

# **Gated Neighbourhoods: Security, Lifestyle and Segregation of Urban Habitats in Kolkata**

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Index No - 43/21/Geo./27

Registration No – S0GE01204321

Date of Registration -23/03/2021



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**Thesis Submitted for the Degree of Doctor of Philosophy (Science)**

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**2025**

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\* Established on and from 24<sup>th</sup> December, 1955 vide Notification No.10986-Edn/IU-42/55 dated 6<sup>th</sup> December, 1955 under Jadavpur University Act, 1955 (West Bengal Act XXIII of 1955) followed by Jadavpur University Act, 1981 (West Bengal Act XXIV of 1981)

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## **Acknowledgment**

I wish to express my gratitude to my Supervisor Dr. Lakshmi Sivaramakrishnan, Professor and Head, Department of Geography, Jadavpur University for her valuable guidance, untiring attention, consistent support and inspiration and constructive criticism at all stages of my research work. It has been a real opportunity and privilege to work with her.

I am also obliged to all the teaching and non-teaching staff of the Department of Geography, Jadavpur University, for their constant support and motivation at all stages of my research work. Their assistance, both academic and administrative, has been instrumental in ensuring the smooth progress of my work.

A special thanks to the Department of Geography, Jadavpur University for providing the resources, facilities, and a conducive environment that allowed me to complete my research.

I convey my gratitude to the Ph.D Research Advisory Committee (RAC) for their time, insightful feedback, and valuable suggestions. Their constructive criticism has greatly enhanced the quality of this work, and I am truly grateful for their contributions.

I am also thankful to the University Grants Commission (UGC) for providing me with the fellowship that greatly supported my research work. Without this financial assistance, this work would not have been possible, and I am truly grateful for their support.

I would also like to extend my heartfelt thanks to my lab mates, Mrs. Ranita Karmakar and Ms. Raisha Roy, from the Department of Geography, Jadavpur University, for their unwavering support, motivation, and collaboration throughout this research. Their insights and encouragement helped me to stay focused and determined.

Furthermore, I am thankful to the officials and staff members of the various libraries, organizations, government officials, and other institutions who provided me with essential information and documents. Their cooperation and willingness to share resources have greatly contributed to the success of this research.

I would also like to express my gratitude to the some of the undergraduate students of the Department of Geography – Sushruto Pal, Rudra Chaudhary and Debayan Mondal who assisted me during my field survey. Their help and enthusiasm were crucial in gathering the necessary data for my research.

I extend my sincere thanks to all the respondents of the sample households, who patiently answered the questionnaire. Without their cooperation, this study would not have been possible.

I would also like to thank some of my close friends and seniors—Sudip Sarkar, Najikul Sk, Firoj Haque, Debasish Mandal, Banan Molla, Asmaul Haque, Mebar Hossain, Sanjib Pramanik, Papi Sarkar, Tanmoy Roy, Sudipta Sarkar, Khokan Shaikh, and Samad Shaikh—for their patience, understanding, and unwavering support throughout this process. Whether it was advising me on any problems or cheering me on during tough times or celebrating my small victories, your presence in my life has been invaluable.

Finally, I am deeply grateful to my family for their endless love, support, and sacrifices. To my mother and father, thank you for always believing in me, for your encouragement through both the highs and lows, and for being my pillar of strength during this long academic journey. Your sacrifices have made this achievement possible, and I dedicate this thesis to you.

Date:

(Sujay Sarkar)

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# CHAPTER I

## INTRODUCTION

*The issue of gated community is one of the challenging subjects in recent urban studies. Gated communities saw its emergence during post globalization period in Kolkata. This chapter traces about the concept of neighbourhoods, background of the concept of Gated community in developed, developing and Indian societies. Research questions, objectives, selection of the study area, reasons for choice of the topic, methodology, significance of the study and limitations has been discussed in this chapter.*

## **1.1 The Neighborhood Concept**

In the years following World War II, there was an evident shift in the demographic composition of neighborhoods. The construction of towns which featured curved streets and were located at a distance from the primary commercial and leisure zones was the responsibility of the developers. Clarence Perry was the one who first proposed the idea of “The Neighborhood Unit” in the 1920s. He gave a presentation that included a visual representation of the association between the residential zones that are located inside a certain area and the accessibility to nearby facilities that can be reached by walking. For the purpose of quantifying the spatial separation between residential and non-residential zones, the researcher chose a walking distance of five minutes as a metric. The concept of a neighborhood unit served as the foundation upon which the idea of a gated community was constructed. Perry's “Neighborhood Unit” theory provides the basis for contemporary planning inclinations, which can be seen in the “new urbanism” movement that has been going on since the 1980s and continues to this day. This factor that has had a role in the phenomena of suburbanization in the modern era is mentioned here. Prior to the invention of the automobile in the 1920s, Perry had already developed of the concept of the neighborhood unit (Olson, 2010).

## **1.2 Background of the Study**

Gated communities are residential zones that are restricted in their access and where, in most cases, public spaces are transformed into private ones. Controlled entrances and designated perimeters, such as walls or fences, are frequently included in the construction of security developments. According to Blakely and Snyder (1997), their objective is to successfully prevent non-residents from getting entry to the gated residence. There are numerous examples of gated communities that can be found in a variety of countries, including Argentina, Australia, the Bahamas, Belgium, Brazil, Bulgaria, Canada, Costa Rica, the Czech Republic, France, Hungary, Latvia, Lebanon, Lithuania, India, Indonesia, Poland, Portugal, South Africa, Saudi Arabia, Spain, the United Kingdom, and the United States of America (Blakely & Snyder, 1997; Csefalvay & Webster, 2012). Gated communities have become a well-known phenomenon that has spread across the globe. Within the realm of contemporary urban study, the subject of gated communities emerged as a subject that is both difficult and demanding to investigate. Gated communities are becoming increasingly prevalent, and their development is usually regarded as a measure of urban transformations in both the social and physical aspects. The United States of America is often the focal point of the conversation on gated communities

because it is the country where this “novel” phenomena first emerged. According to Rafiemanzelat (2016), gated communities have been observed in a variety of different expressions all over the world, including in the United States of America, the United Kingdom, Argentina, Brazil, Spain, India, and Saudi Arabia for example. One interpretation of the phenomena known as “gating” is that it is a widespread propensity. However, it is modified to correspond to the local political, legal, and architectural traditions (Webster et al., 2002; Glasze, 2005). The formation of the aforementioned institution is undoubtedly influenced by a variety of models from the United States. Despite the fact that there may be a variety of interpretations and comprehensions of what constitutes a gated community, Gated communities are defined in a broad sense by Atkinson and Blandy (2005), who state that gated communities are enclosed by walls or fences and have limited public access. These neighborhoods are frequently monitored by surveillance cameras or security guards. The definition of gated communities that was provided by Blakely and Snyder (1997) states that gated communities are a significant form of residential inhibits that have appeared all throughout the United States since the 1980s. The societal, cultural, and political values that are held in common by the people who live in these communities are reflected in these communities. There are a variety of security measures that are of the utmost importance in a gated community or complex. The surrounding walls or fences play a significant part in controlling access through gates or guardhouses, which may or may not be maintained by security personnel. This is the major element that has the utmost value. It has been established that the general public is not permitted to have access to the objects (Blakely & Snyder 1997; Caldeira 2000; Luymes 1997). A sense of collective identity, a sense of enhanced social standing, proximity to fellow residents, and active involvement in local administration are some of the additional characteristics that are associated with gated communities, according to Sanchez et al. (2005). Mckenzie (2005) defines a gated community as a sort of common interest housing development (CID) that is privately regulated and serves as a residential enclave. Gated communities are comprised of a limited number of residents. These enclaves are often comprised of planned complexes that include condominiums, townhouses, and single-family homes as their primary housing options. As previously mentioned, the aforementioned advancements pertain to a type of possession in which purchasers of residential properties acquire both a personal stake in a particular unit as well as an additional stake, which frequently includes roads, recreational facilities, golf courses, and other amenities, which is collectively owned by all of the residents of the community. Community interest development (CID) housing has grown increasingly common in recent years. This type of housing is frequently accompanied by safety precautions that are overseen

by homeowner groups. These precautions typically include the installation of physical barriers, such as walls and gates, and may also include the employment of security professionals, which may include private police units. Gated communities are a possible method for arranging private infrastructure and services in situations when the state is unable to provide them in certain economically disadvantaged nations. Gated communities consist of villages that are surrounded by gates. According to Grant (2008), enclaves make it possible to locate classes in closer proximity to one another in some scenarios of infill development. This is accomplished by utilizing walls or fences to segregate their respective classes.

Gated communities or housing estates were initially created in the 1990s in major metropolitan cities in India such as New Delhi, Mumbai, Ahmadabad, Bangalore, and Chennai. These cities were among the locations where gated communities were established. These gated communities are largely attracting highly qualified Indian individuals who have worked outside of India, particularly in the United States, and have made the decision to reside in these communities. The inclusion should include not only returned migrants and their family, but also all other individuals belonging to the upper middle or upper class who seek a thorough development of gated neighborhoods (Bal, Sinha-Kerkhoff, & Tripathy, 2017). Gated communities are residential neighborhoods that have been constructed in the first stage. These communities are exclusively intended for certain groups, such as members of the Army, Navy, and Air Force, as well as educators, banking professionals, law enforcement authorities, and employees of oil firms. Subsequently, the quarters were converted into enclosed residential sections that were properly constructed and furnished with contemporary facilities. There are a number of gated communities that are now being created in the Aamby Valley and Lavasa City in the state of Maharashtra in India. Each of these communities is 100 square kilometers in size (Balakrishnan & Muthulakshmi, 2016; Jacob & Chander, 2020). Across the course of the last twenty years, a great number of gated neighborhoods have emerged all across the city of Kolkata. The superior infrastructure, contemporary facilities, convenient locations, greater security, and access to a global lifestyle that gated communities offered made them a popular choice among families belonging to the upper middle class and the upper class. As a result, various gated communities were created on the outskirts of the city in order to satisfy the ever-increasing demand. In Kolkata, it would be easy to see the shift from government-run gated complexes to privately owned gated communities (Sarkar & Sivaramakrishnan, 2024). It is possible that the actively participating private construction companies in Kolkata are responsible for the spread of private gated communities in the city. These businesses have

demonstrated a significant amount of excitement for the residential sector. Gated communities are currently prevalent throughout the entire territory that is under the jurisdiction of the Kolkata Municipal Corporation (Sarkar & Sivaramakrishnan, 2024).

### **1.3 Research Questions**

Within the realm of contemporary urban research, gated communities have emerged as a subject of study that is both demanding and complex. Throughout the history of gated communities, there have been many different points of view that have contributed to their development. They have developed into lifestyle communities, secured communities, and prestigious communities in the developed countries through the process of evolution. They arrived in the emerging nations for security-related reasons. There have been a variety of elements that have contributed to the development of residential enclaves in India, and these factors have varied from city to city. The following are some of the questions that will serve as the focal point of this research:

- a) Why do individuals prefer to live in gated communities, and how satisfied and happy are they there?
- b) What are the daily life style activities of residents in gated communities?
- c) Are gated communities safer than other high rise apartments and do they creates spatial and economic fragmentation in society?

Developing nations such as India are frequently characterized by fast changes in land use and land cover, as well as land degradation or the transition of agricultural land into built-up areas. Among the cities in India that has experienced tremendous urbanization since the 1980s is Kolkata, which is considered to be one of the metro cities in the country. Over the course of the last twenty years, Kolkata has witnessed a significant increase in the number of gated neighborhoods. In the Kolkata Municipal Corporation (KMC), the majority of the growth of the settlements is unplanned. The city is expanding in the direction of the south and east, and large gated communities are also increasing in the outskirts of the city boundary. The primary focus of the research problem is about the expansion of gated communities inside the KMC region and the impact that this expansion has had on the social environment of the city.

### **1.4 Objectives**

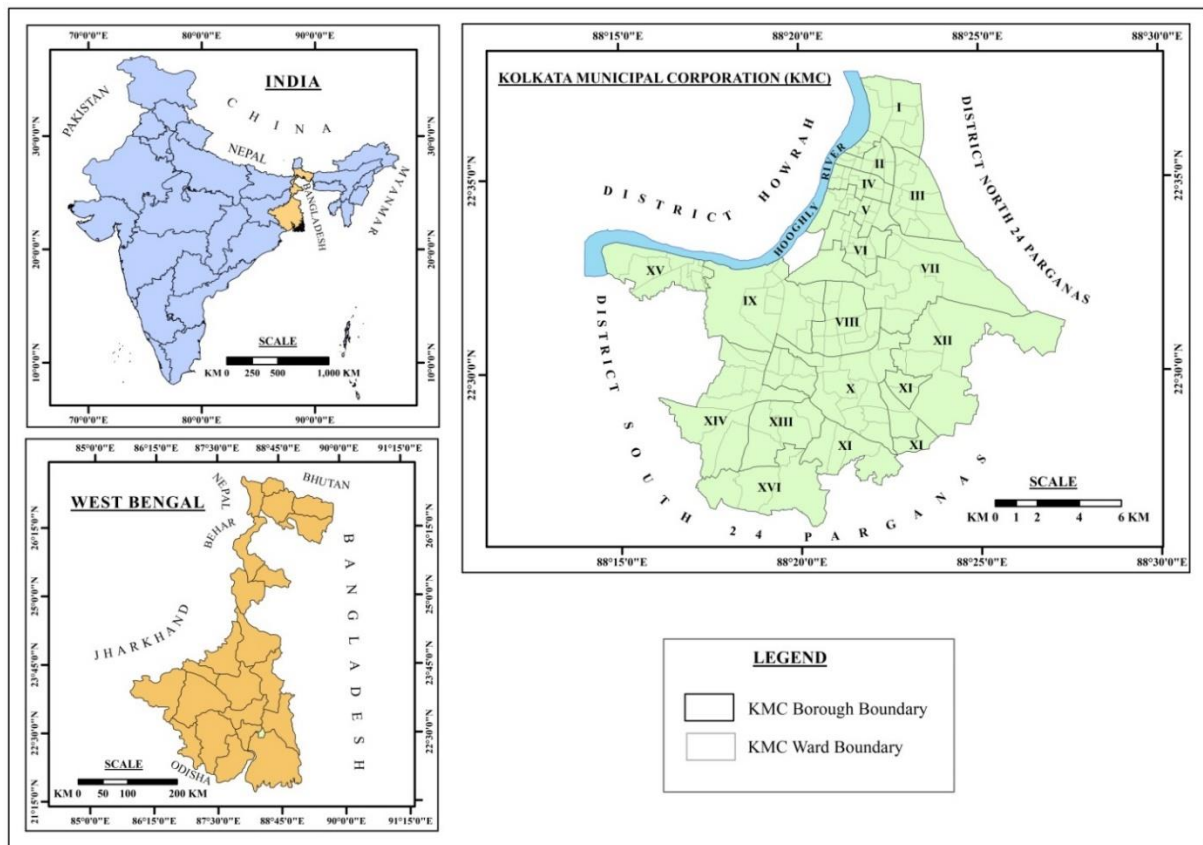
According to the findings of research conducted on gated communities in various parts of the world, there are a variety of reasons that individuals choose to reside in gated communities.

Residential satisfaction is also based on a variety of factors, each of which needs to be carefully examined. This research is to investigate the various aspects of the satisfaction process and evaluate the impact that each of these aspects has on the whole. In addition to this, it intends to investigate a variety of aspects and evaluate the inhabitant's perspectives on their participation in everyday living activities, as well as their degree of satisfaction and happiness with their lives. There are a number of elements that have an impact on the level of concern regarding criminal activity as well as the feeling of safety and security, and these factors need to be thoroughly investigated. There are a number of factors that must also be carefully studied in order to determine whether or not segregation occurs in gated communities. With the use of this research, we intend to investigate many facets of segregation and the impact that they have on society. Therefore, the following objectives have been defined as a result of this research:

- 1) To find out about the motivations for moving into a gated community.
- 2) To study about the resident's satisfaction and social involvement in various social organizations in gated communities of Kolkata.
- 3) To analyze the daily life style of residents in gated communities.
- 4) To find out the perceived safety and crime rates in gated communities.
- 5) To find out about the social segregation in gated communities which creates spatial and economic fragmentation.

### **1.5 Selection of the Study Area**

Kolkata is situated in the eastern region of India, namely at coordinates 22°82'N 88°20'E. The administration of an area measuring 206.08 square kilometers, encompassing 144 wards distributed across 16 boroughs, is carried out by the Kolkata Municipal Corporation (Kolkata Municipal Corporation, 2022). To decentralize the highly populated core municipal area, which was suffering from decaying infrastructure, Kolkata started a comprehensive new town program in the early 1990s. The goal of the program was to decentralize the core community. Since the year 2000, a number of major builder's groups, including the Mani Group, Merlin Group, Ideal Group, Eden Group, Orbit Group, South City Group, Avani Group, PS Group, and others, have constructed sophisticated private gated enclaves. These enclaves are exclusive to their respective organizations. The purpose of these enclaves is to fulfill the housing needs of residents by supplying them with dwellings of superior quality that are furnished with modern conveniences.

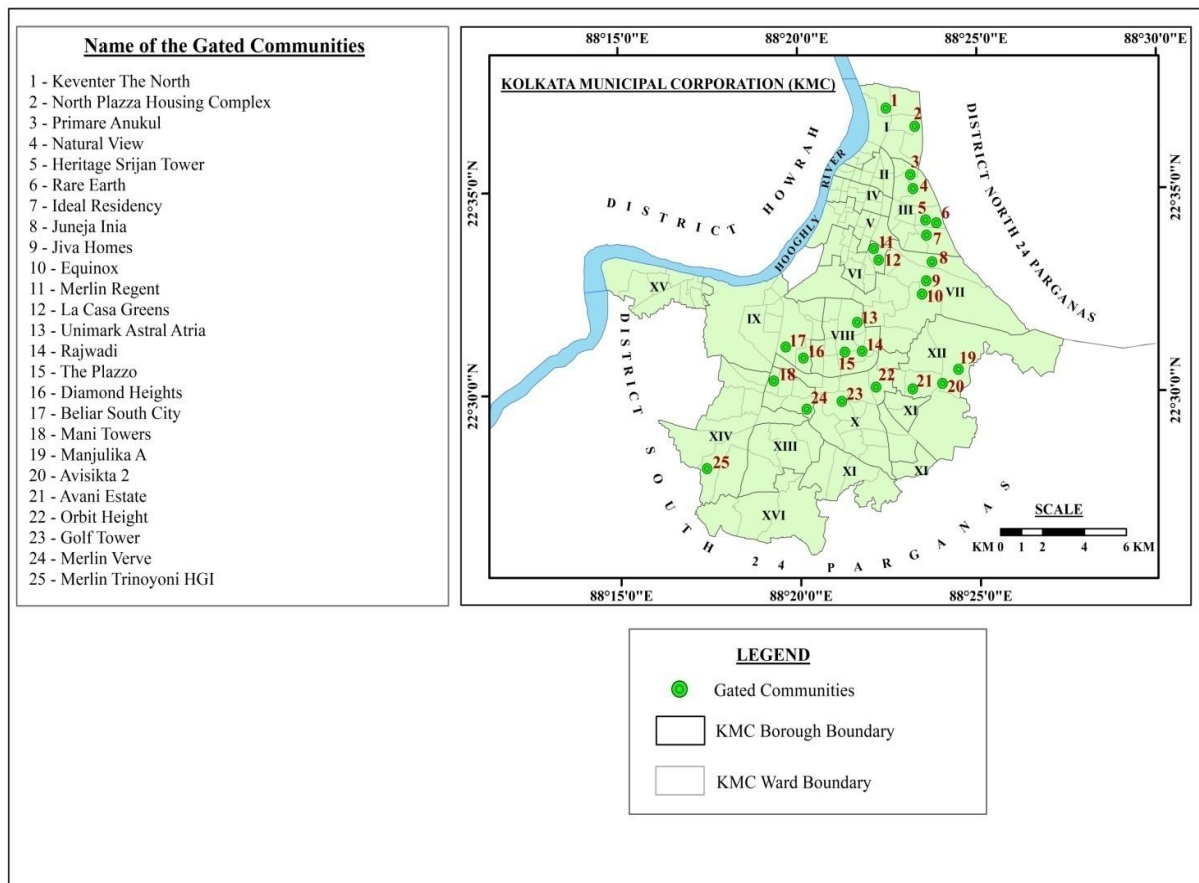


**Figure 1.1: Location Map of the Study Area**

Source: Prepared by Researcher from KMC Map, 2022

Different techniques have been used to categorized the gated communities since its emergence in Kolkata. Due to a lack of significant research on many aspects of gated communities, particularly in the city of Kolkata, there has not been an abundance of research. It is therefore absolutely necessary for the Kolkata Municipal Corporation to keep a close eye on the development of gated communities in Kolkata, as well as other social aspects of these communities.

The residents of a total of 25 private gated communities located throughout the Kolkata Municipal Corporation (KMC) have been purposefully chosen for the reason of conducting an analysis and survey of the respondents. On the basis of few factors, I classify the entire private and government gated communities that are included in chapter 3. Among all the categories, Type 3 and Type 4 private gated communities has been chosen for the study since they are more exclusive in character and provide a greater number of amenities and services for the inhabitants.



**Figure 1.2: Location of the Selected Gated Communities in the Study Area**

Source: Prepared by Researcher from Primary Field Survey and KMC Map, 2022

## 1.6 Reasons for Choice of Topic

A well-known colonial metropolitan city in India, Kolkata is also one of the oldest metropolitan areas in the country. After looking at a number of different papers and other types of literature, it has been discovered that the pattern of land use and the expansion of the population in the Kolkata Municipal Corporation have been continuously shifting throughout the course of time. In conjunction with the growing population and the pattern of land use, gated communities have been more associated with this phenomenon. Prior to the 1990s, there were just a handful of gated communities could be identified, the majority of which were within government quarters. In the years following the 1990s, the number of private and government gated communities in the Kolkata Municipal Corporation began to rise. Following the year 2000, there was a significant rise in the number of private gated communities that were exclusive to residents of Kolkata. Families from the upper middle class and upper class were eager to live in these gated communities because of the higher quality of the infrastructure, the modern amenities, the location benefits, the security, and the global lifestyle. In response to the growing

demand, several gated communities were created on the outskirts of the city. The emergence of gated communities in Kolkata has also resulted in some transformations in the city's social infrastructure. Gated communities in India have not been the subject of a significant amount of research. In the cities of Chennai, Bangalore, and Mumbai, as well as in the National Capital Region (NCR), very little work has been completed. When it comes to gated communities, India does not have any established classifications. As a result, an attempt has been made in this research work to categorize the gated communities that are located in Kolkata. The city of Kolkata has not been subjected to any work of this nature. This study will therefore concentrate primarily on the social aspects of gated communities, such as segregation, lifestyles, and security, and will also attempt to comprehend the ways in which social contact among inhabitants of gated communities in Kolkata affects the level of happiness that people feel with their living conditions.

## **1.7 Research Methodology**

An empirical analysis of the gated communities in Kolkata Municipal Corporation served as the basis for the research work that was conducted. In the beginning, a number of different literature studies have been done using a variety of journals, books, and publications from both the government and non-government organizations. These studies were conducted in order to select specific research problems, the topic of research work, and the selection of the study area.

### **1.7.1 Sampling Design for Selecting Gated Communities and Household Survey**

On the basis of evolution there are four types of gated communities i.e., Type 1, Type 2, Type 3 and Type 4. Type 1 and Type 2 gated communities are not suitable for this study because they didn't have any exclusive amenities or facilities. Therefore, only Type 3 and Type 4 gated communities has been taken for the study which have modern and exclusive amenities. In the Table 1.1, Type 3 and Type 4 gated communities are categories into three groups i.e., Small unit community, Medium unit community and Large unit community. More details about the types of gated communities have been given in Chapter 3. Within each group of gated communities only 5 percent of the gated community in each group has been taken as samples, given in the brackets;

**Table 1.1: Categorization of Gated Communities for Sampling**

<b>Gated Community</b>	<b>Small unit community (&lt; 100 units)</b>	<b>Medium unit community (100 – 300 units)</b>	<b>Large unit community (&gt;300 units)</b>	<b>Total</b>
<b>Type 3</b>	223 (11)	48 (2)	9 (1)	280
<b>Type 4</b>	90 (5)	82 (4)	36 (2)	208
<b>Total</b>	<b>313</b>	<b>130</b>	<b>45</b>	<b>488 (25)</b>

Source: Computed by Researcher from Primary Field Survey, 2022-23

In each category of gated community 15 percent households have been taken as samples. I have taken average household size for Small unit community is 51, for Medium unit community is 201 and for Large unit community is 501. So, Table 1.2 shows the sample household distribution in each category of gated communities. Here average household size is multiplied with selected total gated communities of each category and then 15 percent of household in each category is taken as sample household.

**Table 1.2: Sample Household Distribution**

<b>Gated Community</b>	<b>Small unit community</b>		<b>Medium unit community</b>		<b>Large unit community</b>		<b>Total sample household</b>
	Total Household	Sample Household	Total Household	Sample Household	Total Household	Sample Household	
<b>Type 3</b>	561	84	402	60	501	75	219
<b>Type 4</b>	255	38	804	121	1002	150	309
<b>Total</b>	816	122	1206	181	1503	225	528

Source: Computed by Researcher from Primary Field Survey, 2022-23

Therefore, total sample households in gated communities have been surveyed are 528. In the analysis of last two objectives, gated community has been compared to other high-rise apartments, so total sample households in other high-rise apartments have been surveyed are 150.

### 1.7.2 Methodology for Chapter 3

In this chapter, the primary focus is to determine the specific locations of all gated communities that fall under the jurisdiction of the Kolkata Municipal Corporation (KMC) and to establish the identities of those communities. When attempting to locate gated neighbourhoods, both primary and secondary sources of information were utilized. For the purpose of this study, a mixed-method methodology was utilized, which included both primary and secondary sources

of information. In addition to conducting interviews and gathering information through perception study, the collection of primary data was accomplished through the administration of a questionnaire survey. During this interim period, secondary data has been obtained from the building department of the Kolkata Municipal Corporation. Through the use of snowball sampling, this research endeavor was able to streamline the process of data gathering and effectively manage time restrictions. Using global positioning system (GPS) technology, a detailed study has been carried out in order to determine the total number of gated communities that are located within the city of Kolkata. An approach that involved conducting semi-structured interviews was utilized in order to complete the task of determining the major factors that have an impact on the growth of gated communities in Kolkata. In order to acquire secondary data concerning the general information regarding gated neighborhoods, the researcher has obtained information from the residents of each individual community. Through the application of this dataset, my objective is to successfully categorize all of the gated communities in Kolkata. For the purpose of this investigation, direct observation was utilized in order to gather specific information concerning the site of the case study. This information included the state of the housing complex, the condition of individual dwellings, and the general ambiance of the housing development. Interviews are carried out with real estate developers in order to have a complete understanding of the housing projects that are taking place in Kolkata. When doing the analysis of interview replies, content analysis is utilized as a method for the purpose of determining the factors that have an impact on the growth of gated communities in Kolkata.

### **1.7.3 Methodology for Chapter 4**

#### ***Selection of components and variables for residents' motivation for live in gated communities***

Based on the review of relevant literatures, this chapter selected two components namely; (1) Dwelling unit features with 6 variables; and (2) Neighborhood features with 12 variables.

#### **Dwelling unit features**

The variables included in this component are lift and wide corridors, architecture style, dwelling orientation, house as investment, affordability and security.

#### **Neighborhood features**

The variables included in this component are proximity to workplace, proximity to family and friends, neighborhood amenities, environmental attraction, security, social contacts, social

status/prestige, familiar with the area, restricted area/24 hours guard, homogeneity, elderly and disability friendly and locational advantage.

### ***Sampling design***

The methodology that was used in this chapter was quantitative, and primary data sources were utilized. The collection of primary data was accomplished by means of the delivery of a questionnaire survey, interviews, and a perception study. During this chapter, snowball sampling was utilized in order to maximize the efficiency of data collecting and overcome time restrictions. A study was conducted on a sample that was representative of 528 houses that were located in 25 gated communities that are under the jurisdiction of the Kolkata Municipal Corporation (KMC). Conducting a semi-structured interview that contains targeted questions regarding the primary elements that impact the respondents' decision to live in gated communities is one of the methods that are utilized in the process of data collection. In addition, there are inquiries concerning their housing motive, objectives, impression of safety and security, physical and social conditions, and other elements that are associated with housing. In this chapter, direct observation was used to obtain exact data regarding the site of the case study. This data included the condition of the housing development, the state of individual dwellings, and the atmosphere of the housing development as a whole. A content analysis is performed on the interview replies in order to determine the primary motivating elements that persons in Kolkata consider when making decisions regarding whether or not to reside in a gated community.

### **1.7.4 Methodology for Chapter 5**

Gated communities may be found all across Kolkata, and they run across the board in terms of size, design, and culture. Since this is the case, it is essential to investigate the degree to which inhabitants are content with the various aspects of their overall satisfaction.

### ***Selection of components and variables for Residential Satisfaction Index***

This chapter examines the five components of residential satisfaction, namely: (1) Dwelling unit features with 8 variables; (2) Housing estate features with 10 variables; (3) Public facilities with 10 variables; (4) Social environment features with 5 variables; and (5) Neighborhood facilities with 8 variables, based on a review of relevant literatures.

***Dwelling unit features***

The variables that are included in this component are spatial layout, distribution of daylight and natural ventilation, living space, dining space, bedroom, kitchen, bathroom and toilet, and balconies.

***Housing estate features***

The components in this feature are corridors, lift, electricity, water, sewerage and drainage, firefighting system, landscaping, outdoor seating adequacy, location, and maintenance and service charges.

***Public facilities***

The variables included are open space, playing area, parking, multipurpose/community halls, perimeter roads, pedestrian walkways, local shops and food stalls, gym, swimming pool and library.

***Social environment features***

The variables are noise, crime, safety and security, community relation and homogeneity.

***Neighborhood facilities***

Variables like distance to center of city, school, police station, hospital, market, shopping center, bus and taxi stand and other connectivity are included in this component.

***Selection of components and variables for adequacy of living condition index***

Based on literature review, variables and components of adequacy of living conditions led the study to focus on two components: Dwelling units (10 variables) and Environmental and Neighborhood features (12 variables).

***Dwelling units***

The variables included are condition of housing unit, privacy in the house, wall and floor material, adequacy of number of rooms, access to water supply, generator supply during power cuts, balconies, corridors, bathroom and toilet, and natural ventilation.

***Environmental and Neighborhood features***

The variables are road connectivity, open space, parking facilities, playing area, local shops and food stalls, street lighting, sewerage and drainage, safety and security, maintenance and environmental facilities, recreational facilities, green area, and outdoor seating location.

### ***Sampling design***

In this chapter, a quantitative methodology was utilized, and primary data sources were incorporated. A questionnaire survey, interviews, and a perception study were the primary methods via which primary data was gathered. The snowball sampling method was utilized in this study to maximize the efficiency of data collection and help overcome time restrictions. Within the jurisdiction of the Kolkata Municipal Corporation (KMC), a survey was conducted on a group of 528 houses that were determined to be representative of the population. These families were located in 25 gated residential areas.

In order to collect data, it is necessary to conduct a rigorous interview that includes questions that are directed directly toward the residential contentment of people who live in gated communities. In addition, there are inquiries concerning the adequacy of their living conditions, the amount of social interaction that takes place among residents, and the mobility of the residents. When it comes to housing satisfaction and adequacy, a five-point Likert scale has been utilized. On this scale, a “1” indicates that the individual is very dissatisfied a “2” indicates that they are dissatisfied a “3” indicates that they are neither satisfied nor dissatisfied; a “4” indicates that they are satisfied, and a “5” indicates that they are very satisfied. Very low (20-39), low (40-59), moderate (60-79), and high (80-100) are the four categories that have been assigned to the index value of Residential satisfaction level and Adequacy of Living Condition level. These parts have been classed according to their respective levels.

### ***Satisfaction index***

In order to compute the respondent’s satisfaction index for a particular housing component has been measured by;

$$SIc = \frac{\sum_{i=1}^N y_i}{\sum_{i=1}^N Y_i} \times 100$$

Where SI is a respondent's satisfaction index with a residential environment component, c, and N is the number of variables scaled under c. In addition,  $y_i$  is the respondent's actual score on the  $i$ th variable and  $Y_i$  is the scale’s maximum score.

### ***Residential satisfaction index***

Residential satisfaction index is summing total of the component satisfaction indices;

$$SIr = \frac{\sum_{i=1}^{N1} di + \sum_{i=1}^{N2} hi + \sum_{i=1}^{N3} pi + \sum_{i=1}^{N4} sei + \sum_{i=1}^{N5} ni}{\sum_{i=1}^{N1} Di + \sum_{i=1}^{N2} Hi + \sum_{i=1}^{N3} Pi + \sum_{i=1}^{N4} SEi + \sum_{i=1}^{N5} Ni} \times 100$$

where  $S_{Ir}$  is a respondent's satisfaction index with residential environment,  $N_1, N_2, N_3, N_4,$  and  $N_5$  are the variables selected for scaling under each component, and  $d_i, h_i, p_i, sei,$  and  $n_i$  are the respondent's actual score on the  $i$ th variable. The maximum scores for the  $i$ th variable in dwelling unit characteristics, housing estate features, public facilities, social environment features, and neighborhood facilities are  $D_i, H_i, P_i, SE_i,$  and  $N_i$ .

#### ***Adequacy of living condition Index***

$$ALCI_x = \frac{\sum_{i=1}^N ay'_x}{\sum_{i=1}^N Ay'_x} \times 100$$

ALCI<sub>x</sub> is the adequacy of living condition (Ogu, 2002) of variable  $x$ ,  $N$  is the number of respondents (528), and  $ay'_x$  is the  $y$ th respondent's five-point score on the  $x$ th variable. ' $A$ ' represents the maximum possible score that respondent  $y'$  could give to variable  $x$  on the five-point Likert scale.

### **1.7.5 Methodology for Chapter 6**

#### ***Selection of components and variables for level of participation in major lifestyle attributes***

This chapter examines five major aspects of lifestyle, including: (1) social activities with two variables (such as traveling in everyday life and communicating with friends and family); (2) use of mass communication with three variables (such as reading books, reading newspapers and magazines, and watching television for entertainment); (3) creative activities with three variables (such as playing a musical instrument or singing, writing, painting, or sculpture); (4) activities outside the home with two variables (such as attending sporting events or playing any competitive sports); and (5) community service activities with two variables (such as assisting friends and neighbors, working with social organizations) (Herero & Extremera, 2010; Jansen, 2011). The data was collected using a Likert scale with five points, where "1" represents "never", "2" represents "occasionally", "3" represents "more than occasionally", "4" represents "frequent", and "5" indicates "more than frequent" or "every day".

#### ***Life Satisfaction Index (LSI)***

The Life Satisfaction Index, which was developed by Diener et al. in 1985, is comprised of seven questions that are intended to determine the degree to which an individual is satisfied with their life. A Likert scale of five points was used to gather the data, with a score of "1" indicating strong disagreement, a score of "2" indicating disagreement, a score of "3"

indicating neutrality, a score of “4” indicating agreement, and a score of “5” indicating strong agreement.

$$LSI = \frac{\text{Sum of respondent's actual score}}{\text{Sum of maximum score}} \times 100$$

### ***Happiness Index (HI)***

According to the Happiness Index, levels of happiness can be quantified across eleven different domains, including (i) Satisfaction with life, (ii) Psychological well-being, (iii) Health, (iv) Time balance, (v) Access to education, arts and culture, (vi) Community, (vii) Social support, (viii) Environment, (ix) Governance, (x) Standard of living, and (xi) Work (Happiness Alliance, 2014c; Musikanski et al., 2017; Jency, 2019). Each component consists of a restricted number of questions that are focused at the inhabitants, and the data is collected by using a Likert scale with five points.

$$HI = \frac{\text{Sum of respondent's actual score}}{\text{Sum of maximum score}} \times 100$$

### ***Sampling design***

In this chapter, a quantitative methodology has been utilized, and primary data sources have been analyzed. A perception study, interviews, and a questionnaire survey were performed in order to collect the necessary data. During the course of this research, snowball sampling was utilized to improve data collection and solve time constraints. A statistically representative sample of 528 families that reside in 25 gated communities that are under the jurisdiction of the Kolkata Municipal Corporation (KMC) was used for the purpose of conducting a study. In order to collect data, it is necessary to conduct a semi-structured interview that is comprised of particular questions concerning the degree to which an individual is involved in major parts of their lives. In addition, there are inquiries concerning the degree of contentment and enjoyment these individuals experience in their lives. An evaluation was conducted using a Likert scale with five points to determine the level of happiness, the level of life satisfaction, and the level of participation in main lifestyle aspects. The level of involvement and the index value of life satisfaction and happiness have been classified into four distinct categories: extremely low (between 20 to 39), low (between 40 to 59), moderate (between 60 to 79), and high (between 80 to 100).

### **1.7.6 Methodology for Chapter 7**

The investigation utilized a mixed-methods strategy, which allowed for the incorporation of both qualitative and quantitative research techniques. A questionnaire survey, interviews, and a perception analysis were the primary methods that were utilized to collect primary data. In order to improve the quality of the data collection and to reduce the impact of time restrictions, this study utilized snowball sampling. A study was conducted on a representative sample of 528 families located within 25 gated residential communities and 150 households located in other kind of apartments located outside of these communities. All of these households were managed by the Kolkata Municipal Corporation (KMC). In order to collect data, it is necessary to conduct a systematic interview that includes questions that are intended to assess the level of satisfaction that residents of gated communities and other residential complexes have with relation to the level of security they experience. Interviewee's socio-demographic profiles, data on crime incidences, perceptions and fears regarding various crimes, satisfaction with security measures, and ideas on how to improve community security were all included in the questionnaire that was used for the interviews.

The overall trend regarding resident's perceptions of safety and security measures in the selected gated communities and other apartments was evaluated by evaluating the agreement or disagreement of interviewees with eleven distinct statements obtained from the literature (Sakip et al. 2013; Kim 2006). This was done in order to determine whether or not the interviewees agreed with the specific statements. This was accomplished by the utilization of a Likert scale with five points. The replies "strongly agree", "agree", "neither agree nor disagree", "strongly disagree", and "disagree" each received a score of +1, +0.5, 0, -0.5, and -1, reflecting their different levels of agreement or disagreement with the statement. Increasing the reliability and validity of the findings can be accomplished by assigning index scores to the Likert scale (Bint e Waheed & Nadeem, 2020). This provides a more comprehensive picture of the perceptions held by neighborhood residents. The weighted total was calculated by multiplying the actual frequency of each response category by the score that corresponded to that category, and then adding the values that were obtained from this process. A calculation was made to determine the security satisfaction index by dividing the sum by the number of times each response type was given. The index of satisfaction developed by Yeh was utilized for interpretative purposes (Yeh, 1972). The ranges of satisfaction levels that have been defined are presented in Table 1.3.

Cronbach’s alpha was utilized in order to evaluate the degree of internal consistency that existed among the variables. Additionally, a multiple linear regression analysis was carried out in order to provide information regarding the type and magnitude of the relationships that exist between the various variables. The inhabitants were questioned about their concerns regarding criminal activity, the types of crimes that occur, and their opinions on the efficacy of installing surveillance cameras or employing security staff in reducing the incidence of criminal activity within gated communities and other types of apartments that are actually normal high-rise apartments.

**Table 1.3: Index Value Ranges and Satisfaction Level**

<b>Index value range</b>	<b>Satisfaction level</b>
> 0.20	Very low
0.20 – 0.39	Low
0.40 – 0.59	Medium
0.60 – 0.79	High
≥ 0.80	Very high

Source: Yeh, 1972

### 1.7.7 Methodology for Chapter 8

#### *Sampling design*

The methodology utilized in this chapter was a mixed-methods approach, which included both qualitative and quantitative approaches. A questionnaire survey, interviews, and a perception study were the primary methods that were utilized to collect primary data. In this study, snowball sampling was applied to improve data collecting and solve time constraints associated with the research. Within the jurisdiction of the Kolkata Municipal Corporation (KMC), a survey was carried out on a sample that was representative of 528 families located in 25 gated residential areas and 150 households located in other flats located outside of these communities for the purpose of gathering information. In order to collect data, it is necessary to conduct a systematic interview that consists of questions that are specifically designed to evaluate the level of residential satisfaction experienced by individuals who reside in gated communities and other residential flats. Through the utilization of the index of dissimilarity, the investigation investigates the disparities in income, caste, ethnicity, and religion that exist between gated communities and other apartment complexes. On the other hand, the Lorenz curve and Gini’s

coefficient have been utilized in order to investigate the issue of economic disparity that exists within gated communities and several other residential complexes. Qualitative research methodologies were utilized in order to investigate the experiences of local people who lived in regular apartments and had their perceptions of the gated community considered.

### **Index of Dissimilarity (ID)**

This index, introduced by Duncan and Duncan (1955), is the most widely used measure of segregation.

$$IDa = \frac{1}{2} \sum_{i=1}^n \left| \frac{x_i}{X} - \frac{y_i}{Y} \right|$$

Where ID represents the index of dissimilarity of component a, and n denotes the total number of respondents under a. Furthermore,  $x_i$  and  $y_i$  represent the frequency count in the analyzed group within the  $i$ th area. X and Y constitute the aggregate of the group. The index value ranges from 0 to 1. A score of zero (0%) indicates complete integration, while a score of one (100%) signifies total segregation.

### **Lorenz Curve & Gini's Coefficient (G)**

Lorenz curve and Gini's Coefficient is the most suitable for measuring income segregation within a community (Massey & Denton, 1988).

$$G = \frac{A}{A + B}$$

Where, A denotes the area between the line of perfect equality and the Lorenz curve, while A+B signifies the total triangular area. The Gini's coefficient varies from 0 to 1, where 0 signifies complete equality and 1 denotes complete inequality.

### **1.7.8 Information and Data Sources**

A significant portion of this investigation is founded on primary data, which was gathered through the use of a questionnaire survey. The office of the Kolkata Municipal Corporation (KMC) was the source of some of the secondary data that has been utilized. These secondary data included a thorough map of the KMC, as well as year-by-year building records that proved to be quite useful in determining which communities were gated. The primary data, which was gathered through a questionnaire survey of a selected number of gated communities, has been utilized for the purpose of conducting an analysis of the objectives.

## **1.8 Significance of the Research**

In today's world, gated communities have become one of the most prevalent patterns of development in the process of urbanization. The purpose of this study is to investigate the preferences of residents who live in such communities and are looking for particular values. These values may include a feeling of community, prestige, lifestyle, security, or residential satisfaction. For instance, in the case of Kolkata, gated communities as a concept for permanent housing are still in the early stages, with less dissemination and influence. This causes residents to have a negative attitude towards this trend, which will aid in the process of urban development by providing information about what people are looking for. When it comes to gated communities, the most important concern is safety and security. There will be a discussion regarding whether or not the gates and barriers had a substantial impact on the crime statistics, as well as the resident's perceptions of their own safety. Providing people with adequate safety will be made easier for the developers as a result of this. The most significant issue that arises in gated communities is social segregation, which also manifests itself in the form of spatial and economic fragmentation. With the help of this study, we will determine whether or not the segregation had a substantial impact on the people who lived in gated communities in Kolkata. The developers and planners will be able to plan the environment of the gated community more effectively and make it easier for inhabitants, which will result in an increase in the number of people choosing to live in these types of gated enclaves. Because this is the very first work ever done on the subject of gated communities in Kolkata, it will be of great use to scholars in the future who are interested in conducting research on gated communities. This study can also be helpful for government officials, academicians, and other individuals in order to obtain a comprehensive understanding of the new trend of land use development known as gated communities with the purpose of tracking their progress.

## **1.9 Limitations**

Not only are there a significant number of gated communities located within the boundaries of the Kolkata Municipal Corporation (KMC), but there are also a significant number of gated communities located on the outside of the KMC, such as Rajarhat NewTown, the Bhidhannagar region, the Sonarpur area, and so on. Therefore, on account of the vast geographical covered, the KMC area is the only one that has been selected for the study. When it comes to the numerous social, cultural, and economic aspects that gated communities have an effect on, the only aspects that have been taken into consideration for the study are segregation, lifestyle, and

security. Because of the enormous number of gated communities and the size of the population, a field survey and a questionnaire survey have been conducted with the use of sampling techniques. These surveys were conducted on the total number of residents who lived in gated communities and the gated communities themselves. A questionnaire survey conducted door to door proved extremely challenging and time consuming in gated communities; hence, some questionnaires were emailed to residents and gathered through the use of email.

### **1.10 Organization of Chapters**

The entire work has been systemically presented in nine chapters which are organized in the following manner

<b>Chapter 1</b>	This chapter highlights the concept of neighbourhoods, background of the concept of Gated community in developed, developing and Indian societies. Research questions, Objectives, Selection of the study area, Reasons for choice of the topic, Methodology, Significance of the study and limitations has been given in this chapter.
<b>Chapter 2</b>	This chapter discusses about the reviewed literature from relevant journals, books, reports and previous works in this area of research both in international and national level.
<b>Chapter 3</b>	This chapter discusses about the evolution, growth and types of gated communities in Kolkata.
<b>Chapter 4</b>	This chapter has been framed focusses on the motivations for moving into a gated community by the residents. Major factors that influence the residents to choose this kind of community has been highlighted in this chapter.
<b>Chapter 5</b>	This chapter highlights the resident's satisfaction in gated communities. Level of satisfaction of resident's and the social interaction frequency has been highlighted in this chapter.
<b>Chapter 6</b>	This chapter discusses about the lifestyle of residents in gated communities. Major lifestyle attributes, life satisfaction level and the happiness level has been broadly discussed in this chapter.
<b>Chapter 7</b>	This chapter discusses about the safety and crime rates in gated communities. Perception of crime rates and degree of fear of crime has been highlighted in this chapter.
<b>Chapter 8</b>	This chapter has been framed considering the segregation in gated communities. Social segregation, spatial segregation and economic segregation will be the main focus to discuss in this chapter.
<b>Chapter 9</b>	The last chapter concludes with the conclusion part and findings for the study of Gated communities of Kolkata.

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## **CHAPTER II**

### **REVIEW OF LITERATURE**

*In this chapter efforts have been made to describe the important aspects that mainly focus on gated communities of developed countries, developing countries and India. Literature have been reviewed on these aspects; residential satisfaction, motivations for moving in gated communities, life style, security and segregation. This chapter discusses the literature from relevant journals, books, reports and previous works on these aspects in the international, national and local levels to find the research gap.*

## **2.1 The Background of Gated communities in Developed Countries**

The contemporary form of fortified enclaves emerged in the 19th century as residential enclaves for the exceedingly wealthy. Montreout in Saint Cloud, Paris, established in 1832, and Llewellyn Park, New Jersey, founded in 1854, are notable early examples (Le Goix, 2006). At the onset of the mass suburbanization era, a limited number of private gated communities emerged. Le Goix (2006) observes that in the Los Angeles region, developers constructed enclaves including Rolling Hill in 1935, Bradbury in 1938, and Hidden Hill in 1950. Starting in the late 1950s, certain enclosed communities began to incorporate as municipal entities, establishing fortified towns resembling of medieval European settlements. In the 1980s, escalating apprehension regarding crime fostered a fear of urban environments (Marcuse, 1997; Wilson-Doenges, 2000) and led to a retreat from communal spaces (Putnam, 2000). The fear and anxiety facilitated a resurgence of private and gated communities in various nations (Caldeira, 2000; Low, 2003). McKenzie (1994) recognized the rapid growth of private communities in the United States during the 1980s. Gating may therefore be regarded as a global trend. It is undoubtedly shaped by US models, yet it is developed in accordance with local political, legal, and architectural traditions (Glasze & Alkhayyal, 2002; Glasze, 2005). Gated developments in the United States are residential communities, specifically private Common Interest Developments governed by private contractual regulations, with the primary distinction being their gated nature (Le Goix & Vesselinov, 2012). By the year 2000, over 15 percent of the United States housing stock was comprised of Common Interest Developments, with the number of units in these privately governed residential schemes increasing from 701,000 in 1970 to 16.3 million in 1998 (McKenzie, 2005). In 2002, the Community Association of America estimated that 47 million Americans resided in 231,000 community associations, with 50 percent of all new homes in major cities affiliated with these associations (Sanchez, Lang, & Dhavale, 2005). In the Los Angeles region, only between 12 percent and 30 percent of these private local government areas are gated (Le Goix, 2006). McKenzie (2005) examines the swift proliferation of golf courses in and around Las Vegas, where local government spearheads their promotion due to their association with growth, augmented tax revenues, and reduced public expenditure. The municipalities now mandate that new developments be overseen by homeowner associations; although property developers comply willingly, purchasers lack any alternative options. Conversely, Webster (2001) contends that, in the context of London and other post-industrial cities, social fragmentation is either exacerbated or mitigated by middle-income professionals relocating to the city to reside in

gated apartment complexes featuring leisure amenities and subsurface parking. Which is more detrimental: the traditional segregation of the twentieth century characterized by housing prices and distance that divides the affluent from the impoverished? Gated communities in France are not a contemporary development. A comprehensive survey conducted in 1978 identified 1,500 private neighborhoods (villas) and private streets in central Paris. In France, the 1804 Code civil establishes condominium law and governs property rights, enclosures, easements, and contractual agreements; subsequent legislation regarding planned unit developments (1923, 1976, 1986) is derived from this legal framework: every new land subdivision in the country is mandated by law to implement restrictive covenants and, in the case of private streets, a homeowners' association (Le Goix & Webster, 2008). Since the mid-1990s, gated housing developments have proliferated in Poland to an extent considered remarkable in Europe. Since the 1990s, a new and economically prosperous Polish middle class has begun to emerge. Its members were more inclined to signify their social status than their counterparts in Western European nations. Gated communities in Poland are a response to the trend of integrating diverse social groups in public housing, a practice established during the socialist regime (Mantey, 2017). The notion of Post Occupancy Evaluation originated in the United States and subsequently disseminated to other nations. The evaluation centers on the interactive relationship between the built environment and its occupants, along with their needs. Preiser et al. (2015) characterized Post Occupancy Evaluation as “the process of systematically and rigorously assessing buildings after they have been constructed and occupied for a period.” Hay et al. (2018) noted that architects in the UK believe the assessment of the built environment should extend beyond energy efficiency to encompass additional aspects of building performance.

## **2.2 The Background of Gated communities in Developing Countries**

The trends were initially recorded in the US, and subsequent research validated that gated and private communities exist in various regions globally. In certain economically disadvantaged nations, gated communities serve as a method for structuring private infrastructure and services in contexts where the government is unable to deliver them. In certain instances of infill development, enclaves enable the co-location of classes in close proximity, separated by walls or fences (Grant, 2008). After the end of the US sanctions on 2003 gated communities have been built enormously and it has increased more than 10 after 2008 in Sulaimaniyah, Kurdistan Region of Iraq. The basic services are not to be very sufficient in this region and needs to be improved. For these reasons, gated communities are the places where most of the societies are

willing to live in. This study examines the houses within gated communities in the region as a product and identifies the parameters influencing customer perceived quality, satisfaction, repurchase intention, and willingness to pay (Demir & Mukhlis, 2017). China's urbanization has experienced unprecedented rapid advancement since the late 1970s. From the late 1980s to 2015, China's urban population rose from approximately 20 percent to 56 percent. The initiative to open gated communities is primarily motivated by the necessity to transform the physical landscape of Chinese cities, such as enhancing road connectivity and accessibility, and fostering small-scale residential developments. Most gated communities offer internal services and amenities, a sense of privacy, and are conducive to pedestrian activity. Physically, gated communities with their walls could facilitate mixed uses, providing individuals with high-quality urban spaces and pedestrian-friendly environments. Socially, they could be converted into urban laboratories to foster initiatives that reimagine the relationship between residents and their environment, enhance public participation, and establish authentic, culturally vibrant spaces that reflect the complex reality of the urban landscape, preserve local identities, and reinforce the sense of belonging (Hamama & Liu, 2020). In Malaysia, there are three categories of gated communities: lifestyle communities, elite communities, and security zone communities. Housing developments in Malaysia have experienced rapid growth over the past 40 years. It is regarded as an ideal solution for safety and for ensuring profitability in property development in Malaysia. The concept of gated communities appears to be an appealing value-added attribute for residential developers (Ibrahim, 2008). Schliephake (1999) states that gated communities in Saudi Arabia were typically referred to as "compounds," a term that emerged during the significant influx of foreign labor in the 1970s. In response to the demands of the 20 million residents, Saudi landowners developed and leased residential areas featuring villas and multi-story buildings, all equipped with comprehensive amenities. Although privacy in residential spaces is integral to Arab and Islamic culture, the various communities and neighborhoods within contemporary Arabian towns were not physically isolated or segregated. Dunder & Ozcan (2003) assert that the origins of gated communities in Turkey trace back to the mid-1970s, coinciding with the emergence of second homes in coastal regions, particularly in Western and Southern Anatolia. The primary rationale for isolating themselves from their environment was security, as the residences remain unoccupied for roughly ten months annually. A regulated zone was additionally established as a novel residential area within Turkey's housing experience.

### **2.3 The Background of Gated Communities in India**

Since the late 1990s, gated enclaves have proliferated on the outskirts of numerous metropolitan cities in India, including Delhi, Mumbai, Bangalore, Chennai, Kolkata, and Hyderabad, thereby introducing a novel dimension to the urban landscape (Chacko & Varghese, 2009). Major cities in India have experienced development through private developers over the past few decades, garnering admiration in the latter half of the 20th century. In the modern world, we are increasingly transitioning towards gated developments facilitated by the private sector, resulting in less comprehensible neighborhood environments. The prevailing trend has been to reside in independent houses, which have evolved over time to meet lifestyle demands for secure community living (Kaushik, 2019; Chitgopkar, Dash & Walimbe, 2020). However, the majority of these gated communities lack a Residential Welfare Association to address the residents' grievances. In gated high-rises, the Condominium Association operates instead of the Residential Welfare Association. Gated residential complexes appear to embody aspects of Western lifestyle. The impact of Western lifestyles is evident not only in the architecture of the high-rises but also in their nomenclature. The complexes are designated with Western names rather than Indian names. This nomenclature conveys a perception of Western superiority and exclusivity compared to others in the city. The exclusivity, security, and representation of status constitute the foundation upon which gated complexes are marketed in the Indian context. The process of securitization is perpetually influenced by a constructed fear of crime rather than an actual, tangible threat. This is wholly driven by capitalist motives that seek not only to manufacture goods but also to cultivate consumers for these products, thereby establishing a market (Singh, 2015). Srivastava (2015) delineates the proliferation of gated enclaves in "New India" that govern physical mobility while simultaneously evoking emotions such as fear and moral superiority. Our primary interlocutors emphasized their choice of segregated spaces due to their challenges in adapting to the prevailing conditions in "real" or "old" India, favoring instead gated and secure environments (Illkejaer, 2012). Gated communities attract diverse groups, including non-migrant citizens, expatriates, residents of Indian descent not born in India, and foreigners engaged in extended work assignments in India (Bal, Sinha-Kerkhoff & Tripathy, 2017). In India, it is customary for senior citizens to reside with their children and their families. Senior citizens transition to multifamily dwelling units, relinquishing their independent homes due to reduced family size or challenges in maintaining those homes. These factors have contributed to the rise in the population of senior citizens living in gated communities. The Indian private housing sector has transitioned from independent houses to

standalone multifamily residences, culminating in the current prevalence of gated communities. Gated communities were established to foster a sense of belonging and wellbeing among residents. Jacob and Chander, 2020. In Bombay, gated communities are marketed based on three criteria: security, an appealing environment, and lifestyle (Falzon, 2004). In the 1990s, a growing number of elite neighborhoods in New Delhi installed gates with security personnel at their entrances. A process, referred to as fortification or gating in other contexts, is occurring in the city. The rising prevalence of gated communities, alongside a more assertive governmental approach to “cleaning up” the city through the eviction of squatters and cattle, suggests that significant changes are occurring (Waldrop, 2004). In independent India, gated residential zones also manifested as cantonment areas and housing for government officials, such as police colonies. In NCR, Delhi, while the majority of gated communities opt for privacy, as evidenced by their robust boundary walls, some have adopted a more 'inviting' design by utilizing visually permeable boundaries, permitting outsiders to glimpse into the 'private realm' of the community (Saxena, 2021). Since the 1990s, Bangalore has established itself as India's foremost information technology (IT) hub, attracting multinational corporations and highly skilled professionals. This group comprises Non-Resident Indians (NRIs) who have resided and worked overseas for several years and have returned to seize new opportunities available in the country. The advertisements portray upscale gated communities as epitomes of luxury, exclusivity, enhanced security, and convenience, while also providing a variety of recreational amenities for individuals and families. Furthermore, residents of the gated enclaves are depicted as individuals of distinction and sophistication, possessing a global and cosmopolitan perspective and identity. Residing in a costly gated community in Bangalore offers access to exclusive onsite recreational amenities and bestows social prestige. The affluent gated community in Bangalore is depicted in various manners: as a secure refuge from urban turmoil, as an exclusive and comfortable environment where all material needs are met, and as a locale imbued with a sense of community (Keivani & Mattingly 2007; Chacko & Varghese, 2009). In Hyderabad, gated communities remain initially less prevalent and less influential as a permanent housing model, necessitating an assessment of residents' perceptions of this phenomenon, an analysis of the variables and challenges associated with their willingness to reside in these areas, and an exploration of the factors that individuals are advocating for in the urban development cycle (Chitgopkar, Dash & Walimbe, 2020). Nagpur has witnessed the emergence of vertical gated communities catering to affluent demographics. Although vertical gated communities have already established complete urban environments in Mumbai, New Delhi, and other burgeoning Indian cities, this housing typology has recently

emerged in Nagpur (Khan & Belle, 2016; Wiedmann & Khan, 2019). Significant transformations have occurred in the town regarding housing, subsequently altering the nature of the neighborhoods. Recently, numerous high-rise apartments and gated communities have been constructed for affluent individuals, many of whom are employed abroad, frequently in the Persian Gulf (Abraham, 2016).

## **2.4 Typology of Gated Communities in Developed Countries**

There are various approaches exist for classifying gated communities in developed countries. In this context, each classification has been employed to analyze pertinent case studies. This section study aims to provide a comprehensive overview of the primary typologies of gated communities seen in developed nations such as the United States of America, Australia, England, and Canada. There exist four primary typologies of gated communities, namely Blakely and Snyder's typology, Burke's typology, Luymes's typology, and Grant and Mittelsteadt's typology.

### ***a) Typology of Blakely and Snyder***

In the book "Fortress America: Gated Communities in the United States", Blakely and Snyder not only categorize gated communities but also give a thorough investigation on the study of gated communities in the context of US. This study categorized gated communities into three primary classifications: Lifestyle communities, Prestige communities, and Security zone communities (Table 2.1). The classification of these groups is founded upon ideal typologies and physical attributes that have a strong correlation with market segmentation (Blakely & Snyder, 1997).

In lifestyle communities, the presence of gates serves the purpose of enhancing security measures and facilitating the segregation of leisure activities and amenities provided within the community. There exist three distinct categories of lifestyle communities, namely the retirement community, the golf and leisure community, and the suburban new town. The retirement community serves to individuals in the middle and upper-middle class groups who need a structured environment, recreational activities, and an inherent social network during the initial stages of their retirement. The residential development of golf and leisure community characterized by its prominent golf course and tennis club, serving as major amenities within the community. The suburban gated new town developments are characterized by their substantial size, often encompassing several thousand dwelling units. These developments

strive to integrate residential, commercial, industrial, and retail activity either within the complex itself or in close proximity to it (Blakely & Snyder, 1997).

Prestige communities serve as symbols of distinction and prestige, establishing a stable position within the social hierarchy. The motivation behind the installation of the gates stems from a desire to present a certain image, safeguard existing investments, and exert control over housing values. There exist three distinct categories of Prestige communities, namely the rich and famous community, the top-fifth and executive community and the executive community. The rich and famous communities refer to exclusive residential areas that provide celebrities and affluent individuals with a secluded environment. These communities are characterized by their gated enclaves, which offer enhanced privacy and security measures. The primary purpose of the top-fifth and executive communities is to bestow upon those of lower social position a certain level of prestige associated with affluent and renowned enclaves. These are specifically tailored to cater to the needs of senior executives, managers, and other accomplished professionals with the amenities like gatehouses, grand entrances, and luxurious facilities, including man-made lakes or meticulously conserved natural elements such as ocean or river views and forests. The developer's market for the executive communities is sold by developers as "executive" despite their actual classification as middle-class subdivisions (Blakely & Snyder, 1997).

The main driver for defensive fortification in security zone communities is the fear of crime and strangers. This class includes three types: the city perch, the suburban perch, and the barricade perch. The individuals responsible for the development of the urban residential structure known as the city perch are seeking measures to safeguard themselves against criminal activities and vehicular congestion. Their primary objective is to ensure the security of their residences, promote pedestrian safety on the streets, and protect their children from potential hazards such as high-speed vehicles and individuals with malicious intent. The phenomenon of suburban perch is observed in inner-ring suburbs as well as smaller towns. Barricade perches do not possess the characteristics of fully gated communities, as they lack complete enclosure by walls or fences, and fail to lock all access with gates. In this context, barricades are employed to effectively restrict access to certain thoroughfares (Blakely & Snyder, 1997).

**Table 2.1: Blakely and Snyder's (1997) General Typology of Gated Communities**

Type	Features	Subtypes	Characteristics
Lifestyle	These projects emphasize common amenities and cater to a leisure class with shared interests; may reflect small-town nostalgia; may be urban villages, luxury villages, or resort villages.	Retirement	Age-related complexes with suite of amenities and activities
		Golf and leisure	Shared access to amenities for an active lifestyle
		Suburban new town	Master-planned project with suite of amenities and facilities; often in the Sunbelt
Prestige	These projects reflect desire for image, privacy, and control; they focus on exclusivity over community; few shared facilities and amenities.	Enclaves of rich and famous	Secured and guarded privacy to restrict access for celebrities and very wealthy; attractive locations
		Top-fifth developments	Secured access for the nouveau; often have guards.
		Executive middle class	Restricted access; usually without guards
Security zone	These projects reflect fear; involve retrofitting fences and gates on public streets; controlling access	City perch	Restricted public access in inner city area to limit crime or traffic
		Suburban perch	Restricted public access in inner city area to limit crime or traffic
		Barricade perch	Closed access to some streets to limit through traffic

Source: Grant &amp; Mittelstadt, 2004

**b) Typology of Burke**

Burke's typology encompasses five interconnected criteria that pertain to gated communities in the United States, Australia, and the United Kingdom. The classification system relies on the physical and sociological characteristics of diverse groups, as well as their geographical location. These five categories encompass both pre-existing and newly developed gated communities. The various classifications include "urban security zones", "secure apartment complexes", "secure suburban estates", "secure resort communities", and "secure rural-residential estates". The presence of suburban estates characterized by fortified structures and

enclosed boundaries is a compelling challenge for urban planners concerned with pedestrian infrastructure. The investigation of the impact of “gating” on pedestrian behavior is a significant scientific endeavor, considering the estimated population of over eight million individuals residing in such residential areas in the United States (Burke, 2001).

***c) Typology of Luymes***

According to Rafiemanzelat (2016), Luymes has developed an urban network and categorized a residential enclave area by implementing access control and perimeter control measures. This classification was based on field surveys and a comprehensive analysis of marketing data in US. The author’s typology encompasses two distinct categories: the “Typology of Control” and “Retirement and resort communities”. The establishment of the physical “typology of control” within contemporary enclave communities frequently follows socio-economic divisions. The most economically prosperous residential areas are characterized by the presence of a sophisticated security infrastructure, which typically consists of an intricate security system and a gatehouse staffed by security personnel around the clock. Alternatively, these enclaves may be situated within a larger gated community, forming a secondary contained area. Retirement and resort communities are a demographic subset that has a preference for the implementation of physical barriers, such as walls, and controlled access points through gated and guarded entry systems. Upper-middle class residential areas promote the availability of gated entrances, but without the presence of security personnel. Symbolic and/or partial attempts to regulate access are situated at a lower level in the typology of control. The presence or absence of future plans to install guards or gates notwithstanding, the utilization of gateposts, intricate entrance landscaping, and signs effectively conveys a neighborhood’s assertion of territorial dominion (Luymes, 1997).

***d) Typology of Grant and Mittelsteadt***

Grant and Mittelsteadt’s typology are mostly derived on Blakely and Snyder’s typology, including other factors such as the kind of amenities and facilities, the level of income, and the sort of security features and spatial patterns. The major reason of developing of this typology was based on the necessity of elaborating and purifying the conventional classification of contemporary typologies of gated complexes of US, which had been produced in the past. An attempt is made to integrate this typology within the Canadian context. They classified gated communities into eight categories: “Ornamental gating”, “Walled subdivision”, “Faux-gated

entries”, “Barricaded streets”, “Partially gated roads”, “Fully gated roads”, “Restricted entry bounded areas”, and “Restricted entry guarded areas” (Grant & Mittelsteadt, 2004).

Blakely and Snyder (1997) proposed a framework consisting of four dimensions to elucidate the distinguishing aspects across gated communities in the United States. These dimensions encompass the purposes of enclosure, security features and obstacles, amenities and services provided, and the composition of individuals residing within these communities. Grant and Mittelsteadt (2004) suggest the inclusion of four more dimensions to further expound upon the variables that distinguish gated communities in Canada. These dimensions encompass tenure, location, size, and regulatory environment.

**Table 2.2: Classifying Gated Communities through a Continuum of ‘Enclosure’**

Type	Boundary	Road access	Notes
Ornamental Gating	no marked boundary	landmark gates at entry	Feature gates showing the subdivision name are placed at the major entries to give identity to an area.
Walled subdivisions	opaque fence or wall	Open	Fully walled subdivisions are a common suburban feature in western Canadian cities. Cars and pedestrians may enter.
Faux-gated entries	opaque wall or fence	narrowed entry, removable chains or bollards, guard house	Some subdivisions have physical features that look like guard houses or private entries to discourage uninvited vehicles from entering.
Barricaded streets	no marked boundary	public streets closed by fences, planters, or concrete barriers	Many cities barricade streets creating cul-de-sac streets within the grid as a form of traffic control. Pedestrian access remains open.
Partially gated roads	no marked boundary	lift or swing arm	Rural cottage subdivisions may feature gates that are only closed for part of the year. Communities on First Nations Reserves may have gates but no walls. Pedestrian access is open.
Fully gated roads	Natural features such as water or ravines	lift or swing arm	Prestige communities on islands, peninsulas, or remote areas may limit access through combined natural and man-made features.
Restricted entry, bounded areas	fence or wall, and/or natural features that limit access	gate with limited control access	Suburban communities may completely restrict public access; video or telephone systems may allow visitors to be vetted by residents.
Restricted entry, guarded areas	fence or wall, and/or natural features that limit access	gate with limited control access; security guards, police or army	Suburban communities may completely restrict public access; video or telephone systems allow visitors to be vetted by residents. US-style gated communities have guards at the gates or patrolling the premises. In some zones guards may carry automatic weapons.

Source: Grant & Mittelsteadt, 2004

## **2.5 Typology of Gated Communities in Developing Countries**

Multiple approaches are available for the classification of gated communities in developing countries. Within this particular setting, various classifications have been utilized to examine distinct case studies. The objective of this study part is to present a thorough examination of the many typologies of gated communities observed in developing nations, specifically Saudi Arabia, Lebanon, Malaysia, and Israel. There are three distinct typologies of gated communities, specifically Glasze and Alkhayyal's typology, Tedong et al's typology, and Rosen and Razin's typology.

### ***a) Typology of Glasze and Alkhayyal***

The typology proposed by Glasze and Alkhayyal encompasses various elements, including community dynamics, cultural segregation, and enclaves of well-being. Their study examines the cultural, economic, and political context of newly developed gated housing estates in the Arab world, utilizing case studies from Lebanon and Riyadh to establish distinctions between them.

The gated complexes in Riyadh can be categorized into three primary classifications: "extended-family compounds", "cultural enclaves", and "governmental staff housing". Extended-family compounds are comprised of a collection of residential villas that are enclosed by a shared fence or wall. These structures are specifically designed and constructed to provide suitable living arrangements for extended families. Extended-family compounds are characterized by a singular enclosure, typically in the form of a wall or fence, which serves to demarcate the boundaries. Notably, these compounds also feature distinct entrances for each residential unit, so affording a sense of autonomy and seclusion to individual families residing within. Typically, the enclosed spaces within the boundaries encompass a swimming pool, a botanical area, and a recreational space designated for children. Cultural enclaves refer to communities comprised predominantly of Western professionals. In Saudi Arabia, there exist three distinct types of compounds catering to individuals from foreign countries. Initially, this study focuses on the substances available for individual workers who possess limited or moderate skill levels. Additionally, there exist compounds designed specifically for individual semiprofessionals or technicians who are not married. Additionally, there exist compounds that cater to expatriate professionals who are accompanied by their families. The aforementioned compounds are typically characterized by effective maintenance and landscaping practices, in addition to providing a diverse array of support services like kindergartens and local clinics.

Moreover, these compounds also offer various facilities such as tennis courts and swimming pools. The inhabitants of these settlements experience a Western-style open atmosphere (Glasze & Alkhayyal, 2002).

The classification of gated housing estates in Lebanon encompasses five primary categories: “gated condominiums”, “gated model towns”, “gated villa complexes”, “gated beach and mountain resorts”, and “gated ski communities”. The earliest forms of enclosed residential areas in Lebanon encompass both coastal and mountainous retreats. Various types of communities provide maintenance and round-the-clock security services, along with both natural amenities such as beaches and scenic views, and artificial amenities such as pools and tennis courts. The management of common property and common services is overseen by a self-governing organization (Glasze & Alkhayyal, 2002).

***b) Typology of Tedong et al.***

This study represents the inaugural comprehensive empirical investigation of gated communities in Malaysia. They identified two different types of private neighborhoods: “post-market-generated guarded neighborhoods” and “market-produced gated communities”. Market-produced gated communities, which aim to attract affluent households by offering elegant living spaces enclosed within secure walls, have become the dominant force in the development of new growth regions in major cities. Guarded communities can be understood as a phenomenon that emerges after the market has operated, when residents take the initiative to establish artificial boundaries and implement control measures within pre-existing older areas. Development businesses specialize in constructing gated communities that offer a range of appealing amenities, primarily targeting affluent households residing in urban areas. Guarded neighbourhoods refer to well-established suburban areas mostly inhabited by middle-class residents, who have taken proactive measures to secure their surroundings. These measures typically involve the physical barricading of public streets, the implementation of access restrictions, the employment of security personnel, and the establishment of surveillance systems. Although other nations also have different sorts of communities, the configuration and practices observed in Malaysia exhibit unique characteristics (Tedong et al., 2014).

***c) Typology of Rosen and Razin***

Rosen and Razin (2008) conducted a classification of gated communities in Israel, identifying four distinct categories: “leisure-oriented compounds”, “retirement villages”, “urban gated complexes”, and “sub-urban new locality”. The emergence of contemporary gated

communities in Israel can be attributed to the initial period in the 1990s. Leisure-oriented compounds, first designed as recreational retreats for weekends and holidays, have undergone a transformation into a unique amalgamation of gated residential condominiums and hotels. The enclosure occurred within a broader framework of escalating privatization and growing demand for these novel dwelling forms in the real estate sector. This surge in demand can largely be attributed to lifestyle factors, particularly the allure of guarded private clubs that provide elite amenities. The late 1990s and early 2000s witnessed a proliferation of several other forms of gated communities. Retirement villages can be understood as a manifestation of traditional gated enclaves designed for older individuals. The emergence of these retirement communities exemplified the phenomena of social stratification and the privatization of housing, resulting in the establishment of upscale private condominium complexes and secluded retirement villages located in suburban areas, which provide an extensive array of amenities. In Israel, urban gated complexes have become the prevailing form of gated communities, catering primarily to middle-class professionals and affluent individuals of high social status. These urban complexes implement a range of control strategies that encompass both physical elements (such as intercom systems, surveillance technology, fences, and intentional architecture) and social aspects (such as screening based on housing costs and on-site amenities). The expansion of high-rise condominium complexes is associated with the growing popularity of such structures. While some of these complexes are gated, others may not be officially classified as gated, as their security measures and amenities are limited to individual buildings. One additional category of gated communities encompasses exurban or suburban areas consisting of individual detached single-family residences. The implementation of strict access control measures in these communities is primarily driven by the residents' desire for increased privacy and security. Additionally, it may also serve to elevate the community's status as an exclusive enclave, exemplified by the presence of its own desalination facility (Rosen & Razin, 2008).

## **2.6 Reasons for Living in a Gated Community**

At the household level, housing choice is influenced by two factors: internal factors, also known as push factors, which originate from within the household, and external factors, also known as pull factors, which originate from outside the household. The internal factors encompass socio-economic, demographic, and cultural factors. The external factors encompass the geographical location, the surrounding community, and the characteristics of the dwelling (Ahmadi, 2005). The influence of the neighborhood is a significant determinant in the decision-

making process of selecting housing within gated communities. Accessing adequate housing and desirable communities with superior amenities and surroundings is essential in the process of selecting housing. Households primarily experience upward mobility in both social status and the environmental quality of their neighborhood, characterized by reduced population density and increased availability of green spaces. The income level of individuals also plays a significant role in determining their housing preferences (Clark et al., 2004). The level of income and engagement in different social circles are strongly correlated with the choice to live in a gated community. Gated communities are suitable for individuals from all socioeconomic backgrounds, provided they possess a stable source of income and a willingness to engage with others in the community (Balakrishnan & Muthulakshmi, 2016). Sometimes the primary motivations for relocating to a gated community are status, privacy, and management. However, the presence of gates is a significant factor only for individuals who have previously resided in such a community. The main factors influencing the choice of households in gated communities include recreational amenities, privacy, community status, open spaces, parks, well-maintained surroundings, desirable characteristics of the house or apartment, location of the community, reliable provision of basic services, architectural design, and a similar lifestyle (Richter & Goetz, 2007). The socioeconomic characteristics and location preferences are also very important factors in the selection of a gated community in the United States. Factors such as housing expenses, dimensions, property worth, affordability, community cohesion, safety, and uniformity also have a significant impact (Plaut, 2011). The residents' preference for gated communities is influenced by seven key features: the presence of gates and security measures, the availability of activities and facilities, the quality of the landscape and recreational areas, the population density, the socioeconomic status of residents, the presence of open spaces, and the potential for fostering friendships. To attain four key values: security, prestige, lifestyle, and sense of community. According to the survey, the primary goal of living in gated communities in Alexandria is to attain a desirable "lifestyle". The most influential factors in residents' preference for gated communities are the landscape and recreational facilities, the presence of gates, and the availability of open spaces (Salah & Ayad, 2018). Residents in Indian context opt to reside in these communities to promote specific values, such as community importance, status, way of life, or safety. The primary determinant of residents' choice to live in communities in India is the "lifestyle" factor, along with a preference for open spaces. The seven factors that influence the preferences of residents in gated communities are: gates and safety, activities and services, landscape and recreation, density, equal socioeconomic status, open spaces, and companionship. These factors aim to fulfill four core values: health, dignity,

sense of life, and culture. The primary factors influencing residents' choice to live in privately owned gated communities in the Indian context are their preferred lifestyles (Chitgopkar et al., 2020). Constructive factors that influence residents to choose gated communities can be categorized into two groups: physical characteristics and non-physical characteristics. These groups consist of various variables (Hapsariniaty et al., 2013).

1. The internal factors comprised:
  - a. Socio-demographic factors include gender, age, marital status, household size, education level, religion, and ethnicity.
  - b. Economic: the level of employment and household income.
2. External factors relate to the attributes of the location and environment in a gated community, both physical and non-physical.

- a. Neighborhood Features

Physical: the neighborhood's exterior (closeness to employment, family/friends, and scenic/environmentally appealing areas) and interior (gated and green spaces).

Non-physical: relating to socioeconomic factors in gated communities, like safety, livability, social interaction, user status propriety, and familiarity with the neighborhood.

- b. Features of the dwelling

Physical: type of architecture, housing type, sturdy and secure structure, material quality specifications, and orientation of the dwelling.

Non-physical: cost of the property, house as an investment, tenure, mode of payment, and acquisition procedure.

## **2.7 Residential Satisfaction**

Resident's household satisfaction in multi-habited complexes and family residences relates to dwelling, neighborhood, and social network factors. Inadequate dwelling characteristics have a negative impact on the residential satisfaction of the respondents. Multi-habited residences must possess sufficient rooms and be situated in areas that provide occupants with convenient access to transportation, economic amenities, and recreational facilities (Jiboye, 2012; Addo, 2016). Adriaanse (2007) attempted to quantify residential satisfaction by employing the residential environmental satisfaction scale (RESS). A total of 16 housing demand survey

questions were utilized in an exploratory factor analysis with Varimax rotation to ascertain that residential satisfaction is not solely indicated by satisfaction with the dwelling or the internal neighborhood reputation. Instead, it is primarily identified through individuals' assessment of the societal atmosphere in their locality. Amerigo and Aragonés (1997) attempted to examine residential satisfaction using four categories: environmental quality indices, which are assessed through evaluations of the neighborhood, the house, and the neighbors. The second section pertains to the subjective satisfaction individuals have with their residential environment. The third section refers to socio-demographic and personal attributes, while the final section focuses on the behavioral characteristics of the individual. The habitability index of housing and environmental indices also serves as justifications for the level of residential satisfaction among the residents (Ogu, 2002). The residential satisfaction index was created using forty-five variables that were categorized into five components: dwelling unit features, dwelling unit support services, public facilities, social environment, and neighborhood facilities (Mohit et al., 2010). Residents of public low-cost housing and middle-income housing express moderate to high satisfaction with the features of their dwelling units, the social environment, housing support services, public facilities, and neighborhood amenities. The socio-economic characteristics of the residents, such as age, family size, working wives, and previous residence, have a negative correlation with residential satisfaction. On the other hand, residents' race, employment type, floor level, and length of residency have a positive correlation with residential satisfaction (Salleh, 2008; Mohit et al., 2010; Mohit & Mahfoud, 2015). Residential satisfaction was described by Lu (1999) as a cognitive construct that represents the degree to which people's housing demands are met from their point of view. Housing and neighborhood satisfaction are significant because the need for public acts derives from these subjective assessments, which also drive housing adjustment and movement behavior. Numerous home, neighborhood, and personal characteristics influence residential pleasure. Residential satisfactions exhibit a considerable, independent connection with the objective fundamental features of an individual and the contextual aspects of their residence and neighborhood (Galster & Hesser, 1981). The residential satisfaction of elderly individuals can be categorized into four dimensions, each corresponding to a specific ecological area. These dimensions include satisfaction with the local area, satisfaction with accessibility to local services, satisfaction with relationships with neighbors, and satisfaction with their own home (Rioux & Werner, 2011). The criterion for residential satisfaction in gated communities determines the necessary housing standards for the overall planning of a housing area. The physical satisfaction criteria for housing include housing location, housing design, and public utilities,

whereas the non-physical factors include security, social interaction, and housing tenure (Carvalho et al., 1997; Aulia & Ismail, 2013). Fang (2006) investigated the residents' satisfaction with their homes in Beijing's rehabilitated inner-city districts. The study makes an effort to comprehend residential pleasure in the context of various political economies and to address disparities in moving-in behavior, both voluntary and involuntary. Residents in this study emphasize the policies and procedures of urban redevelopment within a particular political economy as the fundamental variables impacting residents' housing experience. They also face a housing distribution system that is evolving away from administrative allocation towards market forces. The happiness level of residents living in high-density residences in Brisbane is influenced by specific elements associated with both the dwelling itself and the surrounding neighborhood. The elements that influence the desirability of a house include its location, position, design qualities (such as size, storage space, and sustainability features), the amount of noise in the neighborhood, and the safety of the local region (Buys & Miller, 2012). The multiple regression analysis revealed six characteristics that have a direct or indirect impact on housing satisfaction in the Cincinnati Metropolitan region. The characteristics encompassed in this study are age, welfare interest, housing cost, neighborhood social interaction, and the prevalence of significant housing problems (Varady & Preiser, 1998; Varady & Carrozza, 2000). A homeowner's level of satisfaction in their property can be influenced by a number of external factors, including neighborhood stability, social capital investment, and nearby amenities. Socioeconomic and demographic characteristics have also been found to have a major impact on housing satisfaction (Elsinga & Hoekstra, 2005; Tan, 2016; Waziri et al., 2014). The respondents who purchased homes in gated communities with the goal of obtaining security and privacy expressed the highest degree of satisfaction. Only the "number of households" was shown to have a substantial impact on the degree of happiness with living in gated housing schemes in the Klang Valley, out of the eight demographic parameters that were assessed (Latiff & Ibrahim, 2013). In India, the number of elderly people living in gated communities has increased as a result of smaller families and the challenges associated with maintaining independent homes. According to the study, among indicators of dwelling units, natural ventilation, thermal comfort, and spatial layout obtained the highest levels of satisfaction, indicating that the developer places a greater emphasis on the housing units (Jacob & Chander, 2020).

## **2.8 Lifestyle in Gated Communities**

The concept of gated communities is portrayed as a contemporary urban lifestyle alternative that provides private living places for individuals who belong to the high and upper-middle classes of the social hierarchy. These individuals are selected based on the economic and cultural advantages they possess. Gated communities are marketed as giving a “privileged exclusive lifestyle” by the developers of these communities, who base their marketing efforts exclusively on this characteristic of the communities. This promotion suggests that particular local marketing contexts incorporate a global inventory of architectural and social lifestyles (Almatarneh & Mansour, 2013). People began to question the set narrative of life and began to take steps in order to develop social connections inside societies that were exclusive and stratified within society. In spite of the fact that the urban environment appears to be designed to restrict community interaction in a number of different neighborhoods, this underlines the desire that individuals have to form communities that are able to survive (Romig, 2005). The concept of lifestyle can be utilized in the context of local development and the creation of exceptional housing projects that revolve around a common lifestyle characteristic, such as senior communities or homes in areas abundant in water resources (Jansen, 2011). This is a potentially more practical application of the concept of lifestyle. A relationship exists between the feelings of elite individuals and the activities they do to defend themselves in Mumbai, and this connection is influenced by both historical causes and the events that are occurring at the present time. The elite take specific actions to protect the way of life to which they feel entitled (Falzon, 2004). In the 1990s, there was a growing trend among the wealthy neighborhoods of New Delhi to construct gates with security guards at their entrances. This trend was particularly prevalent in the residential areas. The entire city is currently experiencing a phenomenon that is described as fortification or gating in other situations. This phenomenon is currently taking place. Because it is gated to restrict access, Golf Links, a centrally located up market suburb in New Delhi, is an illustration of the shifting class relations in urban India. Golf Links is located in the heart of the city (Waldrop, 2004).

## **2.9 Safety and Security in Gated Communities**

Creating a sense of safety from criminal threats is an important requirement for attaining a high standard of living. Abraham H. Maslow, a psychologist, believed that individuals have a natural inclination to fulfill their various needs, starting from basic survival and progressing towards self-fulfillment. However, individuals may not be able to satisfy their higher-level needs unless

their basic needs are met (Kim, 2006). Within this framework, Maslow proposed a hierarchical model consisting of five stages: physiological needs, safety needs, love and belonging, self-esteem, and self-actualization (McLeod, 2018). While safety may seem like a secondary concern, it is closely connected to the prevalence of crimes in one's vicinity, particularly in their living environment. Crime is a complex issue that requires focused and specific attention from society. Fear of crime refers to the diverse emotional and practical reactions displayed by individuals and communities in response to criminal activities (Marzbali et al., 2016). The relationship between the built environment and crime has been extensively studied in the field of urban planning and design. Certain circumstances inspire particular criminal activities. When a victim is alone, street robbery becomes more feasible. While burglary is facilitated by discreet entry, pick pocketing is effortless in densely populated urban areas. It appears that by preventing one crime, we may inadvertently facilitate another (Hillier & Sahbaz, 2008).

The residents of this gated residential estate aimed to prevent minor forms of urban crime and establish control and stability in their residential environment. These objectives are achieved through private governance arrangements. In order to ensure security and protection, a combination of physical security mechanisms and private governance structures are employed (Kenna, 2010). There are two methods for enhancing the overall safety of neighborhoods; by encouraging a substantial amount of pedestrian activity, a diverse range of land uses, and permeable and open mixed-use environments. One way to establish a secure area is by designing a 'defensible space' with a low population density and a single-purpose environment that restricts access for unfamiliar individuals. Newman defines a defensible space as a model for residential environments that deters crime by establishing a physical manifestation of a social structure that can protect itself (Newman, 1973). Fear of crime is influenced by five distinct factors: victimization, physical and social environment, frequency of crime, and crime-specific challenges in the area. The fear of crime is thought to be greatly influenced by the physical environment, as it relies on the presence of permanent elements created through physical design. The fear of crime is also associated with various factors, such as community relationships, lifestyle, and the surrounding environment. To ensure a residential community free from crime, it is necessary to combine and enforce various efforts and multiple security measures (Abdullah et al., 2012). In order to enhance the safety of communities, it is necessary to implement territoriality through architectural interventions, create fear-free residential environments by ensuring bright lighting at night, establish a collaborative management system that includes 24-hour maintenance service and patrol service, and encourage residents' active

participation in ensuring safety in their immediate surroundings (Kim, 2006). Integrating with mixed-use areas and open spaces can enhance the vitality and efficiency of communities. Parks can maintain order through strategic placement of security guards, CCTV cameras at entrances, well-maintained paving, lush planting, effective lighting, and conveniently located seating areas. Implementing comprehensive video security operations at the city level, along with integrating a wide range of software and hardware surveillance technology, can contribute to enhancing safety in urban areas (Banerji & Ekka, 2016). Davis (2006) proposes that the fear of crime can be addressed by implementing gated communities that incorporate guardhouses, walls, and entrance gates as essential components of the neighborhoods (Davis, 2006). Kim (2006) defines a gated community as a residential area or neighborhood that is typically enclosed by a barrier, allowing only residents and their guests to enter (Kim, 2006). Grant and Mittelsteadt (2004) define a gated community as a residential area that is accessible only through private roads that are closed off to the general public by a gate at the main entrance. The developments may be enclosed by fences, walls, or other natural barriers that additionally restrict public access (Grant & Mittelsteadt, 2004). Gated communities are often defined by researchers as residential areas that are physically separated from their surrounding areas by a wall or fence (Sakip et al., 2013). In contrast, non-gated communities lack fences or gates to deter outsiders from entering. As a result, they are unable to control the flow of traffic from neighboring areas (Kim, 2006). In these regions, individuals of diverse religious beliefs, ethnicities, and socioeconomic backgrounds come together to discuss and address their shared challenges. Therefore, social and community networks become stronger, and individuals develop a greater appreciation for one another (Miao, 2003).

The primary motivations for individuals to relocate to a gated community in Ankara are fear of crime, with lifestyle considerations being a secondary factor (Guzey & Özcan, 2010). The study conducted in Lahore, Pakistan reveals that individuals with higher income levels experience a lower incidence of crimes compared to those with lower or middle incomes, as the latter group is more susceptible to criminal activities. The level of insecurity felt by the residents is directly correlated with the frequency of crimes in that community. Furthermore, inhabitants of gated communities' express higher levels of contentment with the safety and security protocols. Multiple streets within each block of an unsecured residential area contribute to criminal activities (Bint-e-Waheed & Nadeem, 2020). According to Sakip et al. (2018), residents in Malaysia who live in a gated residential area have a greater level of fear towards crime compared to those living in a non-gated residential area. As urbanization increases, there is a

growing concern regarding the decrease in community cohesion and the rise in crime-related anxiety (Sakip et al., 2018). Residents of gated communities with high incomes reported a notably reduced sense of community, significantly higher levels of perceived personal safety and comparative community safety, but no significant disparity in actual crime rate compared to residents of non-gated communities. There were no notable disparities between the gated and non-gated communities in low-income areas (Wilson-Doenges, 2000). In their study, Sakip et al. (2012) found that the level of community cohesion was higher in non-gated residential areas of Malaysia compared to gated residential areas. The strength of residents' sense of belonging and community sharing in a neighborhood was dependent upon the duration of their residency and the quality of their community relations (Sakip et al., 2012). The case of Budapest demonstrates that the fear of crime is not a primary motivation for people to relocate to gated communities, despite the prevalence of secure and protected areas (Cséfalvai, 2011). In Iran's gated communities, social cohesiveness and perception of safety did not significantly correlate. The residents had a relatively strong sense of social cohesion, but their perception of safety was moderate. Promoting surveillance opportunities can also reduce disorder and apprehension (Hedayati-Marzbali et al., 2017). In general, households that have gated entrances tend to feel more secure in terms of crime. However, there were circumstances where there was not a significant disparity between homeowners living in gated communities and those living in non-gated communities. In these cases, renters residing in gated communities expressed greater levels of apprehension regarding crime when compared to renters in non-gated communities (Sanchez et al., 2005). There was little to no variation in the perception of police protection based on tenure or gated status. Robbery rates did not show any statistically significant variations between complexes that had gates and those that did not have gates (Jacobs & Addington, 2016). Gating does not invariably prevent crimes like burglary, and in certain cases, it may even serve as a magnet for criminal activity, both during daylight hours and at night, within South African gated communities. Specific physical attributes of gated communities can effectively discourage criminal behavior. The size of gated communities and the number of land parcels they contain are particularly significant (Breetzke et al., 2014). Gating consistently redirects criminal activity to alternative communities. Occasionally, the implementation of gating measures can lead to a rise in the overall crime rate. This can occur if gating affects employment prospects or influences the choice between different crime rates that exist in equilibrium (Helsley & Strange, 1999).

## **2.10 Segregation in Gated Communities**

Segregation is a continuous and integral part of urban society. Segregation is often mistaken for inequalities, social fragmentation, and urban poverty. The primary factors contributing to segregation in Latin American literature are social disparities, real estate speculation, and the emulation of cultural norms from more advanced nations. The three explanations are more applicable in criticizing Capitalism than in facilitating comprehension of the attributes and actual patterns of residential segregation in cities (Sabatini, 2006). Arab and Jewish cities have witnessed a significant increase in levels of segregation and hyper segregation. The residential pattern in each city has undergone evolution and transformation over time (Falah, 1996). In the beginning of the 21st century, caste continues to be a significant factor in the urban residential segregation of India's seven largest metropolitan cities. The analysis reveals that residential segregation by caste is significantly greater than segregation by socio-economic status in all of these cities. Caste has traditionally influenced the arrangement of living areas, particularly in rural areas, and it seems to still have an impact on the organization of residential space in modern urban India. Nevertheless, it gives us assurance that the processes leading to caste-based residential segregation are a significant cause of inequality that should be studied separately (Vithayathil & Singh, 2012). Aligarh experienced segregation based on both ethnic and class divisions, and the residents interpreted this spatial clustering in a complex and contradictory manner. There existed a distinct type of neighborhood characterized by the deliberate separation of cultural and religious groups, exclusion based on ethnicity, and a sense of superiority based on social class. However, the Muslim neighborhood was also perceived as a segregated and isolated community. Due to the traumatic experience of interreligious riots and the concern that similar violent incidents may occur again, they chose to live in separate enclaves to ensure their physical safety (Galonnier, 2015).

There are varying perspectives regarding the negative aspects of gated community developments. Blandy and Lister (2005) argue that the residents of gated communities in the north of England may develop a divisive "us versus them" mentality, leading to a deterioration of social connections with the surrounding neighborhood. Gated communities contribute to segregation by delineating territories that are predominantly homogeneous, primarily determined by income and age criteria. The process of producing urban space is influenced by both private strategies, such as those employed by developers, and public strategies, such as attracting taxpayers. This process aligns with the historical involvement of public policies in promoting segregation (Le Goix, 2005). In his study, Roitman (2005) investigates the

correlation between gated communities and urban social segregation in Argentina. He argues that this process of segregation has dual effects, resulting in feelings of segregation and discrimination for both residents within the gated community and individuals residing outside of it. The study's findings indicate that security, social status enhancement, and improved quality of life are significant factors influencing the decision to move to gated communities. Additionally, residents of gated communities tend to experience a greater sense of comfort and security due to the presence of a comprehensive range of security measures. However, they also experience feelings of discrimination from individuals outside their group due to their privileged access to these advantages. Conversely, the residents in the adjacent regions also experience discrimination and isolation, as they lack access to the same services or advantages as those residing inside. Coy (2006) argues that gated communities are perceived as a prominent outcome of the increasing social inequalities in urban society and the subsequent fragmentation of urban space. Public authorities are increasingly ineffective in addressing growing inequalities and urban transformation processes dominated by market forces. According to Genis (2007), gated communities in Istanbul not only increase socio-cultural division and spatial segregation, but also establish a clear distinction between "insiders" and "outsiders". Vesselinov et al. (2007) argue that the practice of gating, which involves the development of enclosed residential communities, increases urban inequality and perpetuates the prevailing social hierarchy. Furthermore, when multiple layers of distinct social factors such as race, income, and specific family composition are combined, GCs introduce an additional level of social and spatial differentiation. Borsdorf and Hidalgo (2008) propose that the establishment of exclusive private roads for privileged residents has led to the formation of extensive self-contained ghettos, resulting in a new kind of socio-spatial exclusion and segregation in Santiago de Chile. Santiago is characterized by ethnic segregation, while in Buenos Aires, the majority of immigrants originate from non-metropolitan areas of Argentina. The process of gentrification is highly prevalent in the central communes of Santiago. In contrast, the Argentines perceive the establishment of gated communities as a unique form of social advancement (Borsdorf et al., 2016). Gating and segregation in U.S. cities are perpetuated by similar mechanisms, thereby strengthening urban inequality. Gating, as a recently emerged method of urban inequality and privatization of space, has the capacity to reshape the social and spatial structure of cities, leading to a process of social exclusion that is determined by factors such as race, ethnicity, and income (Vesselinov, 2008). Akgün and Baycan (2012) argue that the most significant adverse effects of gated communities are social and spatial segregations. Kovács and Hegedus (2014) argue that gated communities have

become representative of social division and tension within local communities. These communities enable residents to effectively isolate themselves from the wider society and transform public spaces into secure, privately managed areas protected by imposing barriers. There is evidence suggesting that gated communities contribute to the development of residential segregation. Homeowners' engagement in events organized by the neighborhood committee decreases after relocating to gated communities, suggesting an adverse impact on involvement in local public matters (Deng, 2017). Gated communities exemplify a severe form of residential segregation, where the movements and patterns of residents indicate a dynamic process of separation that extends beyond their physical living spaces. The time-space trajectories of segregation can be understood as interrelated routes between important domains, such as work and home that allow elite social groups to maintain social distance and manage perceived risks. Gated communities exacerbate current trends of segregation in urban areas, and it is necessary to implement policies that limit the development of these isolated enclaves (Atkinson & Flint, 2004). The development of the western enclaves can be attributed to the combination of traditional socio-religious urban segmentation and the influence of western models of gated master planned communities. They are largely independent from their surroundings. They create isolated areas of western lifestyles that are distinct from the surrounding environment, where unique social norms and institutions are in place (Glasze, 2006). Local residents exhibit signs of social segregation, as evidenced by the presence of tall walls, fences, and security personnel that are implemented to restrict their access to the community. While segregation is not the primary motivation behind the establishment of gated communities, the presence of such communities in Ankara ultimately results in a city that is socially and economically divided, leaving local residents feeling excluded from these enclosed areas (Alkan-Gökler, 2017).

There is a limitation of studies that document any positive effects of gated communities on society and the environment. Gated communities can promote social cohesion by gathering resources to enhance individual advantages and by engaging diverse income groups to establish management structures that can mitigate criminal activity. Policy makers must carefully balance the concerns of segregation against the goal of promoting consumer choice and potentially enhancing social cohesion through the creation of sustainable communities. Instead of strongly opposing privatism, isolation, and specific interests, they should explore the possibility of providing alternative forms of communities (Manzi & Smith-Bowers, 2005). The spatial distribution of luxurious real estate projects promotes certain types of social integration

and offers benefits to less affluent residents by introducing employment opportunities to the community (Sabatini & Salcedo, 2007). There are minimal socio-demographic disparities between residents of gated and non-gated suburban communities, and currently, gated communities in Canada's cities do not contribute to class or racial segregation. Nevertheless, residents of gated communities do express statistically distinct preferences that motivate their decision to relocate to these communities (Walks, 2014). Sometimes, gated communities do not necessarily contribute to the amplification of social and residential segregation. Lower-class families were already segregated from families in the neighbourhoods (Alvarez-Rivadulla, 2007).

The review of the literature suggests that although there are some studies that present different viewpoints in academic literature, gated communities are generally viewed as contributing to increased social segregation and exclusion based on socio-spatial factors, socioeconomic inequality, and the fragmentation of urban space. They are generally perceived as highly homogeneous areas that establish boundaries based on income. Furthermore, there are studies that argue that gated communities effectively convert public space into private property, thereby restricting access only to their residents. This practice ultimately results in social exclusion.

## **2.11 Research Gap**

After the time of globalization, gated communities began to arise in the city of Kolkata. Living in urban areas is a concept that is associated with neoliberalism. An increasing number of gated neighborhoods is sometimes cited as an indicator of changes occurring in the social and physical aspects of cities. They have a special influence on the neighborhoods that are located outside of its walls, such as causing a threat to the safety of the residents, restricting access, and promoting segregation, all of which contribute to the ongoing existence of social poverty. There has not been a significant amount of research conducted on gated communities in India. In the cities of Chennai, Bangalore, and Mumbai, as well as in the National Capital Region (NCR), very little work has been completed. Additionally, there is no classification of gated communities in India. At that time, I attempted to categorize gated communities in Kolkata. There is no work of this kind that has been done on Kolkata. This study will therefore concentrate primarily on the social aspects of gated communities, such as segregation, lifestyles, and security, and will also attempt to comprehend the ways in which social contact among inhabitants of gated communities in Kolkata affects the level of happiness that people feel with their living conditions.

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## **CHAPTER III**

### **EVOLUTION, GROWTH AND TYPES OF GATED COMMUNITIES IN KOLKATA**

*The city of Kolkata has a rich historical background in terms of the development and transformation of its neighbourhoods over time. This chapter investigates the current evolution of gated communities in Kolkata across the years. The development of gated communities has witnessed the coexistence and evolution of traditional government enclaves and contemporary market-oriented private gated enclaves. This chapter also aims to examine the various typologies of gated communities in the city of Kolkata. It involves the classification of gated communities based on their evolutionary stage, total number of residential units, areal size of the gated community, and nature of enclosure.*

### **3.1 Introduction**

Among the realm of contemporary urban study, the subject of gated communities has arisen as a subjective nature that is both difficult and demanding to investigate. Residential communities that are referred to as gated communities are those that are marked by limited access, and in these communities, public areas are frequently changed into private domains. Developments in the field of security often include designated perimeters, such as walls or fences, in addition to entries that are subject to regulation. According to Blakely and Snyder (1997), the major purpose of these procedures is to prevent those who are not residents of the area from gaining unlawful entry to the specific location. It is possible to define a gated community as a privately controlled residential enclave, which is also frequently referred to as common interest housing developments (CIDs). Gated communities are planned communities that consist of single-family homes, townhouses, and condominiums, as stated by Evan McKenzie (2005). Gated communities are becoming increasingly prevalent in India's cosmopolitan cities, including New Delhi, Mumbai, Ahmadabad, Bangalore, and Chennai, amongst others. Gated communities have been seen in India. These communities take the form of a variety of residential quarters, including those that are allocated for members of the Army, Navy, and Air Force military personnel, as well as teachers, bank employees, police officers, and employees of oil companies. In recent years, these quarters have been transformed into fully constructed gated communities that are equipped with modern amenities. (Jacob & Chander, 2020; Balakrishnan & Muthulakshmi, 2016; Bal, Sinha-Kerkhoff, & Tripathy, 2017). The emergence of gated communities in Kolkata from the time of globalization to present day is the topic of discussion in this chapter, which also classifies these communities according to a variety of distinguishing characteristics.

### **3.2 The Rise of Gated Communities in Kolkata**

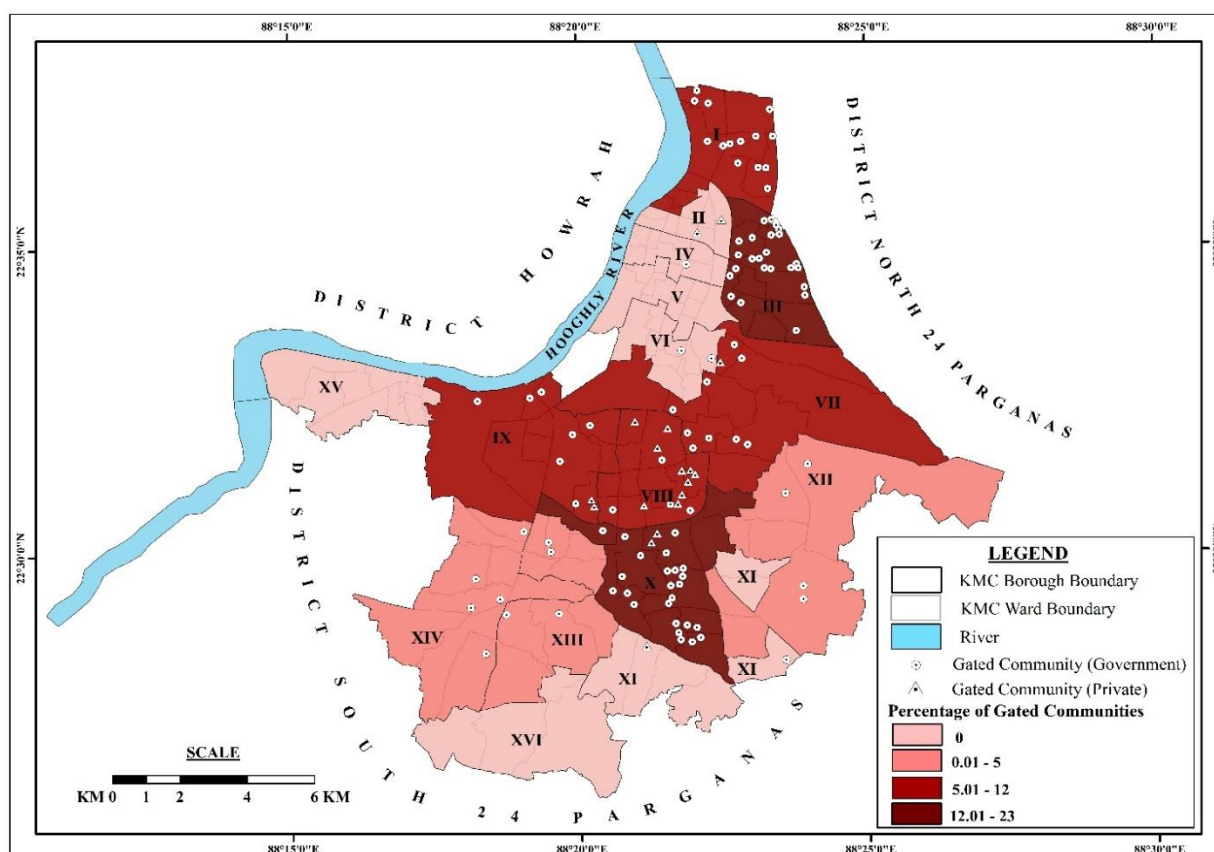
During the period that followed the globalization of the economy, gated communities began to emerge in Kolkata. It was predominantly government personnel quarters, such as police quarters, bank employee quarters, and railway quarters that made up the majority of gated neighborhoods in the era before globalization. The development of gated communities in Kolkata over the course of time, as well as the many classifications of these communities and the ways in which they are distributed around the metropolitan landscape. One thing that should be brought to our attention, however, is that these enclosed residential communities do not have any modern amenities. The use of gates and regular monitoring of public entry by security

personnel are both employed in order to restrict access to these gated communities. Within the city of Kolkata, there are a total of 681 gated communities that have been identified, and 45 of these communities are actively undergoing construction. A total of 681 GCs has been found all over Kolkata Municipal Corporation, while the majority of them have been constructed during this decade. Approximately 96,714 residential units are included in the gated communities that are being considered here, and the total area covered by these communities is approximately 94,38,811.98 square meters.

### **3.2.1 The Beginning of the Gated Communities (before 1990)**

During the pre-globalization era, gated communities in Kolkata mostly evolved as government residential quarters and complexes. As a result of an extensive assessment, it has been discovered that around 17.33 percent of residential gated communities in Kolkata were built prior to the year 1990 (Figure 3.6). A majority of 84.75 percent of the total share, which is 17.33 percent, is comprised of residential complexes that are owned and operated by the government, while the remaining 14.25 percent is comprised of private gated complexes (Figure 3.5). It is estimated that approximately 24.55 percent of the residential units are contained within these gated complexes, which collectively occupy the total area coverage of 24.83 percent (Figure 3.6). The Calcutta Improvement Trust (CIT), which is now known as the Kolkata Improvement Trust (KIT), as well as the Central Government Housing Complex and the West Bengal Housing Board (WBHB) were among the organizations that were responsible for the construction of these government residential complexes. Since its inception in 1973, the West Bengal Housing Board (WBHB) has been functioning as an independent organization that is subject to the administrative supervision of the Housing Department of the Government of West Bengal. Throughout the 1970s and 1980s, the government of West Bengal undertook the development of residential complexes with the intention of providing cheap housing alternatives for the population that was residing inside the state. Economically Weaker Sections (EWS), Lower Income Groups (LIG), Middle Income Groups (MIG), and Higher Income Groups (HIG) are the four separate groups that the residences that are being given fall into. A lottery-based approach is used to distribute the housing units that were built by the board to the people who live in the state of West Bengal. Prior to the year 1990, the most common type of gated community in existence was comprised entirely of residential areas and government structures. The Calcutta Improvement Trust (CIT) was responsible for the creation of residential complexes in the city's outskirts throughout the 1970s and 1980s. These locations included Tollygunge, Kakurgachi, Phoolbagan, Ultadanga, and Bhawanipur, among others.

Furthermore, the CIT was responsible for the development of residential complexes within the city itself. Some examples of these complexes are developed in Maniktala, Entally, Burrabazar, Cossipore, and Paikpara. Residential buildings are constructed by CIT with the intention of catering to both government personnel and members of the general public. During the 1970s and 1980s, a number of different types of Central Government General Pool quarters were built in the city of Kolkata. These quarters included the Coal India complex, the RBI employee complex, the HUDCO employee complex, the BSNL staff quarter, the Railway employee quarters, and the Telephone and Postal housing complex.



**Figure 3.1: Distribution of Gated Communities in Kolkata (Before 1990)**

Source: Prepared by Researcher from Primary Field Survey, 2022-23

In compared to the other boroughs, it is clear from looking at Figure 3.1 that the percentage of gated communities in Borough III and X is significantly higher than in the other boroughs. A substantial number of gated complexes can be found in Boroughs I, VII, VIII, and IX. On the other hand, the remaining Boroughs have a prevalence of gated complexes that was created before to 1990 that ranges from usually low to very low (Appendix Table IV).

### **3.2.2 The Diversification of Gated Communities (1990 to 2000)**

During this time period, it is possible to notice a mix of residential complexes under the jurisdiction of the government and those under private ownership. Cooperative societies and other privately created communities are the primary components of private communities. These communities were established by a number of local and recognized builders, including the Mani Group and the Merlin Group. In a broad sense, there are two categories that can be used to classify government communities. The first category consists of living quarters that are provided by the government and are assigned to employees working for both the state and the central governments. On territory that is held by the government, the second category includes housing developments that were created by the West Bengal Housing Board (WBHB) and the Calcutta Improvement Trust (CIT), which is now known as the Kolkata Improvement Trust (KIT). Through the use of a lottery-based method, these housing projects are made available to the general population. An example of a current phenomenon is the rise of private gated communities, which are communities in which residents choose to live in residential sections that are separated from one another and provide a variety of contemporary conveniences and recreational infrastructure. During this particular time period, it has been noted that around 11.16 percent of gated complexes are located within the city of Kolkata. This is a proportion of the total number of gated complexes that are found in the world. According to the data presented in Figure 3.6, it has been determined that 11.16 percent of the communities that fall under the category of gated neighbourhoods can be classed as such. It should also be mentioned that government housing agencies, which include both state and central authorities, are responsible for the development of 55.26 percent of these gated neighborhoods. Conversely, the remaining 44.74 percent of gated neighbourhoods are created by various private construction firms (Figure 3.5). Approximately 9.14 percent of the total residential units are located within the gated communities that are being considered, and these communities collectively comprise 9.01 percent of the total land (Figure 3.6). In addition to officer's quarters, residential complexes for the Council of Scientific and Industrial Research (CSIR), Coast Guard, and other government agencies, the city is filled with residential complexes that are provided by the government. These complexes include residential complexes that are provided by institutions such as the Reserve Bank of India (RBI), State Bank of India (SBI), Indian Overseas Bank (IOB), and other banks. Based on the data presented in Figure 3.2, it is evident that the percentage of gated communities in Borough VIII and X is significantly higher than that of the surrounding Boroughs. A moderate amount of percentage of gated community have

been found within the chosen time period in the following boroughs: I, III, VII, IX, XI, XII, and XIII (Appendix Table IV).

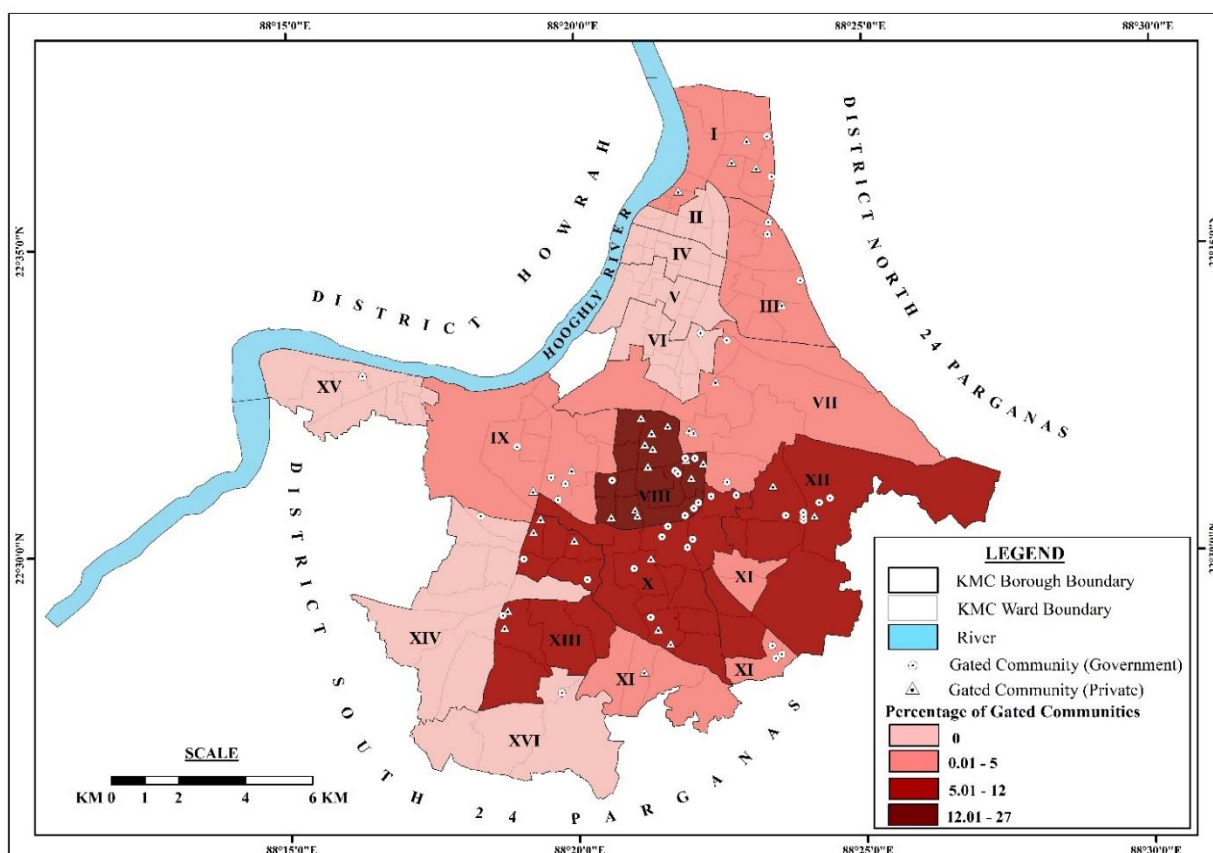
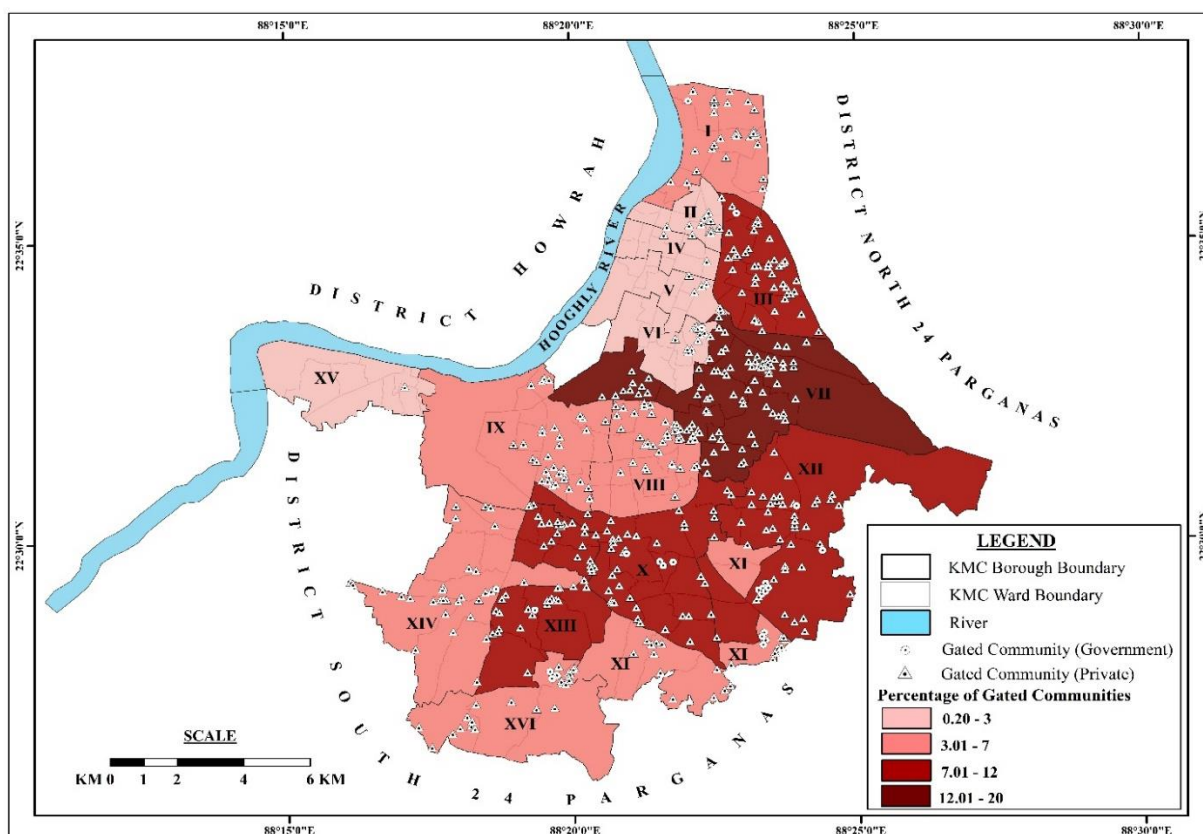


Figure 3.2: Distribution of Gated Communities in Kolkata (1990-2000)

Source: Prepared by Researcher from Primary Field Survey, 2022-23

### 3.2.3 The Mass Phenomenon of Gated Communities (after 2000)

The city of Kolkata is experiencing a considerable increase in the number of gated communities at present. Among the private construction enterprises operating in the residential sector, there has been an increase in the amount of money invested. Several national and multinational groups, such as the Mani group, Merlin group, South city group, PS group, Vinayak group, Siddha Group, Avani group, Urbana group, Ambuja Neotia group, Eden group, Ekta group, Belani group, Ideal group, Orbit group, Diamond group, Godrej group, Aspiration group, Sugam group, Salarpuria Sattva group, Ruchi realty group, L&T construction, and other smaller construction companies have been the primary entities responsible for the construction of gated communities on the outskirts of the central business district (CBD).



**Figure 3.3: Distribution of Gated Communities in Kolkata (After 2000)**

Source: Prepared by Researcher from Primary Field Survey, 2022-23

Additionally, during this time period, the West Bengal Housing Board (WBHB) has built a limited number of large-scale gated neighborhoods. These neighborhoods include Calcutta Greens, Ruchira Residency, Purba Abasan, Avidipta, Avisikta 1 & 2, and a few others. During this particular time period, it has been discovered that a sizeable number of gated communities, specifically 71.51 percent, have been established. In addition, about 66.31 percent of all dwellings are classified as belonging to this category, which accounts for 66.16 percent of the total land area (Figure 3.6). In this study, it was discovered that the majority of gated communities, particularly 94.87 percent, are constructed by private companies, while the remaining 5.13 percent are established by government organizations (Figure 3.5). In recent years, a number of residential communities have been constructed on the outskirts of Kolkata, including in the area like New Town, Sonarpur, Bidhannagar, and Dumdum. The Kolkata Municipal Corporation (KMC) is not the only place where this phenomenon is observed; rather, it is also present in the regions that are located in close proximity to it. Because there is a limited amount of area available in Kolkata, the formation of a large-scale community is quite difficult. One of the phenomena that is being taken into consideration is the growth of a certain entity towards the region that is considered to be its edges. In the years after the year

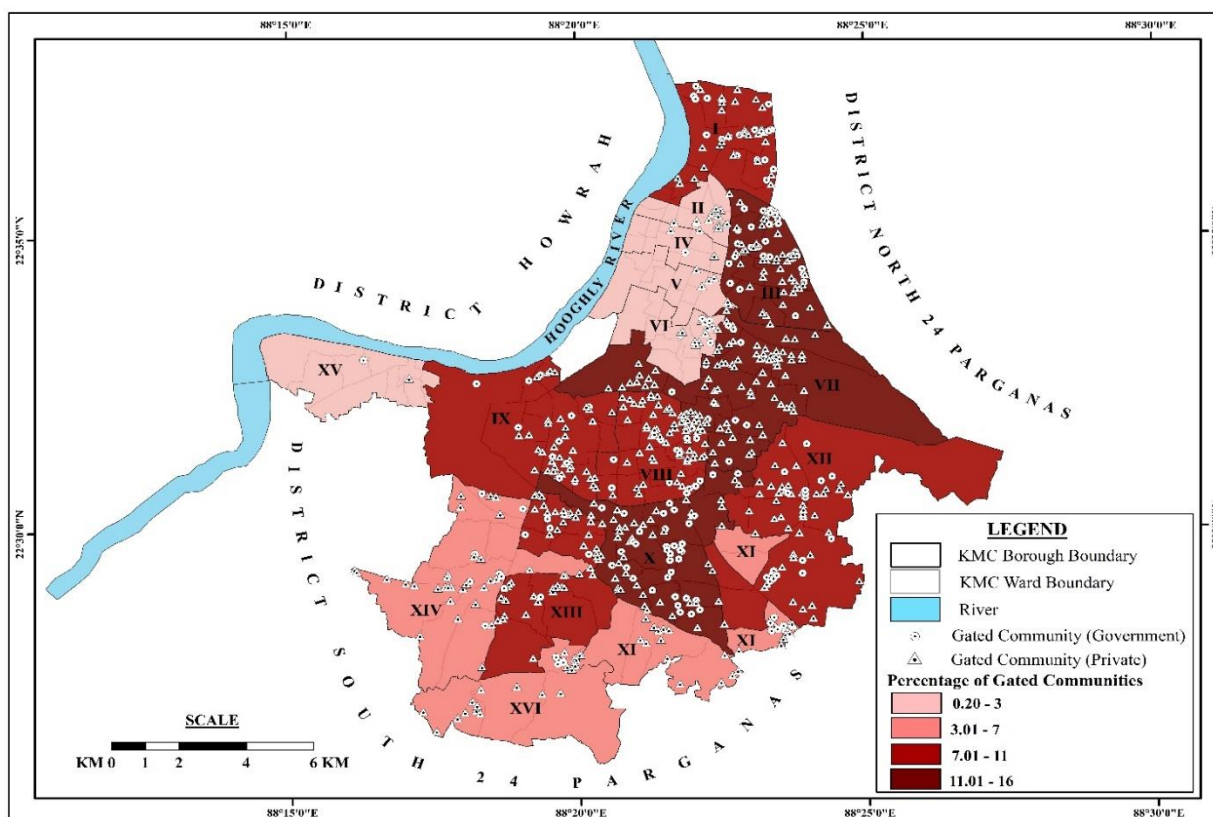
2000, a number of neighborhoods constructed in several areas of Kolkata, namely Phool Bagan, Tangra, Topsia, Kasba, Ballygunge, Behala, Tollygunge, Mukundapur, Thakurpukur, Bansdrani, New Garia, and Alipore, have witnessed a substantial increase in the number of private gated communities. This phenomenon can be linked to the presence of well-developed road and metro networks in these areas, as well as the availability of a large number of open spaces in these areas. Due to the fact that these areas mostly constitute the periphery of Kolkata, the growth of the metropolitan area towards this region has occurred. In accordance with the data presented in Figure 3.3, it is obvious that Borough VII has the highest concentration of gated communities because of well-developed road and metro network and lots of space for constructing big sized gated communities. On the other hand, Borough III, X, XII, and XIII exhibit varied degrees of moderate to high concentrations of gated neighborhoods. It is noteworthy that the sections of Borough I, VIII, IX, XI, XIV, and XVI contain a significant number of gated communities within their respective boundaries (Appendix Table IV).

#### **3.2.4 Overall Distribution of Gated Communities in Kolkata**

When the percentage share of gated communities is compared among the Boroughs (Appendix Table I), the overall picture suggests that the highest prevalence of gated communities can be found in Borough VII, which is 15.86 percent. After Borough VII, Borough X, and Borough III have the highest percentage share of gated communities which is 11.45 percent and 11.01 percent respectively. Among all the Boroughs, Borough I, III, VIII, and X are disproportionately represented by the presence of government-controlled complexes and quarters that are gated. There is a considerable concentration of private gated communities in Borough VII and Borough XII. Borough I, VIII, IX, XII, and XIII have a moderate number of gated communities share among all the Boroughs. Low percentage share of gated communities has been found in Borough XI, XIV, and XVI. As shown in Figure 3.4, the percentage of gated complexes that were observed in Boroughs II, IV, V, VI, and XV has been remarkably low percentage.

The Khidirpur area is located in Borough XV, and it is primarily well-known for its garment businesses and export and import businesses. Therefore, the opportunity for the expansion of gated communities does not exist. The localities of Bagbazar, Sovabazar, Shyambazar, Barabazar, and Boubazar are included in the region that consists of Borough II, IV, V, and VI. As a result of the substantial amount of congestion in this region, there is not sufficient room for the expansion of gated communities. The information that is presented in Figure 3.5 demonstrates a significant pattern that has been seen in the distribution of gated complexes.

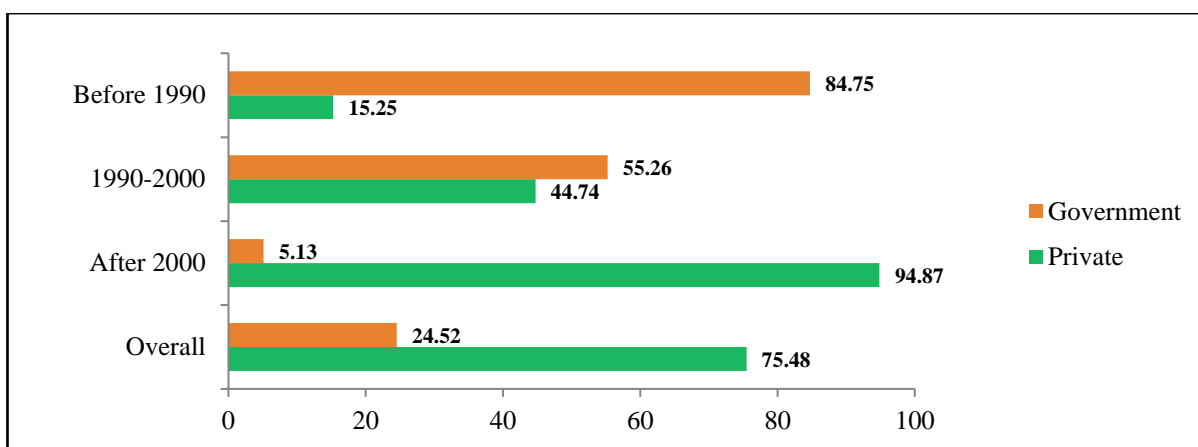
Before the year 1990, the government owned gated communities are 84.75 percent, which can be considered a large majority compared to private gated communities (15.25 percent).



**Figure 3.4: Total Distribution of Gated Communities in Kolkata**

Source: Prepared by Researcher from Primary Field Survey, 2022-23

When compared to the number of private gated complexes, the number of government gated complexes was roughly equivalent between the years 1990 and 2000. Between 1990 to 2000, 55.26 percent gated communities are government owned and 44.74 percent are private owned gated communities. In spite of this, following the year 2000, there was a significant rise in the number of private gated complexes (94.87 percent), which indicates a paradigm shift away from gated complexes controlled by the government and towards those owned by private entities directly. Therefore, overall picture depicts that, 24.52 percent of gated communities which are owned by government entities and 75.48 percent of gated communities are owned by private entities (Appendix Table II).



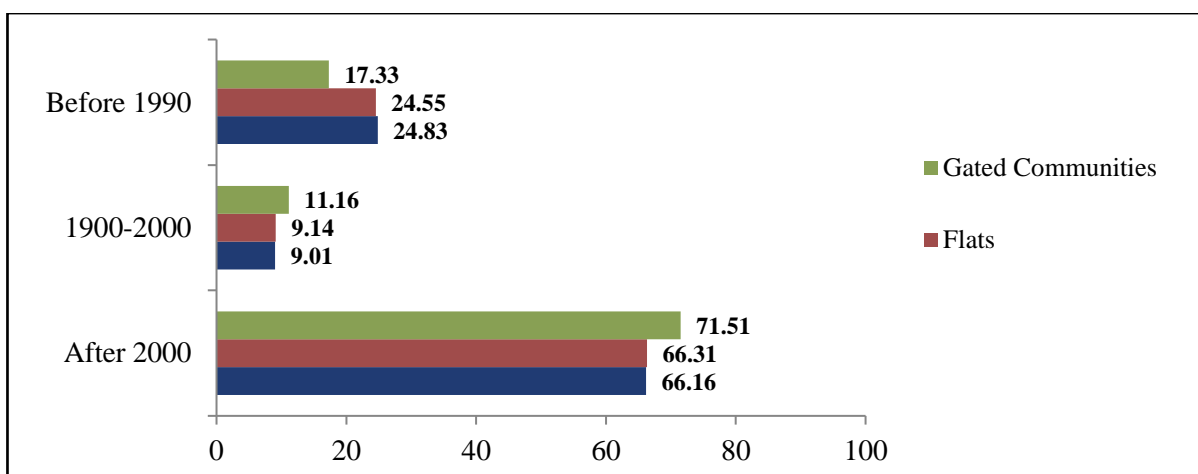
**Figure 3.5: Paradigm Shift of Gated Complexes from Government to Private**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

A significant number of 681 gated communities have been found in all over Kolkata Municipal Corporation, while the majority of them have been constructed after 2000. Approximately 96,714 residential units are included in all the gated communities that are being considered, and the total size of these communities is approximately 94,38,811.98 square meters (Figure 3.6). From the time period before the year 1990 to the time period after the year 2000, the total area that is occupied by gated communities, as well as the number of gated complexes and flats, have all seen significant increases, as shown in Figure 3.6. In the years leading up to the year 1990, gated communities made up 17.33 percent of the total number of gated complexes. They also occupied 24.55 percent of the total number of flats and 24.83 percent of the total land area that was covered by gated complexes. Beginning in the year 1990 and continuing through the year 2000, it was noted that gated complexes constituted 11.16 percent of the total number of gated complexes.

Over the course of this time period, these gated complexes accounted for approximately 9.14 percent of the total number of apartments that were available. In addition to this, they included around 9.01 percent of the entire land area that was covered by gated complexes. Since the year 2000, it has been observed that gated communities constitute 71.51 percent of the total number of gated complexes. These communities also occupy roughly 66.31 percent of the total number of flats and cover an area that is approximately 66.16 percent of the total land area that is covered by gated complexes (Appendix Table III).



**Figure 3.6: Evolution of Gated Complexes, Number of Flats and Total Area Covered in Kolkata**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

### 3.3 Types of Gated Communities in Kolkata

As there is no such standard classification in India or Kolkata, the study proposed a set of variables and functions that serve to differentiate between the various forms of gating. These variables and functions are based on the comprehensive analysis of the existing scholarly literature on gated communities as well as the empirical evidence pertaining to enclaves in Kolkata. In addition, Kolkata has been the site of the development of a great number of complexes with many stories. All of these constructions, on the other hand, do not have any kind of enclosing walls or gates. When compared to gated communities, these entities have characteristics that are very distinct. There are physical obstacles, such as gates and walls that enclose the limits of gated communities. These communities are characterized by the presence of these barriers. The city of Kolkata is home to a total of 681 gated communities, 45 of which are now in the process of being developed, according to the findings of a comprehensive survey. Out of the total of 681 GCs, a subset was established before to the 1990s; nevertheless, the bigger share was built after that particular decade. There are roughly 96,714 residential units in the gated communities that are being investigated, and the total land area of these communities is approximately 94,38,811.98 square meters. Over the course of forty years, the gated communities in Kolkata have been subjected to a number of important changes. There is a wide range of spatial extents across the housing complex, ranging from tiny to enormous, as well as a variety of residential unit types. Certain residential communities implement a range of security measures, from the most fundamental ones, such as gates and fences, to the most

complex ones, such as closed-circuit television (CCTV) surveillance systems and security staff who are on duty around the clock. It has been determined that there are four unique types of gated communities, which have been classified based on the observations made above;

1. Evolution
2. Number of flats
3. Areal Size of the Gated community
4. Nature of enclosure

### **1. Evolution**

In Kolkata, the concept of gated communities has evolved throughout the course of time. Gated communities are now widely used for living. Prior to the 1990s, the primary types of gated neighbourhoods in the city of Kolkata were those designated for army personnel, navy people, police personnel, government officials from various sectors, as well as employees of banks and telephone companies. A large number of private companies emerged as developers of contemporary gated complexes over the period of time spanning from 1990 to 2000. A limited number of contemporary amenities, such as parks and gardens, elevators, community halls, and parking facilities, are made available to residents. Since the turn of the millennium, there has been a discernible increase in the number of private gated communities that are located inside the metropolitan landscape of Kolkata. Those who live there are provided with contemporary facilities and conveniences, such as gated communities, which are often seen in wealthy nations. There are a variety of amenities that are typically included in contemporary gated complexes. These amenities include a gymnasium, a swimming pool, closed-circuit television (CCTV) security that is available around the clock, a banquet hall, an indoor games room, a Jacuzzi, a library, coffee shops, a conference room, parks, and parking places for both residents and guests. There are certain gated communities that provide their members with exclusive access to certain amenities, such as retail malls and foreign schools, which are located within the confines of the community's geographical boundaries. In accordance with the principles of evolution, gated communities can be broadly classified into four distinct types: Type 1, Type 2, Type 3, and Type 4.

Gated communities that are classified as Type 1 includes mostly government gated complexes, the majority of which were constructed prior to the year 1990. In spite of the fact that they were originally under government administration, these residential parts do not have the requisite amenities and facilities. The oldest type of residential projects in Kolkata are the gated

complexes that were described earlier. As seen in Figure 3.7, this particular group accounts for 7.78 percent of the total gated communities. This percentage can be assigned to the individual communities. The lack of security personnel in these gated communities' results in unrestricted access for pedestrians inside the neighborhoods. Borough III (area like Maniktala, Belehata, Ultadanga, Kakurgchi) and Borough X (area like Tallygunge, Golfgreen) have highest percentage of Type 1 gated communities among all Boroughs, which is 22.64 percent and 18.87 percent respectively. Borough I (area like Cossipore, Paikpara, Belgachia) and XIII (area like Naktala, Purba Putiary) also have good percentage share of Type 1 gated communities located within its boundary which mostly are government owned gated complexes (Appendix Table V).

**Table 3.1: Classifying Gated Communities on the basis of 'Evolution' Over Time**

<b>Type</b>	<b>Features</b>	<b>Notes</b>
Type 1	Only gates	This is the most common type of gated community, which does not have any amenities of this kind. Access for pedestrians is typically permitted inside the area.
Type 2	Gates and security guard	Pedestrian access is restricted by the guards. Security measures are only maintained in certain government complexes.
Type 3	Gates, security guard, CCTVs and some shared amenities (Park, lift, community hall, parking)	The improvement of particular residential complexes that are under the supervision of the government through the incorporation of a variety of amenities. This type of private gated complexes primarily serves to the population of the urban region that is comprised of people from the middle class and the upper middle class. Neighborhood is both safe and affordable.
Type 4	Gates, security guard, CCTVs and all modern shared amenities (Park, lift, community hall, parking, gym, swimming pool, indoor game room, library etc.)	Communities that are guarded by private gates and offer a wide variety of modern conveniences are designed to attract those who belong to the upper class. Extremely safe and prestigious community of this quality.

Source: Prepared by Researcher

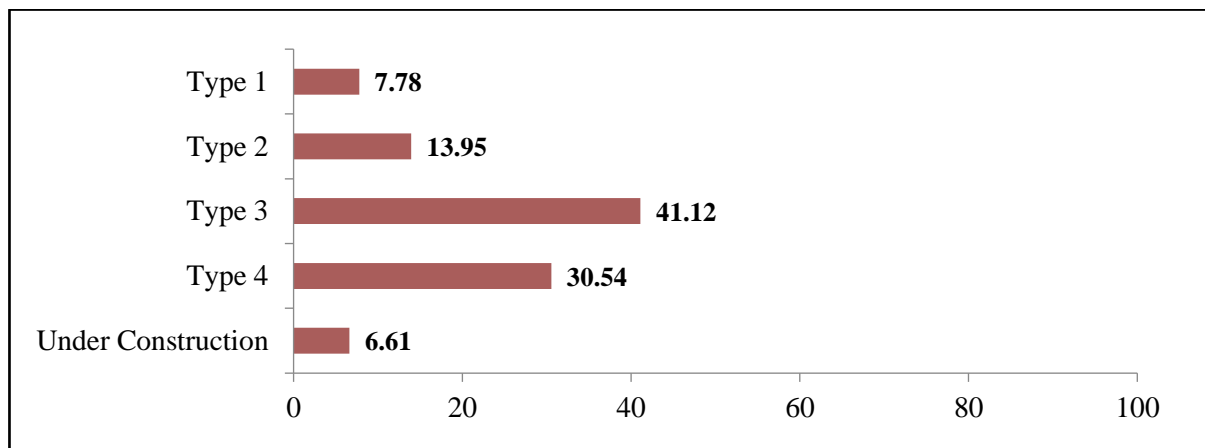
Government complexes that employ security personnel to limit pedestrian admission are examples of gated communities that fall under the Type 2 category. Not only that, but these government-guarded enclosures are missing in a variety of other services and facilities as well.

Additionally, the majority of these buildings were brought into existence prior to the year 1990. It has been determined that this particular classification accounts for 13.95 percent of gated enclave in the domain of total gated communities (Figure 3.7). Borough X which contains the area of Tallygunge, Golfgreen have the highest percentage of Type 2 gated communities (24.21 percent). Borough III and VII (area like Tangra, Topsia, Kasba) also have good percentage share of Type 2 gated communities which consist of both government and private owned gated complexes (Appendix Table V).

Communities that are classified as Type 3 gated communities are a combination of gated communities that are mostly privately owned and some are administered by the government. Security measures, such as the presence of guards, closed-circuit television systems (CCTVs), and a variety of amenities and services, are frequently incorporated into newly constructed government buildings. There are also a great number of residential communities that are enclosed in private spaces that fall under this category. The majority of people who live in these kinds of private gated communities are people from the middle and upper middle socio-economic levels who are looking for a home environment that is both safe and inexpensive. 41.12 percent of the total number of gated communities are classified as belonging to this particular category (Figure 3.7). Borough VIII which contains the area of Ballygunge, Gariahat has the highest percentage share of Type 3 gated communities (14.29 percent). Also, Borough VII and Borough XII (area like Mukundapur, East Kolkata Township, Santoshpur, Anandapur) have good percentage share of Type 3 gated communities which mostly are private gated communities (Appendix Table V).

The majority of gated communities that fall under the category of Type 4 are residential complexes that are privately fenced and provide a wide variety of exclusive and modern amenities and features. In the years following the year 2000, a huge number of these buildings were built. Those who belong to the privileged class and live in a society with a high status are considered to be members of these communities since they are extremely safe and serve as symbols of distinction. As shown in Figure 3.7, the percentage of gated communities that fall into this category is 30.54 percent in the city of Kolkata. Borough VII which consists the area like Tangra, Topsia, Kasba has the highest percentage share of Type 4 gated communities (25.48 percent). Borough XII also has good percentage share of Type 4 gated communities which are normally private gated communities (Appendix Table V). There is a proportion of 6.61 percent of the gated community that is now under development, which means they are not suitable for categorization (Figure 3.7). On the other hand, it is important to point out that the

undeveloped communities that were described earlier are primarily managed by private organizations and can be categorized as either Type 3 or Type 4 communities.



**Figure 3.7: Distribution of Gated Communities on the basis of Evolution in Kolkata**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

## 2. Number of Flats

On the basis of number of units that they contain, gated communities have been divided into three distinct varieties: “Small unit community”, “Medium unit community”, and “Large unit community”. Small unit communities are frequently distinguished by the presence of gated complexes that are exclusive to residents only. The establishment provides modern conveniences and services in order to meet the requirements of the people who live there (the residents). Since the year 2000, the vast majority of neighborhood communities consisting of small units have been constructed. This particular neighborhood is equipped with robust security measures, including the presence of security personnel and closed-circuit television (CCTV) surveillance systems. The city of Kolkata is distinguished by the presence of a large number of small unit communities. There are approximately 57.56 percent of gated communities in Kolkata that are included in this particular group (Figure 3.8). This category includes majority of the gated communities in Kolkata. Here, Borough VII has the highest percentage share of small unit community (16.58 percent). Borough VIII and X also have good percentage share of small unit community (Appendix Table VI).

A combination of residential neighbourhoods that were created by both the government entities and private companies are characterizes in medium unit communities. Private communities that fall into this category demonstrate a high level of maintenance, as demonstrated by the fact that they consistently manage security measures such as the presence of security guards and closed-

circuit television (CCTV) systems. These establishments are distinguished by the presence of modern conveniences and characteristics. These kinds of communities are significant as they serve as indicators of social status within society. On the other hand, government communities have maintenance routines that are not up to par and provide a limited selection of amenities and facilities. Within total gated communities, there are 25.4 percent that are classified as medium unit communities (Figure 3.8). Borough VII has the highest percentage share of medium unit community (15.03 percent). Borough III, X and I have the higher percentage share of medium unit community among all Boroughs (Appendix Table VI).

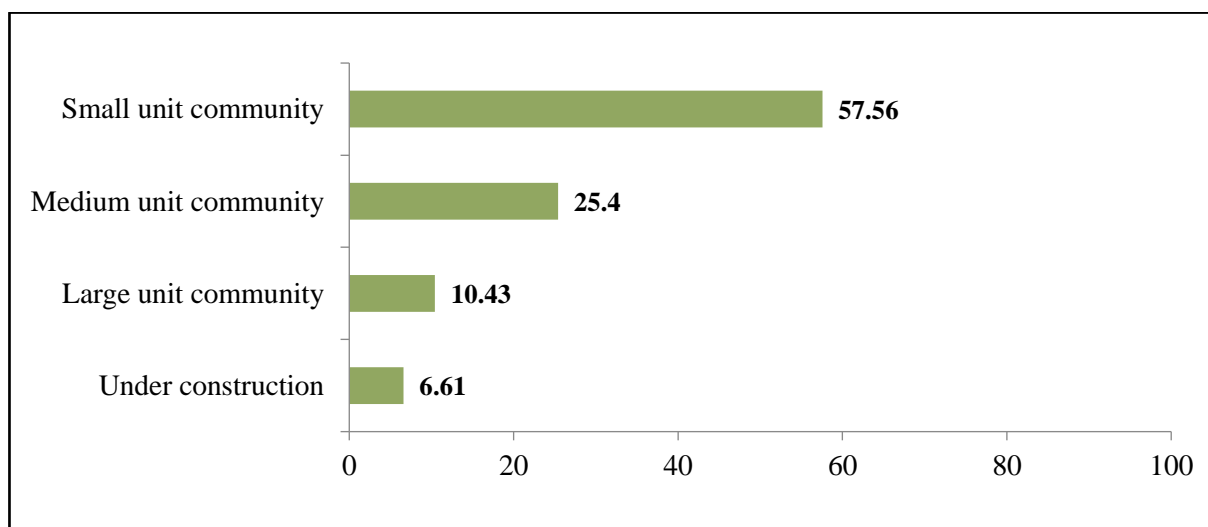
**Table 3.2: Classifying Gated Communities on the basis of ‘Number of Flats’**

Type	Measure	Notes
Small unit community	< 100 units	Mostly private gated complexes with modern amenities and facilities. An array of lifestyles that is both highly secure and contemporary.
Medium unit community	100 – 300 units	A combination of government-operated and privately-owned gated communities. Government communities often lack adequate security measures and amenities, but private communities tend to offer enhanced security, contemporary amenities, and facilities, thereby serving as a symbol of social status.
Large unit community	> 300 units	A combination of government-operated and privately-owned gated communities. Large private communities are characterized by the presence of contemporary amenities and services, alongside robust security measures of superior quality. It represents social status and prestige in society.

Source: Prepared by Researcher

There is also a combination of private and government gated communities that are found in large unit communities. The majority of large government communities are made up of officer’s quarters, which offer a certain level of security measures but have a limited number of facilities available. Large private gated communities, on the other hand, are distinguished by their stringent security measures as well as their modern amenities and facilities. The percentage of gated communities that are considered to be large unit communities is 10.43 percent of the total. Borough XII has the highest percentage share of large unit community which is 26.76 percent. Also, Borough III and Borough VII have quite high percentage of large unit community (Appendix Table VI). As a result of the fact that a portion of the gated

community, which accounts for 6.61 percent of the total, is currently undergoing construction, this segment cannot be classified (Figure 3.8).



**Figure 3.8: Distribution of Gated Communities on the basis of Number of Flats in Kolkata**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

### **3. Areal Size of the Gated Community**

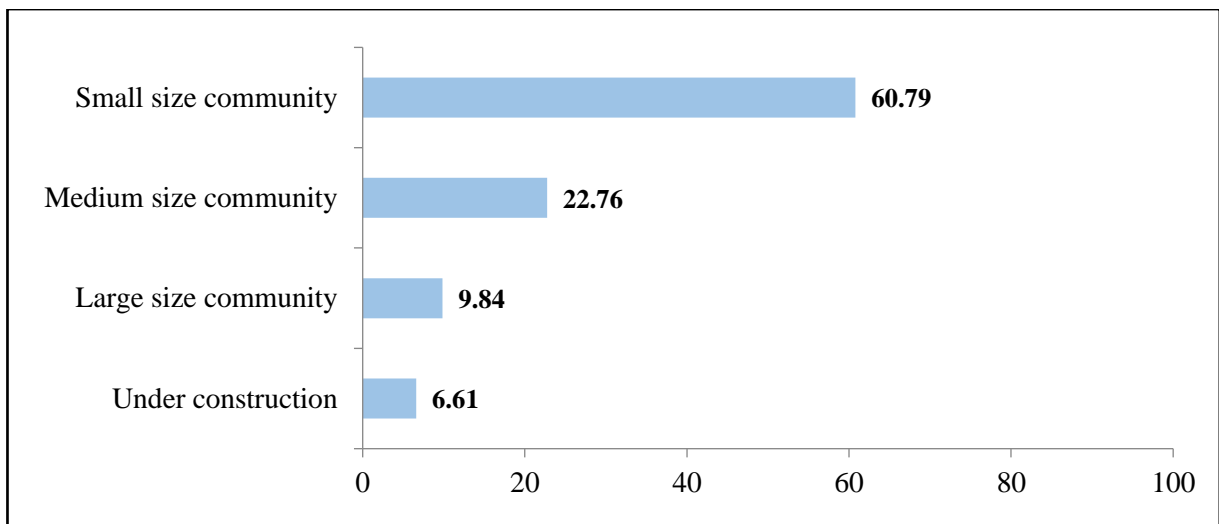
Small size communities, medium size communities, and large size communities are the three categories that can be used to classify the gated communities in Kolkata. These categories are determined by the dimensions of the communities. There are a number of striking parallels between this classification and the one that came before it. Typically, the majority of small-scale communities are gated communities that are privately owned and operated. These communities place a high priority on providing high levels of security and include modern amenities. Figure 3.9 illustrates that out of the total number of gated communities, the majority, which accounts for 60.79 percent, are classified as small-sized communities. Here, Borough VII has the highest percentage of small size community which is 15.94 percent. On the other hand, Borough X and VIII have also high percentage of small size community which is 12.08 percent and 11.11 percent respectively (Appendix Table VII).

**Table 3.3: Classifying Gated Communities on the basis of ‘Areal Size of the Gated Community’**

Type	Measure	Notes
Small size community	< 10,000 m <sup>2</sup>	Complexes that is primarily private and gated along with contemporary amenities and facilities. A contemporary and highly secure environment.
Medium size community	10000 m <sup>2</sup> – 30000 m <sup>2</sup>	A combination of gated communities that are privately owned and operated by the government. As a result of their increased safety, modern amenities and facilities, private communities of a medium size serve as a representation of the residents’ social status.
Large size community	> 30000 m <sup>2</sup>	A combination of gated communities that are privately owned and operated by the government. In addition to providing modern conveniences and services, large-scale private communities also provide security measures that are of an exceptionally high standard. This signifies one’s social standing and prestige.

Source: Prepared by Researcher

Large and medium-sized communities are characterized by a combination of gated communities that are owned by the government and private companies. The establishment is outfitted with modern conveniences and services, in addition to robust security measures of the highest possible quality. Among the total number of gated communities, 22.76 percent are classified as medium-sized communities, while 9.84 percent are categorized as large-sized communities. This indicates that the majority of gated communities are relatively minor in size (Figure 3.9). Borough III has the highest percentage of medium size community which is 18.06 percent. On the other hand, Borough XII has the highest percentage of large size community which is 23.87 percent. Borough VII, XII, X and I have the higher percentage share of medium size community among all Boroughs. Here, Borough XIII, VII and XIV (area like Behala, Thakurpukur) have the higher percentage share of large size community among other Boroughs (Appendix Table VII). On the other hand, 6.61 percent of the total gated communities are currently being built (Figure 3.9).



**Figure 3.9: Distribution of Gated Communities on the basis of Areal Size of the Gated Community in Kolkata**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

#### 4. Nature of Enclosure

Nowadays, gated communities place a significant emphasis on the incorporation of several characteristics that prioritize security, privacy, and control. This is because gated communities are becoming increasingly popular. Some of the most expensive projects include closed-circuit television surveillance as well as armed guards who are on duty around the clock. In the event that vehicles attempt to forcefully breach the gates, the presence of devices embedded in the road bed has the potential to cause punctures in the tires of those vehicles. Individual alarm systems are installed in residential properties, and these alarm systems are connected to centralized security services. Despite the fact that the implementation of these measures may instill a sense of security among residents, it is essential to recognize that they have the potential to amplify the fears that are already being experienced by members of the community (Caldeira, 2000; Low, 2003).

**Table 3.4: Classifying Gated Communities on the basis of ‘Nature of Enclosure’**

Type	Boundary	Access	Notes
Ornamentally gated	No marked boundary	Open access	There are some old government quarters that have gates that are ornamental. Access for pedestrians is still available.
Partially gated	Boundary marked by walls and gates	Open access	Despite the presence of walls and gates, there are a few gated communities that are controlled by

<b>Type</b>	<b>Boundary</b>	<b>Access</b>	<b>Notes</b>
			the government that do not have any security measures in place. No obstructions have been placed in the way of pedestrians' access.
Fully gated	Boundary marked by walls, gates and guards.	Control access	A good quantity of Government communities and all private gated communities both employ gates, security personnel, and closed-circuit television (CCTV) surveillance systems. The proposed measure includes a comprehensive prohibition on public access, with the implementation of video or telephone systems to enable homeowners to screen and evaluate visitors. Security personnel are conducting regular patrols of the site.

Source: Prepared by Researcher

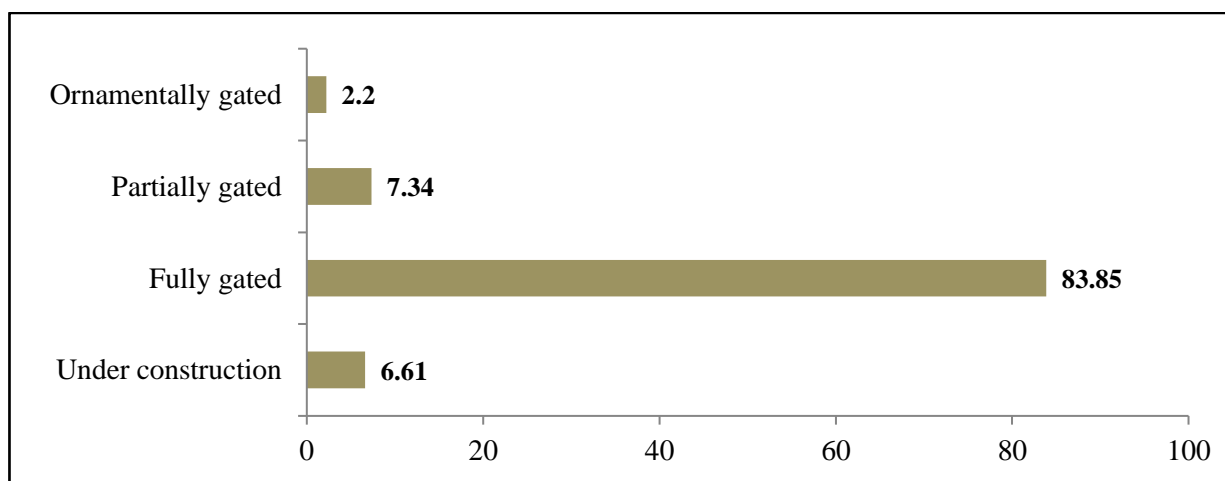
The nature of enclosure is a significant component that plays a role in the decision that homeowners make regarding whether or not to choose a gated community as their place of residence. Based on the type of enclosure that they have, the gated communities in Kolkata have been divided into three distinct groups: Ornamentally gated, Partially gated, and Fully gated.

It is possible to observe the presence of ornamental gating in certain old government communities that are devoid of amenities, infrastructure, or access control measures that are effective. The boundaries between these kinds of communities are not clearly defined. Only 2.2 percent of all gated communities can be classified as ornamentally gated (Figure 3.10). This amount represents a relatively small percentage of the total number of gated communities. Here, Borough I has the highest percentage of ornamentally gated communities which is 26.66 percent (Appendix Table VIII).

In addition to this, there is a limited number of residential complexes that are only partially concealed by gates. The majority of the developments that fall under this category are government owned gated community. The boundaries of these complexes are effectively delineated by the walls and gates that surround them. However, the presence of an insufficient number of security officer's results in the continued accessibility of pedestrian pathways. The percentage of communities that have partial gating is 7.34 percent out of the total number of

gated complexes (Figure 3.10). Borough X has the highest percentage share of partially gated communities which is 28 percent (Appendix Table VIII).

Fully gated communities are the type of gated communities that make up the vast majority of gated complexes. For the purpose of effectively upholding security procedures, the guards and closed-circuit television (CCTV) systems are in place. This effectively restricts access to the general public. Evaluations of visitors have been conducted by homeowners through the use of a video or telephone evaluation system. It is the responsibility of the security personnel to conduct continuous patrols within the premises. 83.85 percent of the total number of gated communities are considered to be fully gated communities. This constitutes a significant majority of private gated communities and also government owned gated communities. Here, Borough VII has the highest percentage share of fully gated communities which is 16.47 percent (Appendix Table VIII). On the other hand, there is a section of the neighborhood that is currently undergoing construction, which accounts for 6.61 percent of the total (Figure 3.10).



**Figure 3.10: Distribution of Gated Communities on the basis of Nature of Enclosure in Kolkata**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

### **3.4 Conclusion**

Gated communities have become increasingly popular in Kolkata as individuals want to attain both prestige and enhanced security in their residential lifestyles. The phenomenon of gated communities in Kolkata manifested itself in the effect of the globalization era. During the 1990s, gated communities predominantly comprised government-constructed residential areas. Market diversification from 1990 to 2000 saw a combination of government residential

complexes and private residential complexes. During this period, there has been a notable increase in the construction of private communities, which frequently featured a range of modern facilities. Since the year 2000, the city of Kolkata has witnessed a notable increase in the establishment of private gated communities. This trend has been driven by private construction corporations that have shown considerable interest in the residential sector, leading to a substantial proliferation of private gated communities across Kolkata. The central area of the city of Kolkata exhibits a high degree of congestion. So, the city is seeing urban expansion in its peripheral regions, characterized by the emergence of private gated communities.

The typologies of gated communities within the Kolkata provide a comprehensive overview of the distinctive features exhibited by gated communities in Kolkata. The transition from government owned gated complexes to privately-owned gated communities will be clearly observed. According to the investigation, a new gating phenomenon has been present in Kolkata since before the 1990s. This study categorized gated communities based on their evolutionary stage, total number of residential units, community area, and kind of enclosure. Type 1 gated communities, which can be considered as the earlier iterations of gated communities, are primarily observed in the shape of government residential quarters. During the era from 1990 to 2000, there was a notable movement in the notion of gated communities, paradigm shifting from government-controlled to privately-owned gated communities. During this period, numerous Type 2 and Type 3 communities, both government and privately initiated, have been built. The majority of Type 4 gated communities were constructed subsequent to the year 2000 and all of these communities are privately owned. Private gated communities typically offer a wider range of contemporary amenities and services compared to government gated complexes. Certain gated communities consist of compact residential units, while others provide more spacious dwellings. While certain government residential complexes have unrestricted pedestrian access but the majority of the communities possess a robust security infrastructure, particularly those that are privately owned in context of Kolkata.

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## **CHAPTER IV**

### **MOTIVATIONS FOR MOVING INTO GATED COMMUNITIES OF KOLKATA**

*This chapter seeks to investigate the factors that drive resident's interest in gated communities in Kolkata. This also examines the socio-demographic and economic factors affecting the selection of housing types within gated communities in Kolkata. It argues that each resident prefers living in gated communities searching for certain features, which could be any dwelling unit features or any neighborhood facilities.*

## **4.1 Introduction**

According to the findings of Hapsariniaty et al. (2013), individuals who resided in gated communities in both urban and suburban areas exhibited a wide range of housing preferences. These preferences varied according to factors such as location, socioeconomic conditions and demographic conditions. The majority of studies that investigate the reasons why residents prefer gated communities concentrate their attention primarily on the geographical and sociological aspects of the residents. However, only a few studies discuss the physical characteristics of gated communities themselves, as well as the ways in which these characteristics influence the decisions that residents make. The factors that influence the selection of gated communities are not well understood (Plaut, 2011). There is a lack of knowledge regarding these factors. The purpose of this chapter is to investigate the factors that residents of Kolkata find to be the driving force behind their interest in gated communities. Documenting the factors that influence the preferences of residents is the goal of this research, which will accomplish this by conducting a theoretical analysis of previous research. For the purpose of evaluating the factors, a survey was carried out, using primary data as a point of reference.

## **4.2 Socio-economic Characteristics of the Respondents**

The findings of the survey on a selection of gated communities are presented in this chapter. Due to the large number of gated communities in Kolkata, a total of 528 surveys were completed in 25 different gated communities. This sample was deemed to be representative of the city's gated communities. These 25 gated communities are luxurious residential developments that are spread out across the city of Kolkata in a variety of different areas. An illustration of the spatial distribution of these communities across the various regions of the Kolkata Municipal Corporation can be found in Figure 1.2. There are many different types of gated communities that can be found in Kolkata. Some of these gated communities include high-rise towers and some of them have smaller-scale detached or semidetached houses. Private amenities such as gyms, swimming pools, playgrounds, green spaces, and sports facilities such as basketball or tennis courts are shared among these communities. Additionally, they share common characteristics such as increased safety for residents and higher living standards.

In these surveys for the purpose of the study, both closed-format and open-format questions were included, and respondents were given the opportunity to provide their own responses. In

order to facilitate comprehension of the respondent's socio-demographic characteristics, the fundamental characteristics of the respondents are presented in Table 4.1 respectively.

**Table 4.1: Socio-demographic Characteristics of the Respondents**

<b>Variables</b>	<b>Residents of Gated Communities (in percentage)</b>
Age	
Below 40 years	9.8
40-60 years	65.9
Above 60 years	24.3
Gender	
Male	61.2
Female	38.8
Religion	
Hindu	88.4
Muslim	10
Others	1.6
Caste	
General	84.1
SC and ST	5.1
OBC	10.8
Ethnicity	
Bengali	55.8
Non-Bengali	44.2
Family members	
1-3 members	46.4
Above 3 members	53.6
Education level	
High school	3.8
Graduate	21.2
Post graduate	38.4
Doctorate degree	4.4
Professional degree	32.2
Employment status	
Government sector	18
Private sector	46.4
Self employed	16.1
Other sector	19.5

Source: Computed by Researcher from Primary Field Survey, 2022-23

The majority of respondents in gated communities were between the age of 40 to 60 (65.9 percent), followed by those over the age of 60 (24.3 percent), and individuals under the age of 40 made up 9.8 percent of the sample. The majority of people who live in gated communities in Kolkata are male (61.2 percent), while the percentage of females who live there is 38.8

percent on average. There are a significant number of Hindus among the respondents. A total of 88.4 percent of the population is comprised of Hindus, with Muslims accounting for 10 percent and other religions accounting for 1.6 percent. Taking into consideration caste, 84.1 percent of the population comes from a general caste background, 5.1 percent come from SC and ST, and 10.8 percent come from OBC. In the gated communities, the percentage of respondents who were non-Bengali was 44.2 percent, while the percentage of Bengali respondents was 55.8 percent. Families consisting of three or more members make up the majority of the respondents (53.6 percent), while families consisting of one to three members make up 46.4 percent of the total. 38.4 percent of the respondents have completed post-graduate studies, making it the highest level of education among them. Following closely behind are 32.2 percent of those who have professional degrees. In addition, 4.4 percent of individuals hold a doctorate degree, while 21.2 percent have a graduate degree. The employment situation of the respondents is as follows: 18.5 percent of them are employed in the government sector, 46.4 percent are employed in the private sector, 16.1 percent are self-employed, and 19.5 percent are employed in other sectors.

**Table 4.2: Average Household Monthly Income Distribution of the Respondents**

Average income (in Rupees)	Residents of Gated Communities (in percentage)
Below 50000	0.76
50001 – 100000	20.26
100001 – 150000	45.27
150001 – 200000	23.67
Above 200000	10.04
Total	100

Source: Computed by Researcher from Primary Field Survey, 2022-23

Table 4.2 provides information regarding the distribution of average income among those who responded to the survey regarding gated communities. Approximately 45.27 percent of the respondents have a monthly household income that falls between 100001 and 150000 rupees. Following that, 23.67 percent of the respondents have an income that falls between 150001 and 200000 rupees, and 10.04 percent of the respondents have an income that is greater than 200000. At the same time, 21.02 percent of the respondents have an income that is lower than 100000 rupees.

### **4.3 Factors Influencing Residents to Choose to Live in Gated Communities**

Several factors influence individuals' decisions to select gated communities. Factors may vary according to distinct regions and socio-economic backgrounds. This study examines various factors that influence resident's decisions to select gated communities in Kolkata. In this study, two variables that have been utilized in the analysis of the household choice are the characteristics of the dwelling unit and the neighborhood. There are six components that make up the dwelling unit features. These components are as follows: lift and wide corridors, architecture style, dwelling orientation, house as investment, affordability, and security. The characteristics of the neighborhood include twelve different aspects, which are as follows: proximity to workplace, proximity to friends and family, neighborhood amenities, environmental attraction, security, social contacts, social status and prestige, familiarity with the area, restricted area with 24-hour guard, homogeneity, elderly and disability friendliness, and locational advantages. Based on the findings, it appears that the most prominent features of the dwelling unit are the security system, the lift and wide corridors. The most influential aspects of the neighborhood features, on the other hand, are the security, the neighborhood amenities, and the restricted area/24-hour guard.

As mentioned before, developers with limited financial resources construct the majority of the housing in the region. The ability to acquire land was dependent upon the land's availability in the market. Housing buildings often have inadequate physical quality as a result of their limited financial resources. Once the developer obtained the land, they enclosed the area with a fence for security purposes. Subsequently, they constructed essential services and infrastructure, including internal roadways, a drainage system, and other essential amenities.

#### **4.3.1 Dwelling Unit Features**

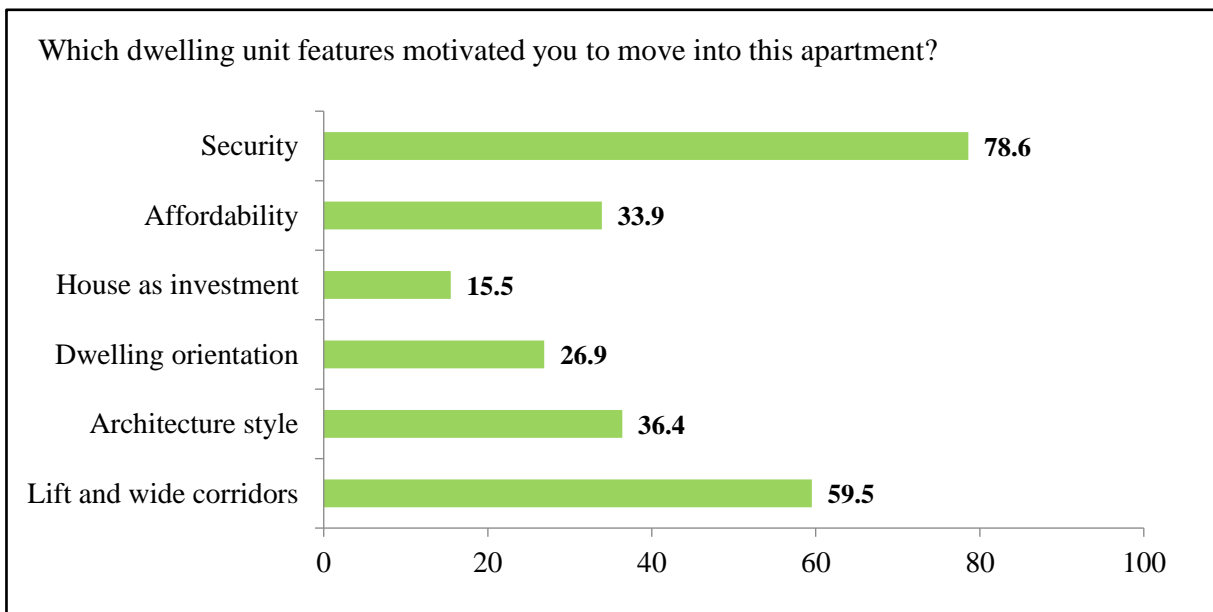
##### **a) Security**

It was emphasized by the respondents that the primary reason for choosing to live in gated communities is the primary concern for dwelling security. This concern encompasses the overall safety of family members while they are within their dwelling space. There is a total of 78.6 percent of residents who are choosing to live in gated communities (Figure 4.1) in order to increase the safety of their homes. Sakip et al. (2018) stated that there is a fear of crime in both gated and non-gated communities. This fear varies from community to community. The majority of respondents are solely concerned with their work. The only members of their household are their young children and their elderly parents. They are prone to experiencing

feelings of insecurity as a result of the possibility that crimes such as robbery or mugging could take place within their residence. A significant factor that plays a role in the decision of residents to reside in gated communities is the fear of criminal activity.

**b) Lift and Wide Corridors**

The individual who provided feedback emphasized how important it is to have lifts and corridors that are spacious. Due to the availability of lifts and spacious corridors, gated communities are becoming increasingly popular among residents, with 59.6 percent of them choosing to live there (Figure 4.1). The elderly residents of these gated communities live with their families or other family members. When it comes to gated communities, lifts are an essential amenity. When choosing a gated community as their place of residence, people put a certain amount of importance on lift and wide corridors.



**Figure 4.1: Dwelling Unit Components Affecting Respondents Housing Choice in Gated Communities**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**c) Other Components**

There are different components that also influence residents to choose gated communities in Kolkata. Here, architecture style was mentioned by 36.4 percent of residents, affordability was mentioned by 33.9 percent of residents. On the other hand, dwelling orientation was mentioned by 26.9 percent of residents, and residential investment was mentioned by 15.5 percent of residents (Figure 4.1).

### **4.3.2 Neighborhood Features**

#### **a) Security**

When it comes to the category of neighborhood features, the residents believe that the most important component is the safety that exists outside of their immediate living space. According to Figure 4.2, 79.9 percent of residents have indicated that they would prefer to reside in a gated community because of the increased level of security that it provides. It is clear that the majority of respondents are experiencing feelings of insecurity as a result of the prevalence of criminal acts in wider society, including theft, mugging, and bullying. After the gated communities have been completely developed, the findings of the interviews indicate that this particular type of criminal activity frequently takes place in the neighborhood directly adjacent to the gated communities. According to this evidence, gated communities are not effective in resolving issues that are associated with criminal activity. The actions that they take consist of merely moving criminal activity to other areas that are not enclosed by gates. According to the respondents, they chose to reside in gated communities with the purpose of establishing a living environment that is conducive to the well-being of both their children and their parents. They are at ease leaving their children in the communities that are guarded by gates, and they anticipate that they will be able to play freely in their neighborhood. Furthermore, this characteristic may also be indicative of the fact that the respondent's lifestyles are primarily centered around their family.

#### **b) Neighborhood Amenities**

The locals also mentioned it as an essential component in their discussion. According to Figure 4.2, 73.5 percent of residents make the decision to reside in gated communities because of the wide variety of amenities that are available in their immediate surrounding area. In order to ensure the residents' comfort, it is essential for the neighborhood to provide amenities such as elevators, community halls, parks or green areas, fitness centers, swimming pools, and indoor game rooms. According to the findings of the interview, the primary desire of individuals is to lead a lifestyle that is both luxurious and comfortable, which serves as a reflection of their social status.

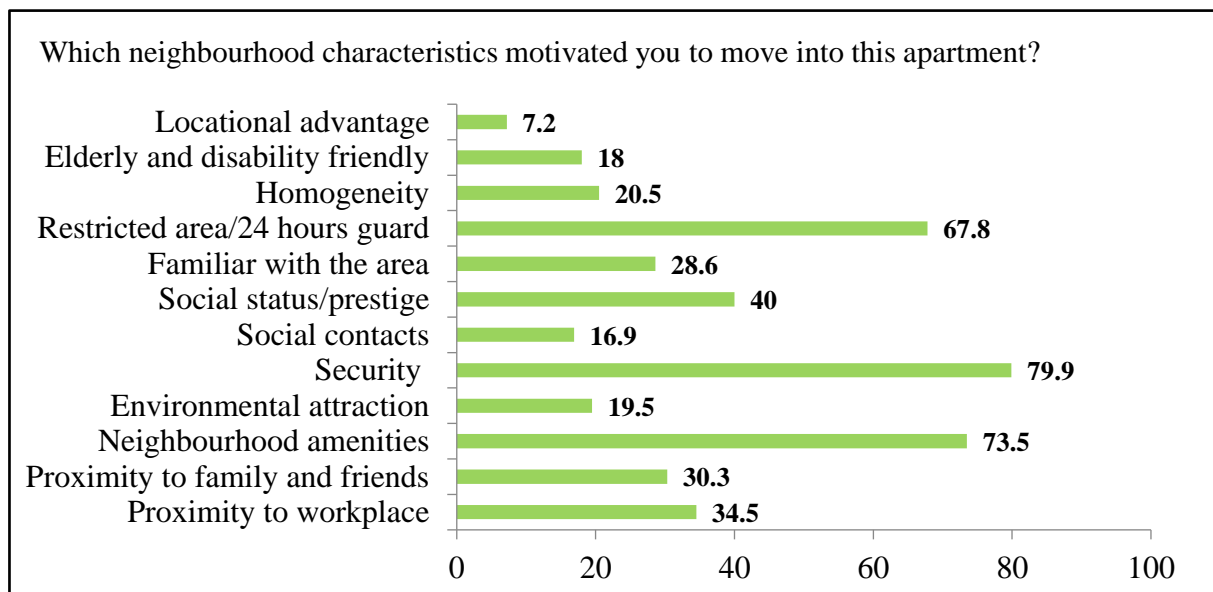
#### **c) Restricted Area/24 Hours Guard**

This is also interesting with regard to safety. The residents of the neighborhood wanted to make their neighborhood more secure, so they installed security guards who were on duty around the clock and installed CCTV surveillance. According to Figure 4.2, 67.8 percent of the residents

are opting for this particular component. The fear of being a victim of crime is another factor that has a significant impact. The concept of privatized space is brought to light by this, as it restricts the entry of individuals from outside the community and, as a result, promotes the segregation of social classes.

**d) Other Components**

Other factors that residents mentioned include social status and prestige (40 percent), proximity to workplace (34.5 percent), proximity to family and friends (30.3 percent), familiarity with the area (28.6 percent), homogeneity (20.5 percent), environmental attraction (19.5 percent), accessibility for the elderly and people with disabilities (18 percent), social contacts (16.9 percent), and locational advantage (7.2 percent) (Figure 4.2).



**Figure 4.2: Neighborhood Components Affecting Respondents Housing Choice in Gated Communities**

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**4.4 Relationships between the Socio-demographic and Economic Variables with Type of House Chosen in Gated Communities**

Information was collected on five socio-demographic and economic factors, which are as follows: age, educational attainment, number of family members, occupation, and income. The study has also included three different house types: 1BHK, 2BHK, and 3BHK and more. Among the total of 528 households, only 1.7 percent were rented households, while the remaining 98.3 percent were privately owned households. The cost of apartments in gated

communities varies between 85 lakhs to 1.75 crore for an apartment in a gated community in the northern part of Kolkata, between 1.5 to 4.5 crore in the southern part of Kolkata, between 80 lakhs to 1.8 crore in the eastern part of Kolkata, and between 1.5 to 4.5 crore in the western part of Kolkata.

**Age and Gated Community:** A total of 528 individuals participated in the survey, with 9.8 percent being younger than 40 years old, 65.9 percent being between the ages of 40 and 60, and 24.3 percent being older than 60 years old. It was found through the use of chi-square analysis that there is a significant correlation between the age level of the respondents and the type of house they live in. The calculated chi-square value of 21.349, which is significant at the 0.001 level, lends validity to this statement. One can draw the conclusion that the age of the individuals who participated in the survey has an effect on the housing options available in gated communities.

**Table 4.3: Distribution of Age and Types of Apartments of the Respondents**

Age of the Respondents	Types of Apartments			Total
	1 BHK	2 BHK	3 BHK and more	
Below 40 years	5.8	30.8	63.5	100
40 – 60 years	1.1	38.8	60.1	100
Above 60 years	5.5	53.1	41.4	100
Total	2.7	41.5	55.8	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Educational Attainment and Gated Community:** Among the respondents, 32.3 percent of the respondents have a professional degree, 21.2 percent have completed their undergraduate studies, 38.4 percent have completed their postgraduate studies, and 8.1 percent have obtained a doctorate degree. According to the findings of the chi-square test, there is a statistically significant connection between the type of house and the respondents' level of educational attainment. The calculated chi-square value of 58.889, which is significant at the 0.001 level, lends validity to this statement. It is possible to draw the conclusion that the levels of education attained by the respondents have an effect on the housing options selected by them in gated communities.

**Table 4.4: Distribution of Educational Attainment and Types of Apartments of the Respondents**

Educational attainment of the Respondents	Types of Apartments			Total
	1 BHK	2 BHK	3 BHK and more	
Undergraduate Degree	9.8	54.5	35.7	100
Postgraduate Degree	5.1	44.8	50.1	100
Doctorate Degree	0	20.9	79.1	100
Professional Degree	1.8	31.8	66.5	100
Total	2.7	41.5	55.8	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Number of Family Members and Gated Community:** Out of the total number of respondents, 40.3 percent stated that they had four members of their family, while 29.4 percent stated that they had three members living in their household. On the other hand, 13.3 percent respondents have more than four members, 14.6 percent have two members and 2.5 percent have one member in their household. A significant correlation was found between the type of house and the number of family members among the respondents, as determined by the chi-square analysis. At the 0.001 level of significance, the chi-square value of 251.067, which was calculated, provides support for this argument. Each respondent's choice of housing in gated communities is impacted by the number of family members they have in their household.

**Table 4.5: Distribution of Number of Family Members and Types of Apartments of the Respondents**

Number of family members	Types of Apartments			Total
	1 BHK	2 BHK	3 BHK and more	
1	33.3	66.7	0	100
2	2.6	76.6	20.8	100
3	5.8	71.6	22.6	100
4	0	20.2	79.8	100
More than 4	0	2.9	97.1	100
Total	2.7	41.5	55.8	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Occupation and Gated Community:** Among the 528 individuals who participated in the survey, 18 percent are employed in the public sector, 46.4 percent are employed in the private sector, 16.1 percent are self-employed, and 19.5 percent are employed in other sectors. It was discovered through the use of chi-square analysis that there is no significant correlation

between the type of house and the occupation of the individuals who participated in the survey. This argument is supported by the chi-square value of 19.046, which, when compared to the 0.001 level of statistical significance, is not statistically significant. Because of this, it is possible to draw the conclusion that the respondent's occupations do not have any bearing on the housing options available in gated communities.

**Table 4.6: Distribution of Occupation and Types of Apartments of the Respondents**

Occupation of the Respondents	Types of Apartments			Total
	1 BHK	2 BHK	3 BHK and more	
Government sector employee	1.1	41.1	57.9	100
Private sector employee	1.2	36.3	62.4	100
Self employed	5.9	42.4	51.8	100
Others	4.9	53.4	41.7	100
Total	2.7	41.5	55.8	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Income and Gated Community:** According to the data collected from the 528 individuals who took part in the study, 27.1 percent of them reported a monthly household income that was less than 1 lakh rupees, 46.7 percent reported a monthly household income that was between 1 and 1.5 lakh rupees, and 26.3 percent reported a monthly household income that was greater than 1.5 lakh rupees. The results of the chi-square test showed that there is a significant correlation between the type of house and the income of the people who participated in the survey. The calculated chi-square value of 66.935, which is statistically significant at the 0.001 level, lends validity to this statement. It is possible to draw the conclusion that the respondent's economic status has an effect on the housing options available to them in gated communities.

**Table 4.7: Distribution of Household Monthly Income and Types of Apartments of the Respondents**

Household monthly income	Types of Apartments			Total
	1 BHK	2 BHK	3 BHK and more	
Below 100000	9.8	45.5	44.8	100
100000-150000	0	49.2	50.8	100
Above 150000	0	23.7	76.3	100
Total	2.7	41.5	55.8	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

#### 4.5 Relationships between the Socio-demographic and Economic Factors with the Living in Gated Communities

The purpose of this study was to identify the significant socio-demographic and economic variables that are associated with gated community living. A one-way analysis of variance (ANOVA) test was carried out. In a factor, total variable is classified into two components, “between groups”, which represents the variation of the means of the other groups around the overall mean, and “within the group”, which represents the variation of each individual score. The values that are significant are below 0.05. It can be deduced that the significant level is observed to be less than 0.005 percent level with a small significant value (0.05), which indicates that there is a group difference from the previous information.

**Table 4.8: ANOVA test of Socio-demographic and Economic Variables with Gated Community Living**

Factors		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	3.906	2	1.953	6.209	0.002
	Within Groups	165.154	525	0.315		
	Total	169.061	527			
Educational attainment	Between Groups	41.080	2	20.540	16.468	0.000
	Within Groups	654.827	525	1.247		
	Total	695.907	527			
Number of family members	Between Groups	154.568	2	77.284	108.830	0.000
	Within Groups	372.819	525	0.710		
	Total	527.386	527			
Occupation	Between Groups	12.589	2	6.294	6.522	0.002
	Within Groups	506.654	525	0.965		
	Total	519.242	527			
Household monthly income	Between Groups	24.625	2	12.313	25.118	0.000
	Within Groups	257.345	525	0.490		
	Total	281.970	527			

Source: Computed by Researcher from Primary Field Survey, 2022-23

It can be seen from the data presented in Table 4.8 that there is a statistically significant correlation between the factors of age (0.002), educational attainment (0.000), number of family members (0.000), occupation (0.002), and household monthly income (0.000) with reference to living in a gated community.

## **4.6 Conclusion**

There is a significant rise in the number of gated communities in the city of Kolkata. Rather than favoring traditional houses, consumers are opting for gated communities as their future residences. This study indicates that residents predominantly choose to reside in a gated community due to the enhanced security provided both within the dwelling space and the surrounding neighborhood. The residents highly priorities factors such as lift and wide corridors, neighborhood amenities, and 24-hour security guards when selecting a gated community as their place of residence. People are choosing to live in these gated communities primarily because they are concerned about crime. They appreciate the added security measures, such as CCTV surveillance and security personnel available 24/7. Additionally, a significant percentage of the population selects gated communities as a means of exhibiting their societal status. That's why some gated communities are established as a prestigious gated community. Some of these communities offer benefits such as proximity to friends, family, workplace, or other advantageous locations. However, the choice of housing type in a gated residential community is strongly correlated with factors such as age, educational level, family size, occupation and monthly household income of the residents. The association between socio-demographic and economic variables and living in gated communities was examined. Here, age, educational attainment, number of family members, occupation, and household monthly income were found to have a significant association with gated community living. Thus, it can be concluded that the decision to select a gated community over traditional housing for living is influenced by a number of external, socio-demographic, and economic factors.

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## **CHAPTER V**

### **RESIDENTIAL SATISFACTION IN GATED COMMUNITIES OF KOLKATA**

*Residential satisfaction performs a crucial role in assessing the characteristics of housing demand in gated communities in Kolkata. This chapter assess the perceived level of satisfaction among residents of gated communities in relation to five distinct features of residential satisfaction. This chapter also investigates the resident's impression of the adequacy of living conditions within gated communities in Kolkata. It also investigates the correlation between frequency of social interactions among residents with the level of residential satisfaction and the intentions of resident's mobility. Here also, an examination is conducted to determine whether socio-demographic and economic variables of respondents have any impact on the residential satisfaction of individuals residing in gated communities.*

## **5.1 Introduction**

While analyzing the characteristics of housing demand in gated communities in Kolkata, residential satisfaction is an important metric to take into consideration. The factors that contribute to residential satisfaction have been taken into consideration in order to conduct an analysis of the quality of life of people who live in a specific residential location. In addition to this, it is a significant factor that plays a role in determining whether or not an individual will choose to relocate to a new residence. It is possible that the reason why the relationship between humans and their living environment is such an important topic in environmental psychology is due to the fact that home environments are one of the most prominent contexts in human perception (Lawrence, 2002; Tognoli, 1987). It is essential to evaluate the extent to which people are content with their living conditions and the environments in which they are surrounded, and it is also essential to assess the implications of the findings of the research for the planning and management of urban areas. Due to the fact that urban development and planning are intended to improve the well-being of individuals, it is imperative that these aspects of a city, country, or region be taken into consideration. These aspects include social, economic, cultural, and related aspects. The level of contentment that property owners and residents feel within the built environment is a significant factor in determining the future prospects of the housing industry, both in the present and in the future. The satisfaction of customers is not solely dependent on the construction of a new building; rather, it is an ongoing concern that must be taken into consideration from the very beginning of the process of investment. Accordingly, in order for developers to be able to meet the expectations of consumers, they must first determine the specific requirements and desires of consumers in relation to the demands that they perceive (Lu, 1999; Ilesanmi, 2010). Both private and public housing planners and developers need to have a comprehensive understanding of a building's performance in order to provide consumers with services that are both effective and efficient. In order to gain valuable knowledge that can be used to guide future design decisions, it is possible that an evaluation of the correlation between the current usage of a building and its initial design objectives could yield significant results. A wide variety of technical, functional, social, and aesthetic considerations may be involved in evaluating the performance of a building due to the inherent complexity of the performance evaluation process. This chapter presents the levels of satisfaction and adequacy of living conditions of that current residents have with the facilities that are provided in gated communities where they currently reside.

## 5.2 Residential Satisfaction in Gated Communities

The level of satisfaction that the respondent has with their living environment is comprised of 41 different variables, which are then divided into five different residential satisfaction components, as shown in Table 5.1. Data for each variable has been gathered using a five-point Likert scale and subsequently aggregated to evaluate the various aspects of residential satisfaction, aiming to determine the overall satisfaction level.

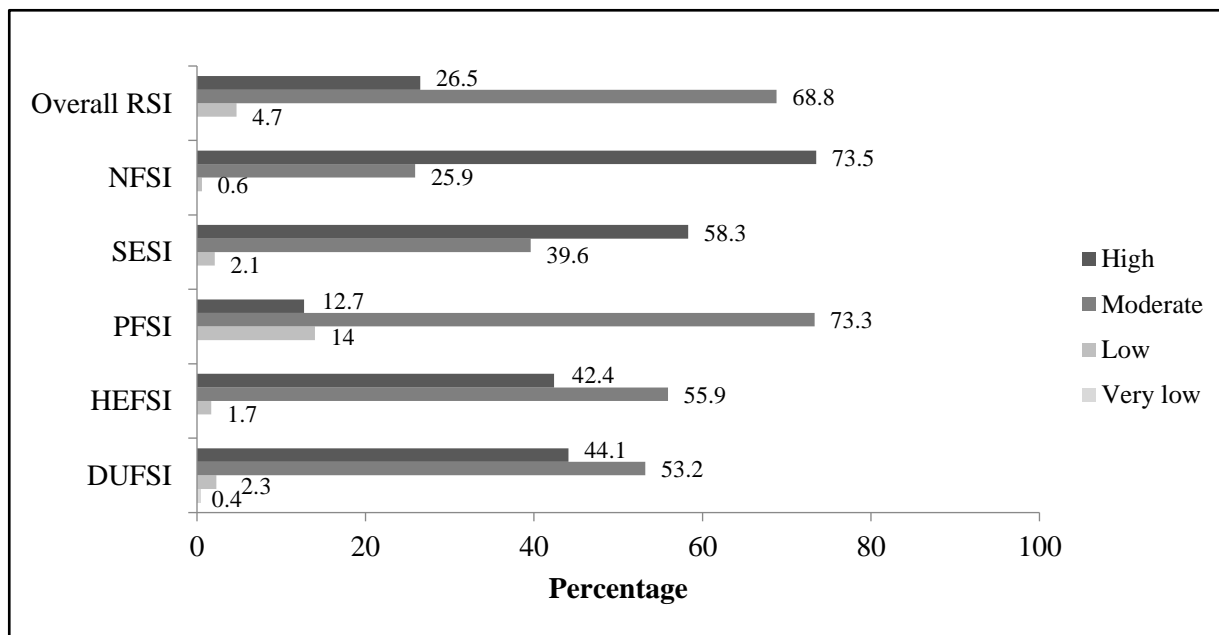
**Table 5.1: Variables of Different Residential Satisfaction Features**

<b>Residential satisfaction features</b>	<b>Variables</b>
Dwelling units	Spatial layout, light distribution during daytime and natural ventilation, living space, dining space, bedroom, kitchen, bathroom and toilet, balconies.
Housing estates	Corridors, lift, electricity supply, water supply, sewerage and drainage, firefighting system, landscaping, outdoor seating adequacy and location, maintenance, services and charges.
Public facilities	Open space, playing area, parking, community hall, perimeter roads, pedestrian walkways, local shops and food stalls, gym, swimming pool, library.
Social environment	Noise, crime, safety and security, community relations, homogeneity.
Neighborhood features	Distance to center of city, school, police station, hospital, market, shopping centers, bus and taxi stand, other connectivity.

Source: Computed by the Researcher

Appendix Table XII presents the satisfaction levels indicated by the percentage of respondents across each variable. It also shows the standard deviation and Pearson correlation among them. All the variables are statistically significant, with each satisfaction feature at the 0.01 level of significance. In terms of their overall Residential Satisfaction Index (RSI), the majority of the respondents (68.8 percent) are perceived to have a moderate level of satisfaction. Only 4.7 percent of respondents are experiencing a low level of satisfaction in overall RSI, despite the fact that 26.5 percent of respondents are perceived to have a high level of satisfaction. According to the Dwelling Unit Features Satisfaction Index (DUFSI), among the total respondents from all of the gated communities that were chosen, 53.2 percent of respondents have a moderate level of satisfaction, 44.1 percent of respondents have a high level of satisfaction, 2.3 percent of respondents have a low level of satisfaction, and 0.4 percent of

respondents have a very low level of satisfaction in overall dwelling unit features. In the Housing Estate Features Satisfaction Index (HEFSI), 55.9 percent of respondents are moderately satisfied, 42.4 percent of respondents are highly satisfied, and 1.7 percent of respondents are lowly satisfied in aggregate of all the housing unit features (Figure 5.1).



**Figure 5.1: Level of Satisfaction as Reported by the Resident of Gated Communities**

Source: Computed by the Researcher from Primary Field Survey, 2022-23

*Note: DUFSI= Dwelling Unit Features Satisfaction Index; HEFSI= Housing Estate Features Satisfaction Index; PFSI= Public Facilities Satisfaction Index; SESI= Social Environment Satisfaction Index; NFSI= Neighborhood Features Satisfaction Index; RSI= Residential Satisfaction Index.*

The Public Facilities Satisfaction Index (PFSI) reports that in gated communities of Kolkata, 73.3 percent of respondents have a moderate level of satisfaction with public facilities, while only 12.7 percent of respondents have a high level of satisfaction, and 14 percent of respondents have a low level of satisfaction with overall public facilities. In gated communities in Kolkata, the Social Environment Satisfaction Index (SESI) reveals that 58.3 percent of respondents are extremely satisfied with the social environment features, 39.6 percent are moderately satisfied, and only 2.1 percent are lowly satisfied with these features. With regard to the Neighborhood Features Satisfaction Index (NFSI), it can be observed that among all of the respondents, 73.5 percent are experiencing high levels of satisfaction, 25.9 percent are experiencing moderate levels of satisfaction, and 0.6 percent are experiencing low levels of satisfaction in relation to overall neighborhood features (Figure 5.1).

### 5.3 Adequacy of Living Condition in Gated Communities

The adequacy of the living condition index measures the sufficiency of various amenities and features in gated communities. The adequacy of various features helps understand residential satisfaction levels in gated communities. Thus, the Adequacy of Living Condition Index (ALCI) validates the value of the Residential Satisfaction Index (RSI) in gated communities. Based on the results of the Adequacy of Living Condition Index (ALCI), which are presented in Table 5.2, residents of gated communities are asked to rate the level to which they feel that 22 different factors are adequate. The characteristics of the housing unit and the characteristics of the neighborhood unit are the two categories that make up these factors. There are ten living condition features that are associated with the housing unit, and they are included in the housing unit features. There is a high level of adequacy among the respondents with regard to access to water supply and privacy in the house. On the other hand, the gated communities of Kolkata have a moderate level of adequacy for other features. Twelve living condition features that are associated with the neighborhood unit are identified in the neighborhood unit features section. There is a high level of adequacy among the respondents of gated communities in Kolkata with regard to features such as road connectivity, parking area, safety and security, as well as maintenance and environmental facilities. Other features, on the other hand, have moderate levels of adequacy among the respondents. For the overall housing unit features, the Adequacy of Living Condition Index (ALCI) value is 77.65, and the ALCI value for neighborhood unit features is 75.67. This indicates that the overall housing unit features are adequate. The total value of the Adequacy of living condition index is 76.66. Therefore, it is evident that a resident's perception of the overall adequacy level in a gated community is moderate, which also lends support to the fact that the majority of residents (68.8 percent) have an overall moderate level of satisfaction with their overall residential satisfaction level.

**Table 5.2: Adequacy of Living Condition Index (ALCI) of Residential Features**

<b>Adequacy of Living Condition Features</b>	<b>ALCI</b>
Condition of housing unit	78.33
Privacy in the house	80.87
Wall and floor material	78.71
Adequacy of no of rooms	78.63
Access to water supply	81.87
Generator supply during power cuts	79.88
Balconies	70.07
Corridors	74.88
Bathrooms and toilet	78.44
Natural ventilation	74.73

Adequacy of Living Condition Features	ALCI
<b>Housing Unit features</b>	<b>77.65</b>
Road connectivity	80.19
Open space	77.05
Parking area	81.17
Playing area	68.37
Local shops and food stalls	66.47
Street lighting	77.61
Sewerage and drainage	78.18
Safety and security	84.2
Maintenance and environmental facilities	80.3
Recreational facilities	71.7
Green area	71.97
Outdoor seating location	70.87
<b>Neighborhood Unit features</b>	<b>75.67</b>
<b>Overall ALCI</b>	<b>76.66</b>

Source: Computed by Researcher from Primary Field Survey, 2022-23

Notes: Adequacy Level: Very low =20–39; Low=40–59; Moderate=60–79; High=80–100.

#### 5.4 Relationships between Residential Satisfaction Indices and Socio-demographic & Economic Characteristics of Respondents

The analysis of the Pearson correlation coefficient (r), which is presented in Table 5.3, reveals that there is a significant positive correlation between the Residential Satisfaction Index (RSI) and all five residential component indices. These indices are as follows: the Dwelling Unit Features Satisfaction Index (DUF SI), the Housing Estate Features Satisfaction Index (HEFSI), the Public Facilities Satisfaction Index (PFSI), the Social Environment Satisfaction Index (SESI), and the Neighborhood Facilities Satisfaction Index (NFSI). Additionally, there is a strong positive correlation between the five residential component indices, and all of the values are significant at the 0.01 levels.

**Table 5.3: Pearson Correlation Coefficient (r) Matrix Between Residential Satisfaction Components**

Variables	DUF SI	HEFSI	PFSI	SESI	NFSI
<b>DUF SI</b>	1				
<b>HEFSI</b>	0.485**	1			
<b>PFSI</b>	0.533**	0.568**	1		
<b>SESI</b>	0.446**	0.503**	0.505**	1	
<b>NFSI</b>	0.465**	0.551**	0.497**	0.577**	1
<b>RSI</b>	0.755**	0.784**	0.813**	0.771**	0.781**

Source: Computed by Researcher from Primary Field Survey, 2022-23

Notes: \*\*significant at 0.01 level (2-tailed).

*Variable definitions: DUFISI= Dwelling Unit Features Satisfaction Index; HEFSI= Housing Estate Features Satisfaction Index; PFSI= Public Facilities Satisfaction Index; SESI= Social Environment Satisfaction Index; NFSI= Neighborhood Features Satisfaction Index; RSI= Residential Satisfaction Index.*

A study was conducted to determine the Pearson correlation coefficient ( $r$ ) between the Residential Satisfaction Index (RSI) and age, educational attainment, family size, occupation, and household monthly income. The results of this study are presented in Table 5.4. The relationship between RSI and household monthly income, occupation, and educational attainment is positive, whereas the relationship with age is negative. At the same time, there is no connection between RSI and the family size in gated communities. The level of satisfaction that people have with their living situation tends to increase as their income level rises, but it tends to decrease as people get older. There is a positive correlation between the DUFISI and educational attainment, occupation, and the monthly income of the household. On the other hand, there is a negative correlation between DUFISI and the age of the residents, but there is no correlation with the number of members in the family. There is a positive correlation between the presence of Housing Estate Features Satisfaction Index and educational attainment, occupation, and income. However, there is no correlation between HEFSI and either age or the number of members in a family. The Public Facilities Satisfaction Index has a positive correlation with a number of factors, including educational attainment, family size, occupation, and income level. This index is directly linked to these factors. However, there is a negative correlation between PFSI and the age of the people who were given the survey. Occupational status is the only factor that shows a positive correlation with the SESI. This does not have any correlation with age, educational attainment, the number of people in a family, or the monthly income of a household. While there is a positive correlation between the Neighborhood Facilities Satisfaction Index and family size, occupation, and household monthly income, but there is a negative correlation between NFSI and the age of the respondents. Additionally, there is no connection with the educational attainment. As a result, it is possible to make the observation that particular socio-demographic and economic factors, such as age, have a negative correlation with particular aspects of residential satisfaction. On the other hand, the resident's educational attainment, family size, occupation, and income level all have a positive correlation with these aspects; however, the size of the family does not have a correlation with the overall Residential Satisfaction Index.

**Table 5.4: Pearson Correlation Coefficient (r) Matrix Between Residential Satisfaction Components with Socio-demographic and Economic Attributes of the Respondents**

Variables	Age	Educational attainment	Family size	Occupation	Income
DUFSI	-0.197**	0.136**		0.203**	0.195**
HEFSI		0.091*		0.209**	0.117**
PFSI	-0.267**	0.250**	0.126**	0.218**	0.193**
SESI				0.108*	
NFSI	-0.140**		0.133**	0.117**	0.097*
RSI	-0.195**	0.131**		0.221**	0.162**

Source: Computed by Researcher from Primary Field Survey, 2022-23

Notes: \*\*significant at 0.01 level (2-tailed), \*significant at 0.05 level (2-tailed).

Variable definitions: DUFSI= Dwelling Unit Features Satisfaction Index; HEFSI= Housing Estate Features Satisfaction Index; PFSI= Public Facilities Satisfaction Index; SESI= Social Environment Satisfaction Index; NFSI= Neighborhood Features Satisfaction Index; RSI= Residential Satisfaction Index.

### 5.5 Relationship between Resident’s Social Interaction Frequency and the Intention of Resident’s Mobility

According to Table 5.5, a total of 98.5 percent of residents who had daily social interaction had no plans to relocate to a different location within the next two to three years. On the other hand, only 1.5 percent of residents expressed the intention to relocate to a different location. 79.5 percent of residents who participated in weekly social interactions stated that they had no desire to relocate, while 12.3 percent stated that they had an inclination to move, and 8.2 percent stated that they were unsure about their feelings regarding the matter. On the other hand, among those who had only rare social interactions with their neighbors, 40.3 percent of them stated that they intended to relocate within the next two to three years, while 23.9 percent indicated that they might consider doing so. The percentage of people who said they had no intention of leaving was only 35.8 percent. A significant association is found to exist, as demonstrated by a chi-square value of 156.868 and a P value of 0.000, which is significant at the 0.001 level. The chi-square test reveals that there is a substantial association between the frequency of social interactions among residents with their propensity to move to another place. As a result, residents who have frequent social interactions with their neighbors are more likely to continue living in the same gated community. On the other hand, residents who have few opportunities to interact with other people are more likely to relocate to a different gated community in Kolkata.

**Table 5.5: Chi-square test for Relationship between Resident’s Social Interaction Frequency and the Intention of Resident’s Mobility**

Residents Social Interaction Frequency		Intention of Resident’s Mobility in 2-3 years			Total	Chi-square value	P value
		Yes	No	Maybe			
Daily	Count	4	262	0	266	156.868	0.000**
	Row %	1.5%	98.5%	0%	100%		
	Column %	7.3%	59.4%	0%	50.4%		
weekly	Count	24	155	16	195		
	Row %	12.3%	79.5%	8.2%	100%		
	Column %	43.6%	35.2%	50%	36.9%		
Rarely	Count	27	24	16	67		
	Row %	40.3%	35.8%	23.9%	100%		
	Column %	49.1%	5.4%	50%	12.7%		
Total	Count	55	441	32	528		
	Row %	10.4%	83.5%	6.1%	100%		
	Column %	100%	100%	100%	100%		

Source: Computed by Researcher from Primary Field Survey, 2022-23

Notes: \*\*significant at 0.001 level

### 5.6 Relationship between Resident’s Social Interaction Frequency and Residential Satisfaction Level

According to Table 5.6, 79.7 percent of residents who reported having daily social interactions with their neighbors reported having a Residential Satisfaction Index (RSI) value that was moderate. Additionally, 17.3 percent of respondents reported a high satisfaction score, while only 3 percent reported a low residential satisfaction value respectively. A moderate level of Residential Satisfaction Index (RSI) was experienced by 59.5 percent of residents who participated in weekly social interactions, while 35.4 percent of residents experienced a high level of RSI with their participation. A low level of RSI was experienced by only 5.1 percent of the population. 10.5 percent of residents who had few social interactions displayed a low RSI value, 52.2 percent displayed a moderate RSI value, and 37.3 percent displayed a high RSI value. These findings belong to residents who had a rarity of social interactions.

**Table 5.6: Chi-square test for Relationship between Resident’s Social Interaction Frequency and Residential Satisfaction Level**

Residents Social Interaction Frequency		Residential Satisfaction Index (RSI)			Total	Chi-square value	P value
		Low	Moderate	High			
Daily	Count	8	212	46	266	33.351	0.000**
	Row %	3%	79.7%	17.3%	100%		
	Column %	32%	58.4%	32.9%	50.4%		
weekly	Count	10	116	69	195		
	Row %	5.1%	59.5%	35.4%	100%		
	Column %	40%	32%	49.2%	36.9%		
Rarely	Count	7	35	25	67		
	Row %	10.5%	52.2%	37.3%	100%		
	Column %	28%	9.6%	17.9%	12.7%		
Total	Count	25	363	140	528		
	Row %	4.7%	68.8%	26.5%	100%		
	Column %	100%	100%	100%	100%		

Source: Computed by Researcher from Primary Field Survey, 2022-23

Notes: \*\*significant at 0.001 level

At the 0.001 level of statistical significance, the chi-square test produces a chi-square value of 33.351 and a P value of 0.000. This indicates that the test was statistically significant. There is a connection between the frequency of social interactions that residents have with one another and the degree to which they are content with their homes. Consequently, people who have a greater number of social interactions tend to have a higher level of satisfaction with their residential experience, whereas people who have limited social interactions tend to have a lower level of satisfaction.

## 5.7 Conclusion

The majority of residents in gated communities of Kolkata are moderately satisfied with their residential environment. However, the maximum percentage of residents moderately satisfied in public facilities followed by housing unit facilities and dwelling unit facilities. But the percentage of resident’s high level of satisfaction is higher in neighborhood facilities followed

by social environment features. Public facilities only have few percentages of lower level of satisfaction. Correlation between cross component satisfaction indices is moderately positive, whereas overall residential satisfaction index has highly positive correlation with dwelling unit, housing estate features, public facilities, social environment features and neighborhood facilities. Socio-demographic and economic variables such as age is negatively correlated with overall residential satisfaction, whereas educational attainment, occupation and income are positively correlated with overall residential satisfaction. The inferential analysis indicated that there is significant relationship between resident's social interaction frequency and intention of resident's mobility. And also, there is a significant relationship between resident's social interaction frequency and residential satisfaction index. This emphasizes the necessity of seeking different approaches to enhance social interaction among the inhabitants in order to improve satisfaction levels, foster a sense of belonging, and cultivate community spirit in gated communities in Kolkata.

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**CHAPTER VI**

**LIFESTYLE OF RESIDENT'S IN GATED COMMUNITIES OF  
KOLKATA**

*The chapter showcases the level of participation in major lifestyle attributes of residents in gated communities of Kolkata. This study also examines the life satisfaction level and happiness level of the residents of gated communities and its correlation with the lifestyle attributes of residents.*

## **6.1 Introduction**

According to contemporary urban research, gated communities have evolved into a subject that is both difficult and complicated to investigate. One of the indicators of urban changes in both social and physical aspects is the prevalence of gated communities, which is sometimes mentioned as an indicator. According to Webster (2001), one of the most notable characteristics of urbanization in the latter half of the 20th century was the rapid growth of urban settlements that were privately located. People who belong to the high and upper-middle classes of the social hierarchy as a result of their economic and cultural advantages are the target population for gated communities, which are presented as a contemporary urban lifestyle option that provides exclusive living areas. These gated communities are promoted as offering a “privileged exclusive lifestyle” by the developers of gated communities, based on their marketing campaigns specifically on this characteristic of the communities. According to Almatarneh and Mansour (2013), this promotion suggests that specific local marketing contexts should incorporate certain architectural and social lifestyles from around the world. In the context of local development and the creation of exceptional housing projects that revolve around a common lifestyle characteristic, such as senior communities or homes in areas abundant in water resources, the concept of lifestyle can be utilized in a manner that holds the potential to be more practically applicable (Jansen, 2011). The chapter highlights the extent to which residents of gated communities participate in activities that are considered to be major lifestyle attributes. In addition, this study investigates the degree to which residents of gated communities are happy and satisfied with their lives, as well as the relationship between those characteristics and the lifestyle choices they make.

## **6.2 Level of Participation in Major Lifestyle Attributes**

Peoples have diverse lifestyle characteristics within gated communities. This may vary based on variables such as age, time, and geographical location. This study aims to determine the participation rate of various lifestyle attributes commonly exhibited in daily life. There are a total of twelve components that are used to evaluate the respondent's level of participation in major lifestyle attributes. These components are then categorized into five major lifestyle attributes. The attributes and variables are detailed in Table 6.1. The data for each component was collected using a Likert scale with five points, and it was collected from all of the respondents. There are multiple components that make up each attribute, and the values of those components are added together to determine the degree of participation in that attribute.

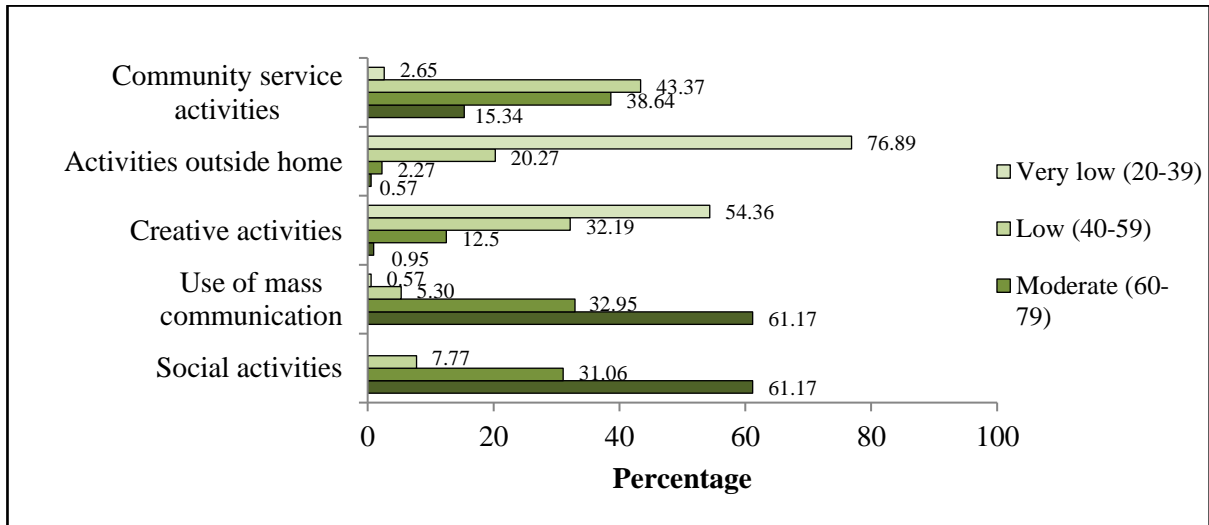
Table 6.1: Variables of Major Lifestyle Attributes

Major lifestyle attributes	Components
Social activities	Visiting and communicating with friends and family, travelling
Use off mass communication	Reading books, newspaper and magazines, watching TV for entertainment
Creative activities	Playing musical instruments or singing, writing, painting and sculpture
Activities outside home	Attending sports events, playing competitive sports
Community service activities	Helping friends and neighbors, working for social organization

Source: Computed by the Researcher

The majority of respondents, which accounts for 61.17 percent of the total, engage in social interactions on a regular or more frequent basis, including visiting and communicating with friends and relatives, as well as taking part in their daily activities. Approximately 31.06 percent of the participants engage in visits and communication with friends and family on a moderate frequency, while 7.77 percent do so on an occasional basis. This encompasses a wide range of aspects of their day-to-day lives. As far as the utilization of mass communication mediums is concerned, 61.17 percent of the participants demonstrate a high frequency or even a greater frequency in engaging with books, newspapers, magazines, and television for the purpose of entertainment. Out of the total number of respondents, 32.95 percent engage in activities related to mass communication on a somewhat frequent basis, 5.30 percent engage in these activities on a rare occasion, and 0.57 percent never engage in these activities. More than half of the participants (54.36 percent), stated that they had never engaged in creative activities such as singing, playing musical instruments, writing, painting, or sculpture. 32.19 percent of the total population participates in these creative activities on an occasional basis, 12.5 percent participate in them on a moderate frequency, and 0.95 percent participate in them frequently or more than frequently. 76.89 percent of those who participated in the survey stated that they never take part in any sporting events or any competitive sports when they are participating in activities that take place away from their homes. There are 20.27 percent of the total population that participate in these activities outside the home on an occasional basis, 2.27 percent who participate on a moderately frequent basis, and 0.57 percent who participate on a very frequent basis. 15.34 percent of those who participated in the survey are actively involved in community service activities. These activities include being of assistance to friends and family members as well as working with social organizations. There are 38.64 percent of respondents who participate in helping friends and family activities on a somewhat frequent basis, 43.37 percent

who participate in these activities on an occasional basis, and 2.65 percent who never participate in these activities or work with social organizations (Figure 6.1).



**Figure 6.1: Level of Participation in Major Lifestyle Attributes as Reported by the Resident of Gated Communities**

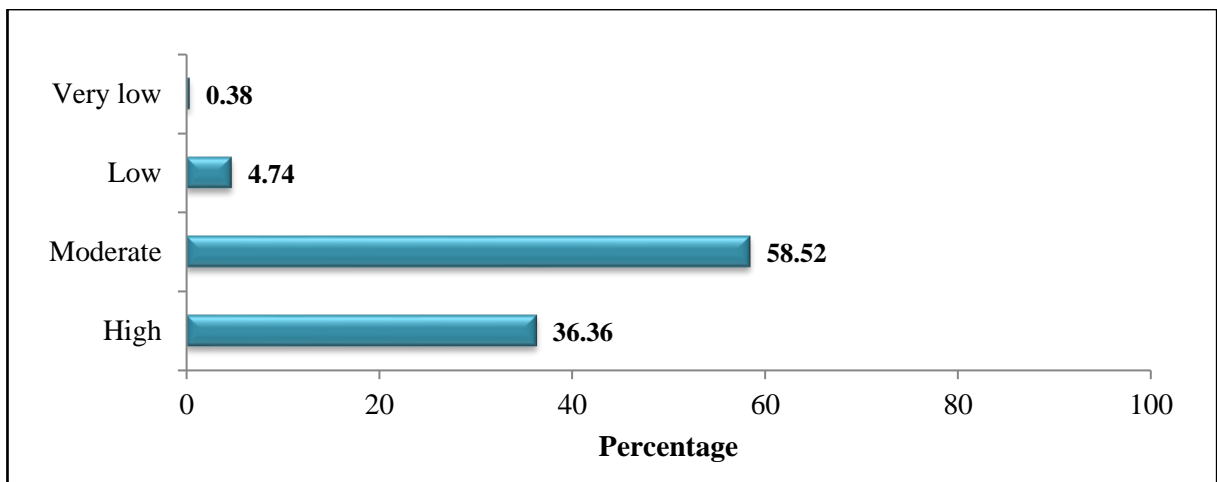
Source: Computed by the Researcher from Primary Field Survey, 2022-23

### 6.3 Life Satisfaction Index (LSI)

Life Satisfaction Index is calculated based on seven questions which is related to different life situations (Diener et al., 1985). These questions are;

- Is your life close to your ideal way of living in most ways?
- Are you satisfied with your physical condition?
- Are you satisfied with your financial condition?
- Are you satisfied with your career?
- Are you satisfied with your social life?
- So far have you got all important things you want in life?
- If you got a chance, would you like to change your present lifestyle?

Likert scale was used with five points to collect data from the 528 people who responded to the survey. After the value of each question has been summed up to determine the overall value of life satisfaction, then the value can be classified as either high, moderate, low, or very low. The Life satisfaction Index, as depicted in Figure 6.2, represents the level of satisfaction that residents have with their daily lifestyle. Out of the respondents, 36.36 percent express a high level of satisfaction with their daily lifestyle. A majority of the respondents (58.52 percent) reported being moderately content with their daily lifestyle, while 4.74 percent expressed dissatisfaction and 0.38 percent reported extreme levels of dissatisfaction.



**Figure 6.2: Life Satisfaction Level as Reported by the Resident of Gated Communities**

Source: Computed by the Researcher from Primary Field Survey, 2022-23

Note: Level of Life Satisfaction = Very low (20-39), Low (40-59), Moderate (60-79) and High (80-100)

### 6.4 Happiness Index (HI)

The Happiness Index is derived from 11 indicators associated to various dimensions of happiness in life (Happiness Alliance, 2014c; Musikanski et al., 2017; Jency, 2019). Each indicator contains a limited number of questions for respondents, as detailed in the Appendix Questionnaire. The indicators are:

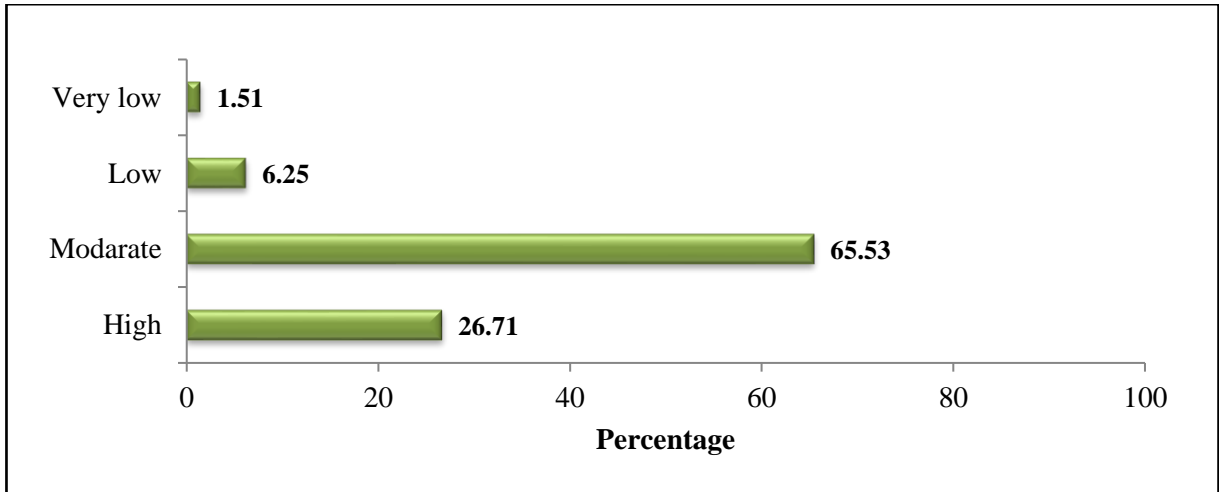
**Table 6.2: Indicators of Happiness Index**

Indicators
a) Satisfaction with life
b) Psychological wellbeing
c) Health
d) Time balance
e) Access to education, arts and culture
f) Community
g) Social support
h) Environment
i) Governance
j) Standard of living
k) Work

Source: Computed by the Researcher from Happiness Alliance, 2014c; Musikanski et al., 2017; Jency, 2019.

Likert scale was used with five points to collect data from the 528 people who responded to the survey. After the value of each question has been summed up to determine the happiness level of each indicator, then the value of each indicator has been summed up to determine the overall happiness level of each respondent. We can then classify the value as high, moderate,

low, or very low. The happiness Index, as depicted in Figure 6.3, measures the level of happiness among residents. Among the respondents, a total of 26.71 percent expressed a high level of happiness in their lives. Among the respondents, 65.53 percent reported being moderately happy, 6.25 percent reported being not quite happy, and 1.51 percent reported being not happy at all in their life.



**Figure 6.3: Happiness Level as Reported by the Resident of Gated Communities**

Source: Computed by the Researcher from Primary Field Survey, 2022-23

*Note: Level of Happiness = Very low (20-39), Low (40-59), Moderate (60-79) and High (80-100)*

### **6.5 Relationship between Major Lifestyle Attributes with Life Satisfaction Index and Happiness Index**

The major aspects of a person's lifestyle, such as their participation in social activities, use of mass communication, creative activities, activities outside the home, and their involvement in community service, vary from person to person. On the other hand, the characteristics of people's lifestyles can also have an effect on things like the level of happiness and life satisfaction that respondents experiencing. In this section, we will attempt to determine whether or not there is a connection between these aspects of lifestyle and the happiness index and the life satisfaction index. Based on the findings of the Pearson correlation coefficient (r) study, which are presented in Table 6.3, it can be concluded that there exists a positive correlation between the life satisfaction index and the participation of residents in social activities, the use of mass communication, and the engagement in community service activities. On the other hand, the level of life satisfaction among residents is inversely proportional to the extent to which they participate in activities that take place outside of their place of residence. There is no statistically significant correlation between the participation of residents in creative

activities and the level of satisfaction they experience in their lives. On the other hand, there is a positive correlation between the happiness index and the participation of citizens in activities such as social activities, creative activities, and community service activities. On the other hand, the level of satisfaction among residents of gated communities in Kolkata is not affected in any way by the fact that residents are involved in the use of mass communication and participate in activities that take place outside of their homes. When it comes to the resident's overall happiness, there is a significant positive association between the level of life satisfaction they experience and the overall happiness they experience.

**Table 6.3: Pearson Correlation Coefficient (r) Matrix between Major Lifestyle Attributes of the Residents with Life Satisfaction Index and Happiness Index**

Variables	Social activities	Use of mass communication	Creative activities	Activities outside home	Community service activities	Life Satisfaction Index	Happiness Index
Social activities	1	0.011	0.087*	0.181**	0.236**	0.298**	0.151**
Use of mass communication		1	0.435**	-0.194**	.0252**	0.102*	0.024
Creative activities			1	-0.080	0.389**	0.051	0.112**
Activities outside home				1	0.174**	-0.116**	0.058
Community service activities					1	0.202**	0.251**
Life Satisfaction Index						1	0.497**
Happiness Index							1

Source: Computed by the Researcher from Primary Field Survey, 2022-23

*Notes: \*\*significant at 0.01 level (2-tailed), \*significant at 0.05 level (2-tailed).*

## 6.6 Conclusion

During the past two decades, a significant number of gated communities have appeared in Kolkata, drawing a large population of inhabitants who prefer living in these confined enclaves rather than traditional neighbourhoods. The inhabitants of enclosed residential areas in Kolkata demonstrate a significant degree of engagement in social activities and the use of mass communication as part of their daily routine. It suggests that residents are frequently visiting and connecting with their friends and family members, as well as going daily within the city limits for work. During their leisure time, individuals engage in activities such as reading books, newspapers, or magazines, as well as watching television for enjoyment purposes. However, the amount of resident participation has dramatically declined in creative activities,

activities outside the home, and community service activities. According to the life satisfaction index, over 50 percent of inhabitants residing in gated communities have a moderate level of contentment with their everyday lifestyle. Roughly one third of the inhabitants are extremely content with their lives. The happiness index aligns with the life satisfaction index, revealing that two-thirds of the respondents experience a moderate level of happiness, while around one-fourth of the respondents report a high level of happiness in their lives. Therefore, residing in a highly equipped gated community does not necessarily result in satisfaction and happiness in one's life. The Pearson correlation coefficient indicates that individuals who often engage in visiting and communicating with their friends and family, utilize mass communication more often, assist their friends, and actively participate in social organizations, experience much higher levels of life satisfaction and happiness. Engaging in creative activities and participating in activities outside of one's home have little impact on the level of life happiness. However, creative activities have a direct impact on the residents' degree of happiness. It can be inferred that inhabitants residing in gated communities in Kolkata lead a hectic lifestyle, which in turn impacts their degree of pleasure and satisfaction in their everyday lives.

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## **CHAPTER VII**

### **SAFETY AND CRIME RATES IN GATED COMMUNITIES AND OTHER HIGH-RISE APARTMENTS OF KOLKATA**

*Across the Kolkata Municipal Corporation (KMC), a considerable number of gated residential communities have been established, attracting a substantial population of inhabitants who exhibit a preference for residing within these enclosed enclaves over the ordinary neighborhood. This chapter investigate the perception of security risk among the residents of gated communities and other high-rise apartments in Kolkata. This chapter also examines the difference in degree of fear of crime among the residents of gated and other high-rise apartments in Kolkata.*

## **7.1 Introduction**

There are times when safety may appear to be a secondary concern; however, it is closely connected to the crime rate in one's immediate vicinity, particularly in the environment in which they live. Because of the complexity of the problem, society needs to pay attention to it in a targeted and specific manner. According to Marzbali et al. (2016), the term "fear of crime" refers to the various emotional and practical responses that individuals and communities exhibit in response to criminal activities. In the field of urban planning and design, there has been a significant amount of research conducted on the relationship between the built environment and criminal activity. Crimes of a particular nature are motivated by specific circumstances. When a victim is by themselves, the threat of being robbed on the street increases. Pickpocketing is a simple task in densely populated urban areas, whereas burglary is made easier by the ability to enter a building in a stealthy manner. In the process of preventing one crime, it seems that we might inadvertently make it easier for another crime to occur (Hillier & Sahbaz, 2008). The fear of crime is also linked to a number of different factors, including the relationships within the community, their way of life, and the environment that is surrounding the individual. According to Abdullah et al. (2012), it is necessary to combine and enforce a variety of efforts and multiple security measures in order to be able to guarantee that a residential community is free from criminal activity. Households that have gated entrances typically have a greater sense of security in terms of the prevalence of criminal activity. On the other hand, there were instances in which there was not a significant difference between homeowners who lived in gated communities and those who lived in communities that did not have gates. According to Sanchez et al. (2005), renters who lived in gated communities reported higher levels of anxiety because of the possibility of being a victim of crime. This was in comparison to renters who lived in communities that did not have gates. Srivastava discusses the rapid growth of gated communities in 'New India' that control physical movements and create emotions such as fear and a sense of moral superiority (Srivastava, 2015). This chapter investigates the ways in which residents of Kolkata perceive the level of security risk and fear of crime in gated and other high-rise apartments. Additionally, this chapter seeks to determine the occurrence and frequency of crime in gated communities and other high-rise apartments to better understand the situation. In addition to this, it is an attempt to attract the attention of urban planners to this essential component of urban planning and city living.

## **7.2 Comparison of Socio-economic Characteristics of the Respondents of Gated Communities and Other High-Rise Apartments**

This study is based on two surveys. The initial survey was conducted to collect information about the residents of the gated community. Due to the large number of gated communities in Kolkata, a total of 528 surveys were carried out across 25 different gated communities which was located various parts of Kolkata. This sample was considered to be representative of the city's gated communities. Gated communities are affluent residential developments that are located in various parts of Kolkata. Different types of housing, such as high-rise towers and smaller detached or semidetached residences, are used to represent the various communities that can be found in Kolkata. In addition to shared private amenities like gym centers, swimming pools, playgrounds, green areas, and sports facilities like basketball or tennis courts, they also have similar characteristics, such as improved living standards and enhanced security for residents within the community. Residents of apartments were asked questions regarding socio-economic factors and their perceptions of the level of security satisfaction they experienced in their homes as part of the second survey, which was used to collect data on the residences. So, 150 surveys were conducted in other high-rise apartments residents.

The surveys included closed-format and open-format questions, allowing respondents to submit their own answers. Table 7.1 displays the essential descriptive statistics of both respondent groups to enhance understanding of their socio-demographic characteristics.

**Table 7.1: Socio-demographic Characteristics of the Respondents**

Variables	Gated communities (in Percentage)	Other high-rise apartments (in Percentage)
Age		
Below 40 years	9.8	48.7
40-60 years	65.9	43.3
Above 60 years	24.3	8
Gender		
Male	61.2	58.7
Female	38.8	41.3
Religion		
Hindu	88.4	92
Muslim	10	6.7
Others	1.6	1.3
Caste		
General	84.1	80
SC and ST	5.1	10.7

Variables	Gated communities (in Percentage)	Other high-rise apartments (in Percentage)
OBC	10.8	9.3
Ethnicity		
Bengali	55.8	76
Non-Bengali	44.2	24
Family members		
1-3 members	46.4	42.7
Above 3 members	53.6	57.3
Education level		
High school	3.8	17.3
Graduate	21.2	34.7
Post graduate	38.4	32
Doctorate degree	4.4	2.7
Professional degree	32.2	13.3
Employment status		
Government sector	18	24
Private sector	46.4	21.3
Self employed	16.1	26.7
Other sector	19.5	28

Source: Computed by Researcher from Primary Field Survey, 2022-23

The majority of respondents in gated communities were between the ages of 40 to 60, accounting for 65.9 percent of the sample. Individuals over the age of 60 made up 24.3 percent of the sample, while those under the age of 40 made up 9.8 percent. For those living in other high-rise apartments, the majority of respondents were younger than 40 years old (48.7 percent), followed by those between the ages of 40 to 60 years old (43.3 percent). There was no significant difference in the proportion of males and females or the religious affiliation of respondents between gated communities and other high-rise apartment complexes. In gated communities, 61.2 percent of respondents were male, while 38.8 percent were female. Conversely, 57.7 percent of respondents were male, while 41.3 percent were female in other high-rise apartments. In gated communities, 88.4 percent of respondents identified as Hindu, 10 percent as Muslim, and 1.6 percent as belonging to other backgrounds. In other high-rise apartments, 92 percent of respondents identified as Hindu, 6.7 percent as Muslim, and 1.3 percent as belonging to other religious backgrounds. According to the caste structure, there was not much of a difference between the people who lived in gated communities and those who lived in other high-rise apartments according to the respondents. When compared to gated communities, the majority of respondents who identified as SC or ST were found in other high-rise apartment complexes. In gated communities, 84.1 percent of respondents identified as General caste, 5.1 percent as Scheduled Castes (SC) and Scheduled Tribes (ST), and 10.8

percent as Other Backward Classes (OBC). In other high-rise apartments, 80 percent of respondents identified as General, 10.7 percent as SC and ST, and 9.3 percent as OBC. Differences in ethnicity were observed between the two samples. In gated communities, 44.2 percent of respondents identified themselves as non-Bengali, whereas 55.8 percent of respondents identified themselves as Bengali. On the other hand, respondents from other high-rise apartments were represented by 24 percent non-Bengali individuals and 76 percent Bengali individuals. There were no discernible differences between the two samples in terms of the size of the families. In gated communities, 46.4 percent of families consist of 1 to 3 members, while 53.6 percent comprise more than 3 members. In other high-rise apartments, 42.7 percent of families consist of 1 to 3 members, while 57.3 percent comprise more than 3 members. The level of education attained by the respondents showed a significant amount of variation between the two types of samples. The percentage of respondents who held a professional degree was 32.2 percent in gated communities, whereas the percentage of respondents who held similar qualifications in other high-rise apartments was only 13.3 percent. In gated communities, the percentage of respondents who had only completed their high school education was 3.8 percent, which is significantly lower than the 17.3 percent who had completed school in other high-rise apartment complexes. Significant differences were found in terms of employment status, with 46.4 percent of respondents working in the private sector within gated communities, in contrast to only 21.3 percent of respondents working in other high-rise apartments. The percentage of respondents who were self-employed in gated communities was 16.1 percent, while the percentage of respondents who were from other high-rise apartments was 26.7 percent. The percentage of respondents who worked in the government sector who lived in other high-rise apartments was significantly higher (24 percent) than the percentage of respondents who lived in gated communities (18 percent).

**Table 7.2: Average household monthly income distribution of the respondents**

Average income (in Rupees)	Residents of gated communities (in percentage)	Residents of other high-rise apartments (in percentage)
Below 50000	0.76	26.67
50001 – 100000	20.26	41.33
100001 – 150000	45.27	23.33
150001 – 200000	23.67	6.67
Above 200000	10.04	2
Total	100	100

Source: Computed by Researcher from Primary Field Survey, 2022-23

There is information regarding the distribution of the average monthly income among the respondents from the two samples that is presented in Table 7.2. It is observed that the distribution of income among respondents who reside in gated communities is distinct from that of respondents who reside in other high-rise apartments. 10.04 percent of respondents in gated communities have a monthly income of more than 200,000 rupees, whereas only 2 percent of respondents in other high-rise apartments have such an income. 23.67 percent of the respondents who responded from gated communities have a monthly income that ranges between 150,001 to 200,000 rupees. However, only 6.67 percent of respondents who currently reside in other high-rise apartments have a monthly income that ranges between 150,001 to 200,000 rupees. Nearly half of the respondents (45.27 percent) come from gated communities and have a monthly income that ranges somewhere between 100,001 to 150,000 rupees. Nevertheless, only 23.33 percent of respondents from other high-rise apartments have a monthly income that ranges between 100,001 to 150,000 rupees only. In gated communities, only 21.02 percent of respondents earn less than 100,000 rupees per month, whereas in other high-rise apartments, 68 percent of respondents earn less than 100,000 rupees per month. This is a significant disparity between the two categories.

### **7.3 Perception of Security Risk in Gated Communities and Other High-Rise Apartments**

The overall trend in how residents of the chosen gated communities and other high-rise apartments felt about safety and security measures was looked at by asking interviewees to agree or disagree with eleven different statements. We conducted this to ascertain the interviewees' agreement or disagreement with the specific statements. We achieved this by using a five-point Likert scale. The replies "strongly agree", "agree", "neither agree nor disagree", "strongly disagree", and "disagree" each received a score of +1, +0.5, 0, -0.5, and -1, reflecting their different levels of agreement or disagreement with the statement. This provides a more comprehensive picture of the perceptions held by neighborhood residents. To find the weighted total, the actual frequency of each response category was multiplied by its score, and then the values that were obtained from this process were added together. We calculated the security satisfaction index by dividing the total by the frequency of each response type.

The overall trend of residents' perceptions of the security risk in gated communities and other high-rise apartments is presented in Tables 7.3 and 7.4, respectively. The high satisfaction

index value demonstrates that residents of the gated community have a sense of security when they are walking alone in the morning, afternoon, and nighttime. When individuals are alone at home within gated communities, they feel a sense of safety, regardless of whether it is during the day or at night. The members of the community have expressed a high level of contentment with the lighting facilities that are available to them. The open spaces, parks, and other public areas that are located within gated communities do not offer complete safety for the children of residents to play in, which has led to concerns regarding the safety of the children. Because of this, residents have a moderate level of satisfaction with these amenities. Security personnel and closed-circuit television surveillance that is on duty around the clock ensure that these communities are safe places to park vehicles of all kinds, including automobiles, motorcycles, and personal bicycles. The low satisfaction value that is displayed in Table 7.3 and Figure 7.1 is evidence that residents are dissatisfied with the performance of the local police force.

**Table 7.3: Overall Scenario of Resident’s Perception of Security Risk in Gated Communities**

Sl. no	Statements	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Weighted total score	Satisfaction index
1	Feel safe in community to walk alone during the morning	300	83	0	0	0	383	0.73
2	Feel safe in community to walk alone during the afternoon	291	91.5	0	0	0	382.5	0.72
3	Feel safe in community to walk alone during the night	173	161	0	-4	0	330	0.63
4	Feel safe when alone at home during the day	329	77.5	0	0	0	406.5	0.77
5	Feel safe when alone at home during the night	241	127	0	0	0	368	0.70
6	Satisfied with the lighting facilities	228	121.5	0	0	0	349.5	0.66
7	Feel safe when visit open spaces and parks	192	108	0	-4	-3	293	0.55
8	Feel safe when visit other public places	175	128.5	0	-1.5	0	302	0.57
9	Safe for parking residential cars, motor bikes and cycles	188	153	0	0	0	341	0.65
10	Secure for children to play	163	139.5	0	-4.5	-2	296	0.56
11	Satisfied with the performance of local police	81	133.5	0	-12	-10	192.5	0.36

Source: Computed by Researcher from Primary Field Survey, 2022-23

During the morning and afternoon hours, residents of other high-rise apartments indicate that they feel secure when they are walking alone within their apartments. On the other hand, in the evening, they do not feel safe walking by themselves. They claim that they have a moderate

level of satisfaction with relation to this aspect, stating that they feel relatively safe when they are alone at home both during the day and at night. The low levels of satisfaction expressed by respondents are a reflection of the fact that the lighting facilities in the majority of other high-rise apartments are inadequate. Residents do not feel comfortable going to nearby open spaces, parks, and other public areas by themselves, nor do they feel safe allowing their children to play in those areas. The absence of closed-circuit television (CCTV) surveillance and security personnel who are available around the clock is the primary reason why residents are concerned about the possibility of theft of vehicles, such as automobiles, motorcycles, and bicycles, on the premises of their apartment complexes. The residents of the other high-rise apartments have expressed their dissatisfaction with the performance of the local police, which is reflected by a low satisfaction index value (Table 7.4 and Figure 7.1).

**Table 7.4: Overall Scenario of Resident’s Perception of Security Risk in Other High-Rise Apartments**

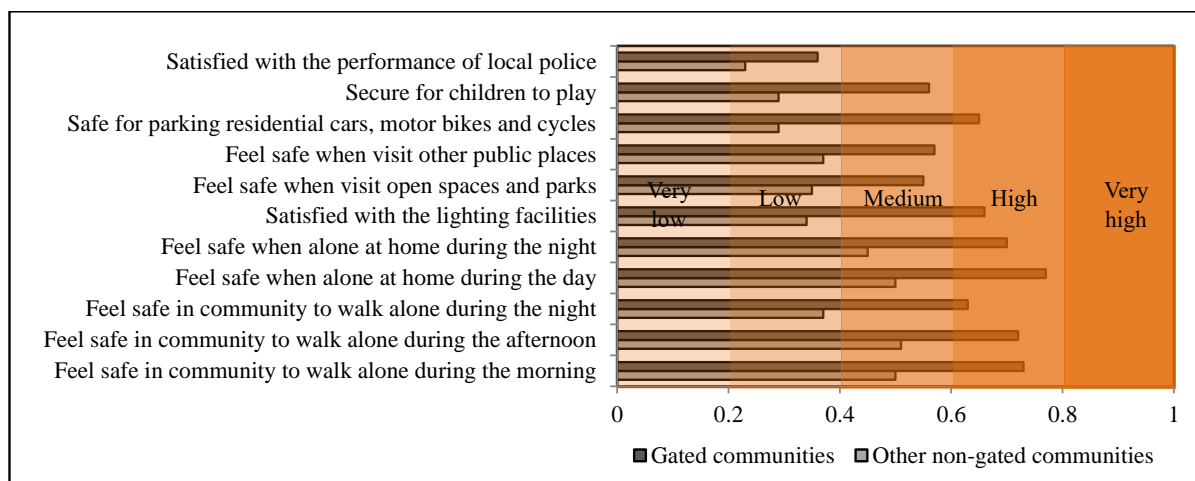
Sl. no	Statements	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Weighted total score	Satisfaction index
1	Feel safe in community to walk alone during the morning	28	47.5	0	0	0	75.5	0.50
2	Feel safe in community to walk alone during the afternoon	27	49.5	0	0	0	76.5	0.51
3	Feel safe in community to walk alone during the night	18	40	0	-3	0	55	0.37
4	Feel safe when alone at home during the day	22	53	0	0	0	75	0.50
5	Feel safe when alone at home during the night	20	47	0	0	0	67	0.45
6	Satisfied with the lighting facilities	14	43.5	0	-4	-3	50.5	0.34
7	Feel safe when visit open spaces and parks	10	45	0	-3	0	52	0.35
8	Feel safe when visit other public places	12	46	0	-2	0	56	0.37
9	Safe for parking residential cars, motor bikes and cycles	10	38	0	-4	0	44	0.29
10	Secure for children to play	8	39.5	0	-4	0	43.5	0.29
11	Satisfied with the performance of local police	9	40	0	-12	-2	35	0.23

Source: Computed by Researcher from Primary Field Survey, 2022-23

Gated communities out perform in all aspects of perception of security satisfaction level when compared to other high-rise apartments. The satisfaction index value represents the true

perception of security among respondents in gated communities and other high-rise residential complexes. Figure 7.1 illustrates the levels of security satisfaction values.

**Figure 7.1: Satisfaction Index based on Perception of Security Risk in Gated Communities and Other High-Rise Apartments**

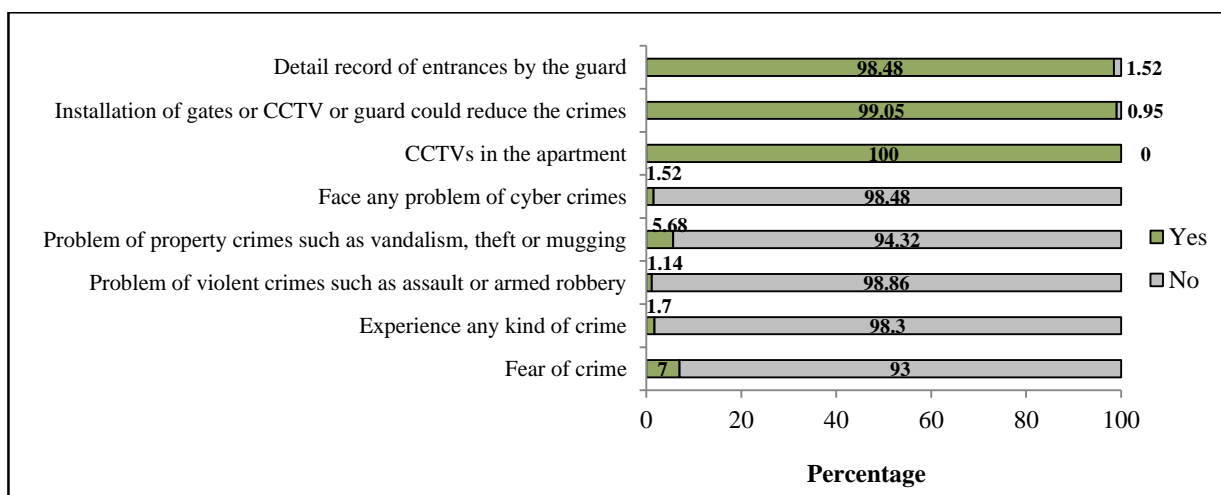


Source: Computed by Researcher from primary field survey, 2022-23

#### **7.4 Different Crime Components and Fear of Crime in Gated Communities and Other High-Rise apartments**

The various components of crime and the associated fear within gated communities and other high-rise apartments are illustrated in Figure 7.2 and Figure 7.3. Here, eight different crime components have been taken for the study (Figure 7.2 and Figure 7.3). In gated communities, a small percentage of residents have concerns about crime. Within total respondents only 7 percent of the respondents have fear of crime in gated communities. A mere 1.7 percent of residents or their household members have encountered any form of crime within gated communities. Gated communities did not face significant issues with violent crimes, only 1.14 percent of respondents reported violent crimes such as assault or armed robbery; however, a small percentage of respondents (5.68 percent) reported experiences with property crimes, such as vandalism, theft, or mugging. A small fraction of the respondents (1.52 percent) has encountered cyber-crimes. All gated communities are equipped with CCTVs and 24/7 security personnel to enhance the safety of residents. Approximately all the respondents are agreed that installation of CCTV or gates could reduce the crimes. And nearly every gated community has the capability to record details of vehicles and pedestrian’s entries monitored by the security staff (Figure 7.2).

**Figure 7.2: Measures of Different Crime Components in Gated Communities**

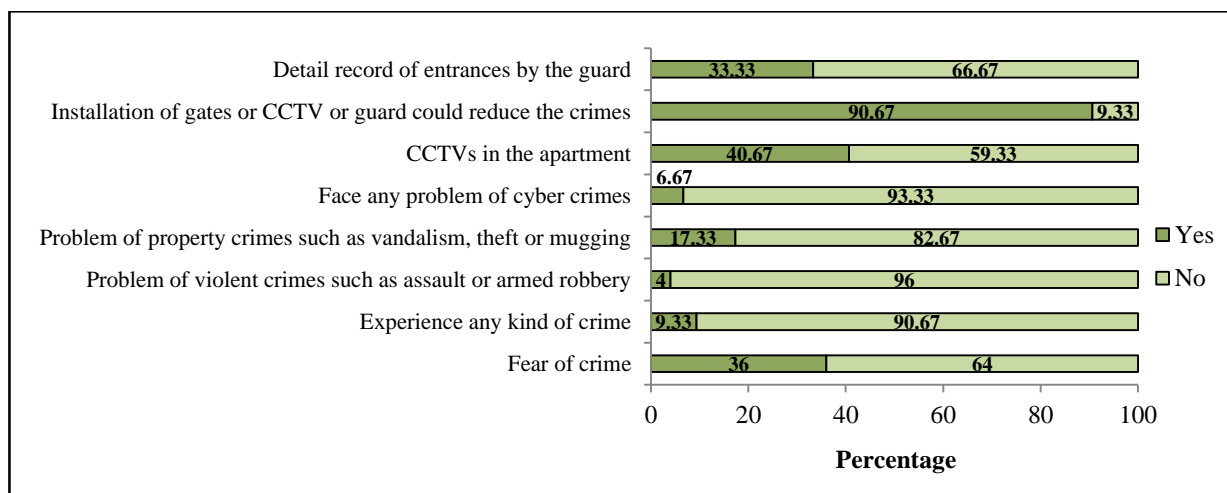


Source: Computed by Researcher from Primary Field Survey, 2022-23

In other high-rise apartment complexes, 36 percent of respondents have expressed concerns about crime and have a fear of crime. This percentage is significantly higher than the value that is observed in gated communities. A total of 9.33 percent of respondents or members of their families have been victims of some kind of criminal activity. Other high-rise apartments did not have a high incidence of violent crimes like assault or armed robbery against their residents. The problem of violent crimes such as assault or armed robbery was reported by only 4 percent of the population. According to the findings, however, 17.33 percent of respondents reported having problems with property crimes in their apartments, including theft, vandalism, and mugging. 6.67 percent of respondents have experienced some form of cybercrime, which includes a variety of different types.

The majority of the apartments in the other apartments did not have any security personnel, and 59.33 percent of the respondents reported that there was no CCTV surveillance in those high-rise apartments. With regard to the ability to document every detail of the entry made by their guards, 66.67 percent of the respondents indicated that they didn't have the capability to do so. There was a consensus among the majority of respondents from gated communities as well as other high-rise apartment complexes that the installation of guards, CCTV systems, and gates could potentially reduce the number of crimes committed (Figure 7.3).

**Figure 7.3: Measures of Different Crime Components in Other High-Rise Apartments**



Source: Computed by Researcher from Primary Field Survey, 2022-23

### 7.5 Internal Consistency of the Variables of Residents Perceptions

The internal consistency of the variables was assessed using Cronbach’s alpha test. The Cronbach's alpha for all variables was 0.886. The values of ‘alpha if item deleted’ ranged from 0.872 to 0.888, indicating acceptable reliability. Most of the questions were deemed worthy of retention, and would result in a decrease in alpha if deleted, with the exception of one question: “You are satisfied with the performance of local police”. The elimination of that question would raise the alpha to 0.888 (see to Table 7.5). The Cronbach’s alpha value more than 0.7 indicates high internal consistency, which can be considered acceptable. It was essential to assess the performance of local police in both gated communities and other high-rise apartments; therefore, the question was retained.

**Table 7.5: Overall Variables Statistics**

Sl. no	Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Cronbach’s Alpha if Item Deleted
1	Feel safe in community to walk alone during the morning	41.99	22.439	0.686	0.623	0.872
2	Feel safe in community to walk alone during the afternoon	42.03	22.443	0.669	0.639	0.873
3	Feel safe in community to walk alone during the night	42.36	22.548	0.583	0.460	0.878
4	Feel safe when alone at home during the day	41.97	22.924	0.620	0.600	0.876
5	Feel safe when alone at home during the night	42.16	22.441	0.649	0.615	0.874
6	Satisfied with the lighting facilities	42.30	21.313	0.637	0.450	0.874
7	Feel safe when visit open spaces and parks	42.35	21.788	0.635	0.647	0.874

8	Feel safe when visit other public places	42.38	22.179	0.642	0.634	0.874
9	Safe for parking residential cars, motor bikes and cycles	42.36	22.277	0.610	0.421	0.876
10	Secure for children to play	42.42	22.288	0.549	0.429	0.880
11	Satisfied with the performance of local police	42.76	22.433	0.455	0.318	0.888

Source: Computed by Researcher from Primary Field Survey, 2022-23

## 7.6 Multiple Linear Regression Analysis

Independent variables that exhibited high correlation with one another were selected to determine the strength of the relationship between the variables. A multiple linear regression analysis was conducted to examine the relationship between a single dependent variable, “degree of fear of crime among residents of the neighborhood”, and six independent variables: “crimes experienced by respondents or family members”, “frequency of crime incidents happened with neighbors in last 1 year”, “Problem of violent crimes such as assault or armed robbery”, “Problem of property crimes such as vandalism or theft”, “Problem of cyber crimes”, and “detailed records of entrances monitored by the guard”. Results are presented in Table 7.6, 7.7, and 7.8.

**Table 7.6: Summary of Regression Relation**

Model	R	R Square	Std. Error of the Estimate
<b>1</b>	0.905 <sup>a</sup>	0.819	0.109

**a. Predictors: (Constant), Detailed records of entrances monitored by the guard, Problem of violent crimes such as assault or armed robbery, Problem of cyber crimes, Problem of property crimes such as vandalism or theft, Crime experienced by Respondents or family members, Frequency of Crime incidents happened with neighbors in last 1 year**

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table 7.7: ANOVA<sup>a</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
<b>Regression</b>	28.177	6	4.696	392.741	.000 <sup>b</sup>
<b>Residual</b>	6.230	521	0.012		
<b>Total</b>	34.407	527			

**a. Dependent Variable: Degree of Fear of Crime**

**b. Predictors: (Constant), Detailed records of entrances monitored by the guard, Problem of violent crimes such as assault or armed robbery, Problem of cyber crimes, Problem of property crimes such as vandalism or theft, Crime experienced by Respondents or family members, Frequency of Crime incidents happened with neighbors in last 1 year**

Source: Computed by Researcher from Primary Field Survey, 2022-23

Since the value of  $R^2$  above 0.8 (i.e. 0.819), it indicates that the regression model accounts for a significant portion of the variability in the target variables, demonstrating a strong correlation between the variables. The value of “t” (3.509) exceeds the table value of 1.653 at a 95% confidence level for 521 degrees of freedom. So, the independent variables i.e. Crimes experienced by respondents or family members, Frequency of crime incidents happened with neighbors in last 1 year, Problem of property crimes such as vandalism or theft, Problem of violent crimes such as assault or armed robbery, Problem of cyber crimes and Detailed records of entrances monitored by the guard are significantly contributing to the dependent variable “Degree fear of crime among residents of neighborhood”. This indicates that in residential areas where residents have a low fear of crime, there is a corresponding reduction in both personal crime experiences and the incidence of criminal activity among neighbors. The incidence of property crimes such as vandalism and theft, as well as violent crimes, including assault and armed robbery, increases in communities where residents experience an increased fear of crime. So that the fear of crime is greater in other high-rise apartments than in communities equipped with gates, barriers, and security personnel.

**Table 7.8: Regression Coefficient and t test Values**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	Beta	Std. Error	Beta		
(Constant)	0.739	0.210		3.509	0.000
<b>Crime experienced by Respondents or family members</b>	0.221	0.046	0.112	4.808	0.000
<b>Frequency of Crime incidents happened with neighbors in last 1 year</b>	-0.216	0.014	-0.556	-15.785	0.000
<b>Problem of violent crimes such as assault or armed robbery</b>	-0.008	0.050	-0.003	-0.161	0.872
<b>Problem of property crimes such as vandalism or theft</b>	0.424	0.033	0.385	13.027	0.000
<b>Problem of cyber crimes</b>	-0.016	0.043	-0.008	-0.367	0.714
<b>Detailed records of entrances monitored by the guard</b>	0.013	0.040	0.006	0.327	0.744

Source: Computed by Researcher from Primary Field Survey, 2022-23

## **7.7 Conclusion**

This study, based in interviews with residents of gated communities and other high-rise apartments, reveals that individuals living in other high-rise apartments faced a higher incidence of crime compared to those who lived in gated communities. The magnitude of the crimes and the level of fear regarding these crimes are specifically raised in the other high-rise apartments. This suggests that individuals residing in other high-rise apartments experience a greater sense of psychological insecurity compared to those living in gated communities. The guards in nearly all gated communities carefully maintain comprehensive records of all entries. However, maintenance of entrances in other apartments leaves much to be desired. People with higher incomes are less likely to be victims of crime, while people with lower or middle incomes are more likely to be victims of crime. This is because people with higher incomes have home security systems like CCTV cameras, burglar alarms, intercoms, security guards, or electric fences. The criminal activities faced by residents play an important role in promoting a pervasive sense of fear regarding crime across various community types. The perception of insecurity among community resident's correlates directly with the frequency of criminal activities within that community. The security satisfaction index indicates that gated communities exhibit superior performance compared to their other high-rise apartment's counterparts. Individuals residing in gated communities experience a greater feeling of security during both daytime and nighttime compared to those living in other kind of surroundings. The lighting systems are notably superior in gated communities. The presence of CCTV and security personnel in gated communities enhances the safety of residents' vehicles parked within their premises. However, the performance of the local police has left residents of both gated communities and other high-rise apartments expressing dissatisfaction, as evidenced by their low satisfaction scores.

This chapter demonstrates that the gated community, despite a lower incidence of crime, is safer than the other high-rise apartments. Alongside gated elements, the administration of the cooperative society, the installation of CCTV cameras and security personnel, as well as sufficient street lighting are enhancing security measures. This research, however, does not investigate the social interactions and psychological issues of residents in gated communities and other high-rise apartments in Kolkata.

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## **CHAPTER VIII**

### **SEGREGATION IN GATED COMMUNITIES OF KOLKATA**

*The chapter investigate how ethnicity, caste, and religion contribute to social segregation between gated neighbourhoods and other high-rise apartments in Kolkata. It argues that the income level of individuals residing in gated communities might contribute to economic fragmentation, resulting in spatial segregation within society. This chapter also examine the perspectives of local residents regarding gated communities.*

## **8.1 Introduction**

A city is a social construct that promotes social cohesion through the implementation of social norms and practices, including the utilization of communal spaces, public transportation, and common amenities (Roitman, 2005). Nowadays, the proliferation of gated communities in major urban areas has been regarded as a threat to social unity and a contributor to the interference of societal norms in public areas. This perception has been particularly prevalent in recent years. There are many different kinds of gated communities, but they all have some defining characteristics in common. These include housing that is both sophisticated and prestigious, as well as infrastructure and services of a high quality (Roitman, 2010). In accordance with Blandy and Lister's (2005) observations, they are clearly delineated, and access is restricted to only residents. The practice of segregation is a persistent and fundamental component of urban society. Segregation is frequently confused with inequalities, social fragmentation, and widespread poverty in urban areas (Sabatini, 2006). A severe form of residential segregation is exemplified by gated communities. In these communities, the movements and patterns of residents indicate a dynamic process of separation that extends beyond their physical living spaces. The time-space trajectories of segregation can be understood as interrelated routes between important domains, such as work and home, that enable elite social groups to maintain social distance and manage perceived risks. This is because these routes allow for the preservation of social distance. Gated communities are a significant contributor to the ongoing segregation that is occurring in urban areas. Therefore, it is imperative that policies be put into place that restrict the growth of these secluded communities (Atkinson & Flint, 2004). Caste continues to be a significant factor in the urban residential segregation of India's seven largest metropolitan cities. This is the case even at the beginning of the 21st century (Vithayathil & Singh, 2012).

Gated communities have the potential to foster social cohesion in certain circumstances. This can be accomplished by encouraging diverse income groups to collaborate on the establishment of management structures that can reduce criminal activity and by collecting resources that can enhance individual advantages. It is imperative that those in charge of formulating public policy establish a delicate balance between the concerns about segregation and the objective of promoting consumer choice and possibly enhancing social cohesion through the development of sustainable communities. Instead of taking a stance that is strongly opposed to privatism, isolation, and particular interests, they ought to investigate the possibility of providing alternative forms of communities (Manzi & Smith-Bowers, 2005). According to Sabatini and

Salcedo (2007), the spatial distribution of luxurious real estate projects encourages certain types of social integration and provides advantages to residents with lower incomes by introducing employment opportunities to the community. When it comes to social and residential segregation, gated communities do not always necessarily contribute to the amplification of these types of categories. Families from lower-class backgrounds were already separated from families living in the neighbourhoods (Alvarez-Rivadulla, 2007). The purpose of this chapter is to investigate the potential influence that factors such as ethnicity, caste, religion, educational attainment, occupation, and income level have on the social and economic segregation that exists between residents of gated neighborhoods and residents of other high-rise apartments in an area of Kolkata. Furthermore, it investigates the perspectives of nearby residents on gated communities by employing appropriate qualitative approaches. This is done in order to gather information.

## **8.2 Socio-economic Characteristics of the Respondents of Gated Communities and Other High-Rise Apartments**

The results are derived from two separate surveys. For the purpose of gathering information about the people who live in the gated community, the initial survey was carried out. Due to the large number of gated communities in Kolkata, a total of 528 surveys were completed inside of 25 different gated communities. This was determined to be a representative sample because of the large number of gated communities in Kolkata. These 25 gated communities are luxurious residential developments that are spread out across the city of Kolkata in a variety of different areas. There are many different types of communities that can be found in Kolkata. Some of these communities include high-rise towers and smaller-scale detached or semidetached houses. Private amenities such as gyms, swimming pools, playgrounds, green spaces, and sports facilities such as basketball or tennis courts are shared among these communities. Additionally, they share common characteristics such as increased safety for residents and higher living standards. The second survey was conducted among 150 households who lived in other high-rise apartments with the purpose of gaining an understanding of the perspectives of local residents regarding the people who reside in gated communities. This survey included inquiries regarding socio-economic factors as well as the interactions that take place between residents of gated communities and local residents. Participants were given the opportunity to provide their own responses to both closed-format and open-format questions that were included in both surveys. The fundamental characteristics of both respondent groups

are presented in Table 8.1 for the purpose of making it easier to understand the socio-demographic characteristics of each, respectively.

**Table 8.1: Socio-demographic Characteristics of the Respondents**

<b>Variables</b>	<b>Gated (in Percentage)</b>	<b>Other high-rise apartment (in Percentage)</b>
<b>Age</b>		
<b>Below 40 years</b>	9.8	48.7
<b>40-60 years</b>	65.9	43.3
<b>Above 60 years</b>	24.3	8
<b>Gender</b>		
<b>Male</b>	61.2	58.7
<b>Female</b>	38.8	41.3
<b>Religion</b>		
<b>Hindu</b>	88.4	92
<b>Muslim</b>	10	6.7
<b>Others</b>	1.6	1.3
<b>Caste</b>		
<b>General</b>	84.1	80
<b>SC and ST</b>	5.1	10.7
<b>OBC</b>	10.8	9.3
<b>Ethnicity</b>		
<b>Bengali</b>	55.8	76
<b>Non-Bengali</b>	44.2	24
<b>Family members</b>		
<b>1-3 members</b>	46.4	42.7
<b>Above 3 members</b>	53.6	57.3
<b>Education level</b>		
<b>High school</b>	3.8	17.3
<b>Graduate</b>	21.2	34.7
<b>Post graduate</b>	38.4	32
<b>Doctorate degree</b>	4.4	2.7
<b>Professional degree</b>	32.2	13.3
<b>Employment status</b>		
<b>Government sector</b>	18	24
<b>Private sector</b>	46.4	21.3
<b>Self employed</b>	16.1	26.7
<b>Other sector</b>	19.5	28

Source: Computed by Researcher from Primary Field Survey, 2022-23

The majority of respondents in gated communities were between the age of 40 to 60 years (65.9 percent), followed by those who were over 60 years old (24.3 percent), and individuals who were younger than 40 years old made-up 9.8 percent of the sample. In other high-rise apartments, the majority of respondents were younger than 40 years old (48.7 percent),

followed by those who were between the age of 40 to 60 years (43.3 percent of the total). In comparison, the ratio of males to females who responded to the survey was relatively similar between gated communities and other high-rise apartment complexes. With regard to the religious affiliation of the respondents, the percentage of Muslims living in other apartments was lower (6.7 percent) than the percentage living in gated communities (10 percent). On the other hand, there was a significantly higher percentage of Hindu respondents who lived in other apartments (92 percent) as compared to gated communities (88.4 percent). From the point of view of caste, there was not much of a difference between the respondents who lived in gated communities and those who lived in other high-rise apartments. It was found that the percentage of people who identified as SC or ST was higher in other high-rise apartment communities as compared to gated communities. Differences in ethnicity were observed between the two samples. In the gated communities, 44.2 percent of respondents were non-Bengali, while 55.8 percent of respondents were Bengali. On the other hand, in the other high-rise apartments, 24 percent of respondents were non-Bengali, while 76 percent were Bengali. There was not much of a difference in the size of the families between the two samples. There was a significant disparity between the two samples in terms of the respondents' levels of educational attainment. 32.2 percent of respondents in gated communities had a professional degree, which is significantly higher than the 13.3 percent of respondents in other high-rise apartment communities. It was found that the percentage of respondents in gated communities who had only a high school degree was lower (3.8 percent) compared to the percentage of respondents in other high-rise apartment complexes (17.3 percent). Employment status displayed significant disparities, with 46.4 percent of respondents working in the private sector within gated communities, whereas only 21.3 percent of respondents working in other apartment complexes were employed in the private sector. In contrast, 16.1 percent of respondents were self-employed and lived in gated communities, while 26.7 percent of respondents were of other high-rise apartments. The percentage of respondents who were employed in the government sector who lived in other high-rise apartments than gated communities was significantly higher than the percentage who lived in gated communities (18 percent).

**Table 8.2: Average Household Monthly Income Distribution of the Respondents**

Average income (in Rupees)	Residents of gated communities (in percentage)	Residents of other high-rise apartments (in percentage)
<b>Below 30000</b>	0	7.33
<b>30001-50000</b>	0.77	19.33
<b>50001-70000</b>	4.55	14
<b>70001-90000</b>	11.92	22.67
<b>90001-110000</b>	16.1	8.67
<b>110001-130000</b>	13.25	12.67
<b>130001-150000</b>	19.7	6.67
<b>150001-170000</b>	10.23	3.33
<b>170001-200000</b>	13.44	3.33
<b>Above 200000</b>	10.04	2
<b>Total</b>	100	100

Source: Computed by Researcher from Primary Field Survey, 2022-23

There is data presented in Table 8.2 regarding the distribution of the average income among respondents from both samples. The respondents from gated communities have a higher income distribution compared to those from other high-rise apartments. Specifically, 33.71 percent of gated community respondents have a monthly income that is greater than 150,000 rupees. With that being said, only 8.66 percent of respondents living in other high-rise apartments have a monthly income of more than 150,000 rupees. 49.05 percent of those who responded to the survey of gated communities have a monthly income that ranges between 90001 to 150000 rupees. However, only 28.01 percent of those who filled out the survey for other apartments have a monthly income that ranges between 90001 to 150000 rupees. A monthly income of less than 90000 rupees is reported by 17.24 percent of respondents who live in gated communities. On the other hand, an average monthly income of less than 90000 rupees is reported by 63.33 percent of respondents living in other high-rise apartments.

### **8.3 Segregation between the Residents of Gated Communities and Other High-Rise Apartments**

This study employs the index of dissimilarity to assess the differences between the residents of gated communities and those in other high-rise apartments, focusing on four socio-economic variables: religion, caste, ethnicity, and household monthly income.

**Religion**

In gated communities, 88.4 percent of respondents identified themselves as belonging to the Hindu religion, 10 percent as belonging to the Muslim religion, and 1.6 percent as belonging to other religions. In the other high-rise apartments, 92 percent of the respondents identified themselves as belonging to the Hindu religion, 6.7 percent as belonging to the Muslim religion, and 1.3 percent as belonging to other religions. The Index of Dissimilarity (ID) between residents of gated communities and other high-rise apartments is 0.036, which indicates that only 3.6 percent of the respondents’ religions differ between these two types of housing apartments (Table 8.3).

**Table 8.3: Index of Dissimilarity on the Basis of Religion**

Religion	Gated community (a)	Other apartments (b)	Fraction of a (A)	Fraction of b (B)	A-B	A-B	ID= $\frac{1}{2}\sum A-B $
Hindu	467	138	0.884469697	0.92	-0.03553	0.03553	0.036
Muslim	53	10	0.100378788	0.066666667	0.033712	0.033712	
Others	8	2	0.015151515	0.013333333	0.001818	0.001818	
Total	528	150	1	1		0.07106	

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Caste**

Among all of the people who responded from gated communities, 84.1 percent of them identified as belonging to the General caste, 5.1 percent for the SC and ST castes, and 10.8 percent for the OBC caste. On the other hand, among the respondents who lived in other high-rise apartments, 80 percent reported belonging to the General caste, 10.7 percent to the SC and ST castes, and 9.3 percent to the OBC caste. The calculated value of the Index of Dissimilarity (ID) is 0.056, which indicates that there is a difference in castes between gated communities and other high-rise apartments for 5.6 percent of the respondents (Table 8.4).

**Table 8.4: Index of Dissimilarity on the Basis of Caste**

Caste	Gated community (a)	Other apartments (b)	Fraction of a (A)	Fraction of b (B)	A-B	A-B	ID= $\frac{1}{2}\sum A-B $
General	444	120	0.840909091	0.8	0.040909	0.040909	0.056
SC/ST	27	16	0.051136364	0.106666667	-0.05553	0.05553	
OBC	57	14	0.107954545	0.093333333	0.014621	0.014621	
Total	528	150	1	1		0.11106	

Source: Computed by Researcher from Primary Field Survey, 2022-23

### Ethnicity

In gated communities, 55.8 percent of respondents identified themselves as Bengali, while 44.2 percent of respondents recognized themselves as not belonging to the Bengali ethnic group. On the other hand, among the respondents who lived in other high-rise apartments, 76 percent of them identified as Bengali, while 24 percent of them indicated that they were non-Bengali. The value of the Index of Dissimilarity (ID) is 0.201, which indicates that the ethnicities of 20.1 percent of respondents are different between gated communities and other high-rise apartment housing options (Table 8.5).

**Table 8.5: Index of Dissimilarity on the Basis of Ethnicity**

Ethnicity	Gated community (a)	Other apartments (b)	Fraction of a (A)	Fraction of b (B)	A-B	A-B	ID= $\frac{1}{2}\sum A-B $
Bengali	295	114	0.558712121	0.76	-0.20129	0.20129	0.201
Non-Bengali	233	36	0.441287879	0.24	0.201288	0.201288	
Total	528	150	1	1		0.402578	

Source: Computed by Researcher from Primary Field Survey, 2022-23

### Household Monthly Income

There are ten distinct categories that have been characterized based on the average monthly income of households (Table 8.2). It is clear that there is a significant disparity in income between households in gated communities and those in other high-rise apartments. Only 0.77 percent of households in gated communities earn less than 50,000 rupees on a monthly basis, whereas 26.67 percent of households in other high-rise apartments fall into this category. On the other hand, more than half of the households, which accounts for 53.41 percent of the total, report having a monthly income that is greater than 130,000 rupees, whereas only 15.33 percent of the other high-rise apartments fall into this income category. The calculated value of the Index of Dissimilarity (ID) is 0.461, which indicates that there is a difference of 46.1 percent in the monthly income of households with gated communities compared to households with other high-rise apartments (Table 8.6).

**Table 8.6: Index of Dissimilarity on the Basis of Income**

Income	Gated community (a)	Other apartments (b)	Fraction of a (A)	Fraction of b (B)	A-B	A-B	ID= $\frac{1}{2}\sum A-B $
< 30000	0	11	0	0.073333333	-0.07333	0.07333	0.461
30001-50000	4	29	0.007575758	0.193333333	-0.18576	0.18576	
50001-70000	24	21	0.045454545	0.14	-0.09455	0.09455	
70001-90000	63	34	0.119318182	0.226666667	-0.10735	0.10735	
90001-110000	85	13	0.160984848	0.086666667	0.074318	0.074318	
110001-130000	70	19	0.132575758	0.126666667	0.005909	0.005909	
130001-150000	104	10	0.196969697	0.066666667	0.130303	0.130303	
150001-170000	54	5	0.102272727	0.033333333	0.068939	0.068939	
170001-200000	71	5	0.134469697	0.033333333	0.101136	0.101136	
>200000	53	3	0.100378788	0.02	0.080379	0.080379	
Total	528	150				0.921974	

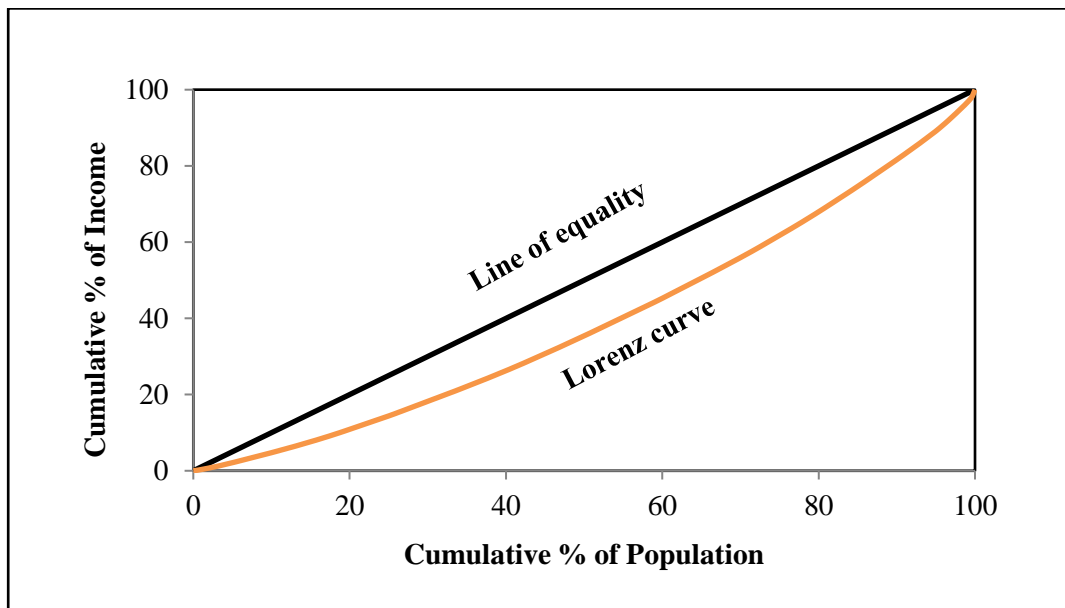
Source: Computed by Researcher from Primary Field Survey, 2022-23

### 8.4 Segregation within the Residents of Gated Communities and Other High-Rise Apartments

The monthly income of households is the primary variable that is being identified in this analysis. The purpose of this analysis is to determine the degree of economic inequality that exists among residents of gated communities and other high-rise apartment complexes. Both the Lorenz curve and Gini’s coefficient are utilized in order to determine the extent of the imbalance that exists in the monthly income of households. Due to the difficulties involved in calculating per capita income and collecting data on the assets of residents in various gated communities and high-rise apartments, other economic indicators, such as per capita income and various types of assets, are not included in this analysis. Consequently, we conduct an analysis of the monthly income of households with the objective of determining the degree of economic segregation that exists among the residents of gated communities and other high-rise apartment complexes.

### Gated Communities

As a result of the fact that the Lorenz curve corresponds so closely with the line of equality (Figure 8.1), the level of income inequality among the people who live in the gated community is relatively low. Due to the fact that the Gini coefficient is 0.212, it can be concluded that the majority of residents have a significant amount of wealth, which enables them to remain in gated communities.

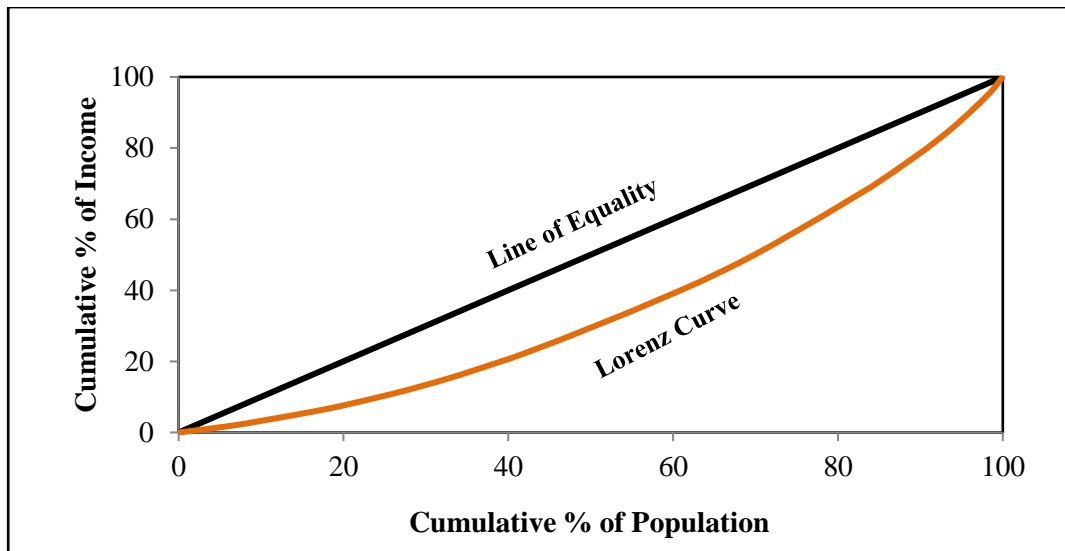


**Figure 8.1: Lorenz Curve Showing Income Inequality of the Respondents of Gated Communities**

Source: Computed by Researcher from Primary Field Survey, 2022-23

### Other High-Rise Apartments

Given that the Lorenz curve is noticeably wider than the line of equality (Figure 3), it can be concluded that the level of income inequality among residents of other high-rise apartments is higher than that of residents of gated communities. Given that the value of the Gini coefficient is 0.293, which is within the moderate range, it can be deduced that the monthly incomes of households vary moderately from one high-rise apartment to another.



**Figure 8.2: Lorenz Curve Showing Income Inequality of the Respondents of Other Apartments**

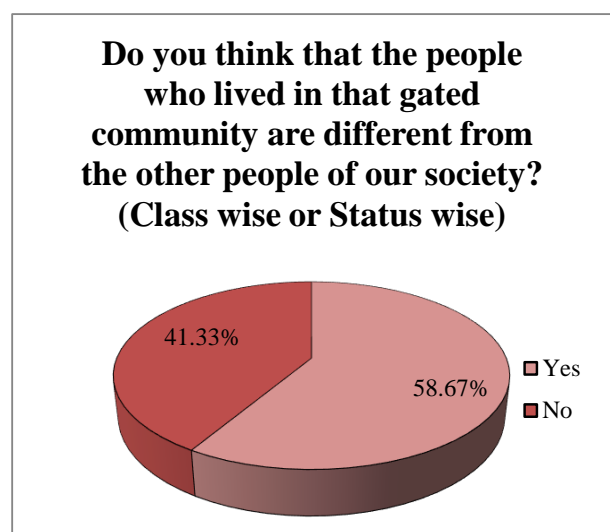
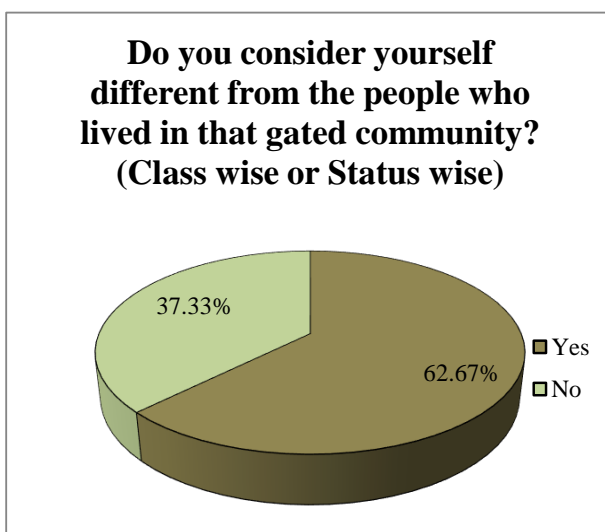
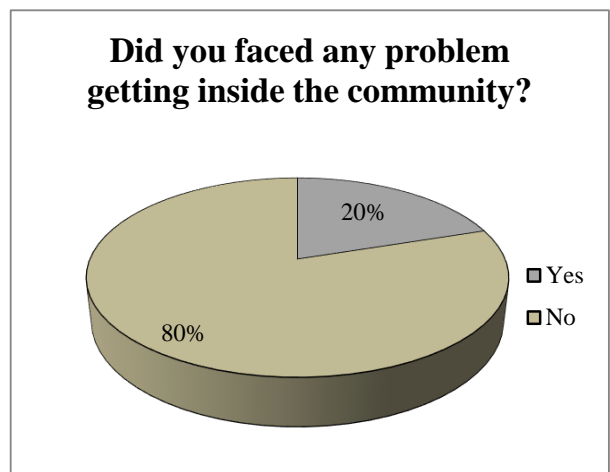
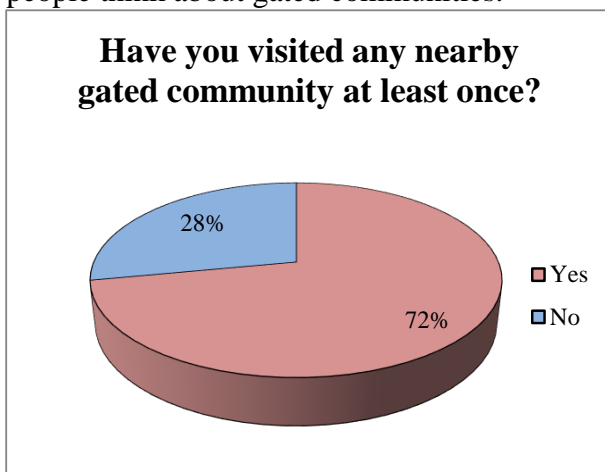
Source: Computed by Researcher from Primary Field Survey, 2022-23

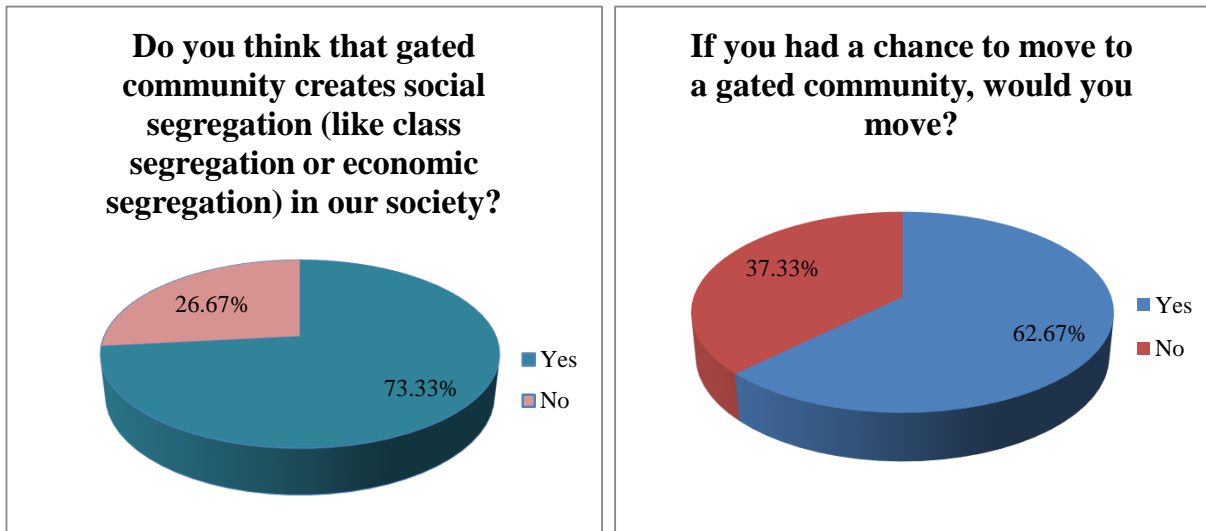
### **8.5 Perceptions of Local Residents towards Gated Community**

There are many different ways in which segregation can be observed in our society. Segregation in our society can occasionally be caused by the presence of gated communities. This is something that is not always visible in a physical manner, but it can also be observed in the subconscious mind of individuals. In this approach, it is possible to determine whether or not a gated community has the effect of causing segregation among the people of our society. The perception of local residents regarding gated communities has been examined through six closed-ended questions. Residents living near gated communities were surveyed. A total of 150 samples have been collected for the study. The following are six questions:

- a) Have you visited any nearby gated community at least once?
- b) Did you faced any problem getting inside the community?
- c) Did you consider yourself different from the people who lived in that gated community? (Class or Status wise)
- d) Do you think that the people who lived in that gated community are different from the other people of our society? (Class or Status wise)
- e) Do you think that gated community creates social segregation (like class segregation or economic segregation) in our society?
- f) If you had a chance to move to a gated community, would you move?

These questions have been asked to the residents of other apartment who lived near any gated communities. Based on the findings of the survey, which are presented in Appendix Table XXI, it was found that the majority of local residents have some level of knowledge of the gated community. Specifically, 72 percent of the residents have visited the gated community at least once, but 28 percent haven't visited any gated community. Although, 20 percent of these individuals had trouble accessing the community, while 80 percent of them did not face any kind of difficulty in this regard. Furthermore, 62.67 percent of local residents have the perception that people who live in gated communities are different from themselves, while 58.67 percent have the perception that they are different from other members of society. On the other hand, when asked about social segregation, 73.33 percent of local residents responded that they believe gated communities contribute to social segregation within our society. In spite of the fact that gated communities are responsible for the social segregation that they create, 62.67 percent of the local residents have expressed a desire to live in such an environment if they were given the opportunity to relocate. From this scenario we can get a clear idea how people think about gated communities.





Diverse responses received when inquired about their desire to move to a gated community. Security was a primary factor among respondents, alongside a high quality of life and the services and amenities offered by the community.

- “I want to stay in a better and safer environment” (Respondent 15, age: 35)
- “The security is comparatively higher in gated communities as compared to community in which I presently reside” (Respondent 23, age: 63)
- “They (gated communities) give promise about security and services are just a short walk away” (Respondent 50, age: 36)
- “Gated communities provide high status of living and also secured for my elder parents” (Respondent 103, age: 45)
- “The security is very well maintained and household needs fulfilled in no time.” (Respondent 113, age: 34)
- “The 24/7 security is what is attractive. These are well planned and maintained in nature” (Respondents 119, age: 42)
- “The lower vehicle speeds and higher security levels ensure a safer environment. Safe for my elderly parents.” (Respondents 127, age: 32)

There were also respondents who suggested that gated communities are tools of social segregation, and there were others who indicated that they feel like they do not belong in such social environments, and so they would not want to live in a gated community:

- “In spite of all type of facilities, it somehow creates social segregation. Its direct impact can be seen in human” (Respondent 27, age: 43)

- “Class differences based on economic indicator and the owners of gated communities are mostly committing tax frauds” (Respondent 46, age:45)
- “The false pride of status is too much to handle” (Respondent 95, age: 37)
- “Having to live up to certain unrealistic rules of such communities can be stressful sometimes” (Respondent 107, age: 50)
- “Though there is a focus on security in case of gated communities, I fell such communities create a wall between the people living in and out of it. This segregation is mostly identified with class and status division. So, until and unless security is distributed equally throughout the area, crimes (theft, robbery et.) cannot be controlled.” (Respondent 139, age: 65)
- It creates a socio-economic division among the residents. Security is good but the mentality of the people who living there is not good.” (Respondent 147, age: 27)

They have asked to give any perception on gated community; these are some interesting narratives about gated communities;

- “Dealing with other people’s sense of relaxation is not a good experience” (Respondent 13, age: 43)
- “High rise complex with guard, CCTV and other necessities available at a call/click away” (Respondent 58, age: 39)
- “It is important to read and understand the rules and regulations of the specific community before committing to one” (Respondent 83, age: 53)
- “Paying high prices for the gates, rules and regulations is utter madness” (Respondent 91, age: 50)
- “Having no friends or family to visit, may end up feeling lonely” (Respondent 101, age: 28)
- “The luxury services designed to improve people's living standards should grow over time.” (Respondent 134, age: 41)
- “Easy availability of all means of communication. The strategic location helps residents to reach shopping centers, schools, hospitals, restaurants etc.” (Respondent 140, age: 44)

In summary, an adequate number of local residents have the perception that there is a significant distinction between the people who live in gated communities and other apartment complexes, whom they consider to be wealthy, successful, and elite. The responses that the

respondents gave to the open-ended question specifically highlight a genuine dichotomy between the residents, which can be described as “us versus them”. According to the statements made by the respondents, security is a significant factor that is frequently mentioned in their statements. There are a number of significant factors that are frequently mentioned in their statements. These include the provision of luxurious accommodations, an increase in social status, and security for elderly parents.

## **8.6 Conclusion**

This chapter aims to investigate the impact of gating on social segregation in Kolkata via two distinct surveys: one targeting residents of gated communities and the other focusing on residents of adjacent non-gated apartments. Both samples exhibit comparable attributes regarding gender, religion, caste, and family size; however, the surveys indicated that residents of gated communities exhibit higher income and educational attainment compared to those in other apartments. There exists a disparity in employment status between these two types of residential communities, with a higher prevalence of private sector employees in gated communities. The study reveals that the non-Bengali population is more prevalent in gated communities than in other apartments in Kolkata. Conversely, income inequality among households in gated communities is less pronounced than that among residents of other apartment complexes. The majority of residents in gated communities originate from upper middle class and upper-class backgrounds, whereas in other apartments, residents comprise lower middle class, upper middle class, and some upper-class individuals. Not all high-income individuals opt for gated communities; some prefer to reside in standard apartments or private houses in Kolkata.

Contrary to the views of local residents regarding gated communities, their responses indicated a sense of social segregation, resulting from the imposing walls, fences, and security personnel designed to exclude them from the community. Some respondents assert that residing in gated communities conveys prestige and status upon the inhabitants, which is perceived as a reason for segregation. Moreover, residents of gated communities are viewed as leading a more privileged existence compared to the broader society, with certain respondents from the local community asserting that gated communities function as instruments of social segregation and disconnection, undermining traditional community culture. Local community respondents assert that gated communities are unequal and promote economic inequality within society. It can therefore be concluded that the primary justification for gating is not a wish to isolate oneself from society, but rather that gated communities establish highly secured residential

zones with walls and fences, within which the majority of services and amenities are offered. Consequently, residents can fulfill the majority of their fundamental needs within the community, thereby reducing their dependency on other parts of the city. This process reduces the availability of services and facilities that enable various socioeconomic groups to interact in the public sphere, as local residents are prohibited from utilizing the amenities offered within the gated communities. This process inevitably creates a division between “insiders” and “outsiders”, segregating society into distinct socioeconomic groups. This chapter aims to investigate the social segregation resulting from gated communities to highlight the necessity for additional research on such housing developments in major cities like Kolkata. The enduring social implications of these communities must be thoroughly evaluated, given that housing projects in major urban areas are currently marked by significant income inequality.

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## **CHAPTER IX**

### **CONCLUSIONS AND SUGGESTIONS**

*This concluding chapter traces about the findings of the research work with some suggestive measures for the future planning and development of gated communities and future scope of research has been discussed.*

## **9.1 Findings**

Residents of Kolkata are looking to achieve both prestige and increased security in their residential lifestyles, which has led to the rise in popularity of gated communities in the city. The phenomenon of gated communities in Kolkata became apparent as a result of the impact of the era of globalization. Within the decade of the 1990s, gated communities were primarily composed of residential areas that were constructed by the government. The period between 1990 to 2000 witnessed a combination of government residential complexes and private residential complexes, which contributed to the diversification of the market. Over the course of this time period, there has been a noticeable rise in the construction of government and private communities, which frequently included a variety of contemporary amenities. Since the year 2000, the city of Kolkata has seen a significant rise in the number of private gated communities that have been established. The private construction corporations that have shown a significant interest in the residential sector have been the driving force behind this trend, which has resulted in a significant increase in the number of private gated communities located throughout Kolkata. In the heart of Kolkata, there is a significant amount of congestion that can be seen throughout the city. Therefore, the city is experiencing urban expansion in its outskirts, which is characterized by the emergence of private communities that are situated behind gates.

A comprehensive overview of the distinctive characteristics that gated communities in Kolkata exhibit is provided by the typologies of gated communities operating within the city of Kolkata. The transition from gated communities owned by the government to gated communities owned by private individuals will be clearly visible. According to the findings of the investigation, a completely new phenomenon known as gated has been occurring in Kolkata since before the 1990s. Within the scope of this research, gated communities were classified according to their evolutionary stage, the total number of residential units, the community area, and the type of enclosure implemented. One of the most common types of gated communities, known as Type 1 gated communities, can be thought of as the initial versions of gated communities. These gated communities are typically composed of government residential quarters. Between the years 1990 and 2000, there was a significant shift in the concept of gated communities, which resulted in a paradigm shift from gated communities controlled by the government to gated communities owned by private individuals. During this time period, a great number of Type 2 and Type 3 communities have been constructed, with the government as well as privately initiated developments. The vast majority of gated communities that fall under the Type 4

category were built after the year 2000, and in every single one of these communities, the ownership is privately held. When compared to government-gated complexes, private gated communities typically provide a more extensive selection of modern amenities and services. Some gated communities are comprised of residential units that are relatively small, while others offer dwellings that are significantly larger overall. A significant number of the communities in Kolkata, particularly those that are privately owned, have a robust security infrastructure, despite the fact that there are some government residential complexes that allow pedestrians to enter without any restrictions.

Within the city of Kolkata, there has been a notable increase in the number of communities that are enclosed by gates. Customers are increasingly choosing gated communities as their future residences, as opposed to traditional houses, which are becoming increasingly popular. According to the findings of this study, the majority of residents opt to live in a gated community because those communities offer a higher level of security not only within the dwelling space itself but also in the neighborhood that surrounds it. When it comes to choosing a gated community as their place of residence, the residents place a high level of importance on features such as lifts and wide corridors, as well as neighborhood amenities and security guards who are on duty around the clock. People are primarily choosing to reside in these gated communities because they are concerned about the possibility of being a victim of crime. Added security measures, such as closed-circuit television (CCTV) surveillance and security personnel who are available around the clock, are appreciated by them. Additionally, a sizeable portion of the population chooses to reside in gated communities as a means of demonstrating their social standing. That is the reason why certain gated communities are regarded as being among the most prestigious gated communities. There are some of these communities that provide advantages, such as being close to friends, family, the place of employment, or other advantageous locations. The choice of housing type in a gated residential community, on the other hand, is strongly correlated with a number of factors, including the residents' age, educational level, family size, occupation, and monthly household income—all of which are important considerations. An investigation was conducted to investigate the relationship between socio-demographic and economic factors and participation in gated communities. It was discovered that there is a significant connection between living in a gated community and factors such as age, educational attainment, the number of family members, occupation, and the monthly income of the household. It is possible to draw the conclusion that the choice to live in a gated community rather than in traditional housing is influenced by a number of

external factors, including socio-demographic factors, economic factors, and other environmental factors.

When it comes to their living conditions, the majority of people who live in gated communities in Kolkata are only moderately satisfied with their surroundings. Public facilities, on the other hand, have the highest percentage of residents who are moderately satisfied with their living conditions, followed by housing unit facilities and dwelling unit facilities. However, the percentage of residents who report a high level of satisfaction is highest in the neighborhood facilities, followed by the features of the social environment. In Public facilities only have a few percentages of residents who are dissatisfied with their overall experience. The overall residential satisfaction index has a highly positive correlation with dwelling units, housing estate features, public facilities, social environment features, and neighborhood facilities. On the other hand, the correlation between cross-component satisfaction indices is considered to be moderately positive. There is a negative correlation between age and overall residential satisfaction. On the other hand, there is a positive correlation between educational attainment, occupation, and income and overall residential satisfaction. According to the findings of the inferential analysis, there is a significant connection between the frequency of the resident's social interactions and their intention to move elsewhere. Additionally, there is a significant correlation between the frequency of social interactions among residents and the residential satisfaction index. This highlights the importance of exploring various methods to improve social interaction among residents of gated communities in Kolkata. The goal is to increase levels of satisfaction, develop a sense of belonging, and cultivate a sense of community spirit among citizens of these communities.

It is evident that residents of enclosed residential areas in Kolkata are actively participating in a variety of social activities and making use of various forms of mass communication as part of their daily routines. It gives the impression that residents are frequently going to see their friends and family members and making connections with them, as well as going to work within the city on a daily basis. For the purpose of fulfilling their sense of pleasure, people spend their free time engaging in activities such as reading books, newspapers, or magazines, as well as watching television. On the other hand, the number of residents who participate in creative activities, activities that take place outside the home, and community service activities has significantly decreased. Over fifty percent of people who live in gated communities are said to have a moderate level of contentment with their day-to-day lifestyle, as indicated by the life satisfaction index. Approximately one third of the people who live there are extremely

pleased with their current situation. The happiness index corresponds to conjunction with the life satisfaction index, which reveals that approximately one-fourth of the respondents report a high level of happiness in their lives, while approximately two-thirds of the respondents experience a moderate level of happiness in their lives. Therefore, living in a gated community with a lot of amenities does not guarantee that one will be happy and satisfied with their life. Individuals who frequently visit and communicate with their friends and family, who make greater use of mass communication, who offer assistance to their friends, and who are actively involved in social organizations are found to have significantly higher levels of life satisfaction and happiness, according to the Pearson correlation coefficient. The degree of life satisfaction is not significantly impacted by creative hobbies or activities outside the home. However, an individual's level of happiness is directly influenced by the creative activities that they participate in. It can be deduced that people who live in gated communities in Kolkata lead a hectic lifestyle, which, in turn, has an effect on the amount of pleasure and satisfaction they experience in their day-to-day lives.

The findings of this study, which were derived from interviews with people who lived in gated communities as well as other high-rise apartments, indicate that people who lived in other high-rise apartments were faced a higher rate of criminal activity in comparison to those who lived in gated communities. The other high-rise apartments have a significantly higher intensity of the crimes that have been committed and a higher level of fear in relation to these crimes. The outcomes of this research suggested that individuals who reside in other high-rise apartments are more likely to experience a higher level of psychological insecurity in comparison to those who reside in gated communities. In nearly all gated communities, the security personnel meticulously keep detailed records of every single entry with extreme diligence. The maintenance of entrances in other high-rise apartments, on the other hand, certainly leaves a lot to be desired. According to research, individuals with higher incomes have a lower probability of becoming victims of crime, whereas individuals with lower or middle incomes have a greater chance of becoming victims of crime. Individuals who have higher incomes are more likely to have security systems installed, such as closed-circuit television cameras, burglar alarms, intercoms, security guards, or electric fences. There is a widespread sense of fear regarding crime across a variety of community, and the criminal activities that residents are confronted regularly play a significant role in promoting this fear. There exists a direct correlation between the frequency of criminal activities within a community and the resident's perception of their own sense of insecurity within that community. According to the security

satisfaction index, gated communities have a higher level of performance when compared to other high-rise apartments. Individuals who live in gated communities have a higher sense of security during the daytime as well as during the nighttime when compared to those who live in other types of living environments. In communities that are guarded by gates, the lighting systems are noticeably superior. The presence of closed-circuit television cameras and security personnel in gated communities makes it more secure for residents to park their vehicles within the community's boundaries. On the other hand, residents of gated communities and other high-rise apartments have expressed dissatisfaction with the performance of the local police, as evidenced by the low satisfaction scores they have received. According to the findings of this study, the gated community is safer than the other high-rise apartments, despite the fact that the number of crimes committed there is lower. The administration of the cooperative society, the installation of CCTV cameras and security personnel, as well as sufficient street lighting, are all contributing to the enhancement of security measures. Gated components are further contributing to the improvement of security measures. This research, on the other hand, does not investigate the social interactions and psychological issues that are experienced by residents of gated communities and other high-rise apartments in Kolkata.

Another purpose of this research is to investigate the effect that gating has on social segregation in Kolkata by means of two separate surveys. The first survey will focus on residents of gated communities, while the second survey will concentrate on residents of high-rise apartments that are adjacent to gated communities. Despite the fact that both samples share similar characteristics in terms of gender, religion, caste, and family size, the surveys revealed that residents of gated communities have higher incomes and educational attainment levels in comparison to those living in other high-rise apartments. It is important to note that there is a significant disparity in employment status between these two categories of residential communities. Gated communities have a higher percentage of employees working in the private sector. Based on the findings of the study, it has been determined that the non-Bengali population is more prevalent in gated communities in Kolkata than it is in other apartments. To the contrary, the disparity in income that exists between households in gated communities is not as pronounced as the disparity that exists among residents of other high-rise apartment complexes. The vast majority of people who live in gated communities come from upper middle class and upper class backgrounds. On the other hand, residents of other high-rise apartments come from lower middle class, middle class, and some individuals from upper class backgrounds. Some people with high incomes choose to live in gated communities rather than

in gated communities; instead, they choose to live in standard apartments or private houses in Kolkata.

In contrast to the opinions of local residents regarding gated communities, their responses indicated a sense of social segregation. This was a consequence of the intimidating walls, fences, and security personnel that were designed to keep them from entering the community. It has been suggested by a few of the respondents that living in gated communities confers a sense of prestige and status upon the residents, which results in segregation being perceived as a reason. Furthermore, according to certain respondents from the local community, gated communities serve as instruments of social segregation and disconnection, which undermines traditional community culture. This perception is based on the fact that residents of gated communities are perceived to lead a more privileged lives in comparison to the larger society. It has been asserted by members of the local community that gated communities are unequal and contribute to the economic inequality that exists within society. One can therefore draw the conclusion that the primary justification for gating is not a desire to isolate oneself from society; rather, gated communities establish highly secured residential zones with walls and fences, within which the majority of services and amenities are offered. This is the conclusion that can be reached. As a consequence of this, residents are able to satisfy the majority of their fundamental requirements within the community, which in turn reduces their reliance on other areas of the city. On account of the fact that local residents are not permitted to make use of the amenities that are provided within gated communities, this process results in a reduction in the availability of services and facilities that make it possible for people from different socioeconomic backgrounds to interact in the public sphere. A division between “insiders” and “outsiders” is inevitably produced as a result of this process, which results in the separation of society into distinct socioeconomic groups. The purpose of this study is to investigate the social segregation that occurs as a result of gated communities in order to bring attention to the fact that additional research on housing developments consisting of gated communities is required in major cities such as Kolkata. In light of the fact that housing developments in major urban areas are currently characterized by significant income inequality, it is imperative that the long-term social implications of these communities be thoroughly evaluated.

## **9.2 Suggestive Measures**

- a) Individuals with lower incomes are unable to afford to live in private gated communities. These exclusive private gated communities are typically within the financial reach of individuals who have higher incomes. The residents of exclusive

private gated communities are significantly different from the people who live outside of these communities. This disparity is significant. According to the findings of our research, it also gives rise to social segregation within the society. The government could initiate efforts to mitigate disparity by constructing low-income housing complexes for economically disadvantaged individuals. Incorporating modern conveniences and amenities into those complexes will help to emphasize their exclusive nature. It will contribute to the reduction of the disparity that exists between individuals with low incomes and those with high incomes.

- b) The study found that gated communities are more secure than other high-rise apartments. The crime rate is lower in gated communities compared to other high-rise apartments. Chapter 4 reveals that security and 24/7 guards are the primary motivating factors for residents selecting gated communities. If similar security measures are implemented in high-rise apartments, individuals will likely favor these residences over gated communities. The government could assume a pivotal role in this issue. A proactive police system, including overnight patrols throughout the city and an immediate response to incidents via a dedicated helpline, could diminish crime rates and enhance safety for all residents.
- c) Every gated community has an internal cooperative elected committee that acts as a governing body and is responsible for making any decisions regarding maintenance and services provided within the community. Concerns and issues should be brought to the attention of this committee any time they arise. However, they occasionally fall short and do not perform as expected. There were instances in which private builder groups failed to fulfill their commitments, contrary to what they had previously promised to the residents prior to purchasing the flat. Consequently, in order to safeguard the rights of consumers, there ought to be a consumer forum that addresses the concerns of residents of gated communities.
- d) Large gated communities require a significant number of domestic workers to carry out various tasks, including cleaning, cooking, laundry, childcare, and other household errands. A gated community has the potential to create job opportunities for nearby residents by employing them as domestic workers and in various non-skilled positions, including gardening, waste management, and security services.

- e) A fund for maintenance and services is established in each and every gated community. Moreover, the cooperative committee is responsible for maintaining of this fund. Every worker in the gated community should be granted monetary benefits or bonuses at least once a year, and there ought to be an association that is responsible for providing these benefits. This will result in a positive relationship between the workers and the residents of the gated community, as well as an increase in the inclusiveness of the community.
- f) Gated communities in Kolkata are experiencing a problem with a lack of a sense of community among their residents. mainly due to the fact that many individuals do not regularly interact with one another. Additionally, gated communities in Kolkata are home to a diverse range of people who belong to a variety of religions, castes, and ethnicities. In order to develop a strong sense of community, it is recommended that a monthly meet-up program, a variety of sports activities, a variety of cultural programs for various religions, castes, or ethnicities etc. should be organized. These programs should be designed to bring together all residents of gated communities and encourage them to share happiness with one another. It will enhance the inclusiveness of gated communities and encourage new people to select gated communities as their place of residence.
- g) Based on the findings of this study, it was found that a very small percentage of residents participate in activities that take place outside of their homes, such as going to sporting events or participating in competitive sports. The majority of the residents are busy with their day-to-day business or office work. In considering this, they engage in very few physical activities on a daily basis. It will result in a high number of lifestyle diseases. This issue can be resolved by establishing health camps on a quarterly basis, which is one potential solution. As an additional potential solution to this issue, regular sessions of yoga and gym training could also be beneficial.
- h) Within certain gated communities in Kolkata, there is a problem of ethnic segregation that needs to be addressed. People who are non-Bengali do not wish to reside in communities where Bengali's are predominant, and vice versa. Effective measures should be taken by private builder groups, such as promoting unity in diversity models, making gated communities cosmopolitan in nature, and making them inclusive.
- i) The primary focus of private builders should be on making gated communities more environmentally friendly. It would be beneficial for them to restore ecological habitats,

create additional green spaces, and create water bodies within the gated communities. It should be mandatory that every gated community incorporates a rainwater harvesting system into their boundaries. This water will also be utilized for gardening, cleaning, and other household tasks. A system for the management of solid waste ought to be put into place in each and every gated community. For the purpose of providing sustainable energy for the lighting of streets and corridors, solar panels ought to be installed in gated communities. It is possible to create gated communities in Kolkata that can be sustainable and conducive to healthy living if all of these facilities are implemented.

- j) There is a significant population of senior citizens who reside in gated communities. Suitable architectural structures, such as wide corridors and lifts that are able to accommodate wheelchairs, resting areas in long corridors, grab bars in strategic places such as bathrooms, corridors and wide pathways for elderly people, and so on, should be implemented in every gated community in order to make them accessible to people with disabilities and the elderly. Transportation vehicles that are environmentally friendly could be introduced into large gated communities, which would make it easier for elderly people to move from their building to the main gate within the community.

### **9.3 Future Scope of Research**

This study examines the rapid growth of gated communities throughout Kolkata. This will facilitate gaining an understanding and monitoring of the recent developments of gated communities in Kolkata. The study has categorized the gated communities of Kolkata. This provides a comprehensive overview of the role of gated communities in Kolkata. It has examined the lifestyle, security, and segregation of residents in gated communities. Therefore, there are some areas in which more research can be undertaken in the future;

1. **Impact of Technology on Security in Gated Communities:** Explore how emerging technologies (like AI surveillance, smart home systems, drones, etc.) are reshaping security protocols and resident interactions within gated communities. This could include both positive impacts (such as enhanced safety) and negative ones (such as increased surveillance and privacy concerns).
2. **Psychological Effects on Residents:** Research how living in a gated community impacts resident's mental health and sense of safety. For example, does the heightened security create a sense of comfort or paranoia? Or, does it lead to a greater sense of community or, alternatively, reinforce isolation? As we found residents of gated

communities are less active in outside home activities like playing competitive sports and attending sporting events, so it can be leads to many lifestyle diseases. So future research could be done on what kind of health issues they faced.

3. **Gated Communities in Different Cultures or Countries:** in comparison with Kolkata, we can compare how gated communities function across different cultural or geographical contexts. For instance, how do they differ between countries with high levels of income inequality and those with more equitable wealth distribution? Or, how are these communities perceived and managed in different cultural settings?
4. **Sustainability and Inclusiveness in Gated Communities:** As sustainability becomes a bigger issue globally, how are gated communities addressing environmental concerns? Are they integrating green infrastructure, renewable energy sources, and eco-friendly practices, or are they more focused on exclusivity and luxury? The objective for private builders should be to make gated communities inclusive to prevent issues such as segregation. Inclusivity could attract more people to select gated communities for living. Therefore, it can be investigated to what degree Kolkata's gated communities are inclusive.
5. **Urban Sprawl and the Growth of Gated Communities:** Urban expansion is a common issue in every metropolitan city so as Kolkata. So, we can explore the connection between urban sprawl and the rise of gated communities. How are these developments shaping city planning and land use? What effects might this have on public infrastructure, transportation, and the accessibility of services?

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# **APPENDICES**

## Appendix - A

**Table I: Borough Wise Percentage Share of Gated Communities in Kolkata (Up to 2023)**

Borough	Percentage share of gated communities (n=681)
1	7.49
2	2.35
3	11.01
4	0.44
5	1.03
6	2.20
7	15.86
8	9.10
9	7.05
10	11.45
11	4.41
12	9.25
13	8.37
14	5.73
15	0.29
16	3.97
Total Percentage	100

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table II: Evolution of Gated Complexes from Government to Private**

Year	Government	Private
Overall	24.52	75.48
After 2000	5.13	94.87
1990-2000	55.26	44.74
Before 1990	84.75	15.25

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table III: Evolution of Gated Complexes, Number of Flats and Total Area Covered in Kolkata**

Year	Gated Communities	Flats	Area covered by Gated Communities
After 2000	71.51	66.31	66.16
1900-2000	11.16	9.14	9.01
Before 1990	17.33	24.55	24.83

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table IV: Evolution of Gated Communities based on time frame in Kolkata**

Borough no.	Time period			Total (n=681)
	Before 1990 (n=118)	1990-2000 (n=76)	After 2000 (n=487)	
1	11.86	7.89	6.36	7.49
2	1.70	0	2.87	2.35
3	21.18	5.26	9.44	11.01
4	0.85	0	0.41	0.44
5	0	0	1.44	1.03
6	1.70	1.32	2.46	2.20
7	8.47	6.58	19.10	15.86
8	11.86	26.31	5.75	9.10
9	7.63	7.89	6.78	7.05
10	22.03	14.47	8.42	11.45
11	1.70	5.26	4.93	4.41
12	3.39	10.53	10.47	9.25
13	3.39	10.53	9.24	8.37
14	4.24	1.32	6.78	5.73
15	0	1.32	0.21	0.29
16	0	1.32	5.34	3.97
Total	100	100	100	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table V: Percentage Share of Gated Communities based on Evolution in Kolkata**

Borough no.	Types of Evolution				Under construction (n=45)	Total (n=681)
	Type 1 (n=53)	Type 2 (n=95)	Type 3 (n=280)	Type 4 (n=208)		
1	15.09	9.47	7.86	4.81	4.44	7.49
2	0	0	4.29	1.44	2.22	2.35
3	22.64	11.58	9.29	9.13	15.56	11.01
4	0	1.05	0.71	0	0	0.44
5	0	0	1.07	1.44	2.22	1.03
6	1.89	0	2.86	2.40	2.22	2.20
7	7.55	11.58	11.07	25.48	20	15.86
8	3.77	7.37	14.29	5.77	2.22	9.10
9	9.43	6.32	8.21	6.25	2.22	7.05
10	18.87	24.21	9.64	6.73	8.89	11.45
11	0	9.47	5	3.37	0	4.41
12	3.77	6.32	10.36	10.58	8.89	9.25
13	11.33	5.26	6.07	9.62	20	8.37
14	3.77	6.32	5.35	6.25	6.68	5.73
15	1.89	1.05	0	0	0	0.29
16	0	0	3.93	6.73	4.44	3.97
Total	100	100	100	100	100	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table VI: Percentage Share of Gated Communities based on Total Flats in Kolkata**

Borough no.	Total number of flats			Under construction (n=45)	Total (n=681)
	Small unit community (< 100 units) (n=392)	Medium unit community (100 – 300 units) (n=173)	Large unit community (>300 units) (n=71)		
1	6.89	10.88	4.22	4.44	7.49
2	3.57	0.58	0	2.22	2.35
3	7.65	13.77	19.72	15.56	11.01
4	0.51	0.58	0	0	0.44
5	1.02	0.58	1.41	2.22	1.03
6	3.06	1.16	0	2.22	2.20
7	16.58	15.03	11.27	20	15.86
8	12.76	5.68	1.41	2.22	9.10
9	9.95	4.62	0	2.22	7.05
10	11.73	12.62	8.45	8.89	11.45
11	5.88	3.37	1.41	0	4.41
12	5.88	9.73	26.76	8.89	9.25
13	7.39	6.94	9.86	20	8.37
14	4.59	6.94	8.45	6.68	5.73
15	0	1.16	0	0	0.29
16	2.54	6.36	5.63	4.44	3.97
Total	100	100	100	100	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table VII: Percentage Share of Gated Communities based on Size of the Community in Kolkata**

Borough no.	Size of the community			Under construction (n=45)	Total (n=681)
	Small size community (< 10,000 m <sup>2</sup> ) (n=414)	Medium size community (10,000 m <sup>2</sup> –30,000 m <sup>2</sup> ) (n=155)	Large size community (>30,000 m <sup>2</sup> ) (n=67)		
1	6.52	10.32	8.95	4.44	7.49
2	3.62	0	0	2.22	2.35
3	8.94	18.06	4.48	15.56	11.01
4	0.72	0	0	0	0.44
5	0.97	1.29	0	2.22	1.03
6	2.90	1.29	0	2.22	2.20
7	15.94	16.13	11.94	20	15.86
8	11.11	7.74	4.48	2.22	9.10
9	9.66	3.87	1.49	2.22	7.05
10	12.08	11.62	8.95	8.89	11.45
11	5.56	2.58	4.48	0	4.41

12	5.56	12.90	23.87	8.89	9.25
13	8.21	3.23	13.43	20	8.37
14	4.59	6.45	10.47	6.68	5.73
15	0.24	0.64	0	0	0.29
16	3.38	3.88	7.46	4.44	3.97
Total	100	100	100	100	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table VIII: Percentage Share of Gated Communities based on Nature of Enclosure in Kolkata**

Borough no.	Nature of enclosure			Under construction (n=45)	Total (n=681)
	Ornamental gating (n=15)	Partially gated (n=50)	Fully gated (n=571)		
1	26.66	16	6.47	4.44	7.49
2	0	0	2.63	2.22	2.35
3	20	16	9.98	15.56	11.01
4	0	0	0.53	0	0.44
5	0	0	1.05	2.22	1.03
6	6.67	0	2.28	2.22	2.20
7	13.33	6	16.47	20	15.86
8	6.67	2	10.33	2.22	9.10
9	6.67	8	7.36	2.22	7.05
10	6.67	28	10.33	8.89	11.45
11	0	0	5.25	0	4.41
12	0	4	9.98	8.89	9.25
13	13.33	10	7.18	20	8.37
14	0	8	5.60	6.68	5.73
15	0	2	0.18	0	0.29
16	0	0	4.38	4.44	3.97
Total	100	100	100	100	100

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table IX: Respondents Choice of Dwelling Unit Components**

Dwelling unit features	Percentage
Lift and wide corridors	59.5
Architecture style	36.4
Dwelling orientation	26.9
House as investment	15.5
Affordability	33.9
Security	78.6

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table X: Respondents Choice of Neighborhood Components**

Neighborhood characteristics	Percentage
Proximity to workplace	34.5
Proximity to family and friends	30.3
Neighborhood amenities	73.5
Environmental attraction	19.5
Security	79.9
Social contacts	16.9
Social status/prestige	40
Familiar with the area	28.6
Restricted area/24 hours guard	67.8
Homogeneity	20.5
Elderly and disability friendly	18
Locational advantage	7.2

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XI: Level of Satisfaction as Reported by the Resident of Gated Communities**

Residential Satisfaction Indices	Very low	Low	Moderate	High
Dwelling Unit Features Satisfaction Index (DUFESI)	0.4	2.3	53.2	44.1
Housing Estate Features Satisfaction Index (HEFSI)	0	1.7	55.9	42.4
Public Facilities Satisfaction Index (PFSI)	0	14	73.3	12.7
Social Environment Satisfaction Index (SESI)	0	2.1	39.6	58.3
Neighborhood Features Satisfaction Index (NFSI)	0	0.6	25.9	73.5
Overall Residential Satisfaction Index (RSI)	0	4.7	68.8	26.5

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XII: Distribution of Residential Satisfaction Variables by Level of Satisfaction and Pearson (r)**

Satisfaction with	Very low	Low	Moderate	High	SD	Pearson (r)
Spatial layout	0.6	0.4	16.9	82.2	12.073	0.664**
Natural ventilation	-	-	21.2	78.2	11.757	0.480**
Living space	-	1.9	5.3	92.8	10.654	0.720**
Dining space	0.4	1.1	25.8	72.8	13.638	0.668**
Bedroom	0.4	0.6	6.4	92.6	10.500	0.739**
Kitchen	0.4	6.6	23.5	69.5	14.018	0.749**
Bathroom and toilet	-	2.3	11.2	86.6	9.952	0.652**
Balconies	1.9	7.8	36.7	53.6	15.364	0.684**
<b>Dwelling unit features (DUFESI)</b>	<b>0.4</b>	<b>2.3</b>	<b>53.2</b>	<b>44.1</b>	<b>8.213</b>	<b>1</b>
Corridors	-	3.0	19.8	77.2	12.154	0.582**
Lift	0.8	0.6	7.0	91.6	12.133	0.387**
Electricity supply	-	-	0.4	99.6	10.063	0.604**
Water supply	1.1	0.6	2.5	95.8	13.218	0.480**
Sewerage and drainage	-	0.8	7.4	91.8	9.556	0.555**
Firefighting system	-	3.6	26.3	70.1	12.493	0.597**

Landscaping	-	1.5	43	55.5	13.305	0.610**
Outdoor seating adequacy	-	5.1	42.8	52.1	13.545	0.665**
Outdoor seating location	-	4.4	47.7	47.9	13.267	0.649**
Maintenance and service charges	0.6	4.0	32	63.4	14.011	0.652**
<b>Housing estate features (HEFSI)</b>	<b>-</b>	<b>1.7</b>	<b>55.9</b>	<b>42.4</b>	<b>7.184</b>	<b>1</b>
Open space	-	0.4	14.4	85.2	9.902	0.463**
Playing area	-	3.4	48.1	48.5	12.804	0.512**
Parking	-	0.9	7.0	92.1	12.133	0.590**
Community hall	-	2.5	7.2	90.3	13.976	0.623**
Perimeter roads	-	1.1	24.4	74.5	12.338	0.459**
Pedestrian walkway	-	1.9	43.6	54.5	12.954	0.498**
Local shops and food stall	1.5	8.7	49.6	40.2	14.729	0.355**
Gym	1.0	6.7	45.7	46.6	16.646	0.572**
Swimming pool	1.1	11.2	54.3	33.4	27.504	0.731**
Library	1.6	38.9	44.7	14.8	29.528	0.632**
<b>Public facilities (PFSI)</b>	<b>-</b>	<b>14.0</b>	<b>73.3</b>	<b>12.7</b>	<b>9.277</b>	<b>1</b>
Noise	3.2	5.9	22.3	68.6	16.181	0.609**
Crime	-	-	6.4	93.6	9.740	0.662**
Safety and security	-	-	1.5	98.5	10.581	0.615**
Community relation	0.4	2.5	18.2	78.9	13.375	0.615**
Homogeneity	0.4	4.7	30.1	64.8	13.746	0.591**
<b>Social environment (SESI)</b>	<b>-</b>	<b>2.1</b>	<b>39.6</b>	<b>58.3</b>	<b>7.796</b>	<b>1</b>
Distance to city	-	1.7	20.5	77.8	10.509	0.615**
School	-	0.6	20.1	79.3	11.294	0.668**
Police	-	-	13.8	86.2	9.955	0.610**
Hospital	-	-	9.7	90.3	11.355	0.747**
Market	-	-	6.1	93.9	10.283	0.730**
Shopping	-	0.4	7.2	92.4	12.281	0.817**
Bus and taxi stand	-	-	6.6	93.4	10.686	0.789**
Other connectivity	-	-	4.7	95.3	8.280	0.687**
<b>Neighborhood facilities (NFSI)</b>	<b>-</b>	<b>0.6</b>	<b>25.9</b>	<b>73.5</b>	<b>7.528</b>	<b>1</b>
<b>Overall RSI</b>	<b>-</b>	<b>4.7</b>	<b>68.8</b>	<b>26.5</b>	<b>6.253</b>	<b>-</b>

\*\*significant at 0.01 level Source: Computed by Researcher from Primary Field Survey, 2022-23

Notes: Level of Satisfaction: Very low =20–39; Low=40–59; Moderate=60–79; High=80–100.

**Table XIII: Level of Participation of Residents in Major Lifestyle Attributes in Gated Communities**

Lifestyle Attributes	High (80-100)	Moderate (60-79)	Low (40-59)	Very low (20-39)
Social activities	61.17	31.06	7.77	0
Use of mass communication	61.17	32.96	5.30	0.57
Creative activities	0.95	12.50	32.20	54.36
Activities outside home	0.57	2.27	20.27	76.89
Community service activities	15.34	38.63	43.37	2.65

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XIV: Life Satisfaction Level as Reported by the Resident of Gated Communities**

Satisfaction Level	High (80-100)	Moderate (60-79)	Low (40-59)	Very low (20-39)
Overall Life Satisfaction	36.36	58.52	4.74	0.38

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XV: Happiness Level as Reported by the Resident of Gated Communities**

Happiness Level	High (80-100)	Moderate (60-79)	Low (40-59)	Very low (20-39)
Happiness Index	26.71	65.53	6.25	1.51

\*All the data is shown in percentage

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XVI: Value of Resident’s Perception of Security Risk in Gated Communities**

Statements	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
You feel safe when you walk alone inside the gated community during the morning	300	166	62	0	0
You feel safe when you walk alone inside the gated neighbourhood during the afternoon	291	183	54	0	0
You feel safe when you walk alone inside the gated neighbourhood during the night	173	322	25	8	0
You feel safe when you are alone at home during the day	329	155	44	0	0
You feel safe when you are alone at home during the night	241	254	33	0	0
You are satisfied with the lighting at the main entrances and the other areas	228	243	57	0	0
You feel safe when you visit open spaces and parks	192	216	109	8	3
You feel safe when you visit other public places in the community	175	257	93	3	0
Your community is safe for parking residential cars, motor bikes and cycles	188	306	34	0	0
Your residential area is secure for children to play	163	279	75	9	2
You are satisfied with the performance of local police	81	267	146	24	10

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XVII: Value of Resident's Perception of Security Risk in Other High-Rise Apartments**

Statements	Strongly agree	Agree	Neither agree	Disagree	Strongly disagree
You feel safe when you walk alone inside the gated community during the morning	28	95	27	0	0
You feel safe when you walk alone inside the gated neighbourhood during the	27	99	24	0	0
You feel safe when you walk alone inside the gated neighbourhood during the night	18	80	46	6	0
You feel safe when you are alone at home during the day	22	106	22	0	0
You feel safe when you are alone at home during the night	20	94	36	0	0
You are satisfied with the lighting at the main entrances and the other areas	14	87	38	8	3
You feel safe when you visit open spaces and parks	10	90	44	6	0
You feel safe when you visit other public places in the community	12	92	42	4	0
Your community is safe for parking residential cars, motor bikes and cycles	10	76	56	8	0
Your residential area is secure for children to play	8	79	55	8	0
You are satisfied with the performance of local police	9	80	35	24	2

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XVIII: Satisfaction Index Value based on Perception of Security Risk in Gated Communities and Other High-Rise Apartments**

Statements	Gated communities	Other high-rise apartments
Feel safe in community to walk alone during the morning	0.73	0.50
Feel safe in community to walk alone during the afternoon	0.72	0.51
Feel safe in community to walk alone during the night	0.63	0.37
Feel safe when alone at home during the day	0.77	0.50
Feel safe when alone at home during the night	0.70	0.45
Satisfied with the lighting facilities	0.66	0.34
Feel safe when visit open spaces and parks	0.55	0.35
Feel safe when visit other public places	0.57	0.37
Safe for parking residential cars, motor bikes and cycles	0.65	0.29
Secure for children to play	0.56	0.29
Satisfied with the performance of local police	0.36	0.23

Source: Computed by Researcher

**Table XIX: Percentage of Different Crime Components in Gated Communities**

Components of fear of crime	Yes	No
Fear of crime	7	93
Experience any kind of crime	1.7	98.3
Problem of violent crimes such as assault or armed robbery	1.14	98.86
Problem of property crimes such as vandalism, theft or mugging	5.68	94.32
Face any problem of cyber crimes	1.52	98.48
CCTVs in the apartment	100	0
Installation of gates or CCTV or guard could reduce the crimes	99.05	0.95
Detail record of entrances by the guard	98.48	1.52

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XX: Percentage of Different Crime Components in Other High-Rise Apartments**

Components of fear of crime	Yes	No
Fear of crime	36	64
Experience any kind of crime	9.33	90.67
Problem of violent crimes such as assault or armed robbery	4	96
Problem of property crimes such as vandalism, theft or mugging	17.33	82.67
Face any problem of cyber crimes	6.67	93.33
CCTVs in the apartment	40.67	59.33
Installation of gates or CCTV or guard could reduce the crimes	90.67	9.33
Detail record of entrances by the guard	33.33	66.67

Source: Computed by Researcher from Primary Field Survey, 2022-23

**Table XXI: Overall trend of Perception of Local Residents towards Gated Community**

Sl No	Statements	Yes (%)	No (%)
1	Have you visited any nearby gated community at least once?	72	28
2	Did you faced any problem getting inside the community?	20	80
3	Did you consider yourself different from the people who lived in that gated community? (Class or Status wise)	62.67	37.33
4	Do you think that the people who lived in that gated community are different from the other people of our society? (Class or Status wise)	58.67	41.33
5	Do you think that gated community creates social segregation (like class segregation or economic segregation) in our society?	73.33	26.67
6	If you had a chance to move to a gated community, would you move?	62.67	37.33

Source: Computed by Researcher from Primary Field Survey, 2022-23

---

**Appendix - B**

**Questionnaire for the survey of gated community residents**

**1. Household characteristics:**

1.1 Name of the respondent:

1.2 Age: \_\_\_\_\_, 1.3 Sex: \_\_\_\_\_, 1.4 Religion:

1.5 Caste: GEN/SC/ST/OBC

1.6 Ethnicity: Bengali / Non-Bengali

1.7 Marital status:

1.8 Educational attainment:

a) Elementary

b) High School

c) College

d) Master's degree

e) Doctorate degree

f) Professional degree (MBA, MCA etc.)

g) Others \_\_\_\_\_

1.9 No. of family members:

1.10 No. of children: \_\_\_\_\_, 1.11 No. of adults:

1.12 No. of employed members in the household:

1.13 Occupation:

a) Private firm employee

b) Govt. employee

c) Own business

d) Retired

e) Self employed

f) Multinational company

f) Others \_\_\_\_\_

1.14 Household monthly income:

1.15 Household monthly expenditure:

1.16 household monthly savings:

---

## 2. Dwelling characteristics:

### 2.1 Where did you live before you move here?

- a) Multi storied complex
- b) Rented apartment / house
- c) Own house(type)
- d) Own flat
- e) Gated complex
- f) Govt. housing complex

### 2.2 How many years ago you moved in present community?

Ans:

### 2.3 Types of apartments you lived in now:

- a) 1 BHK
- b) 2 BHK
- c) 3 BHK or more
- d) Villa

### 2.4 Status of housing unit:

- a) Owned
- b) Rented

## 3. Motivations for moving into a Gated community:

### 3.1 Which dwelling unit features motivated you to move into this apartment? (you can choose multiple options which motivated you)

- a) Lift and wide corridors
- b) Architecture style
- c) Dwelling orientation
- d) House as investment
- e) Affordability
- f) Security
- g) Others \_\_\_\_\_

### 3.2 Which neighborhood characteristics motivated you to move into this apartment? (you can choose multiple options which motivated you)

- a) Proximity to workplace
- b) Proximity to family and friends
- c) Neighborhood amenities
- d) Environmental attraction

- e) Security
- f) Social contacts
- g) Social status or prestige
- h) Familiar with the area
- i) Restricted area/24 hours guards
- j) Homogeneity (like similar lifestyle, socio-economic background, cultural background, racial profile)
- k) Elderly and disability friendly
- l) Others \_\_\_\_\_

#### 4. Residential satisfaction:

4.1 How far are you satisfied with these dwelling unit features? (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

- a) Satisfaction level for spatial layout
- b) Daylight distribution and Natural ventilation
- c) Living space
- d) Dining space
- e) Bedroom
- f) Kitchen
- g) Bathroom and toilet
- h) Balconies

4.2 How far are you satisfied with these housing estate features? (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

- a) Corridors
- b) Lift
- c) Electricity supply
- d) Water supply
- e) Sewerage and drainage
- f) Firefighting system
- g) Landscaping
- h) Outdoor seating adequacy
- i) Outdoor seating location
- j) Maintenance, services and charges

4.3 How far are you satisfied with these public facilities? (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

- a) Open space
- b) Playing area
- c) Parking
- d) Multipurpose / community halls
- e) Perimeter roads
- f) Pedestrian walkways
- g) Local shops and food stalls
- h) Gym
- i) Swimming pool
- j) Library

4.4 How far are you satisfied with these social environment features? (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

- a) Noise
- b) Crime
- c) Safety and security
- d) Community relations
- e) Homogeneity

4.5 How far are you satisfied with these neighborhood facilities? (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

- a) Distance to center of city
- b) Distance to school
- c) Distance to police station
- d) Distance to hospital
- e) Distance to market
- f) Distance to shopping centers
- g) Distance to bus and taxi stand
- h) Other connectivity

4.6 Do you have any intention of moving another place or apartment within 2-3 years?

Ans: Yes/No/Maybe

4.7 Do you have social interaction with the neighbors?

- a) Daily

b) Weekly

c) Rarely

4.8 What do you think about the adequacy of living condition of your housing units? (please rate the features with the number of, 1= very inadequate, 2= inadequate, 3= neither inadequate nor adequate, 4= adequate, 5= very adequate)

a) Condition of housing unit

b) Privacy in the house

c) Wall and floor material

d) Adequacy of no of rooms

e) Access to water supply

f) Generator supply during power cuts

g) Balconies

h) Corridors

i) Bathrooms and toilet

j) Natural ventilation

4.9 What do you think about the adequacy of living condition of your environmental and neighborhood? (please rate the features with the number of, 1= very inadequate, 2= inadequate, 3= neither inadequate nor adequate, 4= adequate, 5= very adequate)

a) Road connectivity

b) Open space

c) Parking area

d) Playing area

e) Local shops and food stalls

f) Street lighting

g) Sewerage and drainage

h) Safety and security

i) Maintenance and environmental facilities

j) Recreational facilities

k) Green area

l) Outdoor seating location

## 5. Daily lifestyle:

5.1 Measures of daily lifestyle attributes (please rate the features with the number of, 1= never, 2= occasionally, 3= more than occasionally, 4= frequent, 5= more than frequent or everyday)

a) How often do you visit and communicate with friends and family?

- b) Do you travel everyday life?
- c) How often you read books?
- d) How often you read newspaper and magazines?
- e) How often you watch TV for entertainment?
- f) How often you play musical instrument or sing?
- g) How often you write?
- h) How often you paint or sculpture?
- i) How often you attend sporting events?
- j) How often you play any competitive sports?
- k) How often you help your friends and neighbor?
- l) How often you work with social organization?

5.2 Are you agreeing with these life satisfactions features? (please rate the features with the number of, 1= not at all, 2= a little, 3= somewhat, 4= very, 5= extremely)

- a) Is your life being close to your ideal in most ways?
- b) Are you satisfied with your physical condition?
- c) Are you satisfied with your financial condition?
- d) Are you satisfied with your career?
- e) Are you satisfied with your social life?

(Please rate the features with the number of, 1= not at all, 2= a little, 3= somewhat, 4= very much, 5= everything)

- f) So far have you got all important things you want in life?
- g) If you got a chance, would you like to change your present lifestyle?

5.3 Happiness index:

A. Satisfaction with life (please rate the features with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

- a) You are satisfied with your life nowadays.
- b) You feel the things you do in your life are worthwhile.
- c) You feel happy last week.

B. Psychological wellbeing (please rate the features with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

- a) I lead a purposeful and meaningful life.

- b) I am engaged and interested in my daily activities.
- c) I am optimistic about my future.
- d) Most days I feel a sense of accomplishment from what I do.
- e) In general, I feel positive about myself.

C. Health (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

- a) You are satisfied with your health.
- b) You have enough energy for everyday life.
- c) You are satisfied with the quality of your exercise.

D. Time balance (please rate this feature with the number of, 1= none of my time, 2= not much of my time, 3= some of my time, 4= most of my time, 5= all of my time)

- a) In a typical week, how much of your time are you able to spend doing the kind of things that you enjoy?

(Please rate the features with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

- b) My life has been too rushed over the past week.
- c) I have plenty of spare time over the past week.

E. Access to education, arts and culture (please rate the features with the number of, 1= never, 2= rarely, 3= some of the time, 4= most of the time, 5= all of the time)

- a) Your access to sports and recreational activities.
- b) Your access to artistic and cultural activities.
- c) Your access to activities to develop skill through informal education.
- d) How often do you feel uncomfortable or out of place in your neighborhood because of your culture, race, skin color, language, accent, gender, sexual orientation and religion.

F. Community (please rate this feature with the number of, 1= very weak, 2= somewhat weak, 3= neither weak or strong, 4= somewhat strong, 5= very strong)

- a) How would you describe your feeling of belonging to your local community?

(Please rate the features with the number of, 1= trust none of them, 2= trust a few of them, 3= trust some of them, 4= trust most of them, 5= trust all of them)

- b) Please tell us how many people you trust in your neighbors?

c) Please tell us how many people you trust in business in your community?

(Please rate this feature with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither dissatisfied nor satisfied, 4= satisfied, 5= very satisfied)

d) How satisfied are you with your personal safety in your city?

(Please rate this feature with the number of, 1= never, 2= once in the last year, 3= at least once in every 6 months, 4= at least once in every 3 months, 5= at least once in a month)

e) Have you donated money to a charity in the past months?

G. Social support (please rate this feature with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither dissatisfied nor satisfied, 4= satisfied, 5= very satisfied)

a) How far are you satisfied with your family and friendship relationships?

(Please rate this feature with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

b) Are you agreeing that people in your life care about you?

(Please rate the features with the number of, 1= very rarely or never, 2= rarely, 3= sometimes, 4= often, 5= very often or always)

c) To what extent do you feel loved?

d) To what extent do you feel lonely?

H. Environment (please rate this feature with the number of, 1= not at all, 2= a little, 3= somewhat, 4= very, 5= extremely)

a) How healthy is your physical environment?

(Please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= very satisfied)

b) How satisfied are you with the efforts being made to preserve the natural environment in your neighborhood?

c) How satisfied are you with the opportunities that you have to enjoy nature?

d) How satisfied are you with the air quality in your environment?

I. Governance (please rate the features with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

a) Corruption is widespread throughout the govt. in your city.

b) The public officials in your city pay attention to what people think.

(Please rate the features with the number of, 1= no confidence, 2= not very much confidence, 3= a fair amount of confidence, 4= quite a lot of confidence, 5= a great deal of confidence)

c) Please indicate how much confidence you have in the central government?

d) Please indicate how much confidence you have in the state government?

J. Standard of living (please rate this feature with the number of, 1= overwhelming stress, 2= high stress, 3= moderate stress, 4= low stress, 5= no stress at all)

a) In general, how much stress do you feel about your personal finances?

(Please rate this feature with the number of, 1= all the time, 2= most of the time, 3= sometimes, 4= rarely, 5= never)

b) How frequent do you find yourself just getting by financially and living paycheck to paycheck?

(Please rate the features with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

c) To what extend do you agree that you have enough money to buy things you want?

K. Work (please rate the features with the number of, 1= very dissatisfied, 2= dissatisfied, 3= neither dissatisfied nor satisfied, 4= satisfied, 5= very satisfied)

a) All things considered, how much satisfied are you with your current work life?  (pte: if you work or volunteer at more than one job, you should answer about the job you spend the longest time working ar.)

b) How much satisfied are you with the balance between the time you spend on your job and the time you spend on other aspect of your life?

(Please rate the features with the number of, 1= very rarely or never, 2= rarely, 3= sometimes, 4= often, 5= very often or always)

c) How much of the time do you find your current work life is interesting?

d) Considering all my efforts and achievements in my job I feel I get paid appropriately?

(Please rate the features with the number of, 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, 5= strongly agree)

e) Do you agree that the condition of your job allow you to be about as productive as you could be?

- f) Do you agree that you are allowed to decide how to go about getting your job done?

## 6. Safety and security

6.1 Residential perception of security risk (please rate this feature with the number of, 1= not at all, 2= a little, 3= somewhat, 4= very, 5= extremely)

- a) Do you feel safe when you walk alone inside the gated community during the morning?
- b) Do you feel safe when you walk alone inside the gated neighborhood during the afternoon?
- c) Do you feel safe when you walk alone inside the gated neighborhood during the night?
- d) Do you feel safe when you are alone at home during the day?
- e) Do you feel safe when you are alone at home during the night?
- f) Are you satisfied with the lighting at the main entrances and the other areas?
- g) Do you feel safe when you visit open spaces and parks?
- h) Do you feel safe when you visit other public places in the community?
- i) Is your community being safe for parking residential cars, motor bikes and cycles?
- j) Is your residential area being secure for children to play?
- k) Are you satisfied with the performance of local police?

6.2 Degree of fear of crime

- a) Do you have fear of crime in your community?  
Ans: Yes/No
- b) Did you or your family members experience any kind of crime in your community?  
Ans: Yes/No
- c) How many crime incidents happened with your neighbors in last 1 year?  
Ans:
- d) Is there any problem of violent crimes such as assault or armed robbery happened in your community?  
Ans: Yes/No

e) Is there any problem of property crimes such as vandalism, theft or mugging happened in your community?

Ans: Yes/No

f) Did you or your family member face any problem of cyber crimes?

Ans: Yes/No

g) Do you think that installation of gates or CCTV or guard could reduce the crimes?

Ans: Yes/No

h) Do you have any detail record of entrances in your community by the guard?

Ans: Yes/No

i) Do you have CCTVs in your Community?

Ans: Yes/No

---

## Questionnaire for the survey of high-rise apartment resident's

### 1. Household characteristics:

1.3 Name of the respondent:

1.4 Age: \_\_\_\_\_, 1.3 Sex: \_\_\_\_\_, 1.4 Religion:

1.5 Caste: GEN/SC/ST/OBC, 1.6 Ethnicity: Bengali / Non-Bengali

1.7 Marital status:

1.8 Educational attainment:

- a) Elementary
- b) High School
- c) College
- d) Master's degree
- e) Doctorate degree
- f) Professional degree (MBA, MCA etc.)
- g) Others \_\_\_\_\_

1.9 No. of family members:

1.10 No. of children: \_\_\_\_\_, 1.11 No. of adults:

1.12 No. of employed members in the household:

1.13 Occupation:

- a) Private firm employee
- b) Govt. employee
- c) Own business
- d) Retired
- e) Self employed
- f) Multinational company
- f) Others \_\_\_\_\_

1.14 Household monthly expenditure (in Rs.):

1.15 ousehold monthly savings (in Rs.):

### 2. Dwelling characteristics:

2.1 Where did you live before you move here?

- g) Multi storied complex
- h) Rented apartment / house
- i) Own house(type)
- j) Own flat

k) Gated complex

l) Govt. housing complex

2.2 How many years ago you moved in present apartment?

Ans:

2.3 Types of apartments you lived in now:

e) 1 BHK

f) 2 BHK

g) 3 BHK or more

2.4 Status of housing unit:

c) Owned

d) Rented

### 3 Safety and security

3.1 Residential perception of security risk (please rate this feature with the number of, 1= not at all, 2= a little, 3= somewhat, 4= very, 5= extremely)

a) Do you feel safe when you walk alone inside the apartment during the morning?

b) Do you feel safe when you walk alone inside the apartment during the afternoon?

c) Do you feel safe when you walk alone inside the apartment during the night?

d) Do you feel safe when you are alone at home during the day?

e) Do you feel safe when you are alone at home during the night?

f) Are you satisfied with the lighting at the main entrances and the other areas?

g) Do you feel safe when you visit open spaces and parks?

h) Do you feel safe when you visit other public places in your apartment?

i) Is your community secure for parking residential cars, motorcycles, and bicycles?

j) Is your residential area secure for children to play?

k) Are you satisfied with the performance of local police?

3.2 Degree of fear of crime

a) Do you have fear of crime in your apartment?

Ans: Yes/No

b) Did you or your family members have experienced any kind of crime in your apartment?

Ans: Yes/No

- c) How many crime incidents happened with your neighbors in last 1 year?

Ans:

- d) Is there any problem of violent crimes such as assault or armed robbery happened in your apartment?

Ans: Yes/No

- e) Is there any problem of property crimes such as vandalism, theft or mugging happened in your apartment?

Ans: Yes/No

- f) Have you or your family member face any problem of cyber crimes?

Ans: Yes/No

- g) Do you have CCTVs in your apartment?

Ans: Yes/No

- h) Do you think that installation of CCTV or guard could reduce the crimes?

Ans: Yes/No

- i) Do you have any detailed record of entrances in your apartment by the guard?

Ans: Yes/No

#### 4. Perception about the gated community

- a) Have you visit any nearby gated community at least once?

Ans: Yes/No

- b) Did you face any problems getting inside the community?

Ans: Yes/No

- c) Do you consider yourself different from the people who lived in that gated community? (Class wise or Status wise)

Ans: Yes/No

- d) Do you think that the people who lived in that gated community are different from the other people of our society? (Class wise or Status wise)

Ans: Yes/No

- e) Do you think that gated community creates social segregation (like class segregation or economic segregation) in our society?

Ans: Yes/No

f) If you had a chance to move to a gated community, would you move?

Ans: Yes/No

g) If yes, why would you like to move to a gated community?

Ans:

h) If no, why would you not want to move?

Ans:

i) When you hear the word 'gated community', what is in your mind?

Ans:

j) Please give any comment on gated community.

Ans:

যাদবপুর বিশ্ববিদ্যালয়

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This is to certify that the pre awarded Ph.D. thesis titled "Gated Neighbourhoods: Security, Lifestyles and Segregation of Urban Habitats in Kolkata", Index No. 43/21 Geo./27 of Sujay Sarkar supervised by Prof. Lakshmi Sivaramakrishnan, Department of Geography has been scanned by the plagiarism checking software Itenticate provided by Jadavpur University on 20.02.25 and was found to have 09 % similarity

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