordable housing solution. (See Table 2.1)

There are various terms associated with such informal developments across the globe; for instance, planners and development professionals describe such settlements as ‘irregular’, ‘unorganized’, or ‘chaotic’ (See: Hall and Pfeiffer, 2000; Perry and Gaffikin, 2012). For the governance and law field, the terms are based on the legality or land tenure. In this case, the designation ‘illegal’ is used as a pretext for evictions based on political motivations and legal implications for a category of informal settlements in Delhi (Bhan, 2013).

**Table 2-1: Urban Informality Discourse**

	Domain	Group Focus	Emphasis	Author examples
1.	Urban planning, Law, Governance	As a governance/ planning nomenclature	Informality as a spatial mode of governance,  Housing without government’s guidance and approval,	Roy, 2003; Bhan, 2013
2.	Urban development, Sociology, Economics	As a form of negotiation between the people and state+ informal economic systems	Informality as a survival strategy/ as an alternative path for development  Power, legitimacy, and resource negotiations,  Informality as a process, rather than a product,	De Soto, 1989  Herrle and Fokdal, 2011;  Villamizar- Duarte, 2015
3.	Urban development	Development form	Informality as a chaos	Hall & Pfeiffer, 2000; Perry & Gaffikin, 2012

4.	Architectural Systems Engineering, Urbanist	Learning from informal settlements	Informal settlements as a functional entity,  Informal housing as an affordable housing solution	Yasser, 2019; Ahrar and Staub 2020  Gurran et al. (2020)
5.	Urban Planning, Social Welfare, & Geography	Informality as a mode of urbanism	Informality as an organizing logic, Informality as a way of life	Roy 2005  Alsayyad, 2004
6.	Urbanism, geography	Middle-class informality	Transformation process beyond the control of the state- 'tolerated' by the state	Herrle and Fokdal, 2011; Schindler, 2016; Chien, 2019

By referring to informality “as a new way of life,” Alsayyad (2004) redirects attention to the concept, conceptualizing informality at a broader level (not just associated with the marginalized communities). Building on this idea, and by understanding informality as “a mode of metropolitan urbanization” as suggested by Roy (2005), I do not restrict my focus on informality to slums, marginal population, and the poor. I investigate a category of informal developments that are mixed-income, unlike the segregated informal developments seen across the Global South.

In the next section, I briefly discuss the socio-economic stratification systems from a theoretical perspective to define the socio-economic groups in this research.



### **The Class groups: The middle class and the working class**

Class systems are an inherent stratification system across the world. The socio-economic classifications in Western, European, and Asian countries differ significantly based on the country's pre-existing social structure and the different economic class models on which they make the classifications. Many sociologists and economists have developed social class models ranging from a 3-tier system (Upper class, middle class, working class) in the United States to a more stratified 7 class system in the United Kingdom developed from the Great British Class Survey of 2013. In the latter, the seven class groups comprised the elite, established middle class, technical middle class, new affluent workers, traditional working class, emergent service sector, and precariat (See: Savage et al. 2013 on the finding of the British Class Survey).

In each of these economic class models, the middle and working class remains a recurring class group defined based on income, consumption, or occupation. The following section presents an overview of how the classes evolved from the colonial period to the present in India to understand social class groups in the research site.

#### **An overview: Colonial Period-Present**

In contrast to western systems, Indian society is characterized by stratifications based on class, caste, economic disparities, and socio-cultural diversity. India was under British colonial rule from the 17th to mid-20th century. While caste-based discrimination was a part of the Indian sub-continent, the colonial administrators conducted systematic hierarchical categorization for their

understanding.<sup>24</sup> As is the case with much of the colonial world, the period greatly impacted the country's social structure. Current day scholars have written about the politicization of caste by the British for their advantage (See: Berreman 1972). From these, we can perceive that the British formalized the pre-existing social caste system.<sup>25</sup>

To understand how class became understood in Indian society, we look back to instances of administrative changes during the British regime. In the late 18th century, the British introduced a new land revenue system. Under this system, instead of the land allotted to the '*zamindar*' (landowners) for collecting taxes (as was the case under the Mughal rule until before the British), the '*zamindar*' became the landowner. This person then employed workers on a wage basis as laborers.

These *zamindars* (landowners) received education from the colonial educational institutions and "fashioned themselves as the middle class" (Joshi 2017). In the same way, doctors, government servants, and teachers educated through colonial institutions used the English language as a "distinctive tool" to gain social recognition as the colonial middle class. (Aslany 2019, pg. 197). In this way, the middle class was a product of the colonial education system and patronage (Joshi 2017; Aslany 2019).

Between 1853-1910, the British developed a railway network in India to facilitate the growth of industries. These industries employed groups of people otherwise engaged in the agricultural sector. These industrial workers and waged laborers employed by the *zamindars* (landowners) constituted the working class during the colonial period.

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<sup>24</sup> The caste system is a hierarchical stratification system consisting of Brahmins, Kshatriyas, Vaishyas and the Shudras. The caste system is based on 'birth,' unlike the class system, which is an acquired status that allows social mobility.

<sup>25</sup> The system still exists today and is leading to conflicts in the Indian society. (See: Riser-Kositsky 2009 on the political intensification of caste).

The administrative changes were also followed by societal changes. Throughout the colonial period, the families of ‘British officials, merchants, and missionaries’ were posted in Indian cities. By the 19<sup>th</sup> century, a notable societal change was the master “*sahib*” or mistress “*memsahib*” relationship with the “servants” (used here for domestic helpers).<sup>26</sup> The British families were from middle to lower-middle-class backgrounds and could easily employ three servants on average in India. This was in contrast to their lives back in Britain, as they came from “lower-middle and middle-middle-class” families and could not afford the same lifestyle (Chaudhuri 1994).

Domestic servitude was not entirely a colonial construct. Even during the Mughal period, households employed workers for domestic services (Moosvi 2003). However, domestic servitude became a way of life for the British households and some Indian households, such as in the case of landlords who tried to keep stride with English education and services.<sup>27</sup>

Chaudhuri (1994) states that by the early twentieth century, the number of “servants” (used here for domestic workers) employed by British households declined. This was due to the availability of “modern conveniences” (such as running water and electric lamps and fans), making some domestic chores redundant in this period.

The contemporary literature identifies these domestic workers as belonging to the working class (Banerjee 2004). The working class also includes skilled and unskilled workers employed in industrial, agricultural, apart from domestic workers (Crane 2017).

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<sup>26</sup> There was an inherently gendered division of labor among the people employed by British families in their houses

<sup>27</sup> See: “Domestic service in precolonial India: bondage, caste and market” (Moosvi 2003)

### *The new middle class and working class in India*

India gained independence from the British in 1947. After Independence, the Indian government continued to grow the modern industrial sector. From 1947-1971, the middle class in India remained a small group. Post-1970's middle-class growth increased due to the capitalist economy (Roy 2018). Similarly, the migrant working class grew as the industrial sector grew post-1970s.<sup>28</sup>

The neo-liberal reform of the Indian economy (also known as economic liberalization) was initiated in 1991 by the then Prime Minister P. V. Narasimha Rao.<sup>29</sup> During this period, the discussion about class in India shifted to the growth of a 'new middle class' in the era of neoliberal globalization (Ganguly-Scrase and Scrase 2009).<sup>30</sup>

The studies focusing on the changing structure of this middle-class (post-economic liberalization in India in the early 1990s) suggest intergenerational social mobility in this emerging middle-class group. Thus, unlike the previously class-based dominant social classification system of Indian society, the new middle-class group is more socially diverse (Krishnan and Hatekar 2017). In other words, there is no fixed boundary of the new middle class, and social groups identified as working-class today can move to the middle class in the future. In this way, while the colonial middle class distinguished itself using the English language as a tool, the new middle class is more permeable, accessed through lifestyle choices and consumer culture.

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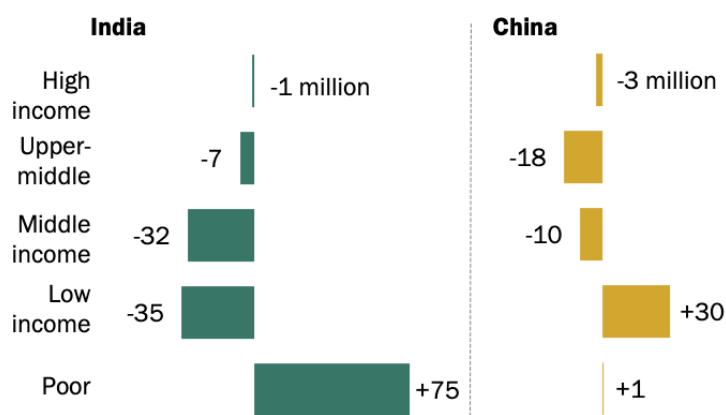
<sup>28</sup> The working class continues to be engaged in waged or salaried labor. Based on income and consumption brackets it falls within the urban poor and low-income category.

<sup>29</sup> In a recent journal article titled "The informal economy and India's working class" Crane (2017) states that "informality has been the norm for most of the world's working class throughout the history of capitalism."

<sup>30</sup> "During the eight-year period between 2004 and 2012, the middle class doubled in size from 300 million to 600 million. By 2015, the size of the middle class in India was between 300 and 600 million, according to Deutsche Bank Research. In 2015, fewer than 19 percent of Indians lived below the poverty line, nearly a 10 percent reduction from 22 percent in 2011." (Roy 2018)

The ‘new middle class’ comprises diverse professional groups, and a significant proportion of this class works on a salary basis (Aslany 2019). The Brookings Institution reported in 2011 that India’s middle class would escalate to be the world’s largest consumer market by 2030, “surpassing both China and the US.” Moreover, from 2011 to 2039, the population could add over 1 billion people to the global middle-class population (Gertz 2011).

However, as a result of the COVID-19 pandemic, in 2020-21, the Pew Research Center analysis used the “World Bank’s PovcalNet” database to find that the middle class in India (defined as people having an income of \$10.01-\$20 per day) shrunk by 32 million in 2020. This report also highlighted the increase in the poor tier (defined as people having an income of \$2 or less per day) by 75 million (Kochhar 2021). See figure 2-1.



Notes: The poor live on \$2 or less daily, low income on \$2.01-\$10, middle income on \$10.01-\$20, upper-middle income on \$20.01-\$50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. The estimates show the difference in the number of people in an income tier based on pre-pandemic projections and post-pandemic estimates. The term “post-pandemic” refers to the period since the onset of the pandemic in January 2020. It is assumed there is no change in the income distribution from the benchmark year for the projection to 2020.

Figure 2-1: Change in the income tier figures of India as compared to China (in millions), Source: Pew Research Center analysis of the World Banks PovcalNet database, Retrieved on March 18, 2021 from <https://www.pewresearch.org/fact-tank/2021/03/18/in-the-pandemic-indias-middle-class-shrinks-and-poverty-spreads-while-china-sees-smaller-changes/>

With the COVID-19 global pandemic, the estimates report a considerable increase in the number of people falling below the poverty line in 2020 and hence further exacerbating the spatial representation of poverty in urban areas<sup>31</sup>. The economic implications due to the loss of livelihood on the migrant working class (both in the urban poor and the low-income groups) have forced these groups of people to either put themselves at risk and do odd jobs for the upper- and middle-class groups or join the mass-scale reverse migration from cities to rural areas.<sup>32</sup>

### **The Dilemma: Defining the socio-economic class for this research**

#### **The middle class**

Over the past two decades, the middle class has been defined differently by national agencies and researchers based on the income or consumption ranges (See Table 1). For instance, the National Council of Applied Economic Research (NCAER) defines the new middle-class as

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31 Over the past years, many studies have tried to define the poverty cut-off point through empirical studies based on minimum household expenditure/income data. The World Bank defines the international poverty line as being less than or equal to \$1.90 per person per day (based on 2011 purchasing power parity). In India, according to the Government of India Planning Commission's report of the Committee of Experts, the monthly per capita consumption expenditure in urban areas is estimated to be about \$18 or ₹1,400, which comes down to only \$0.6 or ₹47 per day.<sup>31</sup> In addition, based on this poverty line cut off, the committee reported that there were 102.5 million urban poor in 2014 (Rangarajan 2014). This established poverty line (with expenditure levels separate for the rural and urban areas) is lower than the international poverty line set up by the World Bank (2015).

32 As a result of the pandemic, Indian cities are facing a phenomenon of reverse migration from major cities like Delhi to smaller city areas. This (never seen before), urban to rural migration in India is set to ensure greater challenges in smaller cities having high unemployment rates, and low-income jobs.

those earning between \$11- \$55 per capita per day<sup>33</sup>. Similarly, the Asian Development Bank (2010) defines the ‘new middle-class’ as those earning between \$2- \$20 per capita per day.<sup>34</sup>

Other researchers basing their definitions on the status and class identity, such as Krishna and Bajpai (2015), have defined the new middle class based on ownership of assets such as motorized vehicles and air conditioning systems. Other defining criteria are the spending capacity, of which the most accepted being \$2- \$10 per capita per day<sup>35</sup>(Banerjee and Duflo 2008; Krishnan and Hatekar 2017). See Table 2.1 on the classification basis of the new middle-class by various authors in the context of India.

**Table 2-1:** Classification basis of the new middle class as given by different author groups

	Classification Basis	New Middle-Class definition	Authors
1.	Earning	Those earning between \$11-\$55 per capita per day. (In 2005 PPP)	National Council of Applied Economic Research (NCAER)
2.	Earning	Those earning between \$2-\$20 per capita per day. (In 2005 PPP)	Asian Development Bank, 2010
3.	Earning	Those earning between \$10.01-\$20 per capita per day as middle income and those earning \$20.01-\$50 as upper-middle income. (In 2011 PPP)	Pew Research Center (Kochhar 2021)
4.	Status and class identity	Based on ownership of assets such as motorized vehicles and air conditioning systems	Krishna and Bajpai, 2015
5.	Spending capacity	\$2- \$10 per capita per day (1993 PPP)	Banerjee and Duflo 2008; Krishnan and Hatekar 2017

<sup>33</sup> In 2005 purchasing power parity (Prabhu 2020).

<sup>34</sup> In 2005 purchasing power parity.

<sup>35</sup> In 1993 purchasing power parity.

The 'new middle class' has received undeterred attention from economists due to its increasing size and the class group's consumerist tendencies, yet no single definition nor a basis for categorization is universally agreed upon. Moreover, through the literature review on the class groups based, we realize that the on-ground conception goes beyond class groups' connotation based on income level and material ownership. The definitions reviewed in the literature are broad, failing to consider the relationship and intergenerational mobility between the different class groups.

In Delhi, a considerable share of this migrant population is housed by the informal developments. Unauthorized colonies have a range of housing options, including (both owner-occupied and rental) apartments, rental rooms, and even single-family homes. Hence, the resident population is occupationally diverse. In unauthorized colonies, the property owners and renters come from varied income groups and are employed in formal or informal jobs.<sup>36</sup> Due to heterogeneity observed within these mixed-income settlements, we define the middle class based on their 'living arrangement,' income and occupation.

For the purpose of this research, we adapt Pew Research Center's definition to define the middle class as those having an income of \$10.01-\$50 per day. We do this by grouping the middle-income and upper-middle-income categories (See Table 2.2).

We understand the middle-class residents as those belonging to households that either own or rent residences, in which at least one person is either self-employed (such as business owners) or works on a salary basis as a white-collar worker (such as teachers, professors, doctors, and office workers) having an income in the middle-income tier.

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36 These middle-class residents range from teachers, business owners, and office workers. The resident groups may also include working-class groups, including self-employed workers, casual labor, and domestic workers (including different occupations within the same household). The latter of which is commonly assumed to be residents of squatter settlements and slums.



**Table 2-2:** PEW Research Center’s income tier (All dollar figures are expressed in 2011 prices and purchasing power parity dollars)

<b>Class group</b>	<b>Income tier</b>
Poor	\$2 or less daily
Low income	\$2.01-\$10
Middle income	\$10.01-\$20
Upper-middle income	\$20.01-\$50

### **Urban poor or low-income: How to categorize domestic workers?**

With the change in lifestyle and alternative services available, having multiple domestic workers is not seen as a necessity in modern-day cities; however, domestic workers are still employed in middle-income households in urban India today<sup>37</sup>. According to the “WIEGO Policy Brief No 21” a typical domestic worker earns about \$125 a month. But may also earn as less as \$56 a month (less than \$1.9/day).<sup>38</sup> Based on the above definitions, a domestic worker may belong in the urban poor or the low-income category (See table 2.2).

In Delhi, domestic workers may be employed as live-in, part-time, or even service-based waged workers. As the term suggests, live-in maids stay within the employer’s households in separate servant quarters or common areas. Part-time maids work for multiple households and are responsible for their accommodation. Lastly, service-based waged workers work on a per-hour or verbal contract basis for a specific service, such as washing clothes or taking care of the sick.

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<sup>37</sup> Domestic workers are wage-based workers employed to perform household-based services, such as cleaning, caring for the elderly and children, and performing domestic duties required by the employer.

<sup>38</sup> These findings are based on data collected through interviews and surveys of 176 domestic workers in the Delhi National Capital Region.

Apart from the owners and renters, many households living in unauthorized colonies may or may not directly pay rent. For instance, many households and apartment complexes hire guards. These guards live in one-room quarters on the property itself. Sometimes the guards may also live with their family members, who may be employed in other domestic services within or around the neighborhood.<sup>39</sup> This sets up a tradition of having working-class groups living alongside and serving the resident population within unauthorized colonies.

In this research, building on Gooptu (2001), we understand the urban poor and low-income migrants' groups based on their occupation and living situation rather than solely their income or consumption ranges. Furthermore, the term working class covers distinct groups, including but not limited to seasonal migrant workers and interchangeable groups of workers in the public and private sectors, low-paid manual workers, street vendors, daily-paid workers, and domestic workers.<sup>40</sup>

Recognizing the heterogeneity among the working groups (including domestic workers and guards) that may fall in the urban poor or low-income category. I introduce the term 'serving class' as comprising people that provide domestic services and are employed by middle-class residents (I understand the latter as the class that is financially able to avail themselves of their services).<sup>41</sup>

The former works on an informal basis (i.e., without a contract) as a domestic worker or as a day laborer, while the latter works at a salaried job or is a dependent of someone working at a salaried job and can employ domestic on a daily or semi-regular basis for domestic services. In this

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<sup>39</sup> With the increasing demand for housing, as the number of apartment building development increasing in unauthorized colonies, the number of security guards hired by the residents is also increasing.

<sup>40</sup> There are different figures reported for the number of domestic workers in India. The estimates range from four million official estimates to 50 million unofficial estimates by Thomson Reuters Foundation (Srivastava 2021). "According to official estimates, more than four million people are employed as domestic helpers, often for very little money, in middle-class and affluent Indian homes. Unofficial estimates put that number at a whopping 50 million. Two-thirds of these workers are women." (Srivastava 2021)

<sup>41</sup> I base my definition on the employer-employee relationship between the residents within the mixed-income settlement

respect, the serving class includes domestic workers, drivers, day wage-based workers, and guards in this research.

### **Recreation and social interaction**

The next knowledge area that frames this research is recreation and open public space as a site of social interactions. The following section gives an overview of recreational space planning. It then defines recreation in the context of this research and categorizes recreational spaces based on the fee structure in Delhi. Lastly, it discusses previous studies examining open public spaces as social interaction sites to identify the tools and methods used for these studies.

### **Background**

Recreational space planning is not a modern-day concept; open spaces such as gardens and sports areas were designated for a range of recreational activities even in ancient civilizations. A few examples of open spaces include private parks and gardens owned by the nobility and wealthy in Ancient Egypt, royal parks for hunting parties and gatherings in Ancient Assyria and Babylonia, and cultural activity spaces such as parks, amphitheaters, and stadiums in Ancient Rome (Theobald 1984; McLean and Hurd 2011).

According to Theobald (1984), open spaces such as parks were intended for the privileged class use and were privately owned in Europe until the end of the Renaissance period. The elaborate gardens were a part of estates and served as a status symbol (Taylor 1998), and only some estate gardens were open for public use (McLean and Hurd 2011).<sup>42</sup> By the early 17th century, parks were

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<sup>42</sup> The three most prevalent types of parks in Europe during the late Renaissance period were: royal hunting preserves, French styles gardens, and English garden parks (McLean and Hurd 2011).

designed and supported by the “upper class” outside London, and the admission fee limited the groups of people that could access these spaces in their leisure time.

However, town planning initiatives also included open space planning for the working class after the Industrial Revolution. For instance, in England, by the mid 19<sup>th</sup> century, the administration developed public parks for social and political reasons in major industrial towns for the welfare of the working class who were living in congested and dense areas. Ironically, the interest of the middle class and the rich also played a role in these developments. The privileged class groups expressed concerns over the “uneducated and poor” proximity and felt that the poor could benefit from their “civilizing influence” (Taylor 1995, pg. 202).<sup>43</sup>

By the 19<sup>th</sup> century, urban parks as recreational spaces were specifically designed for public use in European and North American cities. Even in Japan and China, the existing city-scale parks and gardens became accessible to the general public in the late 19<sup>th</sup> century to early 20<sup>th</sup> century (Stanley et al., 2012). During this period, “new forms of commercial amusement” such as shooting galleries, bowling alleys, and amusement parks also grew in larger cities (McLean and Hurd, 2011, pg. 70).

Town planning initiatives incorporated open-space planning at different scales by the late 19<sup>th</sup> to early 20<sup>th</sup> century. For instance, in the United States, parks at the national, state, and municipal level were well established by the early 20<sup>th</sup> century (McLean and Hurd, 2011).

However, recreational spaces such as parks and gardens were designed for the public, even in Ancient India. According to Singh (1976), there were two types of gardens during this period. Similar to the European context, the first type was designed adjacent to the royal palaces. However, the second type was intended for the public for recreational use and cultural activities. The latter

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<sup>43</sup> In other words, cultural refinement of the working class and poor.

were usually located outside the town.<sup>44</sup> Even during the Mughal empire, the rulers and nobility commissioned gardens for both private and public use. The Mughal gardens usually had a lower terrace level for the public (Rehman and Akhtar, 2007). The Mughal emperors and royals also commissioned tomb gardens and structures, some of which are still used as city-scale parks for recreational purposes today.

During the colonial period, the British made interventions in the existing Mughal era gardens for their intended use (Sharma 2007). Post-independence, recreational space planning was done by planning agencies at the state level. For example, in present-day Delhi, the state planning body develops open spaces for recreational purposes at regional, district, and neighborhood levels.

### **Defining recreational space in today's context**

Recreation is commonly defined as the activity people engage in their free time for restoration and enjoyment (Hurd and Anderson 2011). The space in which these activities take place becomes the recreational space. In the Delhi master plan, the term recreational area planning has been used for open space distribution for the development of regional parks, district parks, local parks and playgrounds, and even picnic spots. However, the term 'recreational space' is often used more broadly in the literature, sometimes in contrast to and sometimes synonymous with "leisure space".

For instance, in the "Park & Recreation Professional's Handbook" Hurd and Anderson (2011) state:

"There is some consensus on the definition of recreation. Recreation is an activity that people engage in during their free time, that people enjoy, and that people recognize as having socially redeeming values. Unlike leisure, recreation has a connotation of being morally acceptable not just to the individual but also to society as a whole, and thus we program for those activities within that context. While recreation activities can take many forms, they must contribute to society in

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<sup>44</sup> These gardens had orchards and water systems such as reservoirs, tanks, and wells Singh (1976).

a way that society deems acceptable. This means that activities deemed socially acceptable for recreation can change over time...The specific activity performed is less important than the reason for performing the activity, which is the outcome.... Participants hope that their recreation pursuits can help them to balance their lives and refresh themselves from their work as well as other mandated activities such as housecleaning, child rearing, and so on.”

In another paper focusing on the need and importance of recreation, Gulam (2016, pg. 157) state:

"Recreation means leisure activities chosen by an individual for the purpose of improving his life and living. These activities are of a constructive nature. They are not time-consuming but time-using. They are healthy-physically, mentally and socially... Recreation is concerned with those activities performed by an individual during leisure time or at hours not at work. Hence it is frequently referred to as leisure-time activity.”

Mokras-Grabowska (2018, pg. 219) describes recreational space as areas using “geographical and recreational infrastructure” for leisure activities including physical, social exchanges, and entertainment. From the literature, we can understand recreational space as the physical setting in which people engage in recreational activities (social or physical) in their leisure time (Gulam 2016; Mokras-Grabowska 2018).

Previous studies also stress on the importance of recreation for social, physical and mental health and wellbeing (Schalock and Kiernan, 1990; Schwarzenegger et al., 2005; Gulam, 2016). Gulam (2016, pg. 158) describes recreation as a “fundamental human need” that “contributes to human happiness” and health. For residents in high density city areas, open spaces such as urban green promote social interactions and the well-being. (See: Paul and Nagendra 2017; Kabisch 2019). However, many researchers also identify designed areas such as parks and squares and

consumer areas (such as shopping centers and malls) as spaces where recreation and leisure occur (Cvetković, et al. 2018; Rault et al., 2018).<sup>45</sup>

Hence, we can argue that recreation and leisure activities are not just limited to physical pursuits in parks and city greens but also include passive engagements and interactions in public spaces within residential neighborhoods. The activities in such spaces include physical and social pursuits, individual or group-based activities, and even indoor activities done for relaxation. Moreover, we can infer that apart from the urban green spaces, consumption spaces such as shopping malls and markets also serve as sites for recreation and social engagements (Cvetković, et al. 2018; Rault et al., 2018).<sup>46</sup>

### ***Fee structures of Delhi's recreational and leisure spaces***

This research categorizes spaces based on their entrance criteria as those with free or paid entry to understand if preferences when selecting spaces for social interactions and recreation vary for different user groups (in this case, the middle class and serving class groups in unauthorized colonies).

Recreational spaces that require admission for access can be owned by a municipal or other state agency or private foundations. These agencies charge an admission fee for the upkeep of the premises. Examples of such paid spaces are protected monuments, theme parks, and amusement parks. Some privately owned spaces also require a membership, such as golf courses, polo clubs, sports clubs, and are for a selected section of the society who can afford the time and money for

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<sup>45</sup> Shopping malls represent spaces designed for a clientele that can afford to spend time and money on leisure-based activities and services.

<sup>46</sup> Shopping malls in Delhi account for 39% of the total mall space in India (Rault et.al 2018)

such leisure-based activities. Some public spaces have a more symbolic significance, such as Jantar Mantar in Delhi, where people often gather for major civic protests.

Spaces without entry fees include city greens such as state-owned parks, forests, biodiversity parks, city squares, playgrounds, neighborhood parks, and certain monuments. Among the spaces that allow free entry, it is to be noted that these consumption-based spaces are designed to encourage users to spend money on activities, merchandise, and food, such as shopping malls and nightclubs. The open public spaces also include streets, markets, and open greens.

### **Public space as a site of informal social interaction**

Many researchers have focused on user groups' behavior and social interaction in urban public areas in Europe and North American cities. Some of these include urbanists such as Amos Rapoport (1970), William Whyte (1980), and Jan Gehl (1987), and who based their research on human behavior in an urban setting and argued that the physical attributes of space influence the use of public spaces.

In the literature reviewed, the various methodologies and tools used by researchers for the study of urban public space study include time-lapse photography (Whyte 1980), field observations, including the use of tools such as counting, mapping, tracing, tracking, photography (Gehl and Svarre 2013), and behavioral /activity mapping (Gehl and Svarre 2013; Rasouli 2013; Aelbrecht 2016; Anderson et al. 2017) and GIS analysis (Rasouli 2013). The ethnographic interviewing methods also include photo-elicitation (Aelbrecht 2016). The survey methods include printed questionnaires in a natural setting (Anderson et al. 2017) and online surveys as methods for data collection.

Whyte's book "The Social Life of Small Urban Spaces," a derivative of the Street Life Project's findings in 1980, examined the human behavior and dynamics in urban spaces. The



project's methodology included time-lapse photography as a tool to study what characteristics resulted in successful public spaces. The research findings show that certain physical characteristics draw more people, making some public spaces function better than others.

Whyte (1980, pg.63) argued that "the way people use a place mirrors expectation," based on which he calls attention to their social needs. The study sites included both 'formally planned spaces,' such as plazas and city parks, as well as 'informal recreational areas' such as city blocks. The research shows that tools such as observations and interviews can be used to study user behavior in public spaces. This study also shows that the patterns of public space use differ for men and women.

The concept of space and urban space analysis has been approached in several interesting means. Gehl, in his book, "Life Between Buildings," investigates the social needs of communities by linking public spaces with quality of life. He examines the spatial properties of the physical environment, pedestrian flows, and social interaction in public spaces. Gehl introduces the concept of necessary, optimal, and social activities (Gehl 1987).

Gehl (1987) describes everyday activities that are independent of the exterior environment as "necessary activities". These include everyday tasks such as people going to work. He further describes activities requiring at least an optimal physical environment quality, such as recreational activities including morning walks, jogging, outdoor sports, and exercise as "optional activities". He describes "social activity" as the fruit of the quality and length of other activities in public spaces since they occur when people meet. The social activities include everyday greetings, children playing, people watching, conversing, listening, and other communal activities.

In the book "The Great Good Place", published in 1989, Ray Oldenburg (1997, pg. 6) coined the term "third places" as an "informal public gathering places." Oldenburg describes the third place as a place where people gather to interact and engage in conversations. This conceptualization is based on the idea of "first place" as one's home and "second place" as the place

of work. Some examples of the third place include cafes, hair salons, bookstores, and even "hangout spaces." According to Oldenburg, third places are free or inexpensive and easily accessible to people from different income brackets.

In a recent article, Patricia Aelbrecht introduces the concept of "fourth places" as an additional category of informal social settings alongside 'third places' (Aelbrecht 2016). She describes the fourth place as

" a type of informal social space closely related to 'third places' in terms of social and behavioural characteristics, in their differentiation from the routines of work or home and in their inclusivity. However, in all other aspects, they are very distinct – they are more mixed relational locales, whilst their locations, activities and spatial conditions are characterized by 'in-betweenness' and great publicness."

In this sense the fourth place is the "leftover spaces" where the primary activity is the "in-between activities" such as waiting and people-watching. The author based this theorization on the public spaces of a "new planned neighborhood" in Lisbon, noting social encounters at thresholds of shopping centers, edges of terraces and steps, paths, nodes, and props such as sculptures. While the study context is drastically different from our research context, the notion of fourth places contributes to our methodological framework.

In the Indian context, researchers highlight the meaning and relevance of open public spaces for different user groups towards meeting their social needs (Bhowmik 2010; Vanka 2014; Shafique and Majid, 2020).

Vanka (2014) examines the conceptualization and contestations of urban space by different social groups in Bangalore. She discusses three cases involving contestations between three social groups and the state for public spaces. These cases include the *Dalits* (a traditionally marginalized community) fight to retain public sidewalk for their occupational needs, the middle-class activism against cutting trees, and the elite class dispute against changes to a local playground. All these contestations are in response to planning interventions by the state. But combined, they highlight

how different social groups of city dwellers re-negotiate the public spaces' meaning and relevance in their everyday lives.

Bhowmik (2010) describes public space as a valuable resource for the urban working poor for their livelihood and social relations, basing the study site in Mumbai. She describes the control over public space as the control over the working poor who depend on the space for their livelihood and social relations. She defines public space spaces as “all physical spaces and social relations that use the space within the non-private realm of the city” (Bhowmik 2010, pg. 182).

Shafique and Majid (2020) identify the factors of social interactions in the Indian context in open public spaces as ‘user needs, user behavior, and social needs.’ They suggest that user needs include places and facilities for these interactions. User behavior is not just that of an individual but also user groups and the “microclimate for social interactions.” The primary study site for this research includes three district centers in South Delhi, and the data collection was done through surveys. The research findings show that ‘user behavior’ has the most substantial influence on social interactions in public space, followed by ‘social activity and user needs.’ The study findings contribute to our understanding of the factors that influence social interactions in open public spaces in Indian cities.

## **Summary**

In summary, the literature shows that apart from ‘formally designed spaces’ such as parks and gardens, open public spaces such as streets also serve as a site of social interaction. The notion of “third places” as a space easily accessible and having free or inexpensive entry (Oldenburg, 1997) and “fourth places” as a category of informal social settings (Aelbrecht, 2016) shows that locally accessible public spaces can also serve as site of social interaction and relaxation.

Previous studies show that open public spaces have different meanings and relevance in the everyday life of social groups (Vanka,2014; Bhowmik, 2010). In mixed-income informal developments, different socio-economic groups share open public spaces, while the residents can also access the spaces designed for recreational and leisure purposes outside the neighborhood. However, the current literature does not identify the difference in recreational space usage by different socio-economic groups residing within such informally developed neighborhoods.

### **Theoretical framework: Pierre Bourdieu's theory of taste**

French sociologist Pierre Bourdieu, in the book “Distinction: a social critique of the judgement of taste,” dwells on the idea of taste as a marker of class.<sup>47</sup> Bourdieu (1984), points out that higher class groups use “distinction” to differentiate themselves from lower-class groups. He proposes that the higher social groups employ cultural capital (understood as non-financial assets/ symbolic wealth such as knowledge, educational qualifications, skills, repute, social origin) to differentiate themselves. He also acknowledges the uneven access to resources among these distinct social groups based on the economic (financial assets), social (such as affiliation with family, school, or political party), and cultural capital.

Bourdieu’s book results from his empirical research on French culture.<sup>48</sup> According to Fernandes (2006), the Indian middle class constantly attempts to define itself while negotiating with external influences such as westernization, unlike Bourdieu’s middle-class in France. In this

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<sup>47</sup> In this context, taste is understood in terms of individual choice and preferences.

<sup>48</sup> While this book results from Bourdieu’s empirical research on French culture, it is recognized as one of the most significant theoretical contributions in sociology towards understanding taste within society beyond economic aspects.

way, post 1990's the Indian middle class fashioned themselves as "modern" while keeping away from the "so-called western modern" (Utsa 2014, pg. 14).

Previous studies focusing on the distinct traits of the Indian middle class have drawn on Bourdieu's theory to draw attention to the groups "consumption culture" (Fernandes 2000), "fluid boundary" and possible social mobility (Fernandes 2004), and the "role of taste and consumption in the self-fashioning of the middle-class" (Utsa, 2014). According to Fernandes (2000, pg. 89), the "newness" of the new middle-class group in India is based on 'the social practice of taste' reflected by this group's material pursuits and commodity consumption culture.<sup>49</sup> Fernandes (2004, pg. 2418) further remarks that social groups can "gain membership" in the new middle-class group by acquiring 'social capital'.

In this research, I draw on Bourdieu's theory (which asserts that everyday taste is an indicator of distinguishing the social groups) to analyze the preferences of the two groups (the middle class and the serving class) towards meeting their recreational needs.

In this research, I first examine the open space use of residents within a mixed-income informal settlement. Then, I analyze the recreational space preference as reported by the social groups. In this way, the research aims to investigate the choices (for recreational or social purposes) that make the two class groups distinct and the choice of space where the two groups intersect. The intent is to examine the lifestyle choices and needs of the diverse resident groups residing in mixed-income informal developments such as unauthorized colonies.

In the next chapter, I describe the research question, the research setting for the primary data collection, and the research methodology.

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<sup>49</sup> Media and advertisements played a crucial role in creating this image of the new middle class based on material ownership and aspired people to indulge in this consumption culture to be a part of this group (Fernandes 2000, pg. 89).

## **Chapter 3**

### **Research methodology**

This chapter discusses the data collection methods and analytical methods used in this research. In this chapter, I start by introducing the research setting for primary data collection. I then describe the methods and tools for data collection and data analysis.

### **Research question**

This research aims to answer the following question: What kind of spaces are used for social interaction and recreation by middle class vs. serving class residents of an informally developed mixed-income settlement?

For this purpose, I use the term ‘serving class’ as comprising people that provide domestic services and are employed by middle-class residents (I understand the latter as the class that uses their services). This research investigates the residents’ use of open spaces within a mixed-income informally developed settlement for recreational and social interactions. It also analyzes their choices of formally developed recreational places they visit outside the neighborhood for the same purpose to examine the lifestyle choices and needs of the diverse resident groups.

I hypothesize that in unauthorized colonies, defined here as mixed-income informally developed settlements, the middle class chooses/uses spaces within their homes or in areas defined as recreational by western standards (such as parks) and spaces of consumption and leisure (such as shopping malls) for recreational purposes. In contrast, the serving class engages more in informal socialization and recreation in spaces not formally designed for such uses.

I further hypothesize that the informal social interactions between the two groups (middle class and serving class) within the settlements occur in areas where informal exchanges of goods and services occur, such as local markets, street junctions, and transit nodes and that these informal exchanges are an essential part of the economic and social functioning of these communities.

### Research setting



Figure 3-1: Location of research site

As a case study site, I chose a cluster of unauthorized and ‘regularized’ unauthorized colonies in southeast district of Delhi within Ward no. 102S (See Appendix C for the ward map). Two major road networks surround the settlement. The *Kalindi Kunj Road* and *GD Birla Marg* both connect Delhi to Uttar Pradesh. The *Kalindi Kunj Road* intersects with the *Hari Kothi Road* at a major transit node near the metro station (mass rapid transit system). The *Hari Kothi Road* transitions into *Allama Shibli Nomani Road* as a secondary road to *GD Birla Marg* at the *Jasola puliya* (See figure 3.2).

The settlement comprises of three neighborhoods<sup>50</sup>: Nai Basti, Abul Fazal Enclave, and Shaheen Bagh. Within this site, Nai Basti (previously known as *Harijan Basti*) is the oldest area, followed by Abul Fazal Enclave that emerged post-1970's, and Shaheen Bagh being the more recent development mostly developed post-1990's (Ahrar, 2018).



Figure 3-2: Research site setting (Base map source: Google Earth, 2020)

I selected this as the case site for three primary reasons. The first is its location (See figure 3.2). This settlement lies along the city's periphery. It is accessed by major roads connecting Delhi to Noida. Being a well-connected site, it draws people of varied occupational backgrounds to live near a central university (Jamia Millia Islamia) and Noida (Delhi's satellite town).

Second, having developed post-1980's, this settlement represents the fast-paced urban growth and densification occurring in Delhi (See Figure 3.3). Third, this settlement grew on agricultural land subdivided by landowners toward the periphery of Delhi, in violation of the state

<sup>50</sup> Called colonies in Delhi



master plan. So, unlike slum and squatter settlements, the land is privately owned.<sup>51</sup> The settlement is home to mixed-income residents (belonging to different income range brackets), which is the most important criterion for the site selection.



Figure 3-3: Note that in this area within the settlement, in the space of 17 years the agricultural land has completely disappeared, the buildings have added floors, and the built density has considerably increased (Top map: google earth 2002, bottom map: google earth 2019)

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<sup>51</sup> The housing includes rented and privately owned residences. But the land ownership is still private, unlike slums and squatter settlements that are mostly developed on encroached public land,

It is difficult to find structured data for unauthorized colonies in Delhi. The Delhi state elections online database lists the population for the ward 102-S in 2017 as 61,361. However, the actual population is higher as the electoral population does not take into account the migrant population and other categories ineligible to vote (such as the population below 18yr). Due to the discrepancy in the population data from different data sources, I do not detail out the demographical information such as population and gender ratio for this study site.

### **Data collection and analysis procedure**

To develop an understanding of the formal planning and informal developments in Delhi, I analyzed the three master plans for Delhi. For the case study primary data collection, I used a mixed-method approach including observations and surveys.

The colonies selected are a part of Jamia Nagar residential locality. I had earlier studied the impact of the mass rapid transit system passing through this locality and prepared a land-use map and collected photographs of the area in 2018. Before the field visit, I used Google Maps, land use map, and previously collected images of the settlement area to identify potential physical locations for documenting activities during the fieldwork. I divided these potential areas into three categories: edges and nodes along the settlement periphery, market spaces and street nodes within the settlement.

### **Observations**

In a field visit in February 2020 (before the Covid-19 pandemic), I conducted nonparticipant field observations to document how people use spaces within and around the settlement. While observing the activities, I focused on the following aspects: What kind of social

and recreational activities were people engaging in? What were the physical settings for the said activities?

The settlement periphery has a mixed-use land use with the street lined with storefronts and workshops. During my fieldwork, I moved along the settlement periphery marking the clusters of commercial uses and using a phone camera to take pictures and make videos. The duration of my field work coincided with an ongoing protest along GD Birla Marg along Shaheen Bagh (See Appendix D for photograph and location). This influenced the node selection, and internal street selection for detailed documentation of activities. Based on the active use observed, I selected a major transit node, a street edge, a market area, and a commercial street within the settlement for detailed observations.

For mapping the activities for the selected edges and node along the settlement periphery, I overlaid google maps (reduced opacity) with the open street map and made smaller cutouts of selected activity areas to paste them on a small sketchbook<sup>52</sup>. I initially listed the activities under the three categories of activities defined by Jan Gehl (1987) as necessary, optional, and social activities. I later grouped the activities based on the user groups and the time spent by an individual at the location.<sup>53</sup> I documented the activities once on the weekend and again on a weekday. The timings included early morning between 8-10 am, afternoon between 1-3 pm, and evening between 6-8 pm. The morning and afternoon hours include the time people commute to and from work and school.

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<sup>52</sup> The open street map only had the major streets marked and the buildings missing, much like any other informal development in the city.

<sup>53</sup> For example, I listed pedestrians passing through a node stopping for 5-30 minutes to engage in commercial activities or interact with other commuters as short-term users. I listed people spending more time, such as those sitting in groups conversing along the street edge, as long-term users.

For the market spaces and street nodes, I took photographs and notes to document the different activities. The observation timings at these locations included hours between 10-12 am, afternoon and evening between 4-6 pm. Within the settlement, I tried to blend in with the crowd and avoided using a camera for taking photographs of internal streets. Instead, I used the phone notes app to write the description of activities and the characteristics of the place they were occurring at. After the fieldwork, I produced maps from the observations to descriptively study the interactions documented and spatial characteristics of the activities listed.

I planned to conduct a follow-up visit in June 2020. During this longer fieldwork, I planned to conduct data collection through a photo-voice method. The photo-voice exercise was designed to determine which spaces participants use for their social and recreational needs. The photographs collected by the participants and the semi-structured interviews would allow us to document and understand the perspective of different socio-economic groups selected for this study. However, because of the COVID-19 pandemic and resultant multi-stage lockdowns in Delhi, I could not conduct the follow-up fieldwork or ask residents to take photos of the public spaces they use. For this reason, I switched to a survey-based format for data collection.

### **Survey and phone interviews**

Based on the behavioral mapping done during the field visit in February 2020, I developed a 17-question Qualtrics questionnaire (a web-based survey tool). It including text entry, multiple choice, and matrix table question type questions (See Appendix E for questionnaire).

### *Survey design*

The demographic questions (such as age bracket, gender, income range, residence ownership) were asked as multiple-choice questions. I used a matrix table and multiple-choice questions on the spaces used for recreation and social interactions. For the latter, the respondents were prompted to fill in blanks (such as the name of the parks or malls they visited). The same was done for open-ended questions such as “what types of activities do you pursue there?” and “what does this space offer you.”

As I conducted the surveys during the COVID-19 pandemic, I was mindful that the lockdown and restrictions would likely change the daily activities and public space use. Hence, I divided the survey to include questions on activities before and during the COVID-19 pandemic. This added an additional component of change in lifestyle and constraints of the resident groups. It also helped analyze the data collected during the pre-pandemic field visit and the responses reported by the people during the pandemic.

After receiving IRB approval, I conducted ten pilot surveys between October and November 2020. The respondents included graduate students, office workers, and homemakers in the age bracket of 24-65 years. The object of the pilot survey was to test the survey questionnaire for clarity and completion time by participants with different levels of experience in using phones and laptop devices for this purpose.

Based on the feedback received from the respondents, I revised the survey questionnaire to simplify terms, reducing options in demographic questions, and instead use a fillable ‘other’ as an option. I also modified it to make the form more user-friendly for handheld devices as 70% of the respondents preferred using mobile phones instead of laptops/computers for filling in the form.

The respondents (particularly female) were reluctant to disclose their household income. For this reason, I modified some questions to ask the respondents their individual income and the

occupation of other people in their household. Furthermore, based on the feedback, I added branch logic in the Qualtrics survey to ensure that they had a smoother survey flow based on their previous question responses. For example, for participants identifying as students or homemakers, Qualtrics automatically skipped office location and individual income questions.

### *Recruitment of participants and conducting surveys*

During my field visit in February 2020, I had determined the respondent inclusion criteria based on different occupations to include the different socio-economic groups living in the mixed-income settlement. However, due to the limitation of recruiting and conducting the surveys remotely, particularly with the working-class category, I redefined my groups. I limited my categorization to two groups: the serving class and the middle class.

I used the snowball sampling technique to recruit participants.<sup>54</sup> As I had conducted research in this area for a prior study, I contacted known previous respondents and acquaintances to gain referrals to generate a larger pool.<sup>55</sup> After briefing the potential participant's initial pool and obtaining their verbal consent, I shared the Qualtrics survey form through an anonymous link. I also asked them to refer potential participants for the study. Many participants recommended and helped to recruit their family members, colleagues, domestic workers, and neighbors to the potential participant pool. However, since most domestic workers (within the serving class) were female, I did not seek a balanced male-female ratio in this group sampling in my study.<sup>56</sup>

I combined two modes of data collection between October 2020-April 2021. The primary mode was through direct responses to the online Qualtrics questionnaire between December 2020-

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<sup>54</sup> Snowball sampling is a nonprobability sampling technique. It is also known as chain-referral sampling.

<sup>55</sup> See (Ahrar 2018).

<sup>56</sup> Also, as the settlement has a majority Muslim population, I did not seek data on religious orientation.

March 2021. I distributed the survey through an anonymous link, and the average response time through the Qualtrics tool was 7 minutes. For the people who did not have access to computers/ internet or experience to fill in online forms, I asked the survey questions through phone calls and filled in responses.

The phone calls were done using mixed English /Hindi / Urdu words, where I asked respondents questions from the survey form and entered their responses. In these phone calls, I asked follow-up questions and noted the answers separately. Among the serving class, most of the domestic workers were approached through their employers, and the employers also assisted the workers in understanding the study goal and questions. Some were contacted on their own phones.

By April 2021, (combining the online and self-entered responses) 113 survey responses were recorded, of which we did not include 38 in the study due to incomplete responses or errors. A total of 45 respondents from the middle class (including 21 women and 24 men) and 31 respondents from the serving class (including 23 women and 8 men) were included in the final study (See fig 3.4).

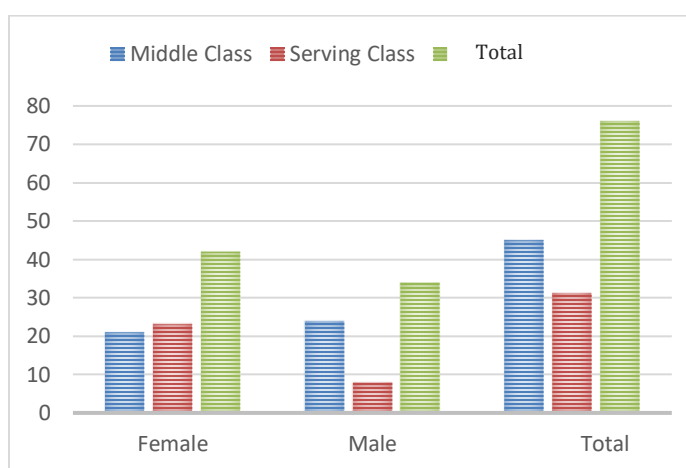
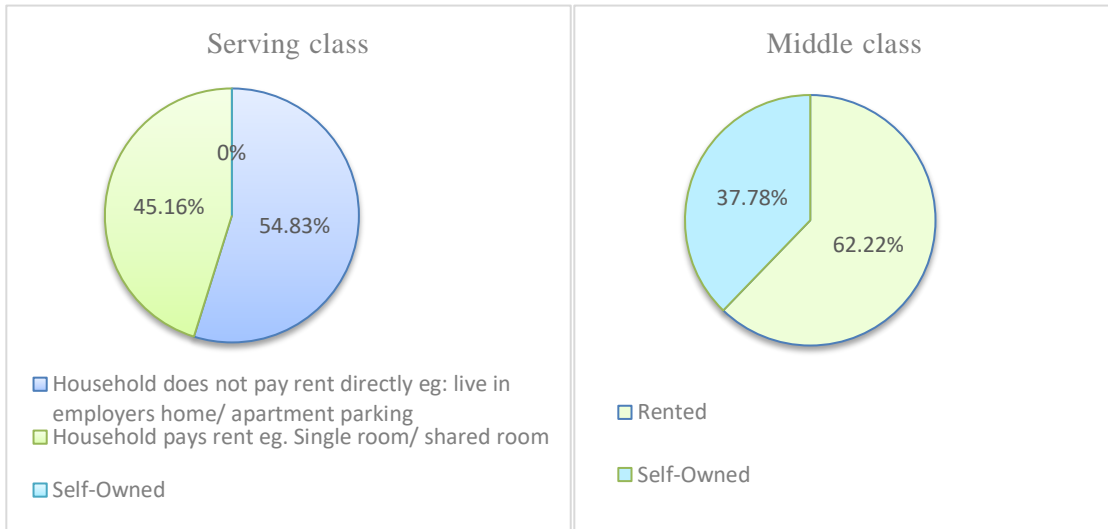


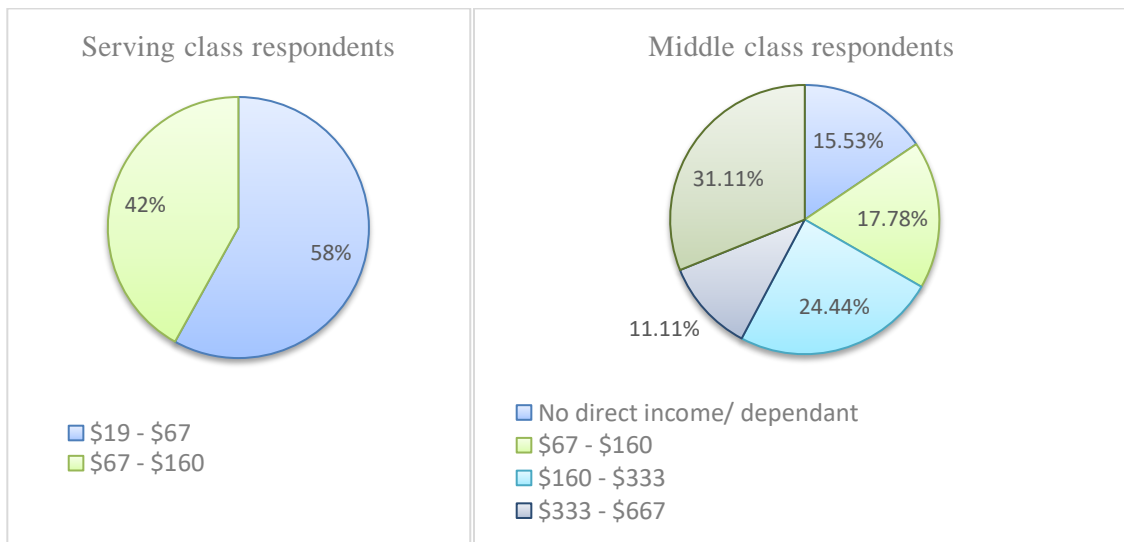
Figure 3-4: Middle class and serving class respondents

The respondents included people from different income brackets. To ensure that the respondents were appropriately grouped as serving class or as middle-class respondents, I asked

questions on the occupation of other members in the household and their living arrangement. Figures 3.5 shows the respondents’ residence ownership and other living arrangements, and figures 3.6 shows the individual monthly income reported by the respondents. (See Appendix F for respondent age bracket and occupation distribution).



Figures 3-5: Residence ownership/ living arrangement reported by the respondents (Survey Question No. 8)



Figures 3-6: Monthly individual income reported by the respondents (Survey Question No. 4)



### *Survey data processing and analysis*

The survey data analysis was done in three steps: data harmonization, cross-tabulation analysis, and data interpretation.

As a first step, the data had to be harmonized since the questionnaire included open-ended responses. This was done by assigning themes to the multiple category responses. The data was then sorted and filtered for cross-tabulation analysis (contingency table analysis). We then made pivot tables for questions with multiple category responses to summarize the data to measure the frequency (in percentages) for both respondent groups.

During the survey design, we pre-determined some categories for the multiple-answer questions. We had added an 'other' tab as a fillable answer response. Depending on the responses, we added these responses as separate categories or included them in the pre-determined category while processing the data. For example: for questions such as “before COVID-19 pandemic and lockdown, what space /place did you visit for social interaction and recreation in your daily life?” we had allowed multiple-choice responses. The choices included categories such as malls, city parks, local “hangout spots”, and local food establishments/stalls. The other options added by the respondents included gyms and sports complexes.

As many respondents chose more than one category, we divided the frequency (count of selection) in each category with the total respondent in the middle class. We did the same for the serving class group. We then calculated percentages to compare and analyze the responses of the two groups.

For open-ended questions such as “what does this space offer you?” we had provided both fillable and multiple-choice options. Based on the final responses, we grouped them into themes. Examples include the theme ‘social acceptability and social control’ (for options such as my friends hang out here and feel safe and comfortable with the type of people who hang out there). Another

was ‘open outdoor spaces’ (for options such as get to be close to nature, outdoor space for exercise and other physical pursuits, and outdoor space suitable for large gatherings). We then counted the themes to measure the frequency.

We used a different method for the fillable answer responses for the names under each recreational space category. We mapped these places using Google Maps to analyze the preferences based on factors such as accessibility and connectivity (public transport availability). We then interpreted the survey data with the context of the activities documented during the fieldwork. In the next chapter, I elaborate on the findings.

## **Summary**

During the field visit just before the COVID-19 pandemic, I conducted observations to document how people use open public spaces within and around the settlement. Following this, I collected information about residents’ recreational activities both within and outside the settlement through surveys. The reliability of this research was assessed through the technique of triangulation.

Based on the observations, I determined two focus groups from the resident population to reduce biases and establish the validity of the survey findings. The respondents selected included people from different income brackets and occupational backgrounds (See Figures 3.5 and 3.6). The inclusion of diverse social groups recruited through snowball sampling from three neighborhoods within the settlement reduced the biases in the findings. To establish reliability, we recorded the data collected through surveys in tables, and any discrepancies reported by respondents marked and response excluded from the final analysis. The (online questionnaire and phone) surveys contributed to understanding how access and space use changed post-COVID-19 pandemic for both the study groups.

In the next chapter, I present these findings and examine the preferences of the two groups.

## **Chapter 4**

### **Findings**

This research aimed to answer the following question: What kind of spaces are used for social interaction and recreation by middle class vs. serving class residents of a mixed-income informally developed settlement? In this chapter, I present the research findings.

I structure this chapter into two subparts. I first give an overview of the settlement, the major activity areas within the settlement, and through specific examples, present the activities noted during the pre-pandemic field visit. The next part examines the data collected through surveys on recreational space use of the middle class and the serving class, both pre-pandemic and after the onset of the COVID-19 pandemic.

#### **Pre-pandemic observations**

##### **Overview**

The settlement periphery is mixed-use, with storefronts and workshops on the lower levels. Figure 4.1 gives an overview of the settlement. Towards the north of the settlement, the storefronts comprise automobile repair shops, food takeout, general stores, grocery stores, and restaurants. The service road towards the western periphery comprises automobile repair part stores and workshops, electrical work, and construction material-related supplier shops. This road also has a major hospital, general stores, food establishments/stalls, and local restaurants.



Figure 4-1: Site overview (Base map source: Ahrar 2018)

The south-west edge of the settlement comprises various commercial uses such as general stores, grocery stores, and other home goods. The southern edge of the settlement is lined with

factory outlets. The eastern edge of the settlement has a row of furniture stores and other mixed land uses, including religious buildings, restaurants, food takeout, and gymnasium (See Figure 4.2).

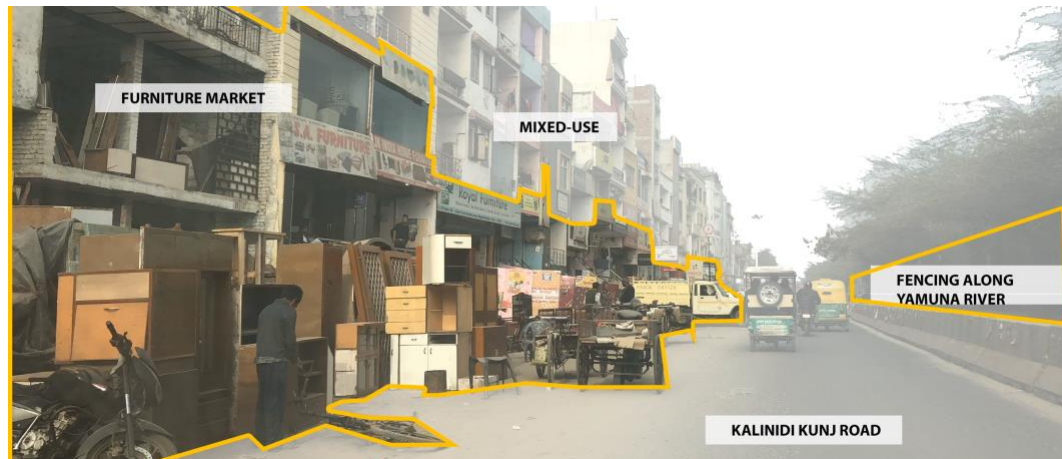


Figure 4-2: Furniture market along Kalindi Kunj road (Eastern Edge)

### Observations along the settlement periphery and transit nodes

I note a range of activities occurring at the street nodes/ intersections connecting the neighborhood with the adjacent areas along the site periphery. These nodes also serve as a transit stop for different modes of transport, with commuters getting off the bus, metro, and minivans. From here, the commuters seek paratransit such as motor and cycle rickshaws or continue on foot to enter the neighborhood. Figure 4.1 shows the major transit stops along the periphery of the settlement.

To understand the community members' various social and spatial practices within these settings, I documented the activities and interactions at one of the most prominent transit nodes/ intersections (See Figure 4.3).<sup>57</sup>

<sup>57</sup> This node has a bus stop, metro station, and para-transit standing area and experiences heavy vehicular and pedestrian traffic.

Node A is formed at the *Kalindi Kunj Road* intersection point with the *Hari Kothi Road* (See figure 4.1). The lower levels of the building abutting the node and the streets opening up to it have shopfronts on the lower level with functions such as restaurants, household goods, chemist shops, clothing shop, electronics repair, hairdressers, and even furniture shops. Displays of temporary wares as well as permanent extensions such as staircases result in activities spilling out into the street. (See figure 4.3).



Figure 4-3: Mixed-use storefronts along Node A, Kalindi Kunj Road (Source: Author 2020)

In the time intervals between 7-10 am, 2-3 pm, and 6-8 pm, this area experiences high vehicular and pedestrian traffic with the residents commuting to or from work/school. The space as a transit space draws the pedestrian and vehicular traffic to stop and attracts a range of hawkers

and temporary activities. Figures 4.4A and 4.4B show the land uses, pedestrian and vehicular flow, and various activities documented during the pre-pandemic field visit in February 2020.

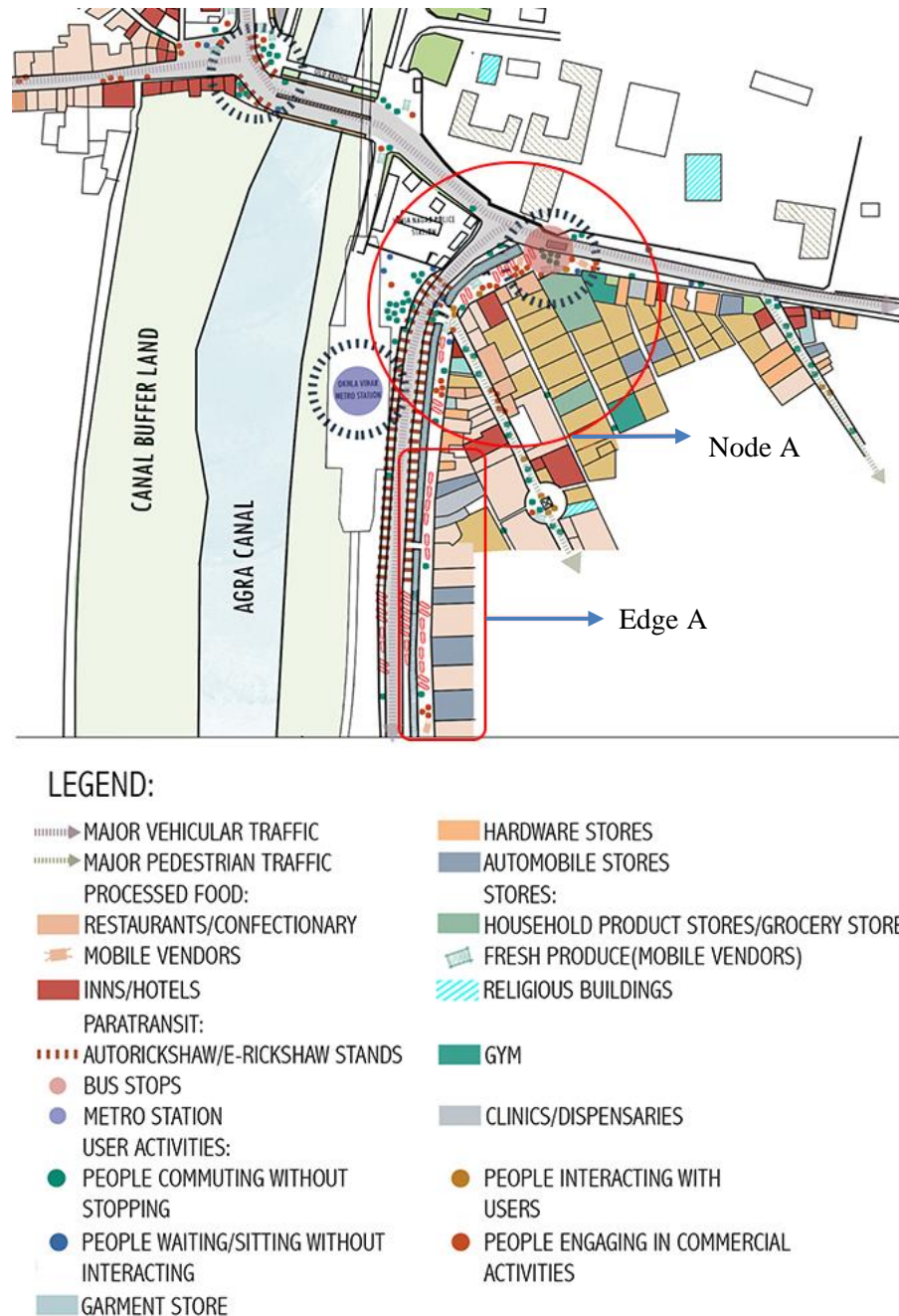


Figure 4-4A: Activity Map showing the uses on the lower levels, the hawker zones, transit stops, and pedestrian movement marked between 8-10 am (Base map modified from Ahrar 2018)

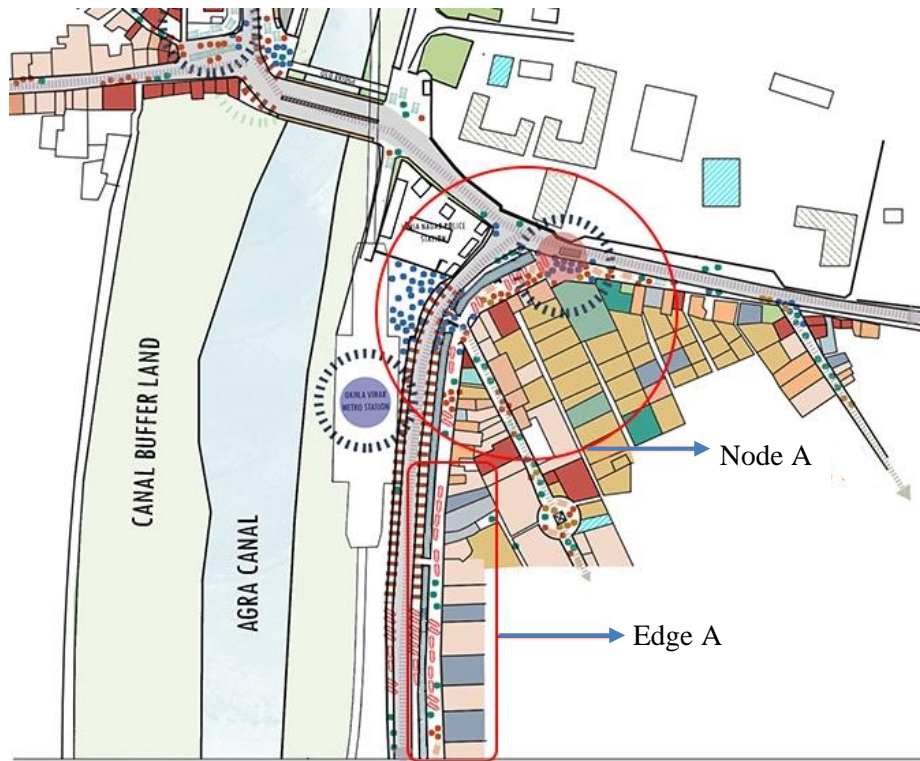
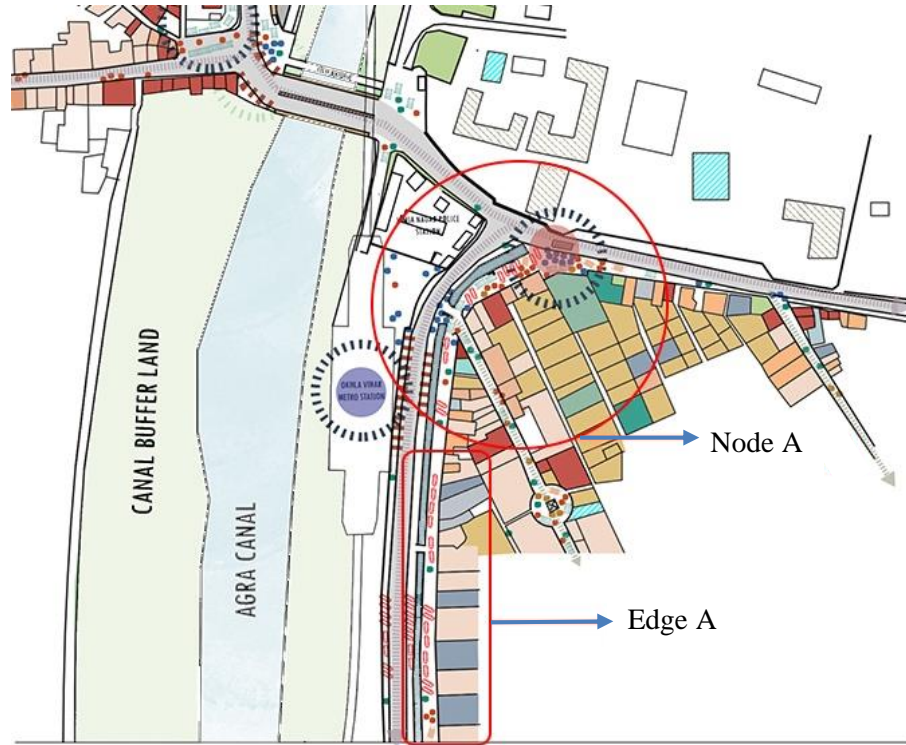




Figure 4-4B: Activity Map showing the uses on the lower levels, the hawker zones, transit stops, and pedestrian movement mapped between 1-3 pm (top), and in the evening between 6-8 pm(bottom) (Base map modified from Ahrar 2018)

Based on the interactions and activities observed during the field visit I categorize the user groups into four broad categories in Table 4.1 below:

Table 4-1: User groups and activities observed around transit node A

User group	Activity	Individual user time spent varies between
People passing through without stopping	<ul style="list-style-type: none"> <li>Vehicles passing through</li> <li>Pedestrian walking through</li> </ul>	2-5min
People Waiting/ sitting without interacting	<ul style="list-style-type: none"> <li>People waiting near transit stops</li> <li>Rikshaw pullers waiting for customers</li> </ul>	5-10min
	<ul style="list-style-type: none"> <li>People sitting along street edge without interacting</li> </ul>	Less than an hour
	<ul style="list-style-type: none"> <li>People begging along the edges</li> </ul>	Varies
People engaging in commercial activities- selling or buying	<ul style="list-style-type: none"> <li>People buying items from shops/ hawkers</li> </ul>	5min-15min
	<ul style="list-style-type: none"> <li>Mobile hawkers selling processed/ non processed food, household items</li> </ul>	Varies
	<ul style="list-style-type: none"> <li>Stationary hawkers selling fresh produce</li> </ul>	Entire day (approx. 9am-9pm)
	<ul style="list-style-type: none"> <li>Services such as shoe mending and hair cutting</li> </ul>	Varies
People interacting with other users	<ul style="list-style-type: none"> <li>People stopping for short conversations with other users</li> <li>People eating/smoking and conversing</li> <li>People sitting in groups conversing along street edge</li> </ul>	Varies between 5min-1hour

A majority of the user groups of this node seem to be more engaged in what Gehl (1987) describes as necessary activities resulting in social interactions<sup>58</sup>. The necessary activities, in this case, include people commuting through this node and buying items from the hawkers and shops. The short-term social interactions include commuters engaging in conversations while waiting for transits, purchasing items from the hawkers and shops, and even people stopping to eat and converse around the fast-food shops<sup>59</sup>.

I also note that as this node is along the edge of the settlement, the users are not limited to the residents and include the shop workers and hawkers who may or may not be residing in the neighborhoods but who spend the entire day at this node location.<sup>60</sup> I observe these hawkers and shop workers sitting along the street edges and engaging in conversations with other workers, hawkers, rickshaw pullers, and even guards that I note working in adjacent buildings. In this way, I infer that long-term use of the space for interactions at such location is by the working-class groups working in this area (either employed by the residents, employed in shops or self-employed as hawkers).

Further along the Hari Kothi Road, the service lane has varied residential and commercial use. In rare instances, I see women sitting on the verandah in front of residential properties or conversing in groups along the edge, as well as children playing on the service street in the afternoon/ evening on the weekend (See figures 4.5).

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<sup>58</sup> Gehl (1987) described the activities that result from the quality and length of other activities such as communal activities, children playing, greetings, and conversations as social activities.

<sup>59</sup> In this context, short-term users are the people who spend 5-30 min at the location.

<sup>60</sup> According to the National Association of Street Vendors of India website, there are 0.2million vendors with an average daily earning of ₹66 or \$0.9 and the annual turnover of the vendors combined is 1,590 crore or 15.9 billion. These vendors/hawkers are counted as self-employed workers.



Figures 4-5: Street Edge A along Hari Kothi Road

Along this street (edge A), similar services such as mechanic shops are clustered and define the character of a segment of the neighborhood periphery. They comprise automobile repair part stores and workshops, electrical work, and construction material-related supplier shops. Here, people sit on foldable chairs near a makeshift fire in the February winter, playing cards sitting cross-legged on the unpaved ground, or even eating lunch together bought from a nearby mobile food hawker. I also observe many people sitting along the edges, either conversing or passively watching activities in the sunlight. My observations suggest that similar to the groups at node A, the long-

term users interacting in this space are also worker groups. Table 4.2 lists the various interactions observed along this street edge.

**Table 4-2:** User groups and activities observed along street edge A on Hari Kothi Road

<b>User group</b>	<b>Activity</b>	<b>Individual user time spent varies between</b>
People standing/ sitting without interacting	<ul style="list-style-type: none"> <li>• People sitting along street edge without interacting</li> </ul>	Less than an hour
People engaging in commercial activities	<ul style="list-style-type: none"> <li>• People buying items from shops and mobile hawkers</li> </ul>	5min-10 min
People interacting with other users	<ul style="list-style-type: none"> <li>• People stopping for short conversations with other users</li> <li>• People sitting in groups playing cards/ conversing/ eating/smoking along street edge</li> <li>• Women sitting outside chatting on the verandah</li> </ul>	5min-1hour
People engaging in physical recreational activity	<ul style="list-style-type: none"> <li>• Children playing in front of residential buildings in the afternoon/ evening on the weekend</li> </ul>	Varying

### **Observations within the settlement**

Within the settlement, the colonies are divided into smaller blocks and have multiple access points along all four sides leading to the commercial central axis street. It is at these access points (junctions) that I note a range of interactions between people. At one such location, the social interactions noted include women waiting for their children near the bus stop at this junction

between 2-3 pm. As different school buses drop children at this stop, we can see women conversing with each other. I speculate that since this appears to be an everyday activity picking children up from the bus stop becomes a form of recreation for the homemakers as it is an opportunity for social interaction. I also observe several hawkers selling both perishable and processed food and drinks queue up near these stops.<sup>61</sup>

Unlike women, men seem to spend considerable time along this commercial street. The central axis (street) has mostly commercial uses along the lower level. It is lined with shops such as cafes, fast-food venues, restaurants, general stores, grocery stores, chemist shops, hairdressing salons, and meat shops. The internal streets opening up to this axis have mixed-use functions such as beauty parlors, meat shops, laundry services, and tailor shops. Apart from the central commercial axis, many schools, offices, clinics/dispensaries operate with the colonies.<sup>62</sup> (Figures 4.6 shows food shops and stalls along the commercial axis).

The visual connections and commercial activities in this commercial zone allow opportunities for social interactions between people. In turn, this street is the liveliest place throughout the day and in particular in the evening. I observe younger men sitting on bikes or standing in front of small tea shops and food stalls along this street in the evening. These spaces serve as spaces for socializing within the neighborhood.

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<sup>61</sup> The mobile hawkers carrying baskets on their head (peddler), basket on a bicycle, and mobile carts (hand/cycle) selling drinking water containers, vegetables and fruits, ice cream, and snacks move around the entire neighborhood. Throughout the day, they move around, calling out the name of the goods they are selling or services they are providing, stopping at a spot in each lane before moving to the next. This would allow them to find places best located to attract the pedestrian traffic.

<sup>62</sup> Two prominent land parcels break the continuity of this commercial street, including the complex of “Jama'at-e-Islami Hind” Headquarters and the land parcel under the Government of Uttar Pradesh. The former is a gated complex, while a wall encloses the latter.



Figures 4-6: Religious building (left), shops on the lower level and rental rooms on the upper level (right) along the commercial axis street in Abul Fazal Enclave

There are many religious buildings along the central commercial axis and the internal streets. These religious buildings serve as a major attractor to pedestrian traffic (in particular men). During prayer times, many hawkers appear near the mosques, where men can be seen interacting with each other.<sup>63</sup> I note that men from all age groups spend considerable time outside the mosque after prayers and conversing with other people, eating from adjacent food shops and hawkers, and even buying groceries. The interactions suggest that the mosque provides an opportunity for people to interact with acquaintances and strangers of all socio-economic backgrounds who pray at the same mosque or participate in commercial activities at this location (See fig 4.6). Hence, I argue that an important venue for interactions among the men from different socio-economic groups is near the religious buildings within the settlement.

<sup>63</sup> Muslim offer prayers 5 times a day.

At the same time, I observe more women present in the local evening market in Shaheen Bagh and the weekly market adjacent to the settlement.<sup>64</sup> The most prominent local market within the settlement is at the center of Shaheen Bagh (See figure 4.1 for location). This market comprises stalls set up in an open space, stalls set up on the lower levels of a partially constructed building, and storefronts of the lower levels at the periphery of the open space. Among these, the storefronts remain open in the afternoon but get limited customers. Towards the evening, the area transforms with the vendors setting up their makeshift stalls using carts, tables, carpets, bamboo, and in some cases just setting up cloth on the ground and placing the items to sell on it.<sup>65</sup> The area then floods with the residents from Shaheen Bagh, and adjacent formally developed and informally developed neighborhoods. Figures 4.7 shows the various types of stalls that pop up in this evening market.

I observe that most of the people seem to be walking to this market from the internal streets. Also, most shoppers in this market space are women who appear to navigate through the market in groups of 2-3 people. Since this market offers a range of items, I note that apart from people actively buying and negotiating prices with vendors, many women appear to be just walking and looking around the stalls. My observations suggest that within the dense setting of these neighborhoods, this open market serves as a space where residents (especially women) spend time

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<sup>64</sup> Weekly markets or '*hafta bazaar*' are a cultural continuity of the traditional Indian village trade system from the pre-colonial days. These informal markets function in a nomadic way where they pop up on a specific day of the week at a location and another location depending on the day. This way, the sellers travel around the city selling goods and services in different areas all seven days of the week. Even though they can be perceived as an informal and chaotic set up there is an underlying system of organization worked out by the traders with each other with respect to the placement and size of the stall they can set up on the pavement, road, or open space to avoid conflicts with ongoing vehicular traffic. (Ahrar 2018).

<sup>65</sup> While the market is locally known as *sabzi mandi* (vegetable market), it comprises hawkers selling a mix of things such as fresh produce, fish, processed food items, clothing, fabrics, footwear, earthen pots, crockery, electronics, cheap household items such as mugs, soap cases, towels, and people providing services such as sharpening kitchen knives, fixing juicers. The item sold changes with season and occasion.

combining everyday tasks such as buying groceries and household items with interacting with their friends and neighbors as a way of recreation.



Figures 4-7: Local evening market in Shaheen Bagh

Across the settlement, the residential buildings comprise single or multiple-story family houses, apartment buildings, builder floors,<sup>66</sup> rental rooms, and hostels within the settlement. I note that several apartment buildings have security guards living, more often than not with their families,

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<sup>66</sup> A builder floor is an independent floor in an apartment building. In some cases, they also have separate electric and water supply provisions.



in the underground parking. I also note that their household activities were spilling out on the streets. For example, I observed their children, who appear to be 1-7 years old, engaged in activities on the street, such as playing with spare cycle tires, sticks, and tattered toys. This shows that the streets and open spaces beyond the private residential spaces are important for the serving class residents' daily life.

### **Summary**

From observations made, I note that the building types within these unauthorized colonies are not limited to residential uses. Buildings, particularly on the lower levels, are mixed-use across the settlement. The user groups of the spaces within and around the settlement include residents and worker groups who may or may not be living in the same settlement but spend anywhere between 6-12 hours working in the residential and commercial spaces and actively using the open public spaces.

Further, the commercial streets draw high pedestrian traffic (in particular men) who spend time around food-based shops buying groceries and household items, eating and drinking from fast food shops and stalls, as well as just watching the ongoing activities. The local market space is used more by women for shopping and interacting with other people.

Since the street widths within the settlement vary, it is pointless to generalize the observations of one or two streets for the entire settlement. However, a common observation noted at multiple locations appears to be children playing on the street in front of apartment buildings and people (primarily women in the residential streets and men in the commercial street) interacting with others while buying items from hawkers across the settlement. Also, in narrower streets with less vehicular traffic, women can be seen sitting and conversing from the verandahs.

## Surveys and interviews

I initially categorized the residents as the middle class and the working class (including the serving class) based on the pre-pandemic observations where I noted the different types of activities occurring along the periphery of the settlement as well as the internal streets. However, as the surveys were conducted during the COVID-19 pandemic, I focused on two groups, the middle class and serving class, because of the limited access while recruiting participants for the survey. In these surveys, I collected information about residents' recreational activities within and outside the neighborhood. In this section, I present the findings and examine the factors that appear to influence their choices. (See Appendix E for the survey questionnaire).

### Serving class: pre-pandemic recreational activities

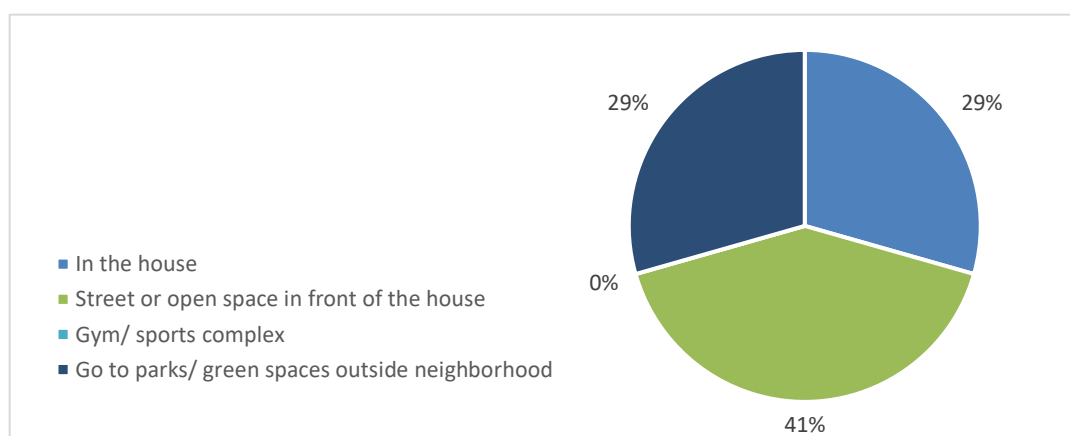


Figure 4-8: Serving-class parents' responses on where their children play (Survey Question No. 10)

Figure 4.8 shows the responses of serving-class parents on the question of where their children play. In contrast to 29% who reported their children play inside the house, 41% of serving-class parents reported that their children play out in the street or open spaces within the

neighborhood. Additionally, 29% of serving-class parents reported taking their children to parks/green spaces outside the neighborhood.

The serving class respondents indicated that they live in rented single room units where all family activities either occur in the multi-purpose room or are pushed to outdoor spaces. The follow-up questions with the serving class respondents indicated that they spend a significant time of their day working or doing domestic work in their own homes. Their perception of recreation and interactions included spending time in and around local markets, as well as easily and cheaply accessible spaces discussed below (See fig 4.9). Furthermore, in responding to what recreational amenities could improve their neighborhood, the open-ended responses of the serving class included parks and safe playing spaces for their children.

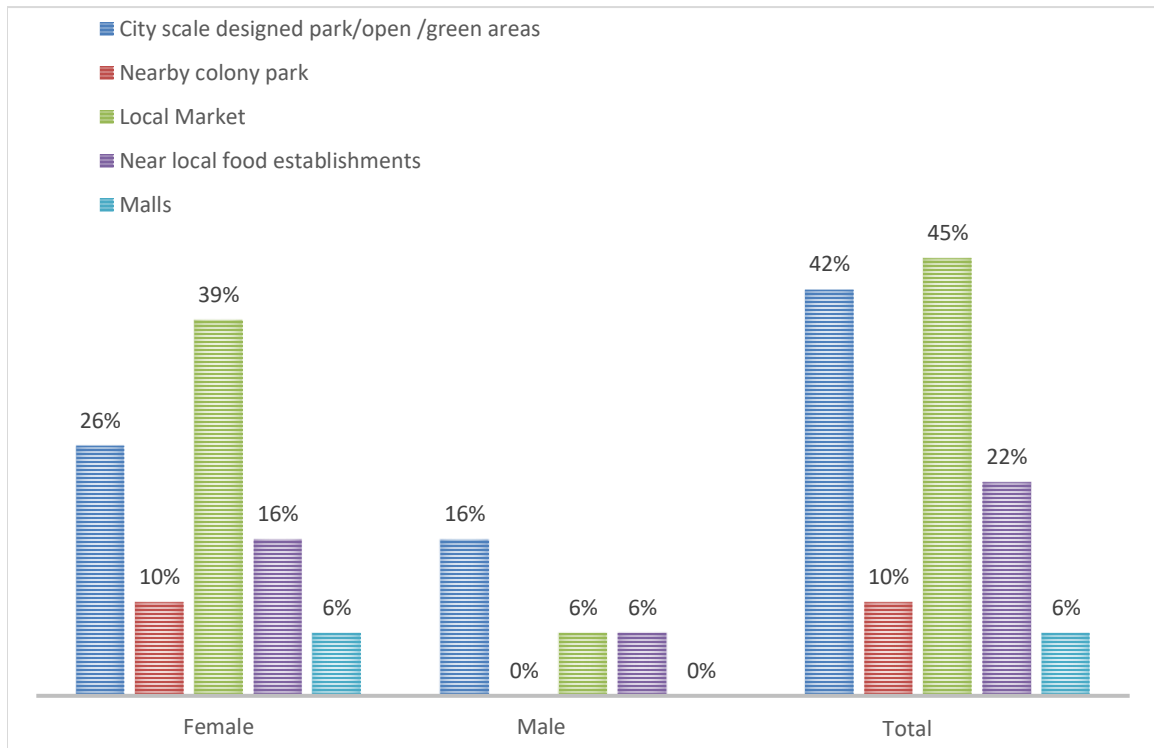


Figure 4-9: Recreational spaces selected by the serving class respondents (Survey Question No.11)

Of the total survey respondents in this class group (n =31), 42% stated that they visit ‘city-scale designed park/open /green areas’ such as India Gate (a war memorial with a large park area) and Jama Masjid Mosque (a religious complex in Old Delhi) as venues for recreation with their families. This group also named the Yamuna belt adjacent to Kalindi Kunj (a water park near the settlement) as a place they go to for recreational purposes as well as neighborhood parks near their workplace in formally planned neighborhoods/colonies adjacent to the settlement.<sup>67</sup> It is crucial to note that all four of these places offer free entry, are cheaply accessible through public transport, and are open for extended hours in the evening.

Only two respondents in the serving class category selected shopping malls as a venue for social interaction and recreation, naming a small mall within walking distance of their places of residence. Furthermore, 45% of the total respondents mentioned local markets as a venue for social interaction. It is interesting to note that of these respondents 85% were female, and 15% were male. This corroborates with our site observations where we noted more women in the local market.

Additionally, 22% of the total respondents selected local food establishments (food shops and stalls) as places of social interaction, all of which were within the settlement. In response to the types of activities they pursued in their selected recreational spaces, the respondents selected meeting friends, conversations with acquaintances, watching life unfold in public areas, and spending time with family.

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<sup>67</sup> The Yamuna belt is fenced at this location (See fig 4.3). There are limited access points to this belt from the settlement.

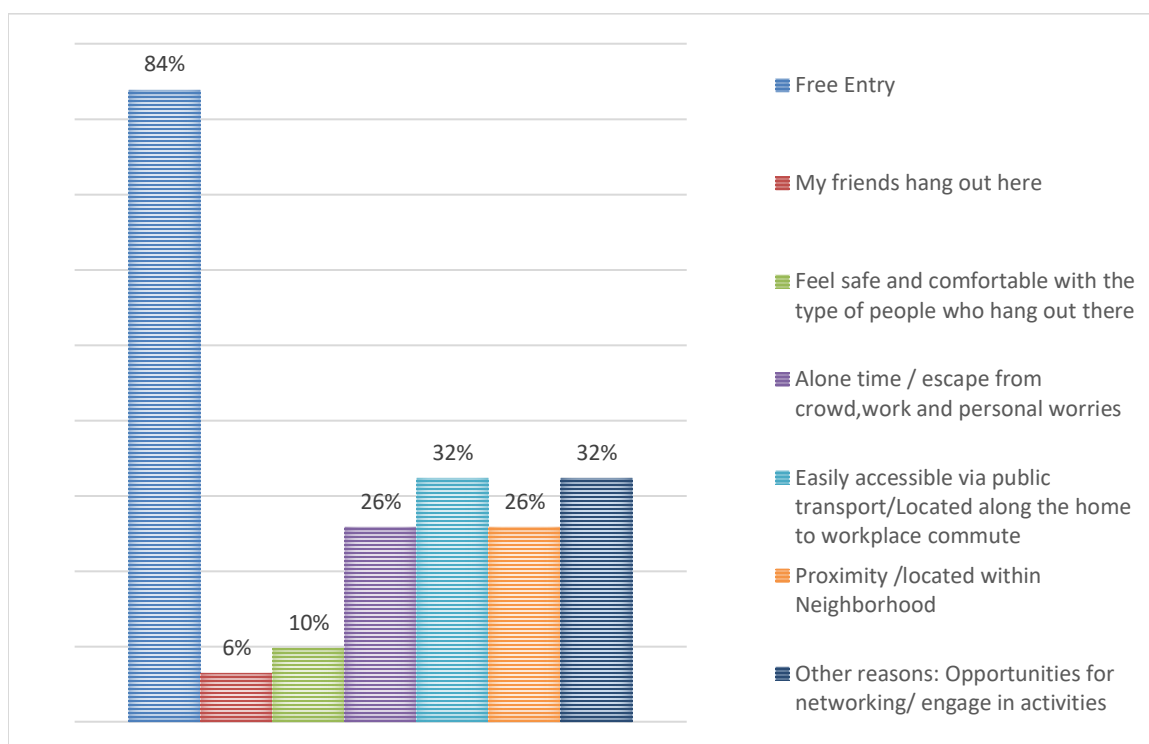


Figure 4-10: Factors that influence recreational space selection as reported by serving class respondents. (Survey Question No. 14)

Figure 4.10 shows the factors that influence recreational space selection as reported by serving class respondents. Based on the responses, we note that free entry at 84% and public transport access at 32% are prime factors in selecting recreational spaces by the serving class. The other significant factors for choosing specific spaces include an escape (from the crowd and personal worries) at 26% and social interactions and networking (friends' hangout there, conversation with other workers, engaging in ongoing activities) at 32%. This conforms with our initial hypothesis that the serving class engages more in informal socialization and recreation around their workplace and residence in spaces not formally designed for such uses.

An additional finding is that the serving class does seek recreation outside the neighborhood in city areas defined as recreational by western standards (such as parks). However, the places identified suggest that accessibility via public transport and free entry strongly influence their choices.

### Middle class: pre-pandemic recreational activities

In the survey responses, 91% of the middle-class respondents indicated that they engage in recreational activities within their homes in their living rooms or semi-private spaces such as balconies and terraces on an everyday basis.

Figure 4.11 shows the responses of middle-class parents on the question of where their children play. In contrast to 62% who reported their children play inside the house, 20% of middle-class parents reported that their children play out in the street or open spaces within the neighborhood. As open-ended responses, this group also reported going to sports complexes and gyms for this purpose. Additionally, 14% of middle-class parents also reported taking their children to parks/ green spaces outside the neighborhood.

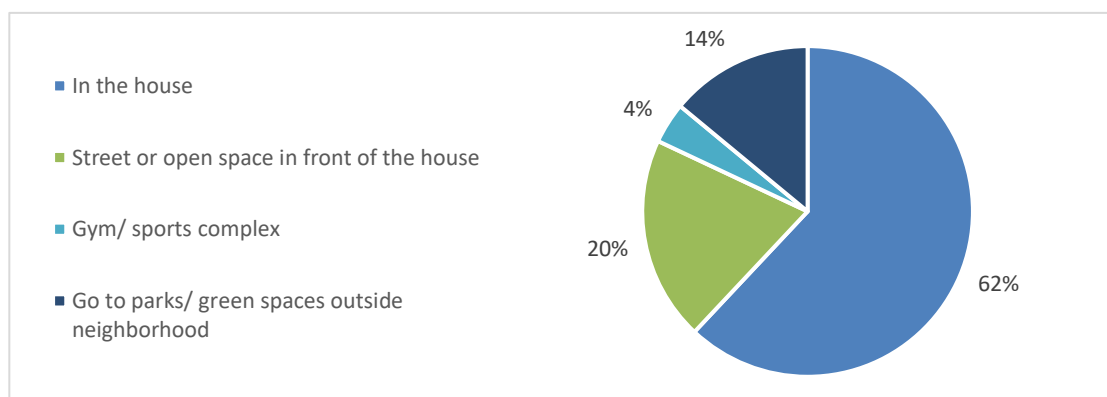


Figure 4-11: Middle-class parents' responses on where their children play (Survey Question No. 10)

Furthermore, in responding to what recreational amenities could improve their neighborhood, the responses of the middle-class respondents included parks, cleanliness, open-air gyms, and even libraries at the neighborhood level.

Figure 4.12 shows the recreational spaces selected by the middle-class respondents. Of the total respondents (n=45), 47% reported that they preferred going to malls and the same percentage selected 'city-scale designed park/open /green areas.' I note that among these respondents, 47%

reported that they use private vehicles to reach malls, while 62% reported that they use private vehicles to reach ‘city-scale designed park/open /green areas.’ Based on the names listed as fillable entries, I note that these malls are within 5-10min walkable distance of metro stations, which is the second most preferred mode of travel to malls by this group.

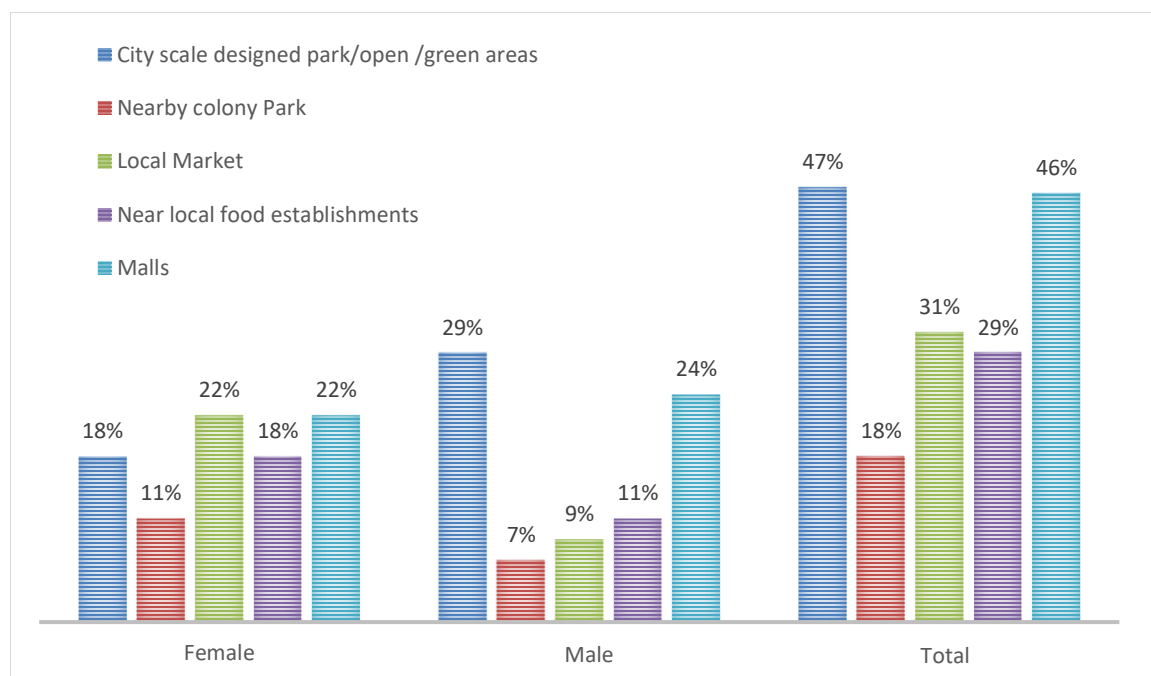


Figure 4-12: Recreational spaces selected by the middle-class respondents (Survey Question No.11)

Out of the 31% of respondents who reported that they visit local markets for recreational purposes, only 28% were men, and 71% were women. While of the 29% that reported that they visit local food establishments for recreational purposes, 38% were men, and 61% were women. This contrasts with the observations where we documented that the local food establishments are frequented primarily by men. Furthermore, while none of the serving class selected community centers as a place for recreation, 26.6% of the total middle-class respondents selected community centers.

In contrast to the serving class, who had reported free entry and public transport access as the primary criteria, the middle class reported multiple other factors that influence their choice of recreational space. (See figure 4.13). Apart from free entry, the most recurring ones were 'social control and acceptability' (in terms of places where this group's social circle frequent and finding more comfort in the presence/ absence of a certain 'crowd'), and last, an escape from the crowd. These findings contradict our initial assumption that accessibility via public transport is a primary selection criterion for this socio-economic group.

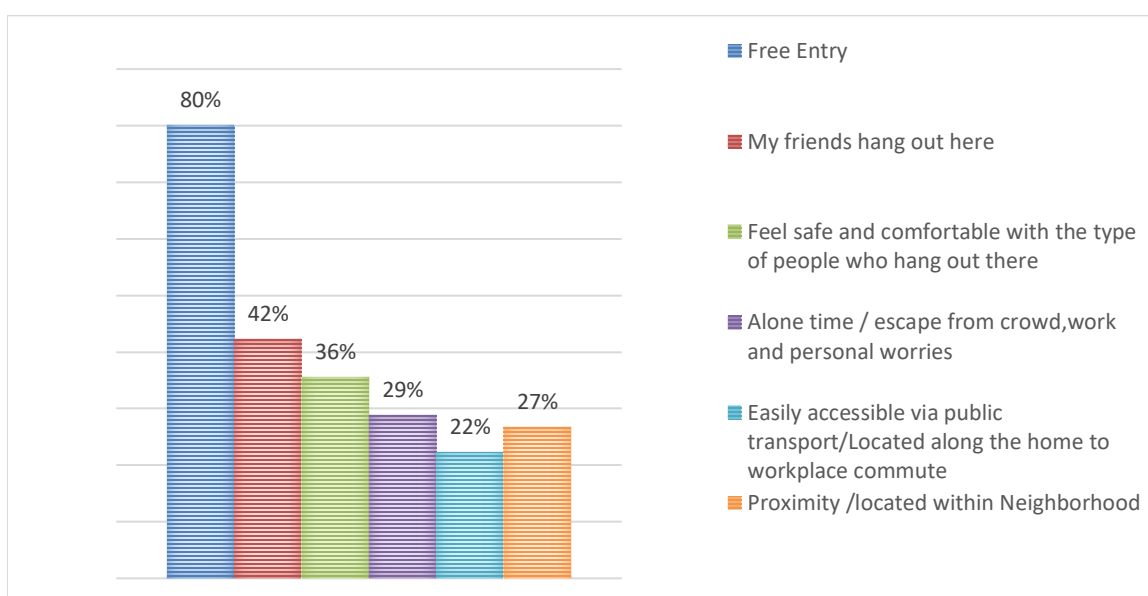
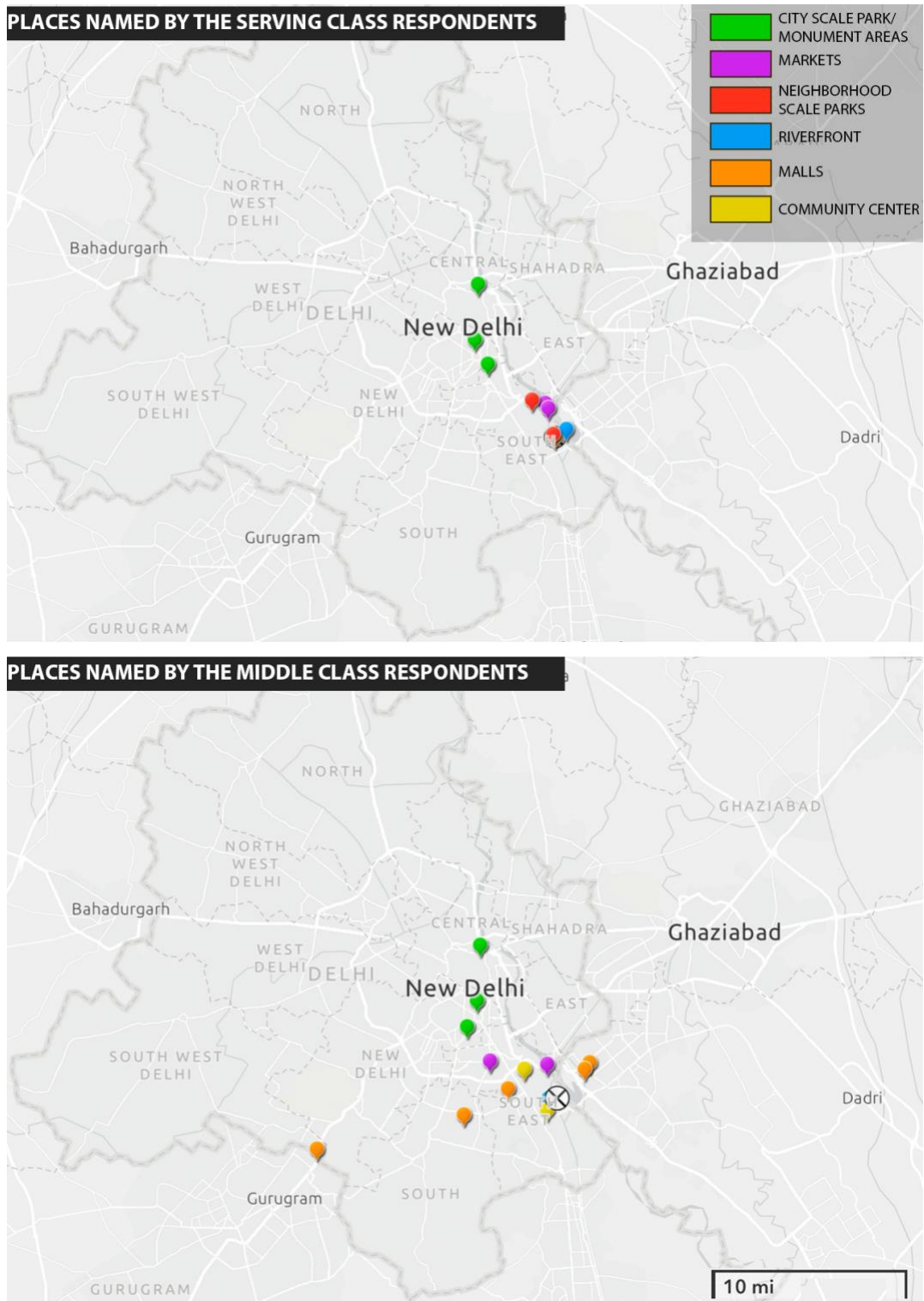


Figure 4-13: Factors that influence recreational space selection as reported by middle class respondents (Survey Question No.14)

Furthermore, as fillable entries, the names of malls and city greens listed by the residents indicated better quality of space as a more important criterion than accessibility via public transport, unlike those places as listed by the serving class. Figures 4.14 shows the location of the recreational areas named by the residents of both the class groups.





Figures 4-14: Map shows the location of the recreational areas named by respondents. (Survey Question No.11)

### Middle class and serving class: activities during the COVID-19 pandemic

The COVID-19 pandemic led to the first nationwide lockdown in India on 25 March 2020. Since, then there have been subsequent (nationwide and state-imposed) lockdowns in Delhi.<sup>68</sup> Figure 4.15 shows the activities as reported by the two class groups during the pandemic.

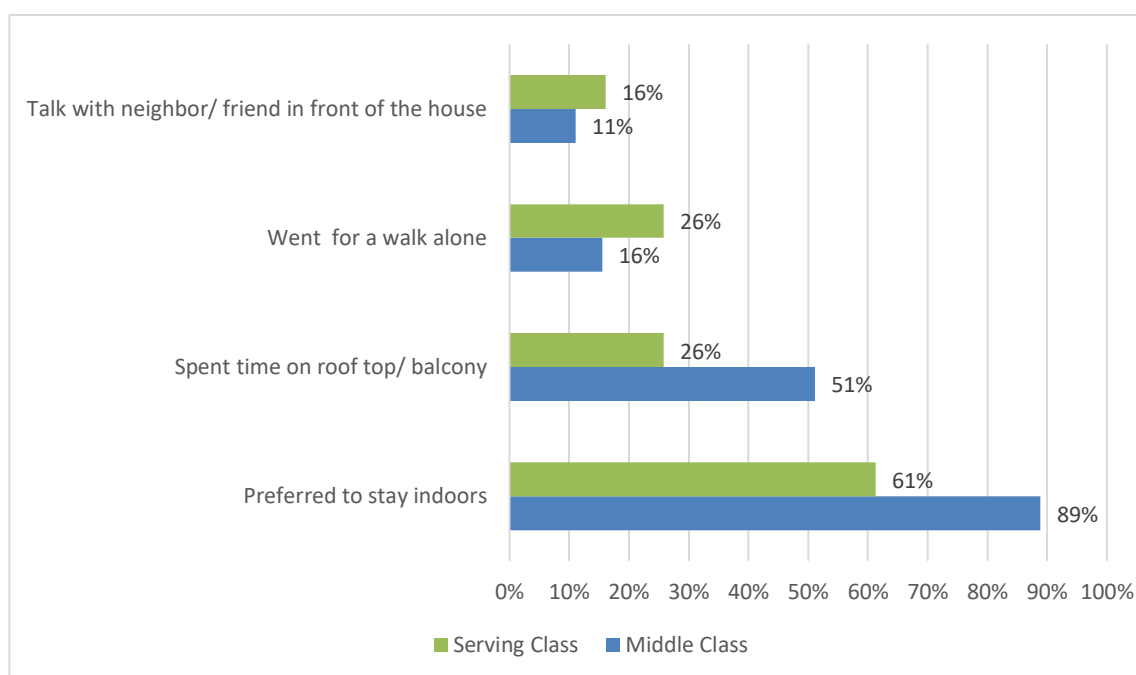


Figure 4-15: Activities pursued by the middle and serving class respondents during the pandemic (Survey Question No.15)

<sup>68</sup> The resultant loss of employment and large-scale reverse migration (urban to rural) has highlighted the vulnerability of informal sector workers urban areas such as Delhi. According to the 2011 Census, 41 million people migrated to urban areas in search of employment opportunities. The migrant workers are majorly employed as informal sector workers. The nationwide lockdown led to a unique phenomenon of reverse migration of migrant workers due to loss of livelihood.

During the post-pandemic period, 89% of middle-class respondents reported that they preferred to stay indoors, versus 61% of serving class respondents. Moreover, 51% of middle-class respondents reported spending time on their rooftops or balconies compared to only 26% of the serving class respondents. Furthermore, only 16% of the middle-class respondents reported going for walks as a means of recreation in contrast to 26% from the serving class. Eleven percent of the middle class noted in-person social exchanges with their friends and neighbors in contrast to 16% of the serving class respondents.

In the open-ended responses, the middle class reported a wide range of activities such as playing indoor games, doing yoga, and reading. In contrast, the serving class engaged in more activities in public spaces, such as going for walks and conversing with their neighbors and friends outside their homes. The serving class respondents continued using public areas for their everyday activities until they were forced to stay indoors for their safety or the enforced lockdowns. They reported watching TV or using mobile phones indoors as their mode of recreation during the lockdowns.<sup>69</sup>

Unlike the middle class, the serving class resides in smaller accommodations – often a single room for an entire family – and does not have access to open private spaces such as balconies or multi-use spaces within their homes. Hence, we can argue that the difference in activities pursued

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<sup>69</sup> The employer-employee contract in the study site is verbally negotiated. There are no fixed-term contracts and arrangements can be ended on a day's notice by either the employer (middle class) or the employee (serving class). During the initial lockdown in March, most domestic workers stated that their employers gave them paid leave for the period of the first lockdown. After which, some lost employment, while others ran outdoor errands such as buying groceries for their employers with reduced wages. Hence, from within the safety of their homes, the middle class used the serving class (domestic workers) as an instrument to perform outdoor chores. This further highlights the vulnerability of the serving class.

by the two class groups reflects the space constraints of available private spaces for the serving class residents.

The lockdowns changed lifestyle patterns of the middle class in another way as well. In a recent study, Chauhan (2020) highlighted the underlying gender differences in the increased household work during the COVID-19 pandemic. The study found that the time spent by women engaging in unpaid household work was already higher than that of men. The burden of extra work due to the changed lifestyle and the absence of domestic workers during the pandemic has increased the time spent by women doing unpaid household work. My findings (based on the primary interviews with the residents of my case study area) support the conclusions drawn by Chauhan (2020).<sup>70</sup>

In the study site, the residences include single-family homes, apartment buildings, and complexes. The single-family homes have access to private terraces. However, the middle class living in an apartment share the terrace, and their sole private open space is the balcony. In such a setting, being forced to stay indoors (because of lockdown or as a preventive measure by people themselves) with added housework has driven residents to seek recreation options in easily accessible open spaces around their homes.<sup>71</sup>

The unauthorized colonies have limited open space options within the neighborhoods. In Abul Fazal Enclave and Nai Basti, the residents (mostly women) accessed the open space of the Jamaat E Islami Hind institutional complex (a religious complex) for walks, socializing, and even

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<sup>70</sup> The study had a survey sample of 100 individuals, all belonging to the middle class (assumed by author on the basis of educational qualifications and the average monthly income).

<sup>71</sup> Even during the lockdowns essential activities were permitted and individuals could access spaces within the neighborhood.

engaging in games such as badminton.<sup>72</sup> These activities took place in the early mornings between 5:30 and 7:30 am and evening between 6:00 and 8:00 pm till March 2021 when the complex restricted access to the complex. (See fig 4.16)

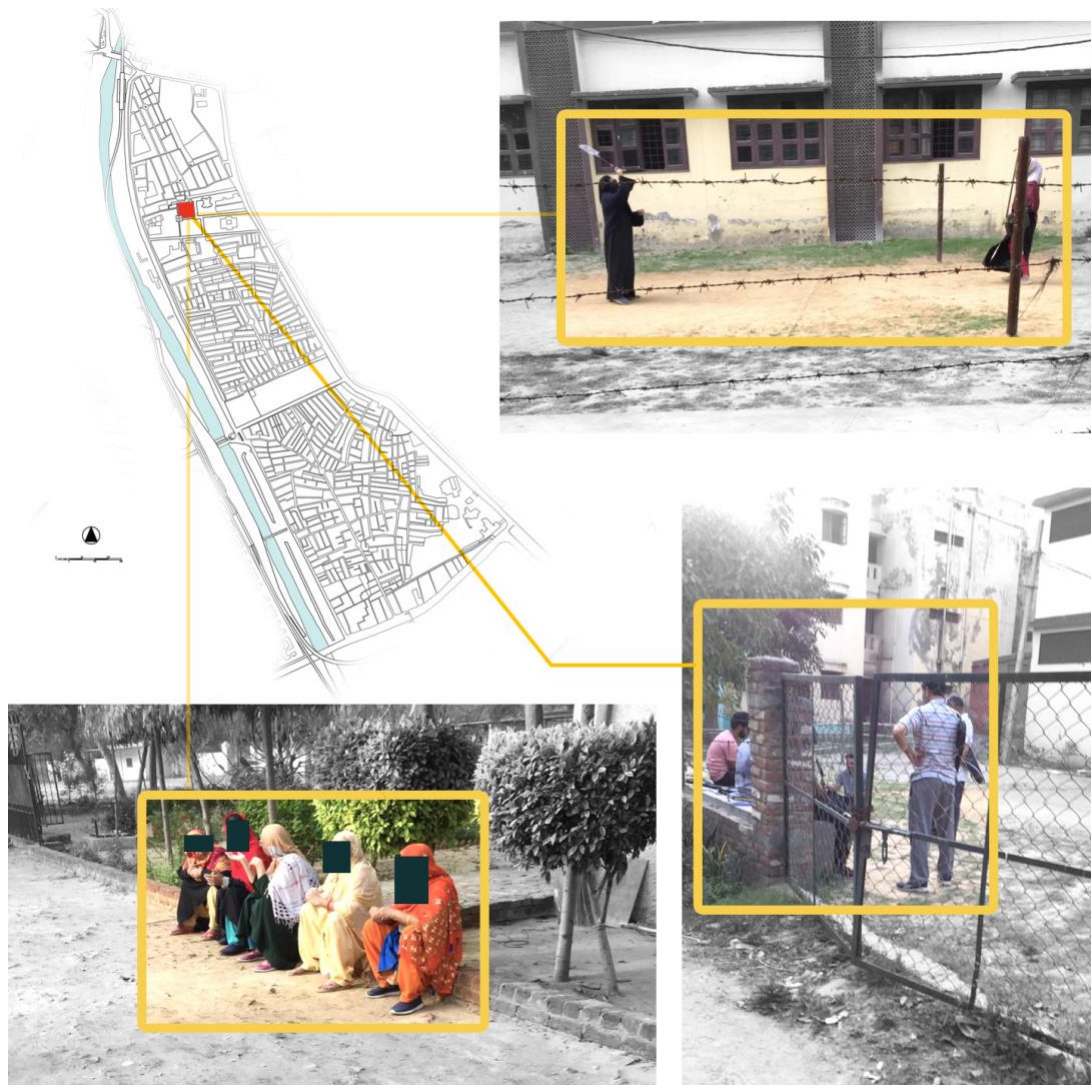


Figure 4-16: Recreational activities photographs shared by a middle-class respondent during the pandemic. The photographs show women engaging in conversations after morning walk, a group of men conversing after playing badminton, and women playing badminton in the complex.

<sup>72</sup> This complex is owned by a religious institution and is a male dominated space during the prayer hours. During the pandemic, the mosques were not holding large gatherings and hence the open space around it became more accessible to women.

Based on the earlier observations of space use around mosques within the settlement and the usage of this mosque complex during the COVID-19 pandemic by men and women, I argue that religious complexes can also be considered a site for meeting the social and recreational needs of the people of all socio-economic backgrounds. However, it is also important to note that other informally developed settlements may or may not have access to such spaces in close proximity. Hence, the pandemic highlights the need for small-scale open green spaces within walking distance of all informally developed residential areas.

## Chapter 5

### Discussion

According to Bourdieu, consumer preferences (i.e., taste), rather than arising from individual choices, are socially conditioned by the “socially dominant” to enforce “their distance or distinction” from other classes in society (Allen and Anderson, 1994, p. 70).

The survey responses show that, unlike in the case of the serving class, middle-class residents’ criteria for selecting recreation spaces are more focused on ‘social control and acceptability’ (in terms of places which this group’s social circle frequents, and in finding more comfort in the presence/absence of a certain ‘crowd’). These findings confirm our initial hypothesis that the middle class residing in unauthorized colonies seek spaces over which they have more social control for recreational and social use. This implies that ‘social status’ is more important for the middle class while choosing places for recreation, while the serving class is more limited by concerns such as accessibility via public transport.

However, in survey responses regarding which factors influence their choices for recreational spaces, and more specifically, what their selected space offers them, free entry was the most selected factor by residents of both groups. Hence, based on the sampling, there is no correlation of free access to recreational spaces in ‘differentiating’ between the two socio-economic groups.

According to Acharya et al. (2016), in the absence of accessible recreational facilities, financially “well-to-do” people opt to access private clubs and services, while the “poor” may use streets and open plots for recreational purposes in Delhi. Our research findings show that the major difference in using recreational space between the two socio-economic groups is that the middle

class seeks recreation more in formally designed spaces, such as malls, sports complexes, and private spaces within their homes. The serving class, by contrast, is limited by spaces available within their homes, public spaces in informal settings, and open spaces accessible to them via inexpensive transport networks. However, both groups use local markets, mixed-use streets with food establishments, and religious spaces within the settlement for recreational purposes.

During our pre-pandemic observations, we noted a range of activities around mosques, where men from different classes interacted socially and in commercial exchanges. In the local markets, we observed more women, which is also supported by our survey responses. This suggests that, while men of different socio-economic classes use the spaces around mosques to interact, women from different socio-economic classes in the settlement use local markets as their space to interact.

Furthermore, in response to what spaces the residents visited for socializing and recreation, since a similar ratio of women from among the middle and serving class residents identified local market spaces, we find no correlation between income brackets and markets as an avenue for recreation and social interaction for the female respondents in this study.

However, of the 28.8% middle-class respondents who reported that they visit local food establishments for recreational purposes, 38.4% were men, and 61.5% were women<sup>73</sup>. This contrasts with the observations where we documented that local food establishments were frequented dominantly by men. This could be for four reasons.

First, the local markets along the commercial street are lined with food establishments that the women visit, or that the men within the study sample do not frequent as often. Second, these

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<sup>73</sup> Similarly, 22% of service class respondents reported they visit local food establishments for recreational purposes; 28% were men, and 71% were women. However, we only focus on the middle-class response because of the uneven gender ratio within the service class survey for this discussion on local food establishments.



local spaces (food establishment areas) are so much a part of men's daily lives that they do not think of them as recreational spaces. Third, women may tend to pick up their orders from these food establishments, while men stay there longer, and hence the space becomes a space for men's social exchanges. Fourth, the spaces are more frequented by working-class men, who were underrepresented in the survey sample.

Next, the interviews with the middle class suggest that chance encounters in open public spaces present economic opportunities for the serving class (within the working class).<sup>74</sup> The site observations support this, where it can be seen that the working class gather and spend time along the streets in areas shaded by buildings and trees. I theorize that it is at these locations where these groups communicate and learn about work opportunities and spend time interacting with others in their free time. This may also contribute to why the working class spends more time along pedestrian attractors such as religious buildings, sites where hawkers are, and commercial areas, as noted in the pre-pandemic observations.

Furthermore, during our pre-pandemic observations, we noted that children played on the streets in front of apartment buildings. In contrast to the 20% of middle-class parents who said that their children play out in the street, 41% of serving class parents reported that their children play out in the street. We can interpret this in three ways.

First, even though the different socio-economic groups reside in close proximity, the middle class seeks to limit the interaction between their children and the serving class children in

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<sup>74</sup> In an interview, a middle-class female resident (36year old) stated that she found her current domestic worker (maid) while buying vegetables from a mobile vendor at the street corner. The domestic worker was buying vegetables from the same hawker for an employer, and through what started as a casual conversation, she was able to hire the domestic worker. She stated that now she and two more of her neighborhood friends employ the same maid for household work, where she works on an average of one hour per day per house. It is noted that in these neighborhoods, the word-of-mouth method for seeking domestic workers seems to work, and not many go around engaging with maid recruiting agencies.

public spaces. Second, based on the availability of space within homes and the ability to seek recreational opportunities in formally designed recreational and community spaces, middle-class choices reflect the changing lifestyle of the new generation towards spending more time indoors, using screens for entertainment and recreation, or accessing gyms and other paid facilities. Third, the middle-class children are sheltered from the outside world, seeking means of recreation in their homes or outside the settlement in areas designed for recreation and engagement. On the other hand, children from the serving class are less sheltered, and hence their parents allow them to spend time out in the streets.

Next, in responding to what recreational amenities could improve their neighborhood, the open-ended responses of the serving class inclined towards parks and safe playing spaces for their children. On the same questions, the responses of the middle class were more diverse, including the need for parks, cleanliness, open-air gyms, and even libraries at the neighborhood scale. This reflects the differences in the 'wants' of the two groups towards meeting their recreational needs within the settlement.

In summary, before the COVID-19 pandemic, the serving class in the area under study relied on spaces within the settlement as well as inexpensively accessible green spaces for their leisure time activities, which often served for seeking employment opportunities as well. In comparison, the middle class preferred activities within their residences, in spaces of consumption such as shopping malls, city greens and parks, and sports complexes for their leisure time activities. In addition, both groups used local markets, mixed-use streets with food establishments, and religious spaces within the settlement for recreational purposes.

However, after the onset of the COVID-19 pandemic, the areas of activity became limited for both groups. The study findings highlight the challenges faced by residents in dense urban areas in pursuing activities in public spaces. It contributes to understanding the heterogenous population's

recreational needs and highlight the need to address these in open space planning and interventions in such settlements.

### **Conclusion**

Unauthorized colonies are distinct, as they are home to mixed-income communities, such that the needs and lifestyle of the residents are more diverse. Through a case study, this research aimed to identify the spaces used for social interaction and recreation by the middle- and serving-class residents, within and outside the settlement. The study found that while middle-class residents' criteria for selecting recreation spaces outside the neighborhoods are focused on social acceptability and social control, the serving class is more limited by physical and financial accessibility concerns.

Bourdieu (1979, 1984) points out that higher-class groups use “distinction” to differentiate themselves in society. The study findings show that Bourdieu's theory of taste could explain some choices of the middle-class residents, such as malls and sports complexes. However, it cannot be used to explain the common spaces selected by both of these class groups, such as city parks and local spaces within the settlement. The results also show that aspects of accessibility influence the serving class choices of recreational spaces rather than “taste.”

By analyzing spatial use patterns within the mixed-income informal settlement, the study shows that in the absence of designed spaces for recreation and social engagements (such as neighborhood parks and community centers), the user groups use private spaces, streets, local markets, and religious spaces for informal socializing and recreation.

In addition, the findings show that “third places” as defined by Oldenburg (1989), “fourth places” as defined by Aelbrecht (2016), as well as recreational spaces outside the settlement (areas of consumption such as malls and spaces developed for recreational purposes by the state such as

city parks) all serve as sites for social interaction and recreation for the resident groups of mixed-income informal developments in Delhi.

Previous research has highlighted the uneven distribution of recreational spaces in Delhi (Acharya et al. 2016; Kaur, 2019). This study further shows that other factors such as accessibility also influence recreational space use by different class groups residing within the same settlement, apart from the uneven distribution of recreational space. This means that if physical and financial accessibility to recreational spaces is not considered in the formal planning process, it automatically limits the intended user groups. Therefore, future planning initiatives should formulate strategies to ensure equitable access to recreational spaces in Delhi.

The study findings draw attention to the challenges faced by residents in dense urban areas in pursuing recreational activities in public spaces during and before the pandemic. In addition, the survey findings highlight the need for accessible open spaces (such as pocket parks) within the settlement. In light of how limited open spaces are within informal developments, one approach is to make the playgrounds and libraries of public schools accessible after school hours to residents of the adjacent neighborhoods. This will require coordination between neighborhood bodies and school administration to ensure adequate security measures are in place and can serve as a quick intervention to serve the recreational needs of user groups, such as children.

### **Limitations and future research directions**

The differences in choices among demographic subsets within the middle class and the serving class were beyond the scope of this study. While the study identifies the difference in choice of recreational space between male and female respondents during analysis, we did not seek to study the fragmentation (such as age and religious affiliation) within the individual class groups. Future research should examine the recreational spaces preferred by different age groups within the

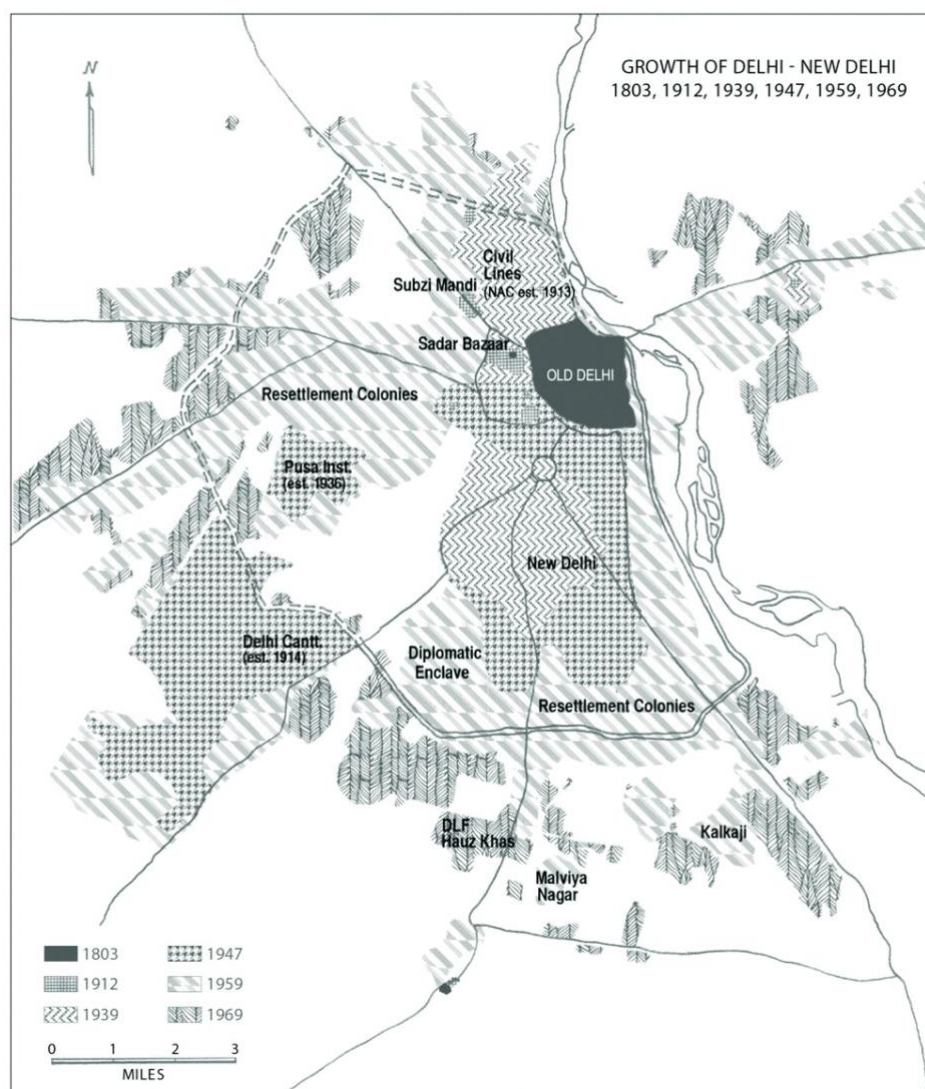
different socio-economic groups. In addition, future research can also study the choices towards recreational activities among older age groups (possibly the first-generation settlers in unauthorized colonies).

This study provides new insight into how different user groups used spaces before and during the pandemic. However, the survey findings are limited by the study sampling within selected unauthorized colonies recruited remotely during the COVID-19 pandemic. The demographic data collected was sorted to ensure representation of people of differing age group, gender, and occupation. But the COVID-19 pandemic and resultant lockdowns were a significant barrier in gaining access to the working-class respondents and hence was limited to the serving class group. Therefore, future studies could use the same methodology in a post-pandemic study of other unauthorized colonies in Delhi, to better understand the implications of the results. They can also include more representation from the working-class group.

Lastly, while this research identifies cost and distance among factors that impact the decision-making of the serving class, further research is needed to determine if such perceived notions as social unacceptability (e.g., the idea of ‘not being welcome or permitted’) due to societal biases also limits the choice of recreational spaces for the working-class groups. The identified future research directions will help better understand the implications of this study.

## Appendix A

## Growth of Delhi 1803-1969, Map source: Mehra, 2013



Growth of Delhi during the Mughal period, British rule, and after independence.

## Appendix B

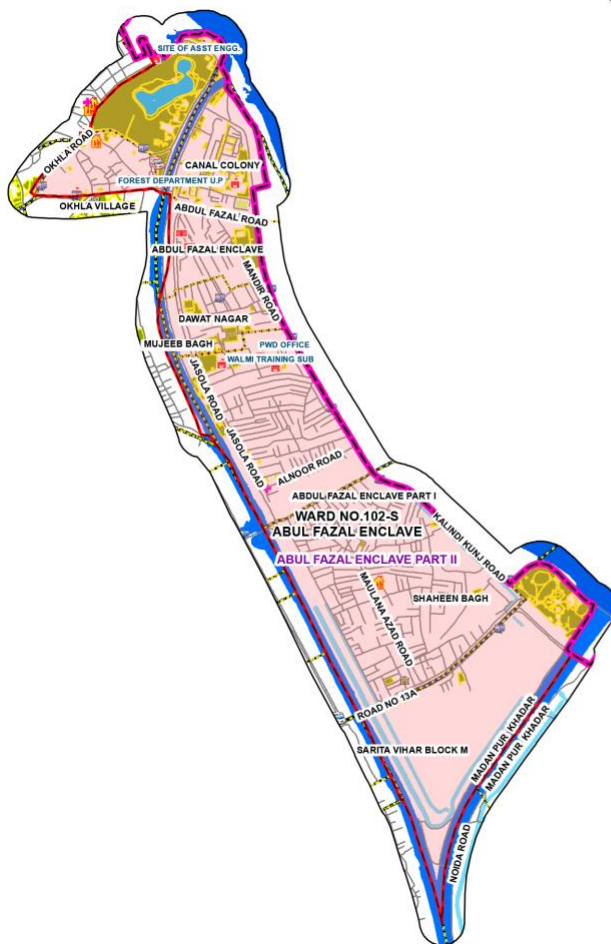
**List of cities and recreational area distribution. Table source: Vagale, 1962**


City and State	Population	Total Corporate Area (acres)	Total Developed Area (acres)	Recreational open spaces			Type of City	
				Area (acres)	% of total area	% of developed area		
Bombay Island, Maharashtra	3,100,000	16,640	16,640	750	4.5	4.5	0.24	Capital city, port, industry.
Delhi, Delhi State	2,100,000	70,290	31,580	1,500	2.1	4.7	0.81	National capital, trade.
Madras City, Madras	1,700,000	31,900	21,120	730	2.3	3.5	0.43	Capital city, port, industry.
Hyderabad, Andra	1,300,000	53,310	33,159	426	0.9	1.3	0.32	Capital city, trade.
Bangalore, Mysore	1,100,000	16,336	14,316	2,800	17.2	19.5	2.54	Capital city, industry, trade.
Ahmedabad, Gujarat	900,000	21,000	18,892	367	1.7	4.1	0.41	Textiles, commerce.
Nagpur, Maharashtra	650,000	17,920	10,391	684	3.8	6.6	1.05	Administration, trade.
Srinagar, Kashmir	300,000	6,933	3,798	180	2.6	4.8	0.60	Administration, trade, tourists.
Tiruchirapally, Madras	280,000	5,747	2,957	395	6.9	13.4	1.41	District centre.
Coimbatore, Madras	275,000	5,670	2,910	146	2.6	5.0	0.53	District centre, textiles.
Trivandrum, Kerala	238,000	10,880	10,880	250	2.3	2.3	1.10	Capital city, trade.
Calicut, Kerala	193,000	7,230	7,230	36	0.5	0.5	0.18	District centre.
Gauhati, Assam	110,000	2,810	1,601	33	1.2	2.0	0.30	Administration, university.
Ernakulam, Kerala	110,000	4,990	4,990	29	0.5	0.6	0.27	Trade.
Nellore, Andra	107,000	3,379	1,317	40	1.2	3.1	0.39	District centre.
Erode, Madras	74,000	2,100	1,890	45	2.1	2.4	0.60	District centre.
Diburgarh, Assam	65,000	1,860	1,397	16	0.9	1.1	0.25	Oil wells, trade.
Bhadravati, Mysore	63,000	3,088	1,259	65	2.1	5.3	1.03	Steel and paper industries.
Agartala, Tripura	55,000	1,947	1,508	21	1.1	1.4	0.37	Capital, trade.
Ootacamund, Madras	50,000	3,000	3,000	105	3.5	3.5	2.10	Hill station.
Pondicherry	40,000	520	520	27	5.2	5.2	0.68	Port, trade.
Faridabad, Punjab	35,000	2,465	2,000	305	12.4	15.2	8.70	New town, industry.
Mandya, Mysore	45,000	960	810	135	14.1	16.8	4.19	Sugar factory, trade.
Fort Cochin, Kerala	31,500	653	635	11	1.7	1.8	0.35	Port town.
Tinsukia, Assam	20,000	1,440	726	26	1.8	3.6	1.30	Industry, trade.


### Appendix C

## Delhi Ward 102-S, Map source: Geospatial Delhi Limited

### WARD 102-S, ABUL FAZAL ENCLAVE








प्रतिलिपि  
 केवल विभागीय प्रयोग हेतु  
 निर्यात के लिए नहीं


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WARDS AS SEEN WITHIN AC- 54 (OKHLA)



**LEGEND**

Bank	Railway Line
College	Canal
Bus Stop	River
Auditorium	Storm Water
Fire Station	Pond
Metro Station	Sub Locality
Bus Terminal	Locality
Health Centre	Play Ground
Cats Ambulance	Stadium
Community Center	Garden Parks
Government Office	Ward Boundary
Accident Trauma Center	AC Boundary
Roads	



**1:16,500**

For further details about this map, please contact

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## Appendix D

### Shaheen Bagh Protest Site

This protest was one of the largest sit-in protests of Delhi that started in mid-December 2019 and ended in late March 2020 due to the COVID-19 lockdown. This protest was against the passing of a legislative act and police intervention at Jamia Millia Islamia university close to the neighborhood and drew inspiration to similar events held all across the country. It included various events and activities, including art installations, a bus stop converted to a public library, lectures, debates, and street performances. This was a unique case as it was started by the elderly women residents along the road edge spread to the public road and drew people from varied age groups and socio-economic backgrounds from students to laborers to business people at the same platform.



The map shows the settlement boundary and the main protest area. (Base map: Google Earth)

## Appendix E

### Survey Questionnaire

1. Gender (*Select the box applicable*)  Male  Female  Other
  
2. Age bracket (*Select the box applicable*)
   
  
 18-24  25-34  35-44  45-54  55-64  65+
  
3. What is your primary occupation? (*Select the box applicable*)
   
  
 Not employed (Student /housewife/etc.)  Freelancer / works from home  Business person
   
  
 Office Worker  School teacher/ university professor  Other (*Please specify*)
   
  
 Domestic worker/ maid/ *ayah* (nanny)  Driver/ guard
  
4. Monthly Individual income range in Indian rupees (*Select the box applicable*)
   
  
 Below ₹1400  ₹1401-5000  ₹5001-12000  Not applicable
   
  
 ₹12001-25,000  ₹25,001 -50,000  ₹50,001& above
  
5. Workplace location/ locality name (*Please fill*)
  
6. Residence neighborhood /colony name (*Please fill*)
  
7. Duration of stay in current neighborhood/ colony (*Select the box applicable*)
   
  
 Less than a year  1-5 years  6-10 years  More than 10 years

(If the answer to the question is less than 10 years) how often you have moved in the past 10 years and which neighborhoods you have lived in? *(Please fill)*

**8.** Residence Ownership *(Select the box applicable)*

- Self-owned                       Household does not pay rent directly e.g., Live in employer's homes/ servant quarters
- Rented                               Other *(Please specify)*

- a) Number of people living in the house/ household size? *(Please fill)*
- b) Occupation of other people in your household (Husband/ Wife/ Parents/ Grandparents/ other relatives)
- c) Number of people employed by you for house work? *(e.g., Maid/ driver/ cook/ etc.)*
- d) Which of the following vehicles do you own? *(Select all the box applicable)*

- Not applicable               Bicycle       Motorbike/scooty/ scooter               Car

**9.** What activities take place in each of the rooms in your house? *(Select all the box applicable)*

Activity	Multi-use room/ Living room	House has a dedicated room for the activity	Bed-room/ Personal room	Open Space (Lawn/ terrace/balcony)	Public spaces/ Outside the house
Relaxing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exercising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional Work (if work from home/ employed in informal job/ etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socializing/ other recreational activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**10.** If you have children, where do they play? (*Select all the box applicable*)

- In the house    
 Go to parks/ green spaces outside neighborhood    
 Other (Please specify)
- Street or open space in front of the house

**11.** Before COVID 19 pandemic and lock down, what space /place did you visit for social interaction and recreation in your daily life? (*Select all the box applicable and please provide names if possible*)

- Malls (*please name*)    
 Local market (*please name*)
- City scale designed park/open /green areas (*please name*)    
 Local food establishments/ food joints (*please name*)
- Nearby colony park (*please name*)    
 Other (*please elaborate*)
- Community center (*please name*)

**12.** How did you travel to these places? (*e.g., walk, bicycle, bike, autorickshaw, bus, metro, car, uber, etc.*)

**13.** What types of activities do you pursue there? (*Select all the box applicable*)

- Meet friends or acquaintances    
 Spent time with family
- Spontaneous conversation with strangers    
 Sports/ physical activity
- Sit/ stand and watch activities happening in the space    
 Others (Please specify)
- Grocery / household item shopping  
 Window shopping/ leisure shopping

**14.** What does this space offer you? (*Select all the box applicable*)

- Free Entry  My friends hang out here
- Feel safe and comfortable with the type of people who hang out there  Alone time / escape from crowd, work and personal worries
- Easily accessible via public transport  Located along the home to workplace commute
- Proximity /located within Neighborhood  Other (*Please elaborate*)

**15.** During COVID 19 pandemic, what activities do you/did you pursue for recreation (mental and physical relaxation)?

- Preferred to stay indoors  Spent time on roof top/ balcony
- Went for a walk alone  Met and conversed with friends/ neighbor
- Other (*Please elaborate*)  Met friends in public parks outside neighborhood

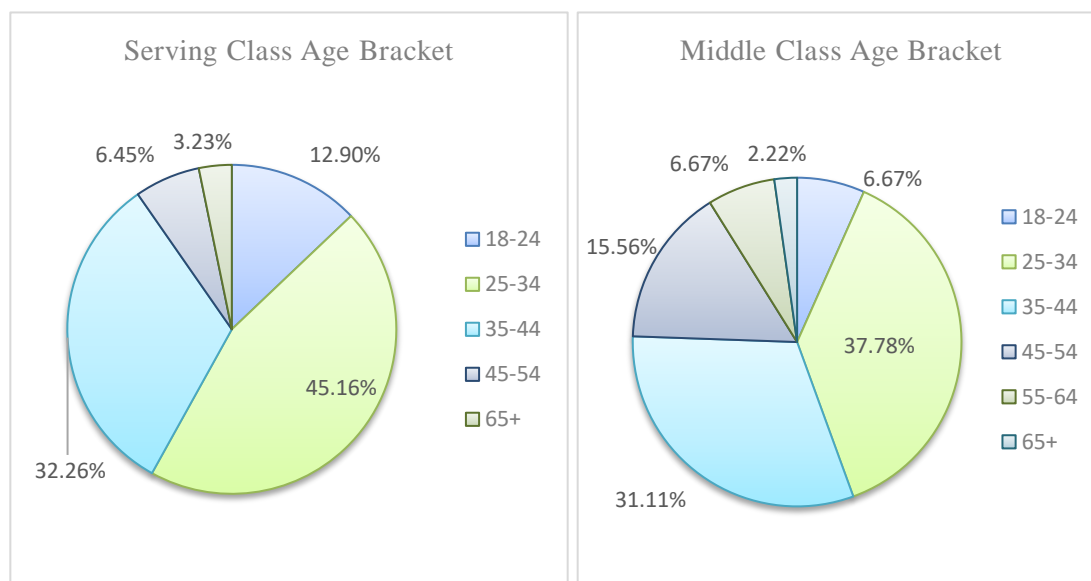
**16.** Which of the following factors hinder your recreational opportunities? (Tick all those apply)

- No parks within neighborhood
- No social / recreational spaces available in neighborhood
- Cannot visit the place without using public transport
- Restricted access to open space
- Other (*Please elaborate*)

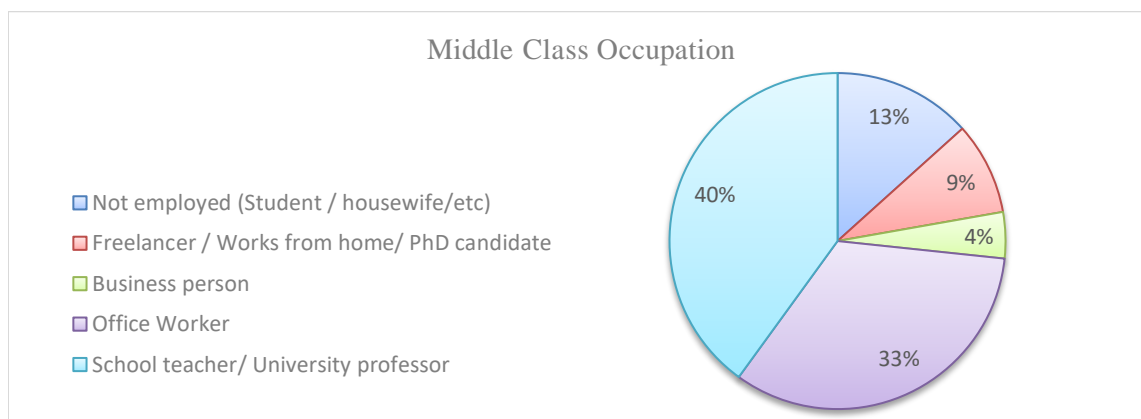
**17.** What recreational/other amenities do you feel would improve your neighborhood?

- I consent to the use of the non-identifiable data collected for educational research.*
- I am open to being contacted for follow-up questions

### Appendix F Respondent age bracket and occupation



Respondent age bracket (Survey Question No. 2)



Middle class respondent occupation (Survey Question No. 3)

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