

Mixed-use Settlements in A Metro City: Effects on People & Context

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Abstract

Mixed-use settlement is a building or a combination of buildings designed to functionally and physically integrate multiple uses such as commercial, institutional, recreational, and other uses along with residential uses. In such spaces, there are more opportunities for pedestrian activities due to the presence of a majority of the daily necessities at near distances. How public spaces are designed plays a significant role in affecting one's mental state and sense of comfort hence affecting productivity. Mixed-use settlements or spaces are denoted by the 'live-work-play' facilities and amenities in a close proximity. This study aims to investigate how mixed-use spaces are used in a metropolitan city by studying three areas from different parts of the city and how people there are affected by the mixed-use setting. Mixed use settlements, incorporating a range of functions and demographics within a single region, are essential to contemporary urban planning. The Old City, which dates back centuries, the planned KPHB Colony, and the quickly expanding Kondapur suburb are the three main locations of Hyderabad, India that are the subject of this study, which explores the dynamics and advantages of mixed-use towns. By means of an extensive methodology that includes field trips, interviews with residents, and a review of the literature, this study seeks to clarify the nuances and effects of mixed-use development in these areas. The results highlight the distinctive qualities and difficulties in every region. Accessibility is hampered in the Old City, which is known for its densely packed medieval architecture, by problems including small streets and a lack of parking, even if the area around famous sites like Charminar is very active. Similar problems with traffic and inadequate parking are present in KPHB Colony, a planned community, however in a more contemporary setting. On the other hand, because of recent projects like flyovers, Kondapur, a rising IT cluster, exhibits better-planned infrastructure. Common features emerge despite contextual differences, such as the requirement for effective transportation alternatives, adequate parking spaces, and infrastructure that is pedestrian-friendly. Because they encourage walking and cycling, mixed-use. This study's conclusion emphasizes how crucial it is for urban planning to incorporate a variety of stakeholders and purposes. It is possible for policymakers to establish lively, sustainable, and livable urban settings that promote the well-being of all citizens by addressing the unique requirements and difficulties of mixed-use settlements.

Keywords: Mixed use settlements, neighborhoods, safety, streets.

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INTRODUCTION

The definition of mixed-use settlements might look relatively straightforward but is more complicated as it consists of various types of buildings, land uses, different people of all age groups, different social classes, etc. Mixed-use settlements vary with scale, in single buildings, different functions can be vertically integrated. In the case of group housing, vertical combination of functions where commercial spaces is on the lower floors while the residential spaces are on the

above floors along with horizontal combination of functions refers to the combination of adjacent buildings. Where all these buildings collectively form a mixed-use space (Figure 2).

The mixing of uses requires an appropriate combination of multiple uses within a single structure or inside a neighbourhood where most residents can walk to a variety of different living activities (such as working, shopping, and living) [1].

The term "mixed-use settlement" refers to a process of including multiple interested groups along with mechanically combining various functions. It is important to keep in mind that people's interests must be taken into consideration, social benefits should be encouraged, and people should be involved in the development process in mixed-use communities. Utilizing unique and different purposes in work and residing conditions at different degrees of human networks like coordinating shops, workplaces, and houses in a single site, laying out blended involves in an area, block, or structure, and a variety of people with fluctuating ages and earnings, societies, and races are of high importance in new urbanism. When mixed-use development is implemented, urban areas become more active, there is greater security and safety, there are more social interactions, and daily trips between work and home are reduced. This prevents the horizontal development of the city and reduces traffic [2].

An advantage of mixed-use communities is their safety. Neighbours look out for one another. The result is lower crime rates in mixed-use neighbourhoods. According to studies, more people and activity can lead to safer streets. People are less likely to engage in criminal activities with so much going on around them.



Figure 1. Typical section of a mixed use street

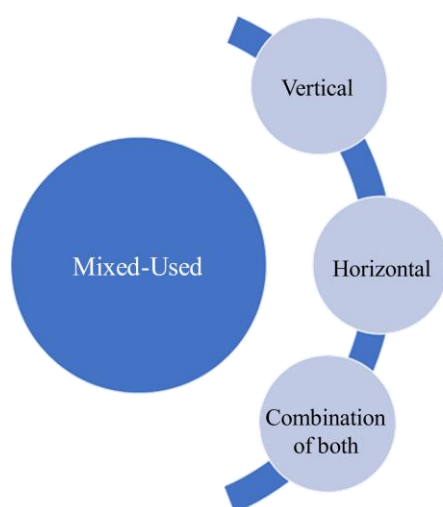


Figure 2. Types of mixed-use settlements.

The most important goal of a mixed-use development is to bring everything you need in one location. You get easy access to retail stores, dining, and leisure hubs. These developments are also close to essential services like banks, schools, and hospitals [5].

Residents are likely to walk in mixed-use developments lowering their carbon impact. Furthermore, cycling helps to reduce greenhouse gas emissions caused by conventional cars. Mixed-use developments mostly feature a well-developed transportation system. You can choose to walk because most of what you need is comfortable within walking distance [5].

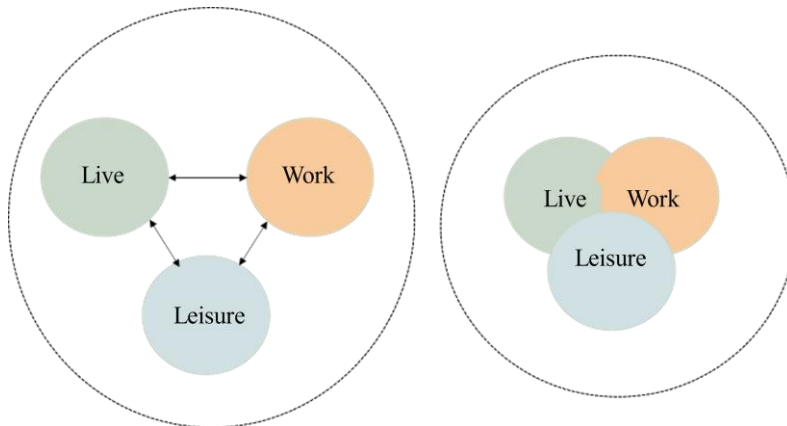


Figure 3. Concept of mixed-use neighborhoods.

By lowering the need for vehicle travel, mixed-use developments also contribute to the creation of shared communal space. Community connection is encouraged through plazas, parks, and sidewalks—interaction that may not be secure or feasible in a large, car-centered design [4].

Lastly, mixed-use neighbourhoods that are friendly to public transportation benefit local economies. By reducing the length and number of daily trips, they eliminate the need for car ownership and save money on transportation costs. By boosting foot traffic, mixed-use development also helps local businesses. These advantages are reinforced when mixed-use development is combined with pedestrianization or when some areas are closed for motor vehicles to encourage more walking [6] (Figure 3).

To study in-depth with respect to the local context, a case study is done by selecting three areas from different parts of Hyderabad (Figure 4)

- (i) Old city
- (ii) KPHB colony
- (iii) Kondapur. Criteria for selecting these areas
 - (a) Areas with different functions in one place.
 - (b) People of different age groups, occupations, etc.
 - (c) Localities based on the time period of development i.e., Old city-from the historic times, KPHB colony-developed during the last decade, Kondapur- recent development and future expansion.

RESEARCH METHODOLOGY

This study is carried out by collection of information from different sources, basic research from various books, research papers, etc. A case study is done by selecting three areas from different parts of Hyderabad-(i) Old city (ii) KPHB colony (iii) Kondapur. A personal visit to each of these places, for a better understanding of the activities, structures, people, etc. and a photographic documentation was done. Most of the findings are based on interviewee's responses. A questionnaire was prepared and forwarded to residents of the three areas and their feedback was recorded [3].

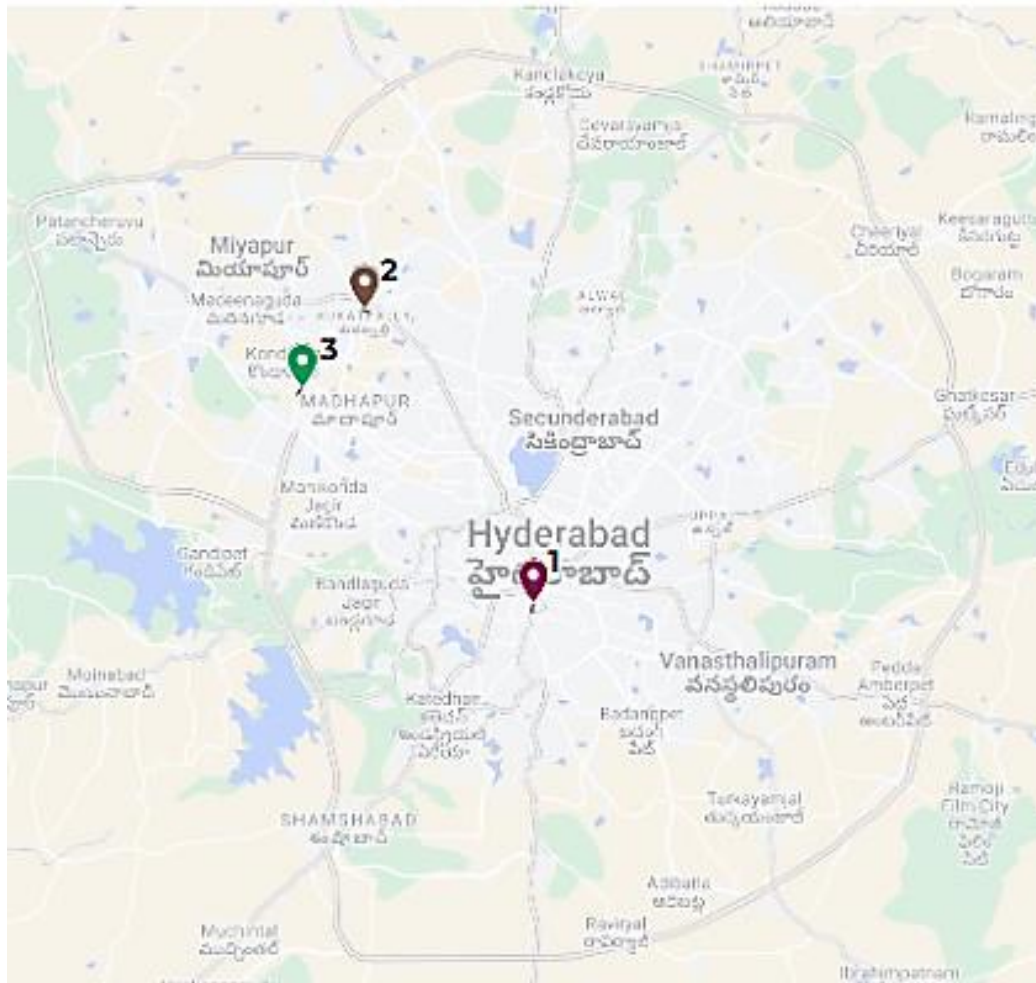


Figure 4. Map indicating the three places of study (Source-My maps)

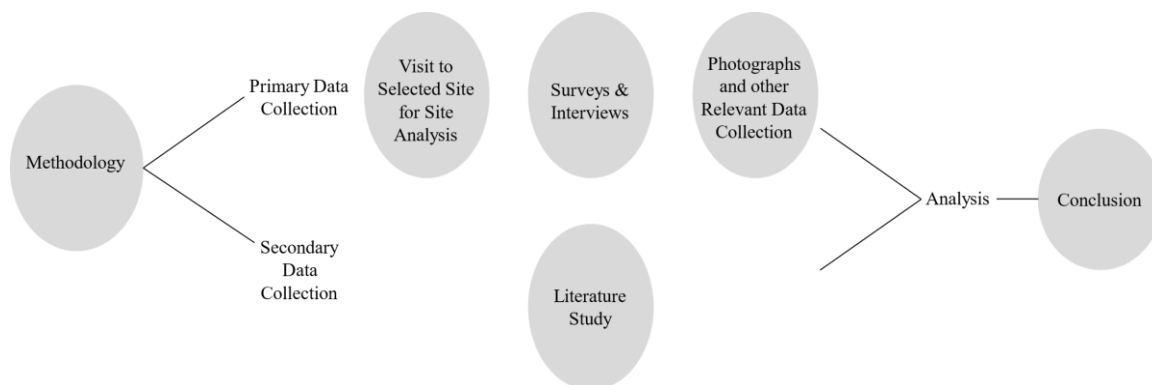


Figure 5. Methodology flowchart

RESULTS AND DISCUSSIONS

Study in Old City

A street of Charminar is selected which is in central Hyderabad. It is a very dense settlement. Taking the main street as the spine and studying the area around it. Along with the monument, the bazaars around it are also worth visiting. Buildings here are usually single-storied or double-storied [7]. All buildings on the main street are occupied by retail stores, while the buildings on the lanes next to the main street are occupied by retail stores on the ground level and residences on the upper levels. (Figure 6 shows the context map and the land use of the Charminar street).



Figure 6. Context map of charminar Street with zoning.



Figure 7. Streets of charminar.

Different retail stores in this area are- Pearl market, Bangle stores, Jewellery stores, Clothing stores, electronics and accessories, toy stores, etc. Along with several eateries, hospitals, police station, temple, Mecca Masjid, pharmacy, ATMs, etc.

(Figure 7 shows the various streets surrounding charminar).

Issues identified- Very narrow roads, Lack of parking space, Congestion, traffic.

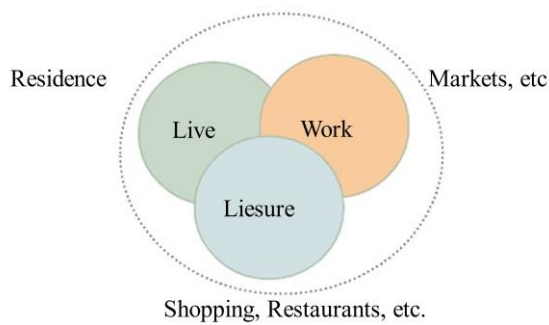


Figure 8. The live, work & leisure spaces in old city.

- *Accessibility:* This area can be accessed through-Metro (Gandhi Bhavan metro station). –Bus-Private vehicles

But due to congestion and many other factors, vehicles are only allowed up to the parking area 250–300 meters from the monument.

- *Context of the area:* Prominent buildings-Chowmahalla Palace
 - Laad bazaar
 - Mecca masjid
 - High court
 - Many small retail stores, cafes, etc.

Due to many retail stores, the street is always busy, hence under constant surveillance.

Also due to the monument the street is under constant monitoring. (Figure 9 shows the Monument-Charminar)

- Buildings here do not have a designated parking space, and people visiting this area tend to park vehicles on the street itself which causes more congestion and ultimately traffic. Hence a parking area is designated for visitors to park vehicles but insufficient for huge footfall.
- Sides of the streets are very busy, i.e., they are occupied by street vendors and people stopping by them.
- No pedestrian path, hence people move through the roads itself. (Figure 9 shows a sectional illustration of the Charminar street).

Most of the people staying here usually work in and around the Charminar itself. (Figure 8 shows the Live, Work & Leisure of the people living in old city).

- *Interaction & sense of place-*Most of the people here usually do interact with fellow residents of the locality.



Figure 9. Street section-charminar.



Figure 10. Charminar.

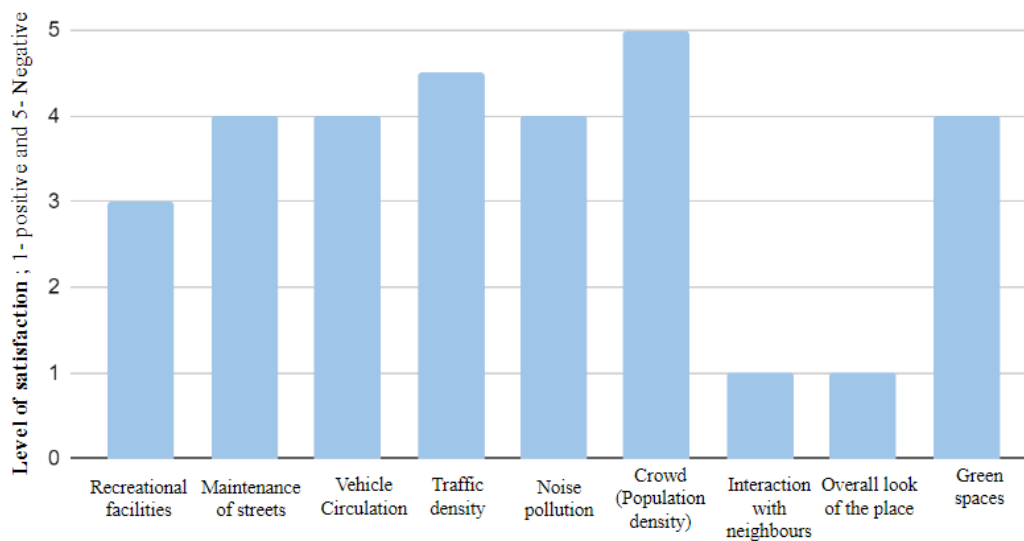


Chart 1. Survey feedback-old city.

Chart 1, is the average result from the feedback collected from the questionnaire, a questionnaire was prepared and circulated among different people residing in the area. It is observed that people that are residing there from many years do not find it problematic, as they were used to it.

Study in KPHB Colony

A well-planned and developed locality in the northwest part of Hyderabad. This place is developed due horizontal sprawl of the city from the central part to the northwest direction. (Ameerpet-Kukatpally- KPHB colony- Miyapur-Chanda Nagar). This area lies adjacent to the JNTU-Hi-tech city road on one side and NH65 on the other side. In this area Retail stores, small restaurants/fast food centres are on the ground floors and residential on the upper floors. Buildings here are G+2 to G+3 floors. (Seen in Figure 11).



Figure 11. Context map of KPHB Colony street with zoning.

Different stores in this area are Banks, ATMs, General stores, Post Office, Vegetable stores, vendors, Pharmacies, Electrical appliances, Hardware stores, Stationeries, Small scale restaurants, and food courts., Flowers and fruit vendors, Hot chips stores, Hotels and lodges, small office spaces, Hostels and PGs, Photo Studios, Hospitals, Sports equipment stores, [8] Dairy products, Pet stores, Internet centres, Training institutes, Junior colleges, Saloon, Govt. - Mee Seva, Mandal Revenue office. (*Figure 12 shows the Live, Work & Leisure of the people in KPHB colony*).

Issues identified- Very narrow roads, Lack of parking space, Congestion, traffic, and no separate pedestrian path hence people tend to walk on streets.

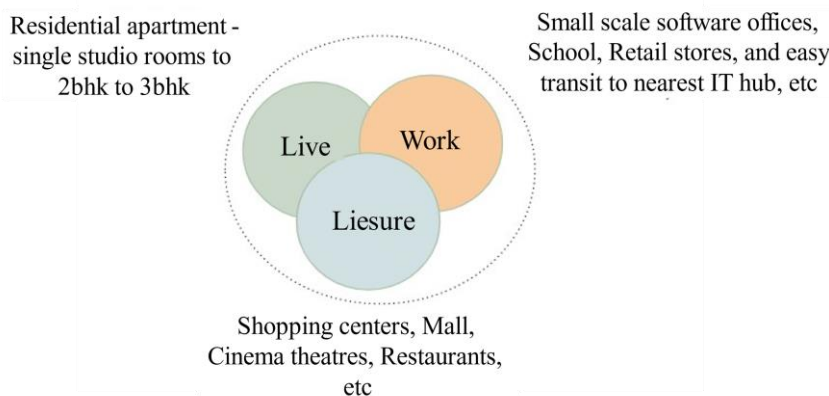


Figure 12. Live, leisure & Work-KPHB colony.

- **Accessibility:** This area can be accessed through
 - Metro (JNTU College & KPHB Colony metro stations).
 - Bus
 - Private vehicles
- **Context of the area:** JNTU College
 - Residential area
 - Rythu bazaar (Vegetable Market)
 - Hospital street
 - Hotels
- Due to many retail stores & residences on the street, the street is always busy, hence under constant surveillance. (*Figure 14 Shows the Street view of the colony*)



Figure 13. Street section.



Figure 14. Street photographs-KPHB colony.

- Most of the buildings here do not have a designated parking space, and people visiting the residences, post office, bank, etc. tend to park vehicles on the street itself which causes more congestion and ultimately traffic [9].
- The sides of the streets are very busy, i.e., they are occupied by street vendors and people stopping by them. (Figure 13 shows the street section).
- No pedestrian path, hence people move through the roads itself.
- Most people staying here usually work in different sectors, hence travel to different places for work.
- Interaction & sense of place-Most of the people here usually do interact with fellow residents of the locality.

Chart 2, is the average results of the feedback collected from the questionnaire. It is found that the residents of this area find this place safe and are comfortable living in this area. While few are slightly dissatisfied with the traffic congestion which is mainly due to the absence of dedicated parking spaces and pedestrian pathways.

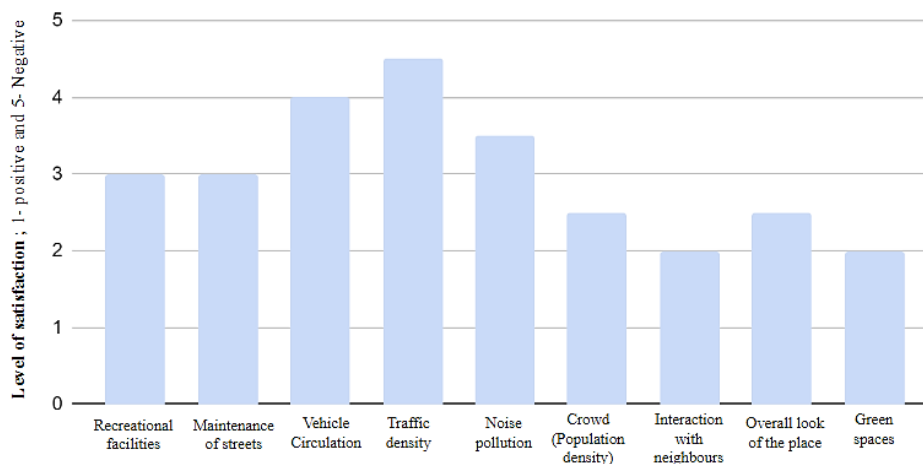


Chart 2. Survey feedback-KPHB Colony.

Study in Kondapur

Kondapur, a suburb which lies in the western part of Hyderabad. Due to its proximity to Hyderabad's IT corridor, the neighbourhood has developed into a prominent commercial and residential hub [10]. On the main street are many eateries, retail stores, a few residential buildings, commercial buildings, and recreational buildings i.e., malls. The lanes adjacent to the main road are mostly residential. (See Figure 15 indicating the land use of this locality). Buildings here are a min. of 5 floors. People here are mainly involved in the IT sector. Issues identified-Traffic due to population growth (even though the roads are wide enough). (Seen in Figure 18)

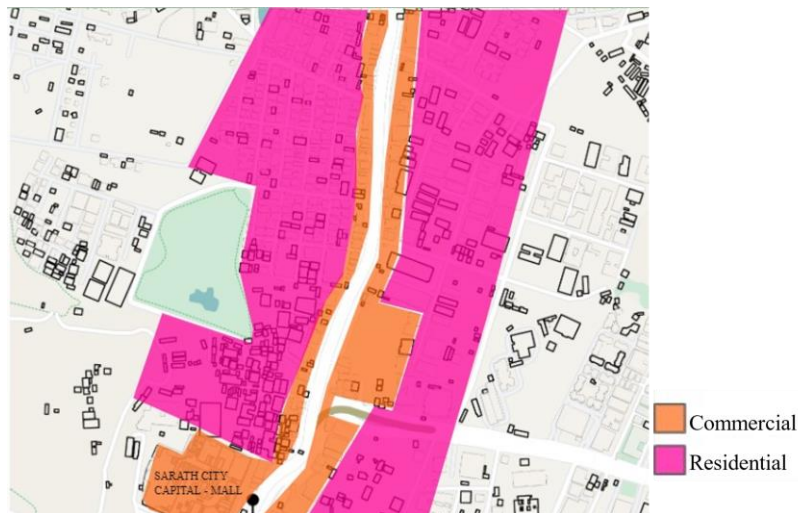


Figure 15. Context map of Kondapur with zoning.

- *Accessibility:* This area can be accessed through
 - Metro (Hi-tech city & Raidurg metro stations).
 - Bus
 - Private vehicles
 - MMTS (Hi-Tech city station).
- *Context of the area:* Botanical Garden
 - Residential area
 - IT hub
 - Pala pitta cycling park
 - Hotels
 - Hospitals

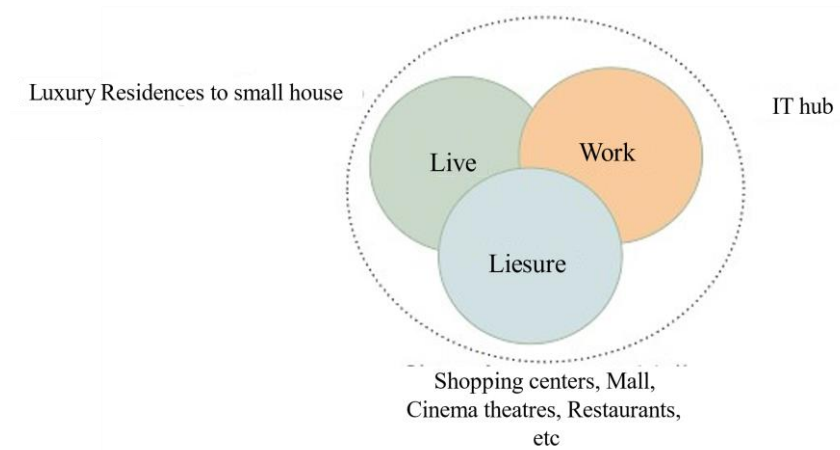


Figure 16. Live, Leisure & Work space of Kondapur.

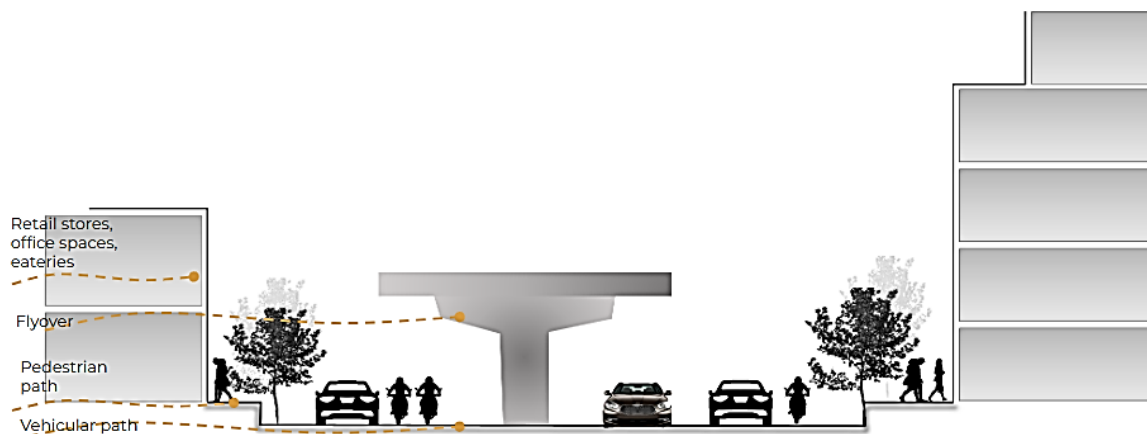


Figure 17. Street Section Kondapur.

This area is well equipped with CCTV cameras and due to many retail stores, restaurants and other commercial spaces on the main road, the streets are always busy, hence under constant surveillance.

- A decent amount of buffer space is provided in front of the buildings on the main street. Hence most of the buildings here have basements and surface parking.
- Due to the recent construction of the flyover on the road. Traffic has significantly reduced. But the road is a little congested due to the pillars and other additions. (Figure 17 shows the street section)
- Sides of the streets are usually free, i.e., they are not occupied by street vendors.
- Most of the people staying here usually work in the IT hub of Hyderabad. (See Figure 16 for Live, Leisure and Work of the people here)
- Interaction & sense of place-Most of the people here usually do not interact with fellow residents of the locality.



Figure 18. (a) Street Photograph.



Figure 18. (b) Under the Kothaguda Flyover, To the left is the Sharath City Capital Mall (Source-Google maps).

Chart 3, is the average results of the feedback collected from the questionnaire. It is found that the residents of this area find this place safe and are comfortable living in this area.

CONCLUSIONS

In today's global urbanization, it is common practice to consider interactions, behaviours, and the problems they cause in order to build a vibrant, dynamic, and liveable city. This is because cities are built based on citizens' input. The vitality of urban environments is inextricably linked to the presence of people. In the meantime, the streets of today are not regarded as places to spend free time. On the other hand, it is wrong to spend too much time on the streets. Because of this, people's active presence, dynamism, and liability increase when streets provide a safe and favourable space for activities and healthy recreation based on social values.

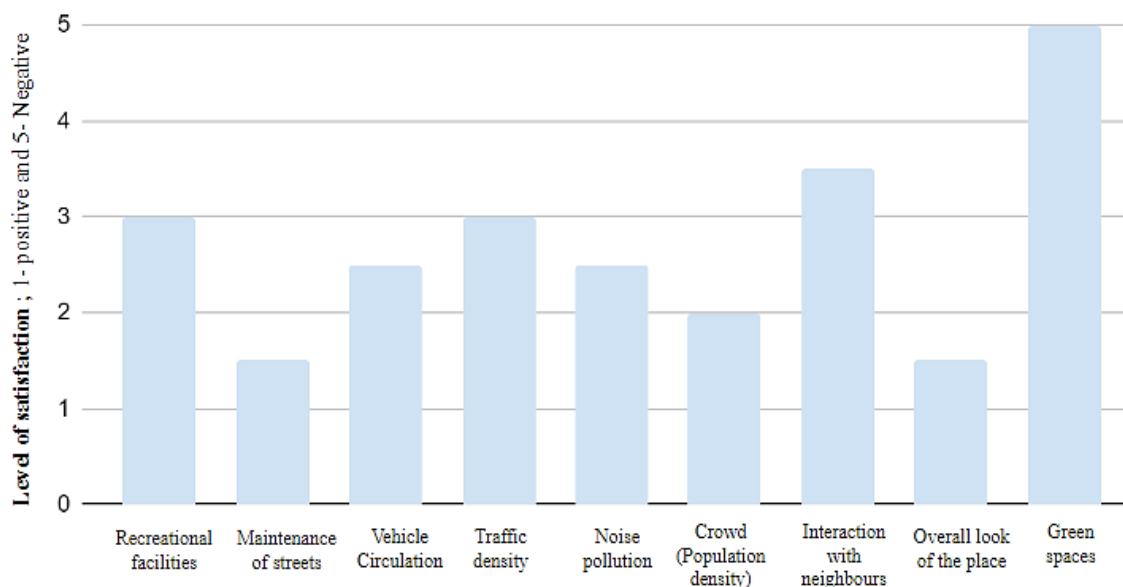


Chart 3. Survey Results-Kondapur.

Consequently, the mixed-use pattern of traditional neighbourhoods could be advantageous and favourable for its inhabitants in terms of social construction. However, traditional neighbourhoods located in city centres are overloaded with the problems of mass housing projects, too. This situation increases dissatisfaction with issues such as the density of traffic and the deficiency of parking areas in traditional neighbourhoods. Therefore, priority should be given to transportation policies in traditional neighbourhoods, and access to urban facilities should be provided to the inhabitants of mass housing projects so they do not need to go to the city centre.

Based on the study conducted in Old City, KPHB Colony, and Kondapur, some important conclusions about the dynamics of mixed-use communities.

Old City

Context: The Old City neighborhood surrounding the Charminar is an example of a densely populated district with residences, retailers, and important landmarks.

Issues Identified: Concerns about traffic, parking spaces, narrow roads, and congestion.

Implications: Old City's historical value and density is a value addition to this place, but they also provide obstacles for contemporary transportation and infrastructure. The absence of dedicated parking areas and walkways for pedestrians emphasizes the necessity of urban planning interventions to strike a balance between the needs of the modern world and historical preservation.

KPHB Colony

Context: KPHB Colony has a well-designed layout with a variety of retail outlets and residential apartments.

Issues identified: Similar to the Old City, there are small streets, a lack of parking, congestion, and no pedestrian walkways. Residents do, however, report feeling safe and comfortable.

Implications: Despite the planned arrangement, difficulties with traffic and pedestrian safety remain. Residents' contentment suggests that mixed-use communities can prosper if infrastructural difficulties are addressed properly. The need for improved parking facilities and pedestrian-friendly infrastructure is clear.

Kondapur

Context: Kondapur is a fast growing suburb with a high concentration of IT businesses, commercial establishments, and residential complexes.

Issues identified: Traffic congestion remains despite large roadways, owing primarily to population increase. However, the recent construction of a flyover has relieved some traffic congestion.

Implications: The Kondapur scenario demonstrates how mixed-use towns evolve in response to urbanization and economic shifts. While infrastructure upgrades such as flyovers can help alleviate traffic congestion, continual monitoring and planning are required to preserve livability and solve future challenges.

Common observations among all three places are:

- Densely populated areas, people with different age groups are residing in these places.
- Traffic congestion-due to overcrowding, - Due to roads (insufficient road widths and constant repair works on roads).
- Vibrant Streets-Streets are always busy and are constantly monitored.
- A variety of functions.
- *Infrastructure Improvement:* The findings highlight the necessity of investing in infrastructure, such as parking lots, pedestrian walkways, and public transportation, to improve the livability of mixed-use communities.

CONTRIBUTIONS TO THE FIELD

This study makes major contributions to the understanding and improvement of mixed-use settlements, providing useful insights into their dynamics and consequences for urban design. The study examines three unique areas in Hyderabad to better understand the varied nature of mixed-use developments and their influence on residents, infrastructure, and community dynamics. The following are a few key contributions;

- A comprehensive understanding of mixed-use settlements.
- Identification of Key Issues and Challenges.
- Gain insights into community dynamics and interactions.

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