

Architecture For The Sustainability Design

Final Thesis 2021

Urban Revitalization

Hyderabad – Rapid Urbanization

Quality of life

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Politecnico di Torino

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Master of Science program in

ARCHITECTURE FOR THE SUSTAINABILITY DESIGN

Under the supervision of

Mario Artuso & Davico Luca

ACKNOWLEDGEMENT

I wish to express my gratitude to all who have helped Me in this project.

First and foremost, my heartfelt gratitude goes to Almighty For being with me in all situations and making it possible Me to finish my work, and then to my parents, who are the true artists of my personality.

I also thank my family and friends and everyone who has helped me in doing my thesis.

I would also like to show our sincere gratitude to the Mario Artuso and Davico Luca for sharing their Pearls of wisdom with us during this final project Research.

My gratitude and appreciation also go to my Educational Associate who assisted me in developing the project and to those who volunteered to assist Me with their skills.

ABSTRACT

Revitalization is the act of giving something new life. The study of urbanization provided knowledge of what it is and how its benefits may improve quality of life by not only enhancing urban development and environmental demands, but also via economic and social provision in an attempt to answer the topic issues.

The city of Hyderabad has gone through various revolutions and rapid urbanizations. It is one of India's most metropolitan cities. Our research focuses on the Charminar and Musi River zones, which have experienced rapid expansion yet have been left unsupervised. A need for a Charminar Street to remain alive is that, it be well connected with Musi River and have a large city network surrounding it.

This research focuses on the above-mentioned city's spatial, economic, and cultural problems. In this sense, spatial-economic concern refers to enhancing the built environment through redeveloping open spaces and infrastructure, redefining blocks to increase market access by increasing connectivity, and appropriating land for various amenities.

This is the most prominent project in urban planning, and you will not only enhance the lives of thousands of people, but you will also infuse a feeling of ownership in all Hyderabad residents. My ambition would be for this to be one of the best and most creative urban redevelopment projects.

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ABBREVIATIONS

Greater Hyderabad Municipal Corporation (GHMC)

Hyderabad Metropolitan Development Authority (HMDA)

Hyderabad Metro Rail Ltd. (HMRL)

Hyderabad Airport Development Authority (HADA)

Information technology (IT)

Indian School of Business (ISB)

Indian Institute of Technology (IIT)

Municipal administrative and Urban Development Ministry (MA&UD)

National Highways (NH)

Outer Ring Road (ORR)

public-private partnerships (PPPs)

Real-time Air Quality Index (AQI)

Chapter 1.0 - INTRODUCTION

The word "urban revitalization" refers to a series of policies aimed at reshaping a city system that already exists, particularly in areas that have fallen out of favor due to economic or social factors. Improvements to the urban environment, such as the condition of the streets and the accessibility of the sidewalks, are common aspects of urban revitalization programs. The projects may also resolve the need for increased community involvement and occupation of public spaces, by offering new entertainment facilities such as parks and museums, depending on the planned use of the revitalized area. Several projects aim to prepare areas of the city to serve a desired economic purpose by adapting the services network to particular specifications as part of several initiatives.

A revitalized urban space combining with productive infrastructure would result in an efficient city capable of promoting innovation, a higher quality of life, and mutual prosperity and environmental sustainability. However, urban revitalization programs can be large-scale, complex in terms of implementation and execution, and necessitate technological and scope innovation.

In a variety of ways, public-private partnerships (PPPs) will aid in the implementation of urban revitalization initiatives. First, a PPP allows a project to be entirely or partially funded by the private sector, maximizing fiscal space and varying public sector expenditures over the course of the contract. In this regard, public-private partnerships (PPPs) may be a source of funding for cities to coordinate their capital expenditure.

Second, PPPs will assist municipalities in better planning. PPPs motivate municipalities to pay for whole-life expenses during the design and implementation process since they are long-term by definition. Although this

does not guarantee that costs would always be within target, PPPs do require more preparation than would otherwise be the case.

Third, and perhaps most critically, PPPs will provide street-level service delivery versatility, such as asset maintenance and operation that public sector organizations traditionally lack. PPPs make use of the private sector's capabilities to improve service quality.¹

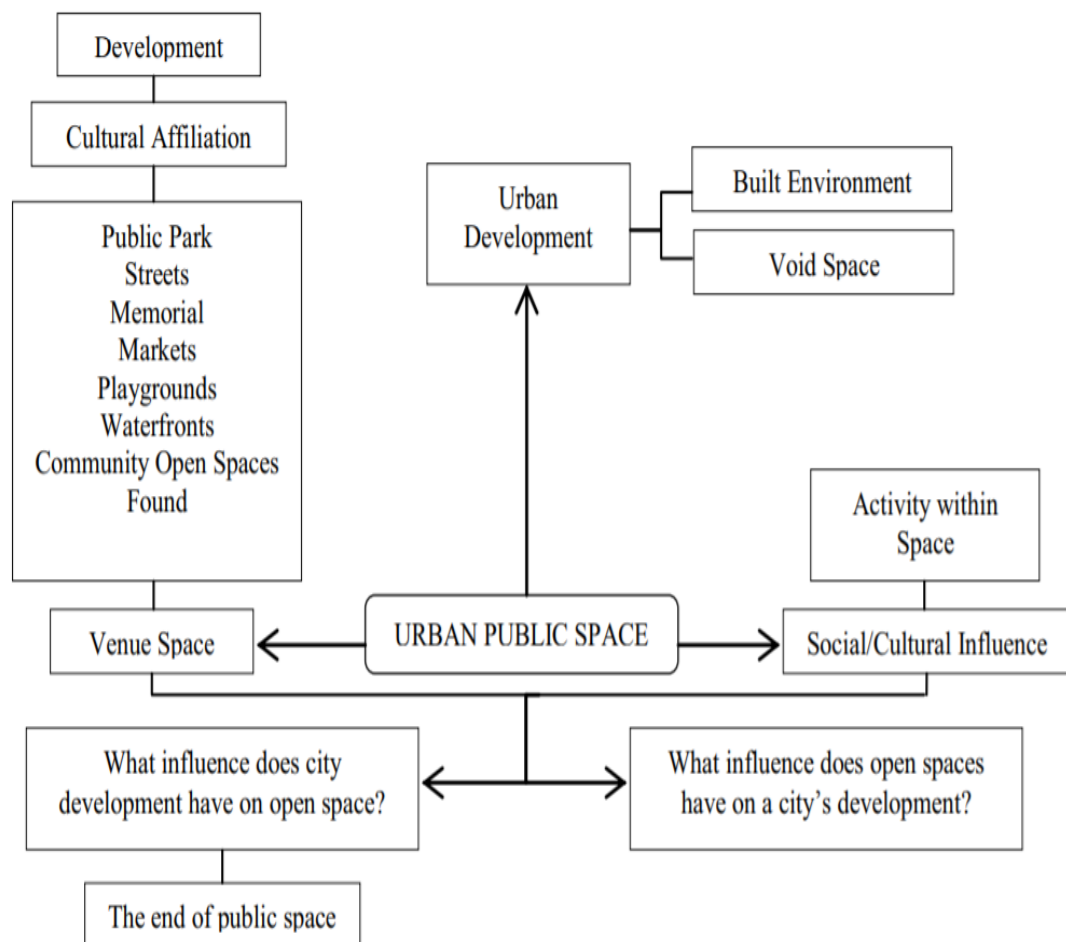


Figure 1: the relationship between urban public space and city's development

Source: Urban Revitalization | PPP Knowledge Lab

¹ Urban Revitalization | PPP Knowledge Lab

1.1 - THE PROJECT

Taking special our own cities as an example, Hyderabad, India, is experiencing numerous developmental difficulties, especially along the Charminar heritage link with the Musi River. Hyderabad, Telangana's capital, is situated on the riverbank of the Musi River and has a population of ten million people, making it India's 6th most populated metropolis. The city has a long history as a diamond and pearl trading hub. Muhammed QuliQutb Shah founded the city on the southern bank of the Musi River, which comprises the ancient city area.

The goal of our project is to link Charminar, a historic site, to the river Musi. There is Unplanned growth, pollution from cars, inappropriate road construction incongruent with its surroundings, damaged ecosystems, and depletion of biological resources summarize the main status along the roadway. There are no renovations allocated for heritage buildings, and they must correspond to historic preservation guidelines.

1.2 - AIM

The aim of the project is to revitalize the Charminar and Musi River connections. Developing public streets in Charminar and linking them to the Musi River, where we can plan public spaces such as markets, food courts, cultural and recreational spots in accordance with the study area's context, and make the Musi River and Charminar a public asset.

1.3 - OBJECTIVE

The objective is to create an interdisciplinary theoretical and methodological framework for investigating spatial identity in urban planning.

Within the context of the urban cultural landscape, the main elements of Hyderabad must be defined and analyzed.

To provide a well-equipped facility that will deliver the highest quality of living and preserving the heritage of city.

The streets from Charminar- Pathergatti -Musli River are busy streets in the city which has to be developed in all the circumstances.

To create a very user-friendly and holistic environment in which tourists and city living can feel comfortable.

My goals are sustainability and improved living standards, as well as reviving the urban hub's relevance in terms of commercial operation.

1.4 - SCOPE OF STUDY

There is vast scope of study of Charminar and Musli River being located in the core city with merely a matter of irregular growth, un - hygienic activities, traffic congestion and pollution due to un - controlled, un - authorized works.

The main study is to develop the street of Charminar towards Musli River and develop river waterfront area.

Figure 2 : Aim is to enhance the neighborhood, improve traffic flow, and lower pollution levels below Charminar - pathergatti towards the Musli River, which had to be started many years ago, and have begun to bear fruit. They, will redeem the project work after the study_Minister Akbar Owaisi remarked of the construction around Charminar. The provision of corridors to the monument, as well as the improvement of alternate routes, is a key priority and the minister also added the point that there must be general amenities separated for tourism and renovation to protect heritage preservation at the same time.

Printed from

THE TIMES OF INDIA

Hyderabad: Istanbul model for Old City with multi-level parking, hi-tech bridge



HYDERABAD: Plans to set up a multi-level parking complex in the Old City as well as development of the area around Charminar, including the Charminar Pedestrianisation Project (CPP) and the proposed suspension bridge across the Musi seem to be moving into a high gear with a group of politicians and bureaucrats inspecting the sites on Thursday.

Deputy chief minister Mohammed Mahmood Ali, three legislators of the All India Majlis-e-Ittehadul Muslimeen (AIMIM) including MIM floor leader Akbaruddin Owaisi along with MA&UD secretary Arvind Kumar and GHMC commissioner B Janardhan Reddy inspected a vacant plot of land under the Quli Qutub Shah Urban Development Authority jurisdiction for the multi-level parking project.

Figure 2: article on charminar development²

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Hyderabad: Musi river development will gain pace, says Devireddy Sudheer Reddy



TP Venu

Hans News Service | 21 Sep 2020 12:28 AM IST



Musi river development will gain pace, says Devireddy Sudheer Reddy

HIGHLIGHTS

Devireddy Sudheer Reddy, the LB Nagar MLA and Chairman of Musi River Front Development Corporation (MRFDC), is determined to restore Musiriver to its past glory

Figure 3: Article on musu development³

² Hyderabad: Istanbul model for Old City with multi-level parking, hi-tech bridge | Hyderabad News - Times of India (indiatimes.com)

³ Hyderabad: Musi river development will gain pace, says Devireddy Sudheer Reddy (thehansindia.com)

Figure3: The Center has taken over the renovation of the Musi riverside, including the development of intercept and diverting structures. While Hyderabad owes its existence to the Musi, the river, despite having lost its beauty due to urban

Growth, nonetheless serves as a reminder of the city's magnificent history. Minister further stated that the government, the proper Drainage Planning Process, has to be undertaken for the drainage implementation works and overflow water flow during in the rainy season.

Which is why the state administration is now focused on making it as beautiful as possible. The ministry of municipal urban development has given the opportunity to the local people to bring up the ideas and strategies to regain give the new life to connect the Charminar with Musi River.



Figure 4: charminar street view

Source: photo by Syed Aswan

In this figure 4 the iconic monument Charminar can be seen through one of the gateways while the pedestrians are walking down the road uncomfortably with the stalls occupying pathway area.



Figure 5: Pathargatti street towards Musi river

Source: photo by Syed Aswan

The figure 5 showing pathergatti road from Charminar to Musi River has stalls on road which are blocking the traffic flow and they have also occupied the walkway area



Figure 6: Pathergatti street

In this figure6 the street vendors can be seen walking around carrying the stock to reach customer easily creating a Blockage in flow of traffic.



Figure 7: Musi river

Source: photo by Syed Aswan

In this figure7 The musu river water is seen very contaminated with all the industrial waste dumped in it. The paved walkway provided along the river is not maintained properly.

1.5 - PROBLEM WE CONSIDERED HERE

1. Convergence of traffic.
2. Parking is inconvenient
3. Facade renovations
4. Redesigning and organizing the streetscape
5. Informal activities

6. No recreational areas
7. Pedestrian path ways
8. Pocket gardens
9. Sustainable approaches aiming to achieve:
10. Social Equity and Ethical Standards
11. Environmental quality and resource Efficiency
12. Connectivity and cost-effectiveness
13. Aesthetic and contextual impact

1.6 - ENERGY-EFFICIENT MANAGEMENT ALLOWS FOR THE USE OF RECYCLED AND RECYCLABLE MATERIALS.



Figure 8: Sustainable goals⁴

⁴ THE 17 GOALS | Sustainable Development (un.org)

I intended to develop my site area using this sustainable development goals technique which I have highlighted.

1. Ecological mobility on site
2. Public lighting that saves energy
3. Do something for the minimum of local facilities.
4. Preserve the nature on the site.
5. Recycle and reuse water
6. Reducing traffic noise in the surroundings.
7. An integrated strategy for long-term drainage system....

1.7 - METHODOLOGY

Based on the background studies and inputs from various stakeholder consultations indicators would be evolve in order to appraise urban development Schemes for Hyderabad city taken for the study.

Indicators may include the following:

1. Indicators for elements such as land allocation, open spaces, street spaces, infrastructure growth, and so on.
2. Indicators of development and management.
3. Does the urban planning scheme benefit the general population and the urban poor?
4. Development of Musi river water front development for publicly accessible.

After analyzing current scenarios and learning from case studies, the study will conclude with the question of whether any new development model,

application, or approach should be adopted to improve the implementation of urban development schemes, resulted in a more livable urban form.

1.8 - LIMITATION

The major limitation encountered was the difficulty of getting some vital information from some local's public and local government at the existing areas of study.

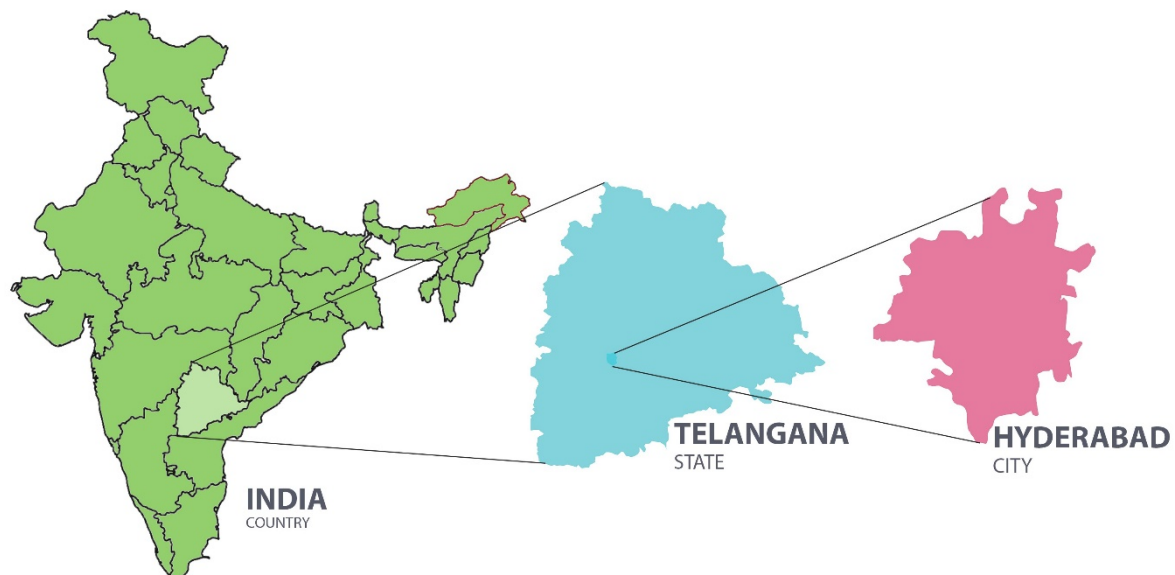
The study is focused on qualitative studies. (hyderabad study, interviews with experts, stakeholder consultations, etc.) Because of time constrain. This thesis mainly focuses on the connection between Charminar and Musi river on selected stretch.

Chapter 2.0 – HYDERABAD STUDY

2.1 - BRIEF ABOUT HYDERABAD CITY

Hyderabad is the state capital of Telangana, a State in India. The capital has an estimate population of approximately 10 million people, making it the 6th biggest city in India. The city is religious and multi-cultural, with Hinduism, Muslim people, and Christianity coexisting. Both physically and culturally, Hyderabad is recognized for its great heritage, cuisine, and multi-lingual culture. Mohamed kutub Qutb Shah, the sixth Qutb Shah ruler, founded the city in 1591.

Hyderabad's ancient city was established on the banks of the Musi River. It is currently known as the ancient old city, and it is located on the river's southern bank. It is home to the Charminar monument and many other heritage structures. The connection between Charminar and Musi is very important for Hyderabad people at the current time.



maps 1 Location of Hyderabad City

Source: illustration by Syed Aswan

Table 1 census according to 2020

census according to 2020	country India	state Telangana	city Hyderabad
population	1.4 billion	35 million	10 million
world rank	2		34
surface area	3.287 million km ²	112,077 Sq. Kms.	650 sq. kms
urban population	35%	38.12%	–
rural population	65%	61.88%	–

Source: census according to 2020⁵

India is by region the seventh biggest nation in the world and has a huge population of its size. The population of India in 2021 is about 1.4 billion approximately. India accounts for 17.7% of the total population worldwide. Split the numbers There is a vast population in India. You can see that there are many large cities. As you can see from the census table, ranking 2 among the globe's population and coming to Hyderabad, it is 34 in the world. Most families still live in rural regions to this date. The population is 35.0 percent urban.

Indians continue to rise steadily throughout the years. The population is growing faster than the Chinese population in particular. India will overtake China as the world's most populous country by 2024; however, growth in the second half of the twenty-first century is expected to plateau and then decline, as it has in the first.

⁵ India Demographics 2020 (Population, Age, Sex, Trends) - Worldometer (worldometers.info)

2.2 - HYDERABAD LOCATION AND REGION

For the next ten years, up to 2024, Hyderabad will serve as the joint capital of Telangana and Andhra Pradesh. Except for Hyderabad, which led to the foundation of Telangana, the region is one of Telangana's backward regions. The city of Hyderabad is crossed by two national highways. The national highway 44 connects Srinagar and Delhi, linking north and south India.

The national highway 65 connected pune (formerly Mumbai) to the eastern port of Machilipatnam. Hyderabad is very well connected to the rest of the country via train. The new airport, which opened in 2007, provided excellent global air connectivity. Due to its good links and growing transport corridor, Hyderabad flourished along the highways of nh44 and nh65, and the new terminal is also located along nh44.

As a result, many industrial areas have sprouted up along this stretch of land. The development of Orr, on the other hand, is currently leading to the expansion of Hyderabad in all directions.⁶

2.3 - CULTURE

The city of Hyderabad, located in the "North and South," has long been a crossroads for people of many cultures and traditions. This is the finest illustration of how India's multicultural plurality can be encapsulated. Hyderabad, located on the Hyderabad Plateau's plateau, serves as a crossroads between India's north and south. As a result, it's no surprise that the region has earned the nickname "little India" in the tehzeeb of Ganga Jamuna branch and the capital, Hyderabad.

⁶ Telangana State Portal State-Profile

Hyderabad's culture has been shaped by the region's topography and the government business. The province's historically dominating, Satavahana lay the foundations of a self-sufficient, sovereign creation of employment, whose effects may be felt today. Between both the 11th and 14th centuries, the Preservation and development was done by many rulers in Hyderabad who subsequently ruled it and established the region's culture and traditional city.



Figure 9 Charminar

photo credit : **Akhila Katuri**⁷

⁷ Charminar Pictures | Download Free Images on Unsplash

2.4 - ART

Some classical art genres had royal support and attained exceptional skill levels. However, the art forms of the city's numerous cultures have given Hyderabad a distinct character. And although kingdom's standard resulted in the transformation of dance forms such as Perini, also recognised as "Warrior Dance," the common folk expected to face challenging situations, implemented a tradition of story - telling, and found solutions to these challenges through the ' official Suddulu Scheme and Gotralu, among other things. Numerous art forms, including the above mentioned mixed forms and traditional models, emerge. One of these developed and mixed art forms is the popular "Dhoom Dham." Usually, it is about struggle. People recreated the traditional sense of drama and art, adapting the material to the situation and place.⁸

2.5 - INTRODUCTION TO THE HYDERABAD CITY

Hyderabad, the state capital of Telangana, is a historic and beautiful city. The city is renowned as "Pearl City," and its glittering pearls and glass-encrusted bangles and diamonds are well-known in the city. The city has a roughly 400-year history and was ruled by the Qutub Shahis. Bhagyanagar, the capital, was called after a royal lover, Bhagyamati, who eventually became Hyder Mahal as the bride of Quli Qutub Shah, and so Hyderabad was created. Muhammad Quli Qutb Shah established Hyderabad in 1591-92 on the banks of the Musi River, five miles east of Golconda⁹, the capital of the Qutub Shahi kings. The Qutb Shahi dynasty established the Kingdom of Golconda, one of the five

⁸ Telangana State Portal Language & Culture

⁹ Golconda Fort | Hyderabad District, Government of Telangana | India The golconda fort was where the kohinoor diamond was discovered, which is why Hyderabad is renowned as the city of diamonds and pearls.

kingdoms that arose following the dissolution of the Bahamani Kingdom. For over 170 years, the Qutb Shah controlled the Deccan. All seven kings were outstanding builders and supporters of study. They helped to create and promote Indo-Persian and Indo-Islamic literature and culture in Hyderabad. During the reign of Qutb Shahi, Golconda became one of the world's major marketplaces for gems, pearls, steel for guns, and printed cloth. The greatness of the Golconda kingdom ended in 1687, when Aurangzeb, the last great Mughal emperor, conquered Golconda from the last king of Golconda, Abul Hasan Tana Shah. Aurangzeb succeeded in expanding the Mughal Empire to encompass the whole subcontinent with the conquest of the Deccan and the South. Moreover, upon his death in 1707, the Empire began to collapse fast. Mir Quamaruddin, the Governor of the Deccan at the time, He was known as Nizam-ul-Mulk Feroze Jung In 1724, Asif Jah proclaimed independence from Mughal control. As a result, he became the first Nizam and established the Asif Jahi dynasty.

Nizam Ali Khan Asif Jah II moved the capital from Aurangabad (established by Mughal emperors) to Hyderabad in 1769. The Asif Jahi dynasty's seven Nizams governed the Deccan for approximately 224 years, until 1948. Persian, Urdu, Telugu, and Marathi evolved concurrently during the Asif Jahi era. Up until 1893, Persian was the official language, followed by Urdu until 1948.

When the British and French took over the nation, the Nizam quickly earned their favour without relinquishing his control. Hyderabad grew culturally and economically during the tenure of the seven Nizams. Under the Nizams, Hyderabad became India's greatest princely state. Hyderabad Province united with the Union of India shortly after India's independence. On November 1, 1956, India's map was reorganised into geographic divisions, and Hyderabad was designated as the capital of Andhra Pradesh.

2.6 - DEMAND OF SEPARATE START OF TELANGANA STATE WITH HYDERABAD CAPITAL IN INDIA

Citizens in the Telangana area of Hyderabad city began mobilising in order to enforce an independent identity. The Indian government established the States Reorganization Commission in 1953 to investigate different statehood claims across the nation. However, significant lobbying by Andhra state authorities in New Delhi resulted in the merging of two states.

Since the mid-1990s, the citizens of Hyderabad have been gathering under various groups in order to seek a separate nation of Telangana. Sri Kalvakuntla Chandrashekar Rao , the Speaker of the Andhra Pradesh State Assembly at the time, began preliminary work in early 2000. KCR announced the establishment of the party around May, 2001, following extensive conversations and debates with several intellectuals.

On November 29th, 2009, KCR declared an indefinite hunger strike in support of Telangana's statehood. However, after way, he was apprehended by state police and then sent to sub-jail. The initiative grew like wildfire, with pupils, employees, and community organisations joining in. The whole Telangana area came to a halt during the following ten days.

The state administration, led by Sri K Rosaiah, had scheduled an all-party meeting for December 7th. TDP and PRP leaders agreed to back a Telangana statehood proposal if it was introduced in the state Legislature.¹⁰

¹⁰ Telangana State Portal History

2.7 - FORMATION OF A STATE

After four years of peaceful and effective demonstrations, the UPA administration launched the independence process in July 2013 and completed it in February 2014 by approving the independence bill in both chambers of National assembly.

Telangana Rashtra Samithi (trs) won 63 of the 119 seats in the April 2014 national elections, becoming the administration. Sri K Chandrashekar Rao was inaugurated in as Telangana's first Chief Minister. Telangana was formally inaugurated on June 2, 2014.

Hyderabad is the capital of Telangana, one of India's most technologically advanced states. Bhagya nagar was the city's previous name. Because of the large pearl trade in this region of the nation, the city is also known as the "City of Pearls." The commerce of rare diamond, gemstones, and natural pearls is centered on the once-thriving city of pearls across the world.

This area is well-developed in every manner because it is home to the state capital. The administration chose to reorganise the state's lower level governmental schedule as part of a larger strategy to bring the government to the people's doorstep to address their problems and elevate them. Revenue Tehsils were created as a consequence.

Hyderabad Municipality¹¹ is a Telangana city that is part of the Hyderabad Metropolitan Capital City Region. It is the state's smallest district in terms of area, yet it has the highest population density. It now includes a new city north of the Musi River that has grown far beyond the original fenced city limits, a fast expanding high-tech estate known as secunrabad army cantonment

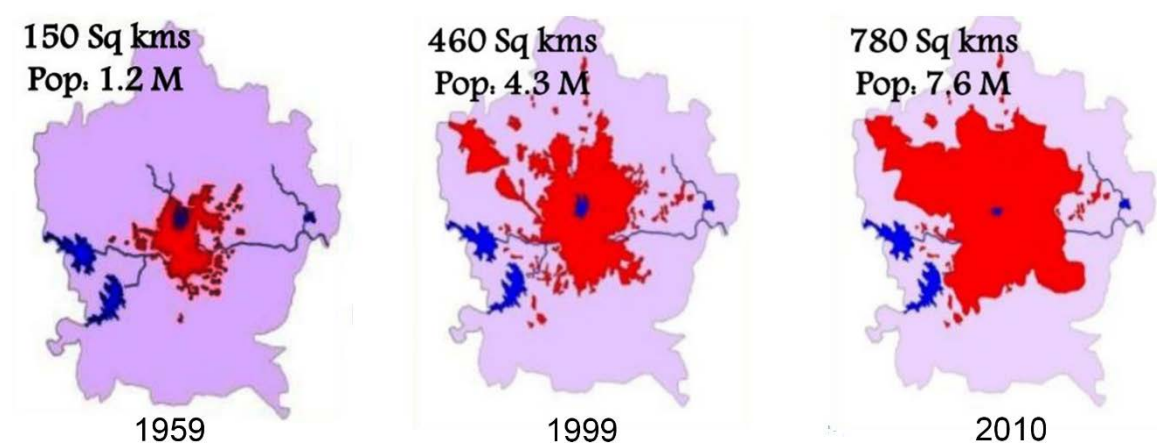
¹² Telangana State Portal History

¹¹ Welcome to GHMC greater hyderabad muncipal cooperation

"Cyberabad," and it now introduces a large city north of the Musi River that has grown far beyond the original fenced city limits.¹⁰

2.8 - DEMOGRAPHY

In the post-independence period, Hyderabad grew along the banks of the Musi River, spreading north across the stream. Greater Hyderabad is an all-encompassing metropolitan area that surrounds the city. The Outer Ring Road is a high-speed motorway that surrounds the urban area.



maps 2 Hyderabad demography

Source: illustration by Syed Aswan

With a population of 10 million people, Hyderabad is one of India's fastest growing cities. Despite the fact that population growth is faster in the Greater Hyderabad area, three-quarters of the metro population that lives inside the municipality region. Hyderabad's population is phonologically and socially diverse, and the city's burgeoning assistance economy attracts high-skilled visitors from all around India. Slum settlements, which are distributed around the city, house around 30% of the city's population. Slum residents lack access

to basic infrastructure, services, and amenities, such as clean water and sanitation, as well as parks and gardens.¹²

Table 2 hyderabad population and area

HYDERABAD	Hyderabad (2020)	Hyderabad City(2031)
Population	10 million	18.5 million approx.
Area	650 sq km	5965 sq. km
Rank	6 (India)	34 (World)

Source: hyderabad population and area¹³

Hyderabad is India's most populated city and the capital of Telangana state. In India, the city presently has a population of 10 million people. The city's population continues to expand at an alarming rate. Hyderabad provides a higher quality of life for all sectors of Telangana's economic system, encouraging more individuals to stay here permanently. The city's population is expected to reach 13 million by 2031. The metropolis, which has a population of 10 million people, is seeing rapid population expansion as a result of contemporary lifestyles, higher education, and employment possibilities. Hyderabad is a great illustration of India's contemporary technological progress.

The slum population of Hyderabad is 1.7 million people. This slum population is spread around the city in 1,476 slums. The literacy rate in these slums ranges from 60% to 80%, with women having a considerably lower literacy rate than

¹² Hyderabad (Greater Hyderabad) City Population Census 2011-2021 | Andhra Pradesh

¹³ Hyderabad Population 2021- Current Population of Hyderabad City (indiaonlinepages.com)

men. The government has built approximately 600 schools to educate the children who live in these slums.

Table 3 india largest cities

s.no	CITY NAME	POPULATION
1	Delhi	31.5 million
2	Mumbai	20.6 million
3	Kolkata	14.9 million
4	Bengaluru	12.7 million
5	Chennai	11.2 million
6	Hyderabad	10 million
7	Ahmedabad	8.2 million
8	Pune	6.8 million

Source: india largest cities⁵

Delhi, India's most populous city, with a population of 31.5 million people, followed by Mumbai, which has a population of over 20.6 million people. In all, India has more than 50 urban centres with populations of over one million people. Delhi is India's capital. People were migrating to Delhi, India's first most populated metropolis. Delhi is growing at a faster rate than any other metropolis, and it is expected that it will overtake mumbai to become Asia's largest city within a decade.

Hyderabad has struggled to keep up with the city's rapid expansion. Hyderabad has worked hard to become one of India's greatest places to live in. After Delhi, it boasts the world's second-largest metro train system.

Table 4 religious table

Religion	Persons	Percentage	Males	Females
Hindu	4,540,841	64.93	2,324,389	2,216,452
Muslim	2,107,047	30.13	1,081,026	1,026,021
Christian	192,660	2.75	95,814	96,846
Sikh	17,303	0.25	9,117	8,186
Buddhist	2,451	0.04	1,319	1,132
Jain	20,480	0.29	10,458	10,022
Others	3,137	0.04	1,629	1,508
Not Stated	109,343	1.56	52,888	56,455

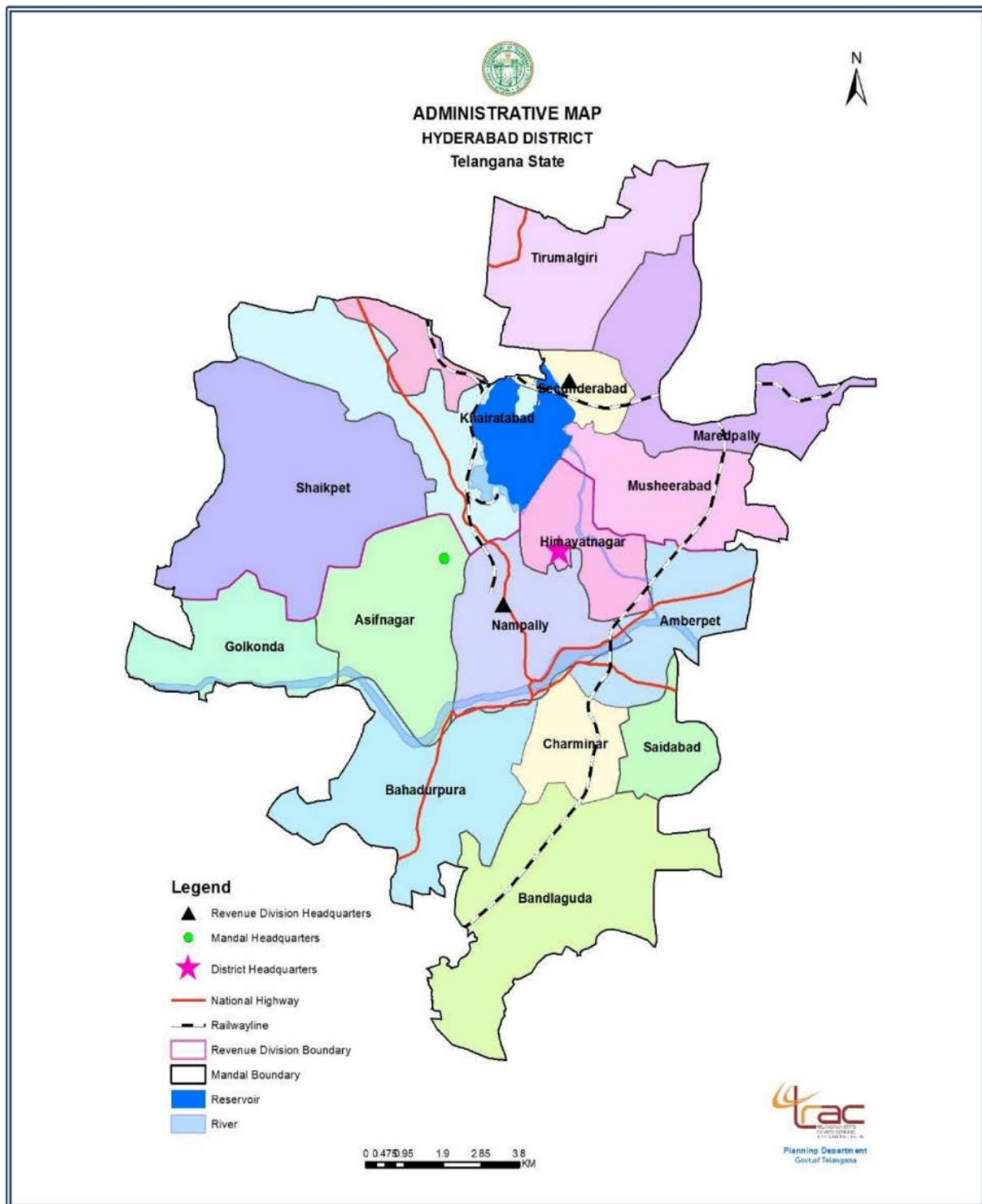
Source: figures of religious table¹⁴

Hindus account up the bulk of the population, followed by Muslims and Jains. The bulk of Muslims reside in and around Hyderabad's ancient city. Apart from Hindi and English, Telugu and Urdu are two commonly spoken languages in Hyderabad. Other languages spoken in Hyderabad include Marathi and gujarati.

2.9 - HYDERABAD ADMINISTRATIVE MAP

The National Highway, Major Roads, District Headquarter, and other landmarks in Hyderabad are shown on the Hyderabad District Map. The admistrative map of Hyderabad depicts the many zones, each of which is labelled with its own unique name.

¹⁴ Hyderabad Population (2020/2021) (populationu.com)



maps 3 Hyderabad Administrative Map.

Source: Map of District | Hyderabad District, Government of Telangana | India

As you can see map3, the Charminar region plays a significant role in Hyderabad, as it is the city's and India's oldest neighbourhood. The charminar zone is traversed by the national highway, railway line, and the Musi River

Table 5 hyderabad city area divisions adminstrative units

s.no	parameters	Hyderabad
1	Geographical Area (Sq. Kms.)	650 sq. kms
	administrative units	
a	revenue villages	67
b	revenue divisions	2
c	municipality	1
d	Revenue Mandal's	16

Source; hyderabad city area divisions adminstrative units¹⁵

The Collectorates play an essential role in the administration of the District. The District is led by an I.A.S Cadre Collector. He is the Jurisdiction Magistrate in charge of keeping the peace in his district. Hyderabad's planning and development in all areas.

The Municipality is divided into two sub-districts for administrative reasons. A revenue division manager heads a department as a deputy collector. He's the division's Post Administrator. A Tahsildar official helps in management. The sub - district offices are a replica of the collectorate with regard to the number of sectors, and they act as an intermediary in the administrative system.¹⁶

¹⁵ HYDERABAD.xlsx (s3waas.gov.in)

¹⁶ Administrative Setup | Hyderabad District, Government of Telangana | India

2.10 - HYDERABAD MASTER PLAN 2031

The Hyderabad Master Plan 2031 was created to give a vision and environmental rules for growth and construction activities in Telangana's Hyderabad Metropolitan Region. It anticipates a population of 185 lakhs by 2031, and 5965 square kilometers of land are allotted under the projected land usage by 2031 in the Hyderabad Metropolitan Region.

The HMDA Master Plan 2031, proposed in the Hyderabad City Area, proposes a radial-concentric development structure in all directions with urban endpoints and major cities, in order that balance should be promoted in the Hyderabad City Area and throughout the urban area within Peri Cosmopolitan Zone.¹⁷

Hyderabad 2031 is guided by seven principles taken from global planning theoretical and practical aspects.¹⁸

The numerous nucleus idea, rural-urban continuity, transportation growth, rapid urban border, peri-urban growth, social facilities, and environmentally sustainable development are the key core principles.

Knowing the Hyderabad 2031 plan's core principles will help you realize how the Hyderabad Metropolitan Development Authority is regulating the city's sustainable growth.

- multiple nuclei idea is presented as a way to disperse the load from the core over a region. In terms of the urban core, Hyderabad 2031 outlines how well

¹⁷ Hyderabad HMDA Masterplan 2031 | Key Features & Free Download (housing.com)

¹⁸ (PDF) The Urban Morphology of Hyderabad, India: A Historical Geographic Analysis (researchgate.net)

these nodes would work. The objective is for these nodes to specialise in certain economic activities.

- The urban-rural continuity refers to the progressive shift in urban development intensity from the city centre to the suburbs. In Hyderabad 2031, three stages of change are planned. As the population grows, so does the need for products, transportation improvements, and increasing knowledge of and connection with the city.
- Domestic income rises as a result of more private companies and public transportation, resulting in better-furnished dwellings. Agriculture will gradually go away, and the town's way of life will become increasingly urban. The town will be developed into residential communities or industry locations by property investors.
- An urban border is a patch of property with development-friendly regulations and infrastructure. Its goal is to promote and synchronise urban expansion while conserving open area, farmland, and ecologically friendly growth. It's also known as a service border. The Municipality Council has established the urban boundaries.
- The goal of peri-urban development is to include the peripheral into urban planning. The goal of Hyderabad 2031 is to preserve rural livelihoods while also meeting the requirements of both urban and rural inhabitants. Agricultural growth is incorporated into the city area through the promotion of agricultural activities circles.
- According with Ministry of Urban Development's regulations, social amenities have been proposed. The sorts of community facilities that town, Municipality, region, and state and local governments are expected to prepare for their basic necessities are regulated by the national government for each category of town, urban.
- Residences, industrial, and agricultural zones have all been segregated. To protect communities from noise and air pollution, current corridors must be built with a green buffer. The city has also devised a strategy for sustaining

a global IT centre through the establishment of nodes for specialised industrial zones and rural agriculture needs.

2.10.1 - HYDERABAD INFRASTRUCTURE DEVELOPMENT – 2031

The Hyderabad government aims to revise the Hyderabad master plan and begin road construction in accordance with the updated plan in order to make Hyderabad, one of Asia's fastest-growing cities, a traffic-free metropolis.

This has been beneficial, since the city has been recognised as one of India's fastest-growing cities.

Because of its extraordinary expansion in both residential and business areas, Hyderabad is clearly one of India's most promising residential and commercial centres.

Despite a general downturn in India's commercial and residential sectors, the city of Nizams has stood out, even in the Coronavirus-affected year 2020.

It's crucial to analyse the major elements of the Hyderabad master plan since it serves as a roadmap for the city's entire growth.

2031 Master Plan for Hyderabad: Area Covered The plan encompasses approximately 5,965 square kilometers and includes the following elements:

The Outer Ring Road Growth Route encompasses the following areas.

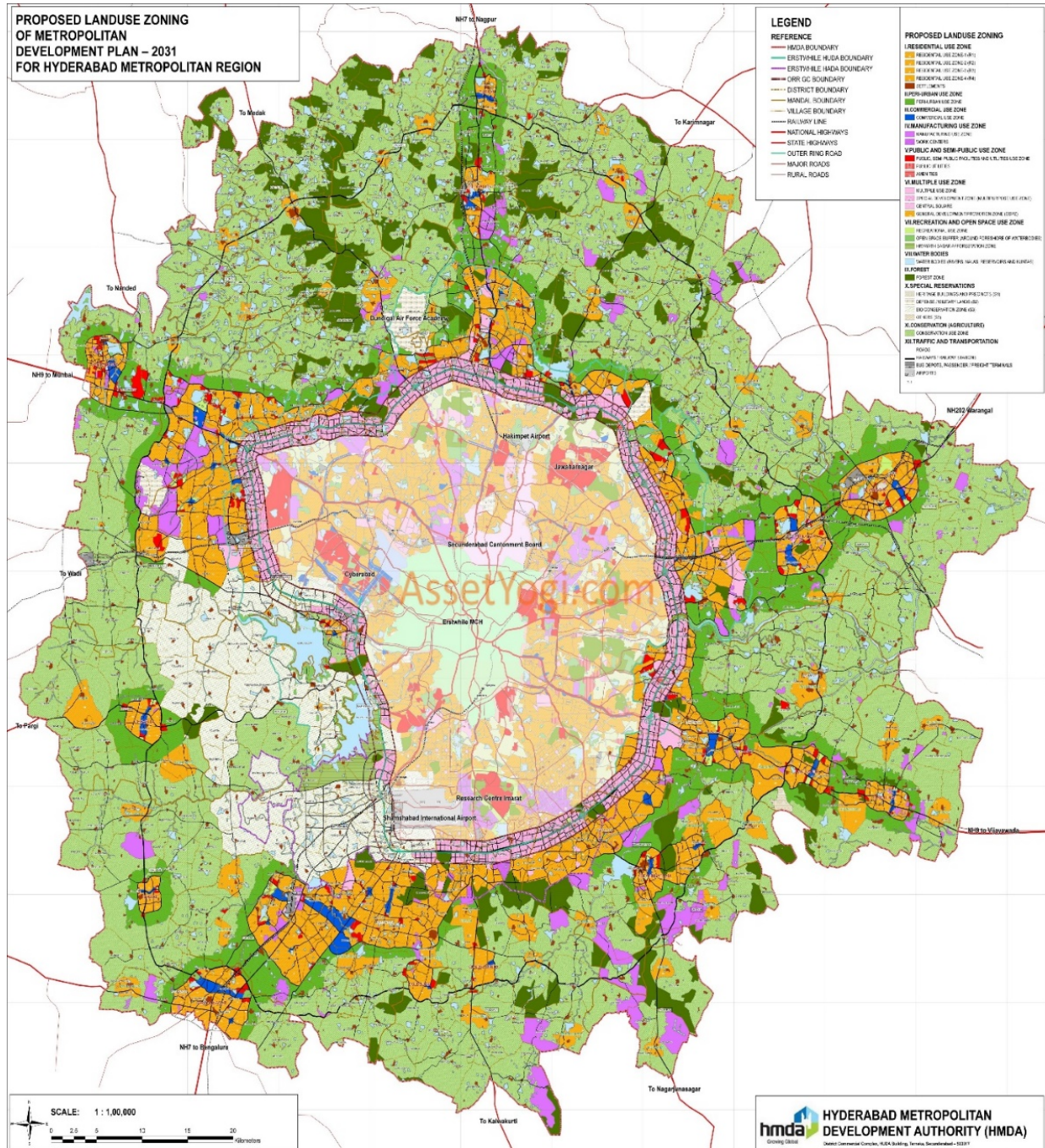
Outside the Outer Ring Road Facility, areas covered by part of the former HUDA region.

Beyond the Outer Ring Road Facility, areas covered under the Hyderabad Airport Development Authority (HADA) national strategy.

Role of master plan at Charminar for 2031

Since this Charminar zone is a residential and commercial hub for the city, it must be developed and given top priority, as outlined in the master plan for 2031, which includes heritage culture refurbishments and road connection

development. As of now, in 2021, the ministry of development is focusing on public policy issues and boosting tourism. Musi riverside development is required to give Charminar a new lease of life and to improve the quality of life for the inhabitants of Hyderabad¹⁷



.HYDERABAD MASTERPLAN 2031

maps 4 Hyderabad Master Plan 2031

Source: hmda-master-plan-2031-hyderabad-map.jpg (4320×4032) (assetyogi.com)

2.11 - HISTORICAL DEVELOPMENT OF HYDERABAD

A city with a rich history and beautiful historical structures is increasingly becoming home to the most recent constructions, which are a blend of the former domains and the modern corporate insurgency. To bolster Hyderabad's turnaround, then-Andhra Pradesh Chief Minister Chandrababu Naidu successfully pushed for the National Games in 2002 and the Afro Asian Games in 2003, as well as a strong bid to build a Formula One circuit in the state. These endeavors aided in the development of a lucrative gaming foundation in Hyderabad. The Indian School of Business (ISB) and the Indian Institute of Technology (IIT) were both established in a similar project to assist modern education. Hyderabad and other civil elements that surround it make up the upcoming metropolitan agglomeration, which spans more than 650 square kilometers. In 2021, the city's population is expected to exceed 136 lakhs.

As development accelerated at the end of the 1990s, the old city began to fade and the more modern periphery districts began to emerge. By 2001, the city has risen to the 6th largest metropolitan agglomeration in India, with a 32 percent increase in the prior decade.

Land created on the outskirts of Hyderabad has been used to expand the scope of the Cybercity. The actual city is on its way to being a pioneer in e-government. In the next twenty years, it is predicted that Hyderabad would be anything except a major data-driven society. ¹⁹

Industrial development has resulted in an increase in land costs, as well as a surge in interest in foundation improvement. In this vein, the Municipal

¹⁹ Hyderabad IT Industry : Hyderabad, Andhra Pradesh, India

Corporation of Hyderabad region has accrued business development, despite the city's strain on private development.



Figure 10 Hyderabad City Cyber Tower

Source: [cyber towers](#) - Google Search

2.12 - GROWTH IN TECHNOLOGY

Telangana has been establishing itself as a top-tier IT state since the 1990s, and Hyderabad City has capitalized on this by attracting investment from companies such as IBM, Oracle, and Microsoft. Many IT companies have enrolled at the Hyderabad Technology Park when slots become available. The purpose of this complex special programmed was to bring together the correct number of organizations to create a minimal amount of money for the city to become a reducing city that could compete with Tech Companies and Malaysia's Media Production Super Corridor.

Even during 1990s, the government launched a number of initiatives aimed at advancing the IT sector. These included the building of IT training facilities, e-

government initiatives, the development of a Hi-Tech city, and the promotion of the Software Technology Park as a preferred destination for private sector firms. Steps were gradually pushed to allow for the development of a Hardware Park, the creation of a Research Park, and the establishment of a monetary area. The government began putting resources into the biotechnology sector, and a Biotech Park was offered as a beginning step toward making the district distinct.²⁰

Hyderabad: State-Led Ambitious Policies

- In hyderabad constituency, led by Chandra Bab Naidu, developed a regional growth plan in the late 1990s, giving Hyderabad and other state metropolitan centres a strategic place.
- Restructure the regional economy and rethink national government.
- Growth drivers have been found across all industries, but the government's priority is clearly infrastructural development and economic growth companies like IT and pharmaceutical drugs.
- In addition to concentrating on expansion, the state government conducted a number of far-reaching reforms at the Hyderabad Municipal Corporation (MCH) in the late 1990s with the goal of enhancing the firms' efficiency and financial health.
- An intensive beautification effort focusing on cleanliness, greening, road widening, and rigorous traffic control is another component of the multi-pronged approach to make Hyderabad a "world-class metropolis."²¹

²⁰ Hyderabad IT Industry : Hyderabad, Andhra Pradesh, India

²¹ The Shift to City-Centric Growth Strategies: Perspectives from Hyderabad and Mumbai on JSTOR

2.13 - HYDERABAD TOURISM

Telangana's government has begun to focus on the travel industry, having recognized the biotech sector's enormous potential. The city is being aggressively advertised to both Indians and non-Indians, and it is being promoted to become a major vacationer destination based on its location and traditional features. Because of its public status, it is everything from a major crossroads between European countries and the Middle East. According to the express's tourism industry strategy, by 2020, Telangana was expected to "be a major travel industry goal in India, attracting over 2.5 million international sightseers and about 70 million domestic tourists.

Along with established buildings and services, the city nevertheless retains cultural that can't be found anyplace else. The city of Hyderabad still maintains a number of monuments that honour the city's rich history and impact on people's lives. With a 400-year heritage, Hyderabad has seen a variety of inheritances that have resulted in a distinct mixture of historical experiences that are a mix of traditional customs. It is a synthesis of Indian Persian and Indian Islamic languages and society.

Previously, the city of Hyderabad has been ruled by a number of different kings. Numerous monuments and historic structures, as well as historical traditions and person's livelihoods, provide insight into Hyderabad's history. Golconda Fort, Charminar, the tombs of the famous King Qutb Shahi, Chowmahalla Mansion, and Taramati Baradari, as well as museum like the Salar Jung Museum and the Telangana State Archaeological Museum, immerse visitors in Hyderabad's history. ²²

²² History of Hyderabad - Hyderabad Tourism 2021 telangana tourism

2.14 - HYDERABAD INFRASTRUCTURE

2.14.1 - Progressing Infrastructure Development

In response to recent events, the city of Hyderabad has begun to establish a foundation to assist it. The development of the foundation is focused on extremely important areas such as streets, flyovers, and the cityscape, as well as enhancing water supplies. The Hyderabad development plan has seen eight major projects completed since its inception in 2007. The Rajiv Gandhi Circle, Green Lands Junction, and Chandrayangutta flyovers have all been completed. The rerouting of Krishna water to Secunderabad, the construction of additional storerooms, and the completion of the Krishna Drinking Water Supply Project Phase II have all enhanced the water supply.²³

2.14.2 - Supporting Infrastructure Development

The Government of Telangana has started the advancement of the Hyderabad Growth Corridor Limited, focusing on the beautification of traffic islands on Outer Ring Road Project" in Hyderabad City.

Where network is concerned, one of the striking tasks is the Nehru Outer Ring Road or ORR of Hyderabad, which is an eight-path ring street interstate with a border of one hundred and 58 kilometers.

The street has been intended to permit vehicles to go at higher velocities and has immeasurably improved network and decreased gridlock in the blood vessel streets of the Greater Hyderabad Region.

²³ The Rise of Hyderabad - Development & Infrastructure | Housing News

2.15 - CLIMATE ANALYSIS

Hyderabad has a tropical climate with the both wet and dry seasons, as well as a hot semi-arid environment. Hyderabad, like the rest of India, has three seasons: summer, winters, and rainy season. The average annual temperature in Hyderabad is 26.6 degrees Celsius. Summers are often hot, with temperatures exceeding 40 ° C, while temperatures can drop as low as 10 ° C in Early December. The south west summer monsoon brings heavy rains between June and September. The wind is blowing from the south west to the north east.²⁴

The climate of Hyderabad is locally steppe. There is minimal precipitation over the whole year in Hyderabad. The average temperature is 25.9 °C here. The precipitation is 745 mm in one year.

Hyderabad average temperature

See in thee table 5; The hot season lasts for 3 months, from the 31st of March to the 31st of June. The heat of the year is 13 May at an average 38°C high and 27°C low.

The chilly season lasts 4 months and the average daily maximum temperatures are under 30°C from 19 October and 30. It is 22 December, the coldest day of the year with an average 16°C and 27°C.

The difference is 159 mm | 6 inches between the driest and wettest months. The average temperature over the year varies by 10.2 °C | 18.4 °F.

²⁴ Hyderabad climate: Average Temperature, weather by month, Hyderabad weather averages - Climate-Data.org

Table 6: Hyderabad weather by month // weather average

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	22.2 °C (72) °F	24.9 °C (76.9) °F	28.2 °C (82.7) °F	30.7 °C (87.3) °F	32 °C (89.7) °F	27.9 °C (82.3) °F	25.6 °C (78) °F	24.9 °C (76.8) °F	25 °C (77) °F	24.7 °C (76.4) °F	23.2 °C (73.7) °F	21.8 °C (71.3) °F
Min. Temperature °C (°F)	16 °C (60.8) °F	18.4 °C (65.1) °F	21.4 °C (70.5) °F	24.4 °C (76) °F	26.6 °C (79.8) °F	24.3 °C (75.8) °F	22.9 °C (73.2) °F	22.4 °C (72.3) °F	22.1 °C (71.7) °F	20.6 °C (69) °F	18 °C (64.3) °F	15.9 °C (60.7) °F
Max. Temperature °C (°F)	28.6 °C (83.4) °F	31.4 °C (88.5) °F	34.6 °C (94.3) °F	36.9 °C (98.4) °F	37.8 °C (100) °F	32.3 °C (90.1) °F	28.9 °C (84) °F	28.1 °C (82.5) °F	28.7 °C (83.7) °F	29.3 °C (84.7) °F	28.6 °C (83.4) °F	27.9 °C (82.3) °F
Precipitation / Rainfall mm (in)	7 (0.3)	3 (0.1)	10 (0.4)	19 (0.7)	27 (1.1)	101 (4)	159 (6.3)	162 (6.4)	129 (5.1)	98 (3.9)	26 (1)	4 (0.2)
Humidity(%)	50%	43%	37%	38%	37%	62%	74%	77%	78%	69%	59%	53%
Rainy days (d)	1	1	1	3	4	10	13	13	11	9	3	1
avg. Sun hours (hours)	9.3	9.9	10.6	11.1	11.4	9.6	8.1	7.7	7.9	8.6	8.7	9.0

Between the driest and wettest months, the difference in precipitation is 159 mm | 6 inch. During the year, the average temperatures vary by 10.2 °C | 18.4 °F.

Source: [Hyderabad climate: Average Temperature, weather by month, Hyderabad weather averages - Climate-Data.org](https://climate-data.org/hyderabad-weather-averages)

September is the month with the greatest relative moisture (77.78 percent). The lowest relative moisture month is March (36.74 percent).

July is the month with the greatest rainy days (16.93 days). February is the month with the lowest rainy days (0.93 days).

Hyderabad is midway during the summer and is so easy to describe.

The ideal visit time to visited is in January, February, March, June, July and August.²⁴

2.16 - POLLUTION

As per the IQAir website, Hyderabad was ranked 249 in 2019 with an average number of 39 g/m³. (India's 68th most polluted city). A major improvement from the previous year's result of 44.2 g/m³, which was an improvement over previous year's number of 51 g/m³.²⁵

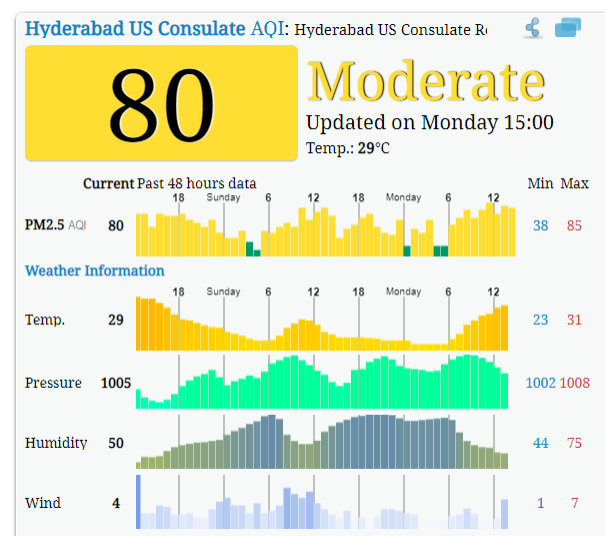


chart 1 : Hyderabad Temperature Analysis

Source: [Hyderabad US Consulate, India Air Pollution: Real-time Air Quality Index \(aqicn.org\)](https://aqicn.org/)

²⁵ Hyderabad US Consulate, India Air Pollution: Real-time Air Quality Index (aqicn.org)

CARBON EMISSION

Meteorology is significant because it has a direct impact on the amount of pollution in the air. The city's emissions will be swept away and have no effect on the concentration during periods of severe rains or strong winds. In the winter, however, whenever the temperature and barrier height are both low, emissions have a bigger impact on air pollution. Low temperatures have an impact on performance because they heat the area and water, which increase emissions.²⁶

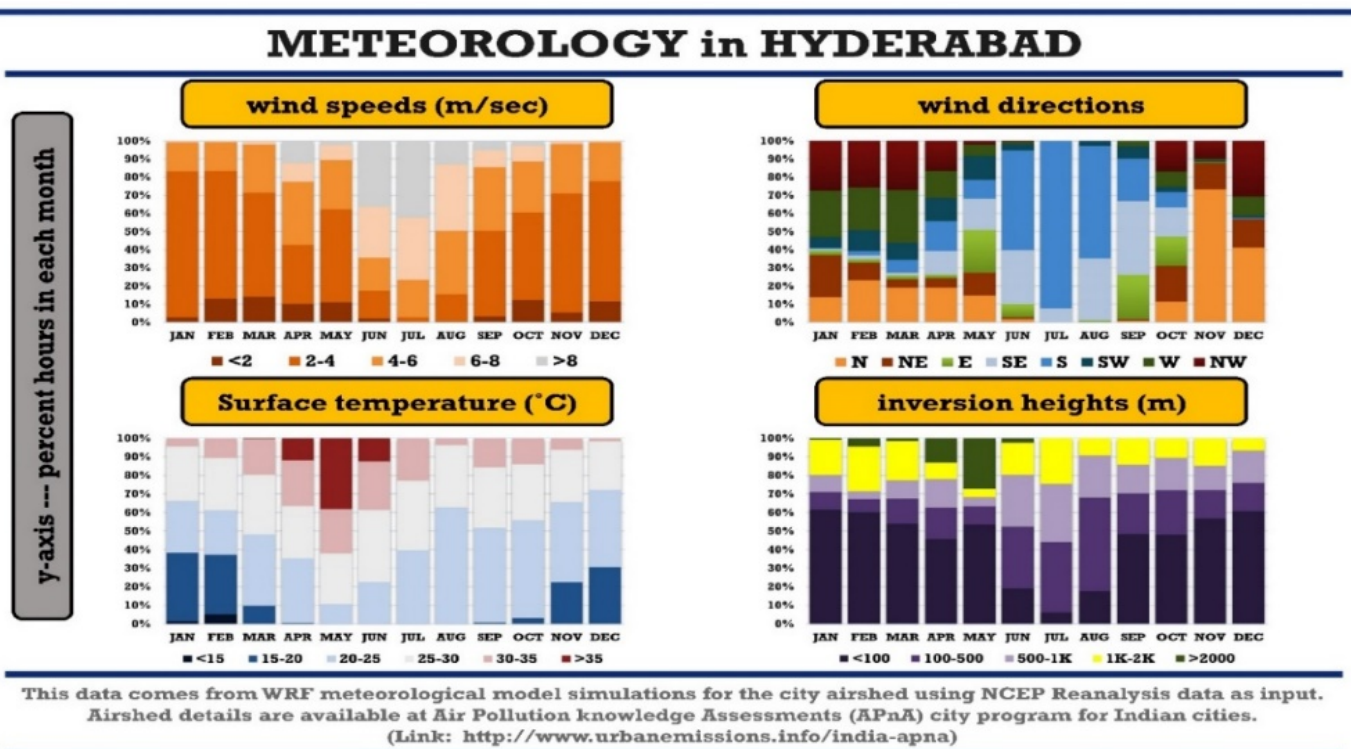


chart 2 Hyderabad Metrology

Source: City – Hyderabad (Telangana, India) (urbanemissions.info)

²⁶ City – Hyderabad (Telangana, India) (urbanemissions.info) City – Hyderabad (Telangana, India) (urbanemissions.info)

2.17 - LAND USE AND LAND COVER

Table 7: Land Use / Land Cover area of Hyderabad

Land use/ land cover			1980	1992	1999
URBAN			%	%	%
Residential			1.65	5.32	8.98
Commercial			0.03	0.12	0.12
Industrial			2.01	2.43	3.92
Public/Semi-Public			4.62	5.49	5.49
Public Utility			-	0.01	0.09
Recreation			-	-	0.05
Transportation			0.79	1.1	1
Layouts/Plotted			-	3.36	4.24
TOTAL			9.1	17.83	23.89
NON-URBAN					
Agriculture			42.11	32.86	31
Reserved Forest			-	4.88	4.88
Hillock/Rocky Area			-	6.91	6.5
Water Bodies			4.93	5.83	5.01
Vacant Land			43.86	31.69	28.71
TOTAL			100	100	100

From the table 6; 1999 to 2009, the built-up area was steadily altered. Built-up area has grown by 19%, agricultural and shrub land area has expanded by 4%, barren land area has decreased by 7%, and there are a variety of factors for the rise in built-up area. Hyderabad is known for its industrial and educational institutions. As a result of the associated infrastructural development, a significant number of institutions are springing up, resulting in a rise in built-up area.²⁷

Table 8 land use between 2009 to 2031

Land use/ land cover	2009	2031
built up area	42%	56%
water	2%	5%
shrub	31%	26%
agriculture	4%	6%
barren land	21%	7%

The expected land cover and land use in Hyderabad city in 2031, from 2009 to 2031, the built-up area has altered dramatically. Built-up area has risen by 14%, agricultural area has increased by 2%, shrub land has dropped by 5%, and barren land area has declined by 14%, and Hyderabad will be Asia's fastest expanding metropolis in the future. There are several factors for the rise of built-up area. Hyderabad is well-known for its industrial and educational institutions.

A significant number of institutions are springing up, and the associated infrastructural development leads to a rise in built-up area.²⁸

²⁷ Measuring urban sprawl: A case study of Hyderabad – Geospatial World

²⁸ (PDF) A STUDY ON LAND USE/LAND COVER CHANGE AROUND THE HYDERABAD INTERNATIONAL AIRPORT USING REMOTE SENSING TECHNIQUE (researchgate.net)

Chapter 3.0 - DATA COLLECTION AND SITE SURVEY

3.1 - HYDERABAD DATA COLLECTION

The information assortment from site was isolated into two principle sets , Primary and optional . For the proper information needed to meet the need of the examination , offices included were approached . The accompanying flowchart shows the division of the information.

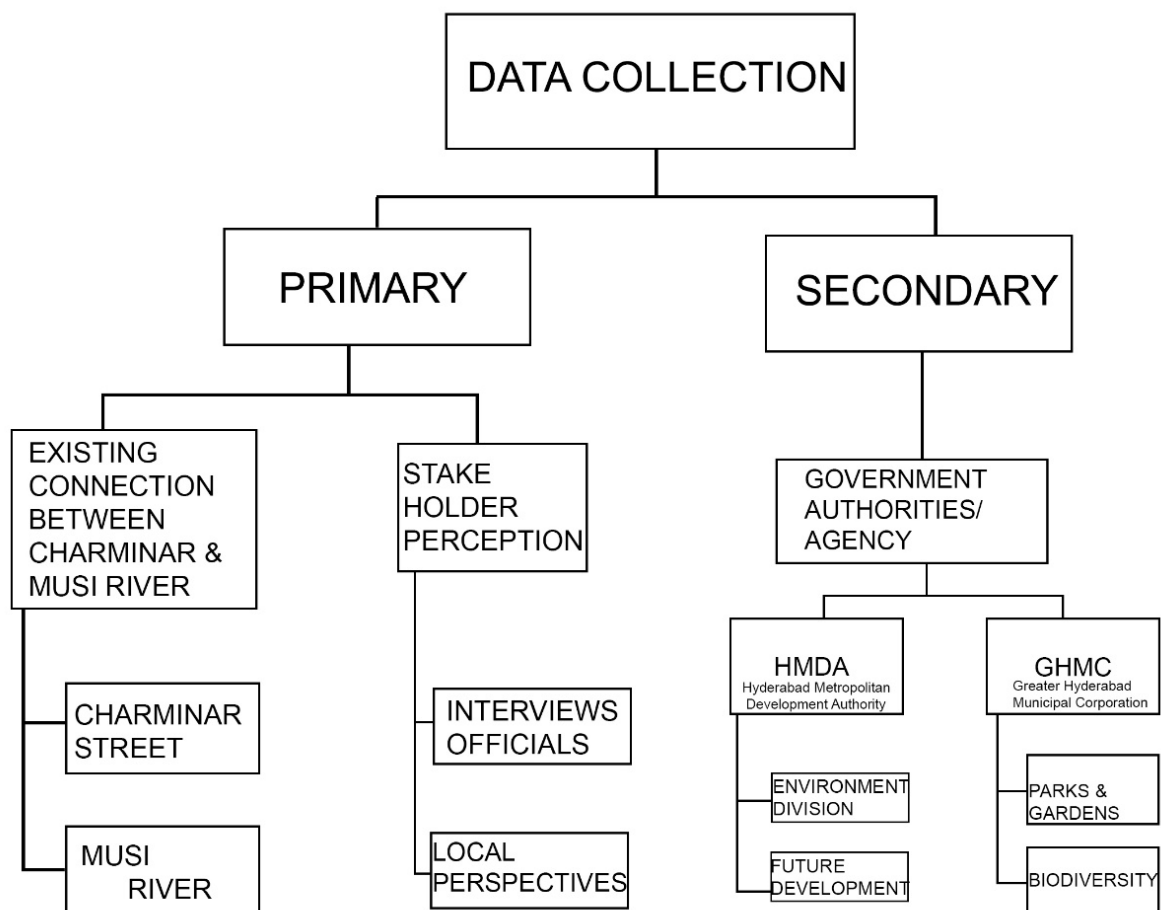


Figure 11: Data Framework

3.1.1 - Primary data

The essential overview primarily comprised of interviews of diverse partners who are influenced by the increment or diminish within the association between Charminar and Musi waterway of the city and who can offer assistance to dispense with the boundaries to encourage incorporate Charminar and Musi within the city. The most stake holders who were counseled are government authorities, citizens utilizing the open framework resources, L & T Hyderabad metro rail Specialist who had taken up arranging and planting to cover the misfortune of greenery and the foremost critical government authorities who are mindful for execution of green foundation within the city. The meet mainly stressed on capturing the recognition of different partners about the association between Charminar and Musi stream of the city. We are able see the recognition of diverse partners within the chapter 3rd.

3.1.2 - Secondary data

The secondary data collection is mainly depending on the government authorities. Coming to the state authorities it has divided into two sectors. They are departments of Hyderabad Metropolitan Development Authority HMDA and Greater Hyderabad Municipal Corporation GHMC that carry out all the governmental activities.

The main responsibilities of the Municipal administrative and Urban Development Ministry (MA&UD)

Manage and control municipal government activities and provide the required guidelines for city administration and sustainable urban development.

All heads of department are responsible for various development efforts in the realm of urban development.

Coordination with the Finance Division to get financing to undertake various urban development projects.

Approval of the urban development master plan and amendments if needed.

Citizenship and rapid urbanization coordination with all other sectors are in charge of the urban sector management.²⁹

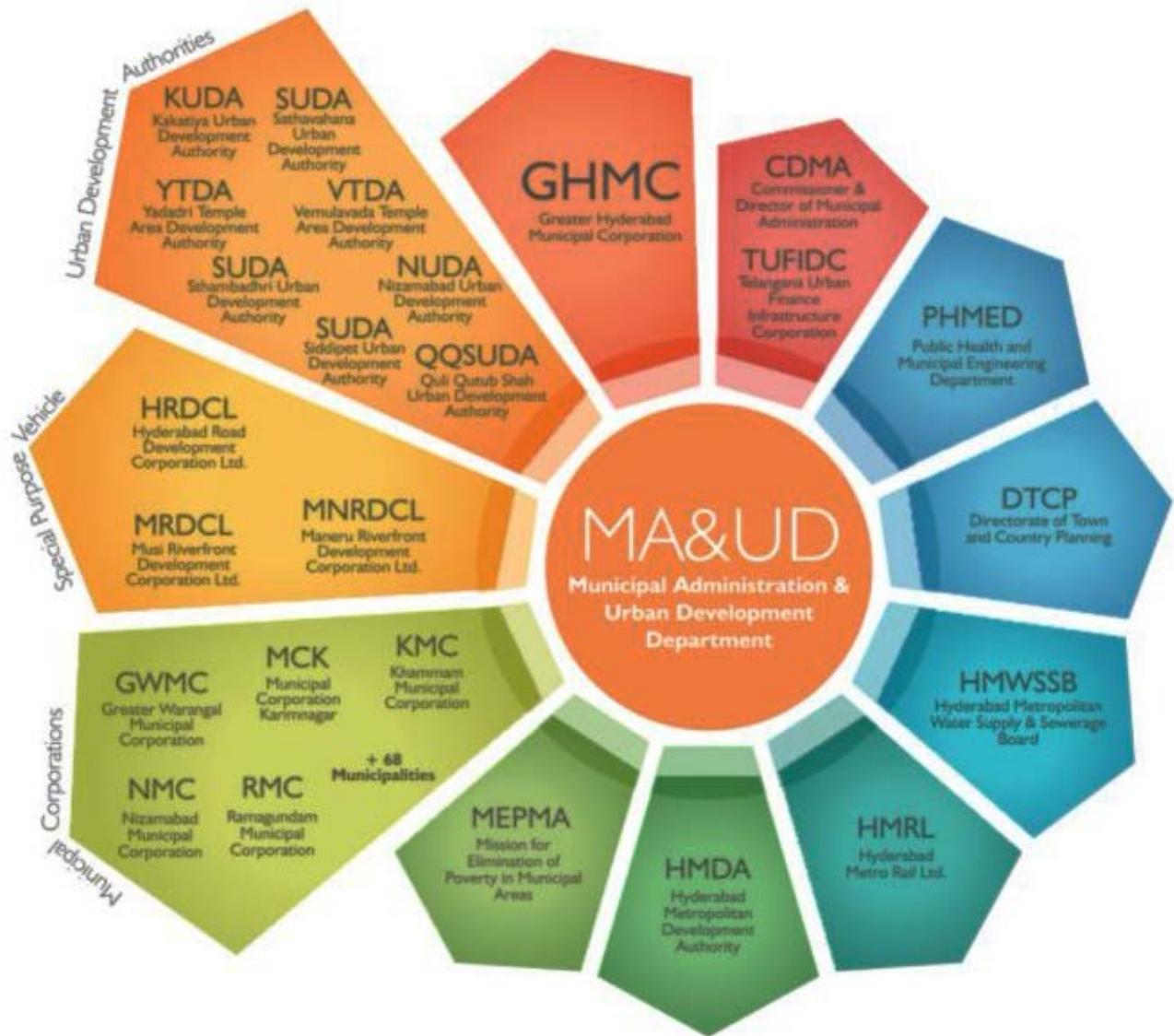


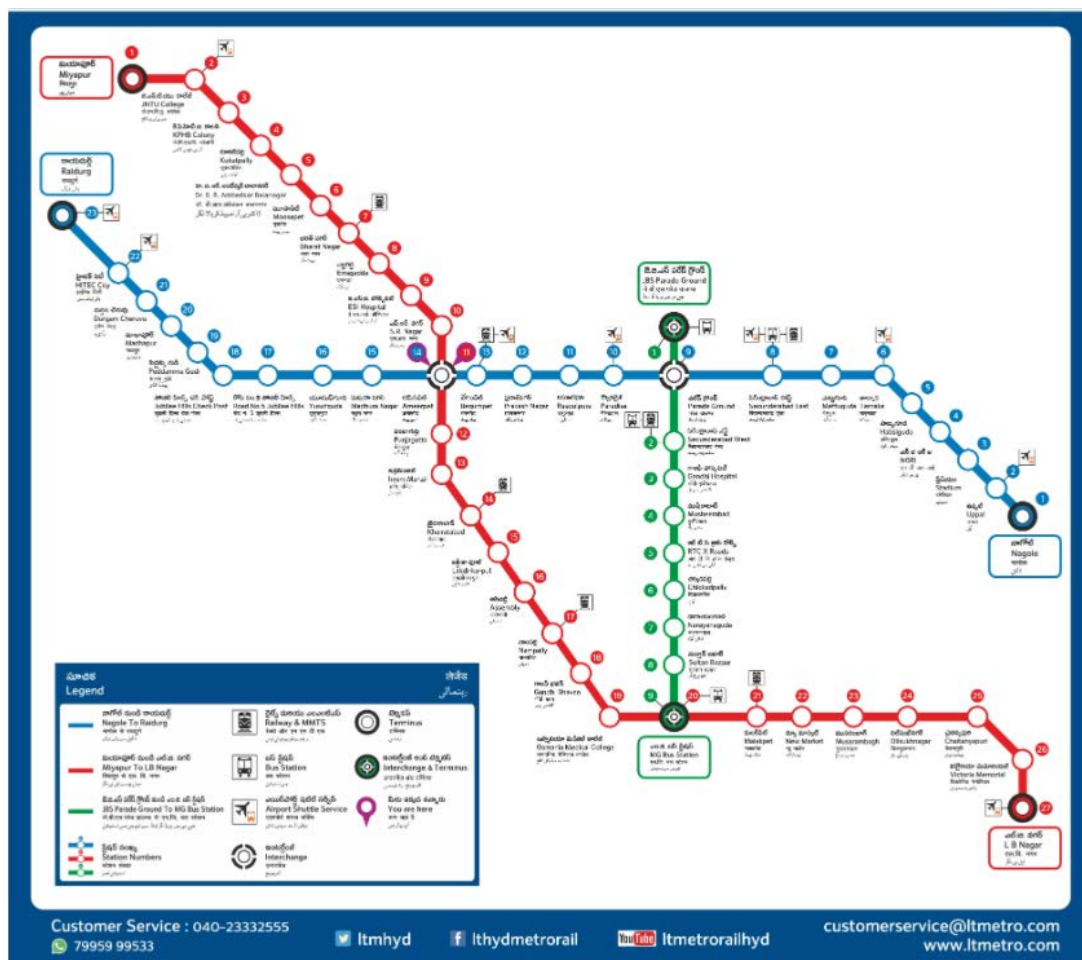
Figure 12: Urban Development structure

Source : Telangana State Portal Municipal Administration & Urban Development

²⁹ Telangana State Portal Municipal Administration & Urban Development

3.2 - HYDERABAD METRO RAIL

The metro will be an efficient, secure, and resilient public transportation infrastructure as part of a metropolitan restoration and updating effort to transform Hyderabad into a human-friendly "green" city. It is environmentally good since it will minimize fossil fuel use by employing zero emission energy and reducing high-volume urban traffic. Hyderabad metro rail has planted four lakh trees at various locations, including educational institutions, and transported around 2000 trees in the afflicted regions where the project was put together.³⁰



maps 5 : Hyderabad Metro rail route map

source: Hyderabad Metro Rail (ltmetro.com)

³⁰ Hyderabad Metro Rail (ltmetro.com)

3.2.1 - Green metro

Hyderabad metro rail is an eco-friendly transport system using efficient energy utilization, storm water and other procedures to reduce emissions of carbon dioxide.

The 'environmentally friendly' metro project has a number of positive aspects: 100,000 gallons of water are recycled every day, by collecting rainwater.

It is estimated that the metro will remove 10,000 tons of CO₂ from the atmosphere.

Metro Rail is a more environmentally friendly transit system by the Solar Energy Project.

The scenery is also dominated by more than a thousand trees around the metro station.³⁰

3.3 - SITE SURVEY OF CHARMINAR AND MUSI

3.3.1 - HISTORY OF CHARMINAR AND MUSI

CHARMINAR

Charminar is a landmark and a mosque that is associated with Hyderabad's history. The magnificent structure was finished in 1591 AD. It is not only a monument in Hyderabad, but also a well-known landmark throughout India. This monument is thought to have been created by Mohammed Kulikutb shahi, the fifth sultan of the Kutub shahi empire, to celebrate the end of the dreadful epidemic that devastated the city at the time. It is situated on the Musi River's banks. Charminar is a combination of the terms Char and Minar, which mean "four towers." Mir Momin Astarabadi of the Qutb Shah Dynasty played a vital role in the creation and layout, ordering extensive preparation. Scholars believe that this edifice represents Indian Islamic architecture. This monument

can be found in the middle of the old town. For administrative purposes, Hyderabad is thought to have been measured in 4 quadrants from Charminar.

A trip to Hyderabad would be completed without a stop at this majestic central edifice. According to some scholars, it was built in honour of his wife Bagyamati. Each side is 20 metres long, and the minaret is 48.7 metres above the ground. Charminar's four sides culminate to a square-like edifice with massive arches overlooking the main road. With a length of 31.95 metres, it is a straightforward square building. The span is 11m when arches are used on both sides. The four minarets stand 56 metres tall. The minaret's ornate arches add



Figure 13: Charminar

source: syed aswan

to its aesthetic significance. Each minaret has 149 circular stairs, one of which is open for guests to climb and enjoy the spectacular view of the city. Islamic architecture of the time was distinguished by arches, minarets, and domes.

the structure is well-known for its ornate stucco design and outstanding arrangement of railings and balconies. The flowers are finely designed and a work of Mughal and Hindu architecture created by local artists. In 1889, four clocks in each of the four cardinal directions were added. At the foot of Charminar, there is a cistern with a little fountain for the faithful to use before worshipping in the mosque. Charminar has grown to be associated with Hyderabad's ancient city culture, and the area is also a popular shopping location for Muslim dishes, colourful bracelets, pearls, jewellery, and other products. This location is an emblem of Hyderabad culture, standing tall and proud of a bygone period.³¹

MUSI RIVER

When Muhammad Quli Qutab Shah decided to relocate the capital from the Golkonda Fort and establish Hyderabad in 1591, he chose a site in the Musi River valley. To be chosen strategically. However, severe rains caused a massive flood in Hyderabad in 1908, killing many.

The tragedy compelled former Hyderabad Note Seventh and Last Nizan Osman Ali Khan (1911-1948) to construct Osman Sagar and Himayasagar Lakes from the first half of the twentieth century in order to confirm the water. Yes, I did. Because it is a tributary of the river. It addresses the flood problem, but it is the death of the river. Musi was a pool of sewage that flowed 57 kilometres across Hyderabad today.

³¹ Heritage Spots in Telangana :: Telangana Tourism history of charminar

Osman Ali Khan was most likely impossible. Anyone visiting the Old Town or adjacent sites such as Golconda nowadays cannot escape the stink. Sewerage from the city is discharged into the Musi River, India's fourth-largest tributary of the Krishna River. The Musi River gets its name from two streams, the Musi River and the Nizamsa River, which connect at the Tipukan Bridge in the Golconda district. The 57-kilometer route begins at Lake Osman Sagar and Lake Himayats Sagar, travels through Hyderabad at various points, and terminates near the settlement of Gori in the neighboring Rangareddy district.³²

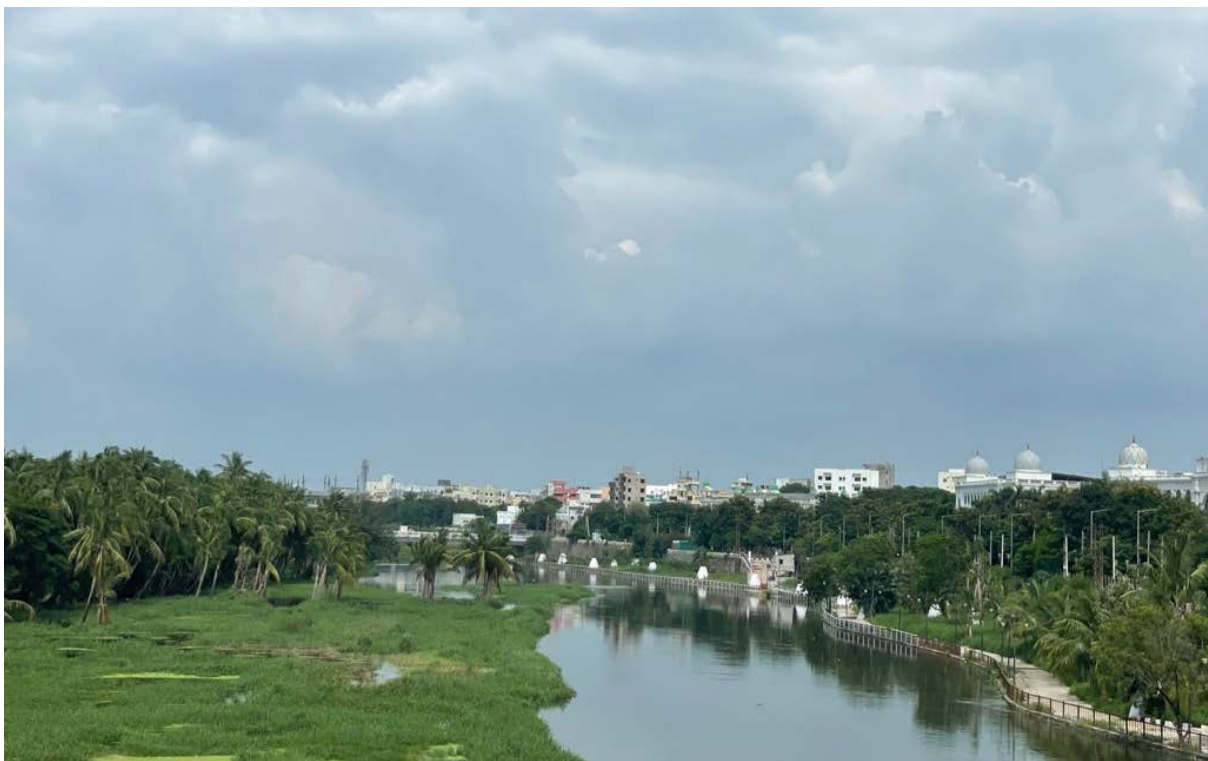


Figure 14 musu river

source : syed aswan

³² Musi River (India) - Wikipedia history of musu river

CONNECTION BETWEEN CHARMINAR AND MUSI RIVER

It is important to link Charminar and Musi. It connects the old and new cities, and Hyderabad is recognized for its (tehzeeb) culture, legacy, and traditions. The Charminar and Musi are progressively losing their historical and cultural significance, and as a result, tourism is declining. There is a straight road that links the Charminar and Musi; within that street, there are numerous ancient monuments, and the street facade is entirely constructed of stone granite, which is why the street is called as Pathergatti Street³³ (Stone Street).

The site's worth and culture are losing as a result of the negligence of the government and the people of Hyderabad. As a citizen of Hyderabad, it is my responsibility to improve the quality of life for the people by connecting the Charminar with Musi, which may overcome many difficulties that daily residents and tourists face on a regular basis.

3.4 - ACTIVITIES NEAR BY SITE AREA

The site study from Charminar to Musi River indicates a variety of social, cultural, heritage, and economic zones inside the site area as well as the surrounding Musi River area. There are the following.

Religious places and cemetery

The site area is surrounded by a thick with religious structures (mosques, temples), one of which is positioned in the midst of the road between the

³³ Pathargatti : The Historical Stone Arcade of Hyderabad - Bajrai Online Solutions
pathergatti street means in english stone street reason, the complete street façade is made up of stone material.

Charminar length and the Musi River. The cemetery region is located on the riverbed, where graveyards and burning ghats are conducted.

3.4.1 - Economic zones

There are multiple store malls and street vendors, therefore there are many economic activities from Charminar to Musi. The site is renowned as one of Hyderabad's main economic zones, and it is a very busy economic zone. Wash area (Dhobi Ghats) is one of the commercial activities that make use of the river area. Because of the easily accessible to relatively fresh water, this pastime can be found all the way from purana to Naipaul.

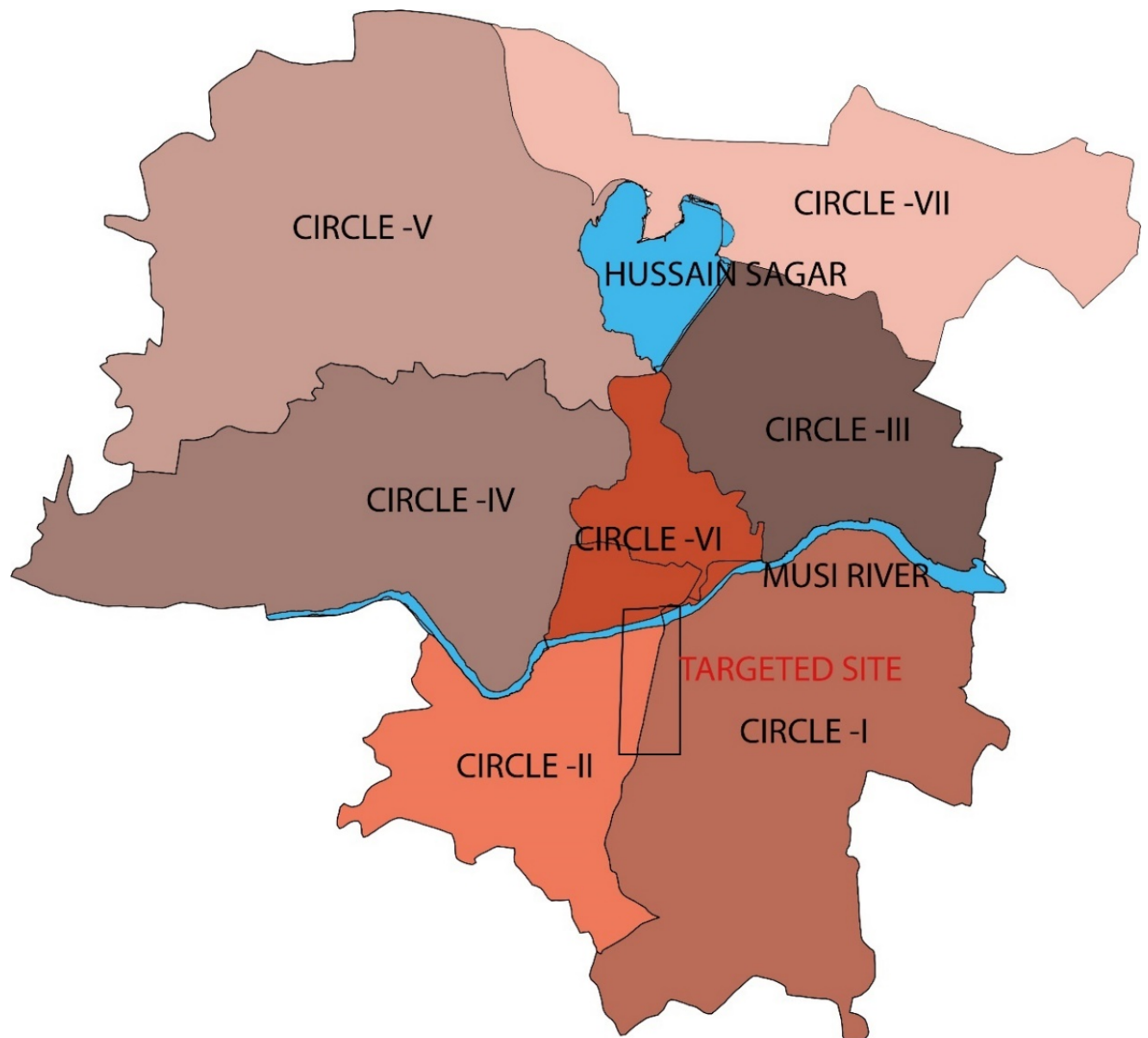
3.4.2 - Physical and soil characteristics

Loam to sand clay loam are examples of soils. Patch clay does exist. The soil structure is granular to sub granular rock due to the presence of sufficient organic matter. River worm soil forms in alluvial soil deposited on river flood plains. From Charminar to Musi River, the surface is completely overrun by a concrete road. There are no sand beds in the musu.

3.4.3 - Plantation and environmental issues

Agriculture are also located on the riverbed plain. The plantation mostly consists of Naipaul and puranapul undercarriage, Charminar, and Musi. The plantation consists primarily of coconuts, bananas, and wild trees. River water pollution and groundwater pollution are the two most serious environmental issues. The river is polluted by organic waste, pathogenic bacteria, radiation, industrial activities, and organic inorganic chemicals. Vehicle pollution in the vicinity of the Charminar degrades the city's heritage.

3.5 - SITE MAPPING



maps 6 Hyderabad zones

Source: illustration by Syed Aswan

Names of the circles or area names allocated to the different zones. It will help the administrative to work organizingly without any difficulties. As you can see in the table.

Table 9 ghmc zones and circle

Source: Ward.xlsx (ghmc.gov.in)

si.no	name of the zone	name of the circle
1	east zone	kapra
		uppal
		hayath nagar
		LB nagar
		saroor nagar
2	south zone	malakpet
		santoshnagar
		chandrangutta
		charminar
		falknuma
3	central	rajendra nagar
		mehdipatnam
		karwan
		goshamahall
		musheerabad
		amberpet
		khaitabad
		jubilee hills
4	west zone	yousufguda
		gachibowli
		serilingampally
		patancheru
		moosapet
5	north zone	kukatpally
		qutbullapur
		gajularamaram
		alwal
		malkajgiri
		secundrabad begumpet

³⁴ Ward.xlsx (ghmc.gov.in)

3.6 - THE DESIGN STRETCH ON THE MAP DEPICTS THE DEVELOPMENT AREA

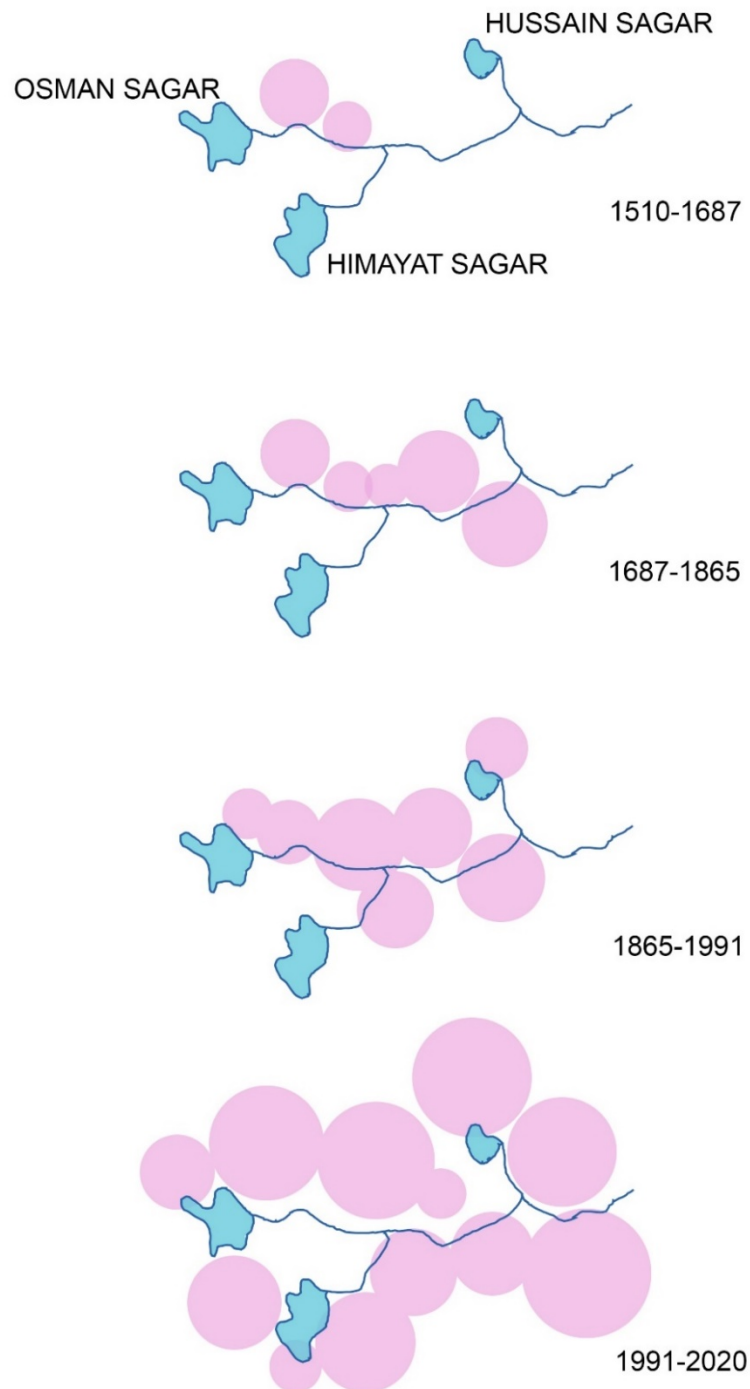
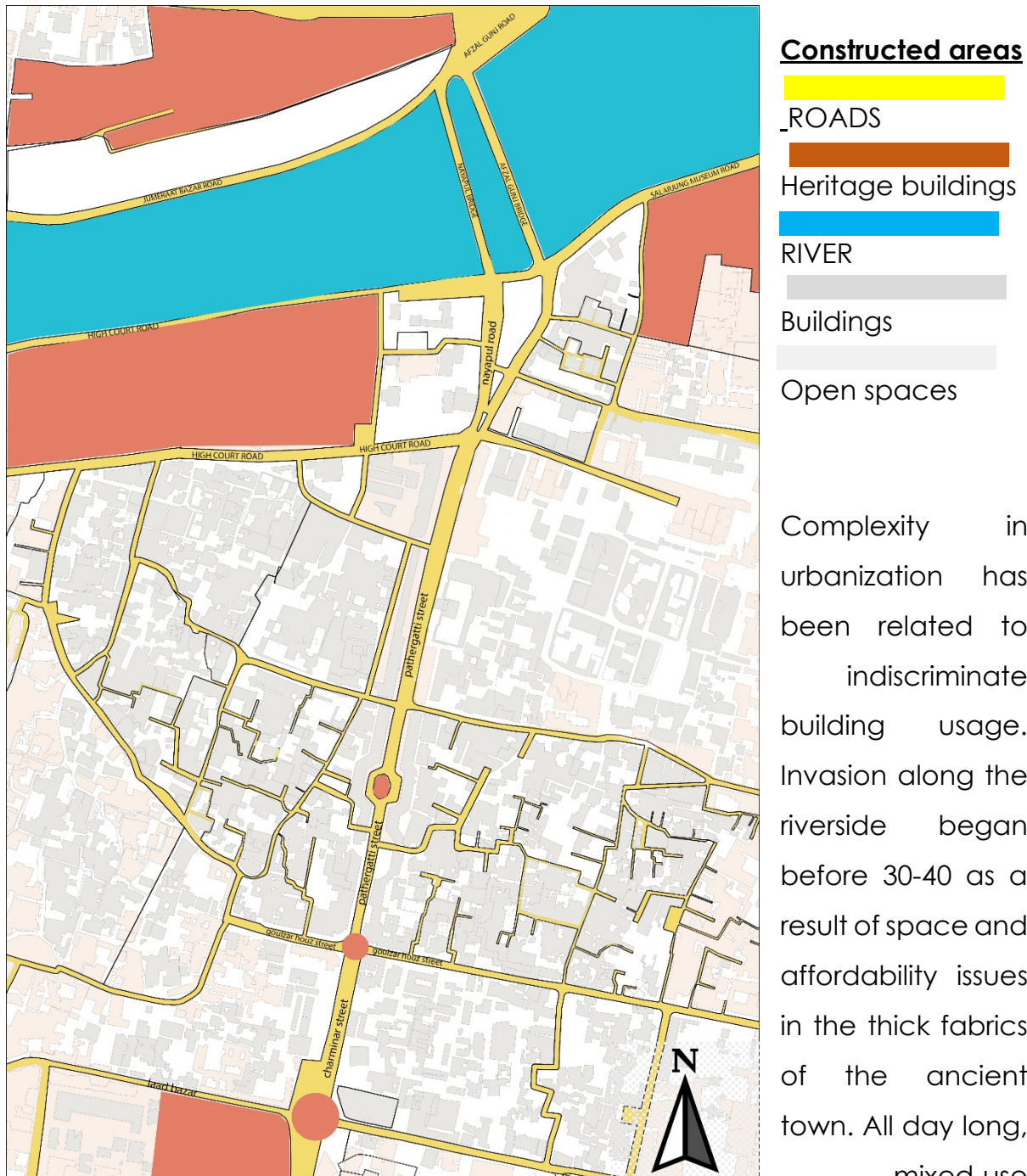


Figure 15: Hyderabad growth pattern

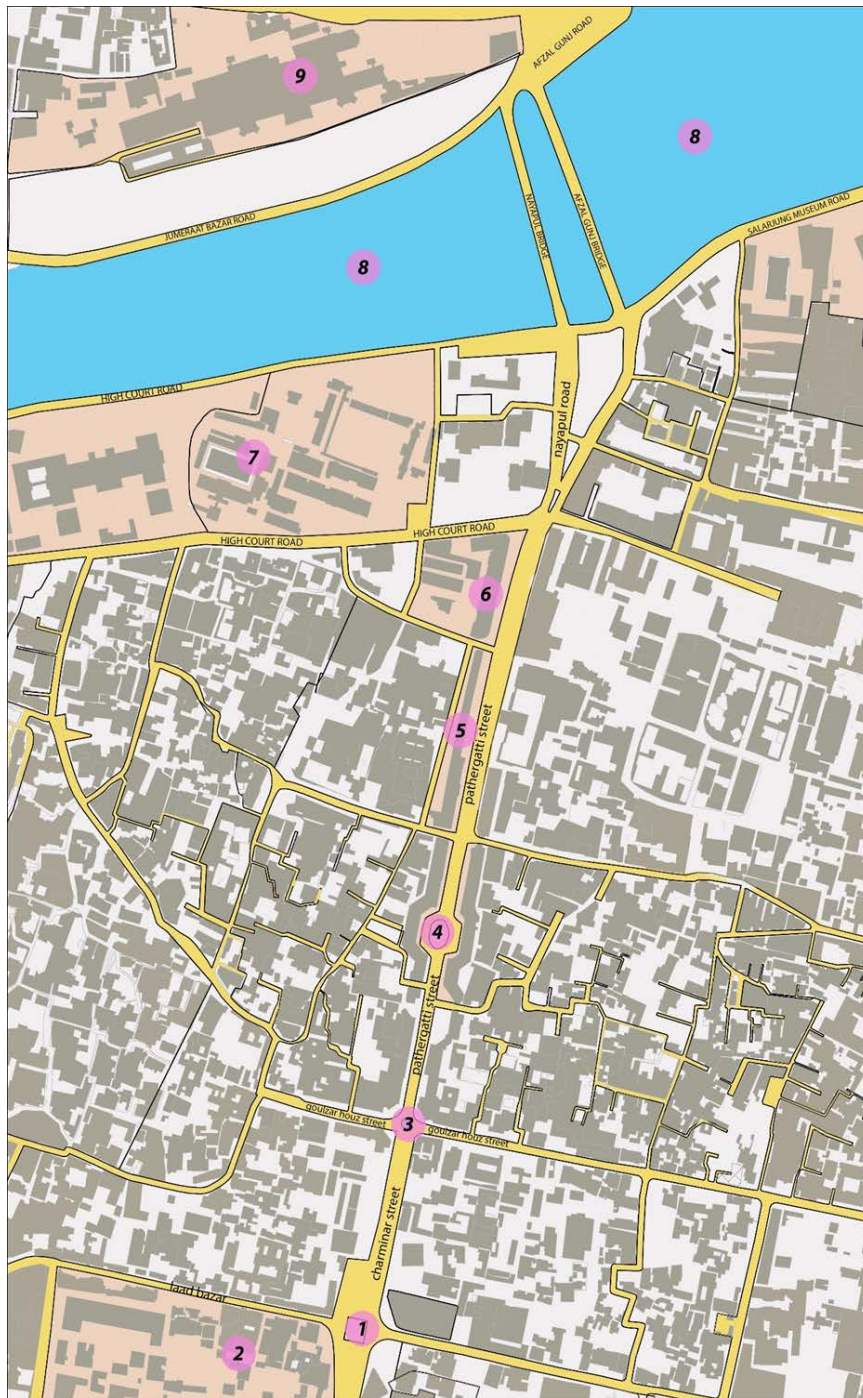
Source: illustration by Syed Aswan

3.7 – SITE SURVEY MAPS

We have to illustrate maps using references to google maps because of unavailability of actual maps in municipality.



maps 7 constructed areas



maps 8 site context

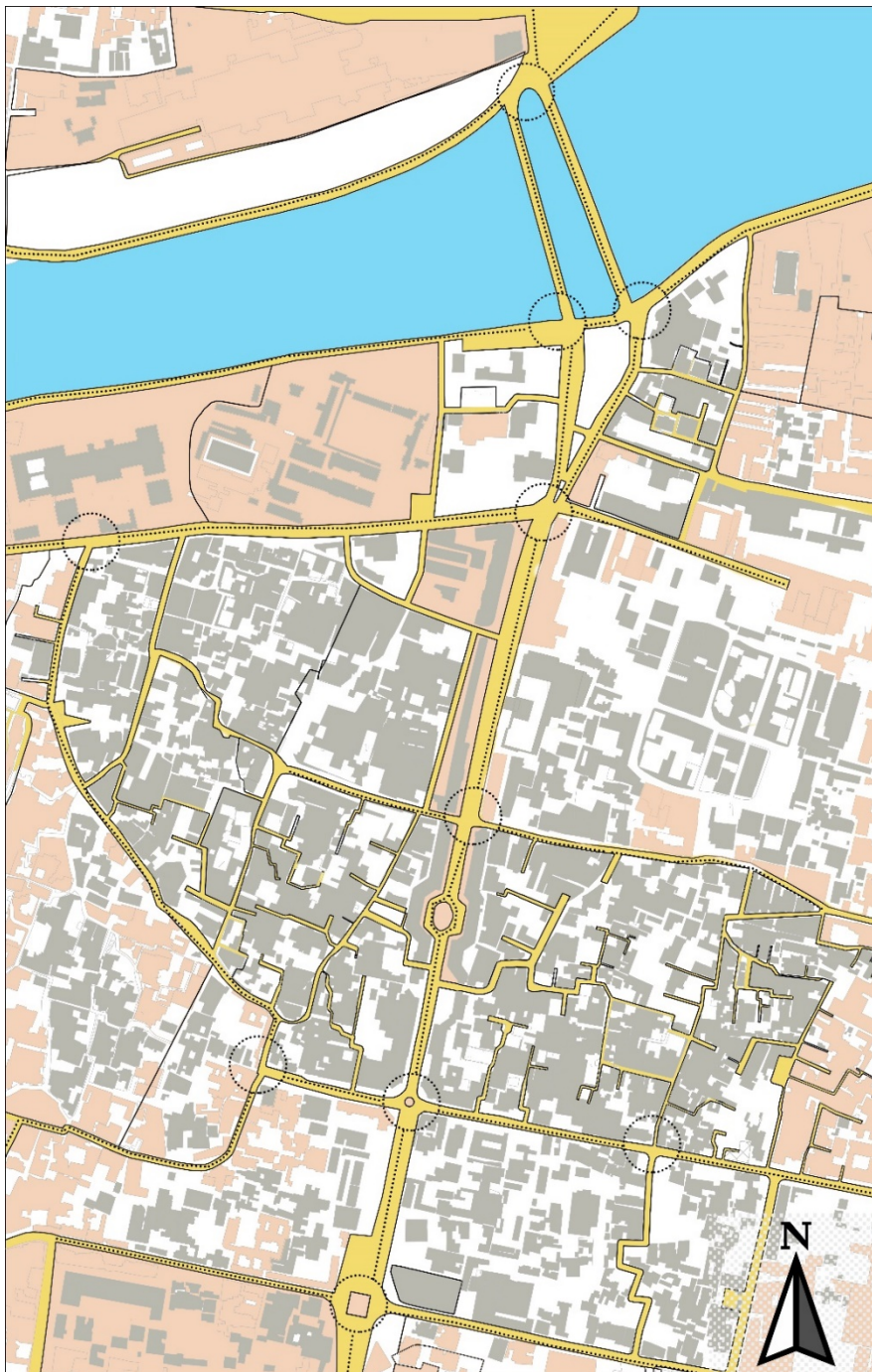
site context

In 1591, the Charminar was built in the city center. Following the 1908 flood, an urban development trust was formed to construct various civilian structures adjacent to today's river grounds and to enhance the Charminar stretch to Musi. Built in 1919, the High Court is located near the southern end of the river. On the other side of the Osmania Hospital, built in 1927. In 1929, one of the first schools, built in 1865, was converted into a

university. Salarjung Museum is a newly constructed museum in the southeast, completed in 1967.

legend: 1.Charminar, 2.Mecca masjid, 3.Goulzar houz, 4.Mosque, 5.Pathergatti, 6.Madina Building, 7.High court, 8.Musi river, 9.Osmania hospital.

movement and road traffic



maps 9 movement and road traffic

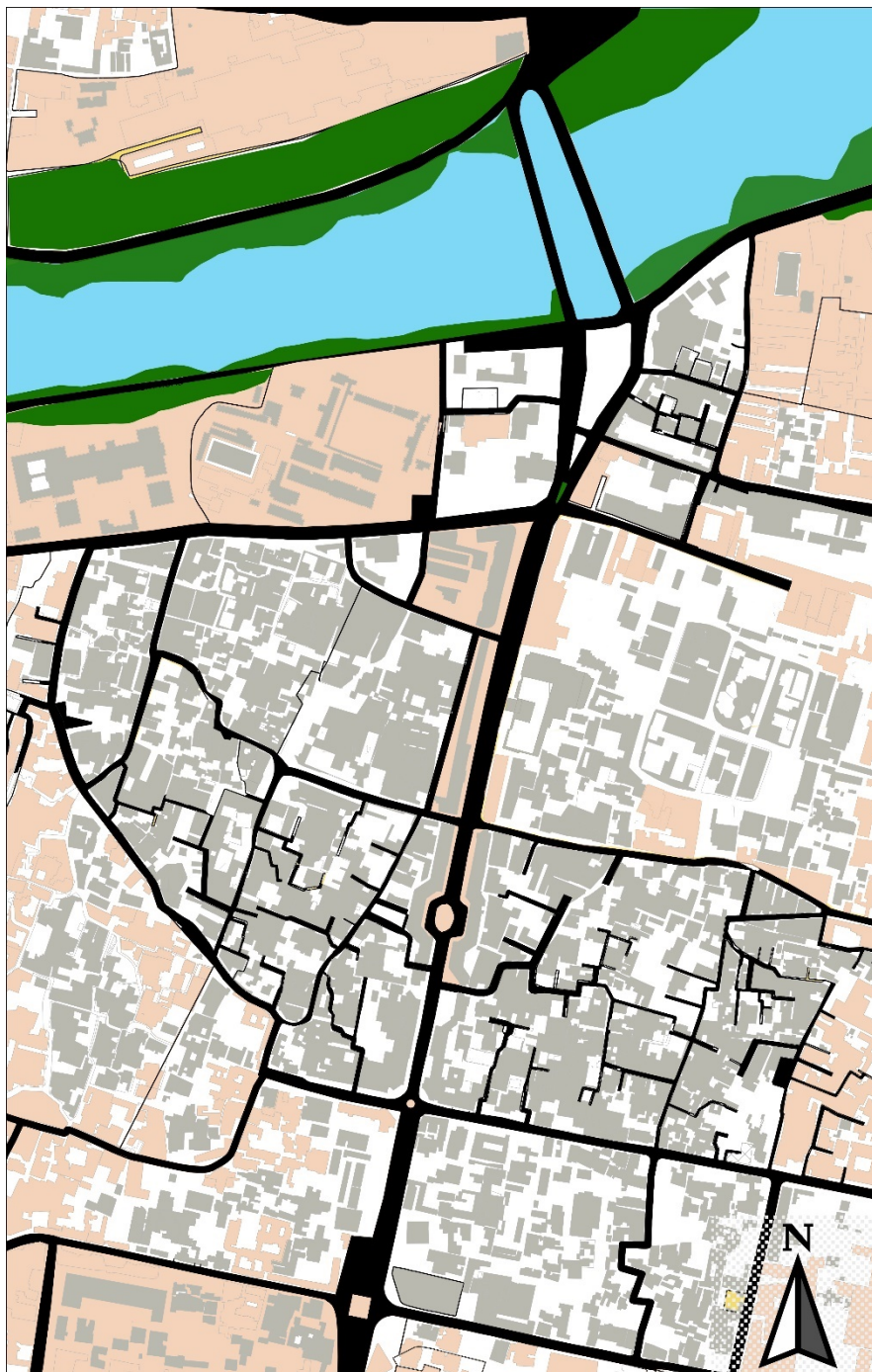
Cars in congested traffic

Pedestrian with a high volume of traffic

The bridge serves as a vital connector between the old and new towns. East-west roads connect to the national highway system. The waterfront in Old Town has been replaced with rapid access roadways, giving it a distinct personality and relationship. The ability of pedestrians to walk freely is an

important

component of the urban environment. Pedestrian activity around the location is crucial. The pavement width is inconsistent, and the pedestrian shelter lacks distinguishing features. On one side, there is an existing historic pavilion with seating and a riverbank vista.



VEGETATION

- ROADS
- Heritage buildings
- RIVER
- Buildings
- Vegetation

There are no plants on Charminar

Street, and the only plants are those that separate Pathergatti

Street. The rivers are farmed in a limited way. It provides a living for small landless agricultural households.

Wastewater is a key source of income for a population in urban parts of Hyderabad

maps 10 vegetation

that cultivate agriculture beside the river. Throughout the street, trees with unusual planting patterns may be found, primarily along the north-south axis of the frame area. The landscaping of the Civic Structure's open extension follows a basic geometric design.

3.8 - SURROUNDING NEIGHBORHOOD

Gulzar Houz



Figure 16: gulzar houz

photo: by Syed Aswan

GulzarHouz is a historically significant fountain in Hyderabad, India. It's close to Charminar. The fountain is located in the middle of the road between the Charminar and Medina buildings. The Guard Plaza was a huge square located between the four arches of Charuka Man. This became recognized as GulzarHouz later on. It was built 106 meters apart from the four Kaman's that surrounded it. When it was octagonal, it had 12 sides and now seems virtually round. It was an octagonal pond built to relieve Nizam troops' thirst. Four streams ran from this fountain at the time, splitting each radial road into two half. ³⁵

³⁵ Gulzar Houz gets a delayed facelift (deccanchronicle.com)

Pathergatti Street

Hyderabad's historic stone arcades. Pathergatti is a historically significant stone arcade and market in Hyderabad. Pathergatti is the name of the structure since it is made of stone on both sides of the roadway. It is a two-story red granite structure with stores on the first floor and a one-story home on the second. The Pathergatti Stone Arcade is one of India's largest bazaars and a prominent economic center from the past century. Jewelry, women's clothes, children's clothing, footwear, wedding locations, and other items are on display from Gulzar Houz to the Medina building.³⁶



Figure 17: Buildings on Pathergatti street

photo: by Syed Aswan

³⁶ Pathargatti : The Historical Stone Arcade of Hyderabad - Bajrai Online Solutions

Mecca Masjid

The ancient Masjid Mecca is located to the southwest of the Charminar. The mosque's construction began in 1614 and was finished in 1693. It is one of the largest mosques in India, as well as the largest and most significant in the city, and is made of native granite.

The arched gallery houses the tombs of all Nizams dating back to 1803. Mehrab has a high retaining wall on the west side. It contains two massive octagonal columns made of a single block of granite. This is countered with a vaulted gallery with a dome. This mosque has a capacity of 10,000 worshippers at any given moment. It is two hundred meters away from Charminar.³⁷



Figure 18: mecca masjid

photo: by Syed Aswan

³⁷ Department of Heritage Telangana mecca masjid completely constructed with stone

Salar Jung Museum

The Salarjung Museum, located on the Musi River's south bank, has the distinction of being India's third biggest museum and is known across the globe for its largest collection of antiquities

.

With rare art items, books, and manuscripts, the museum is a royal treat for art aficionados. Collections of Indian art, Middle Eastern art, European art, children's art, and so forth. Watercolors are also a significant component of the European collection. It also has iconic sculptures of Veiled Rebecca, Margarita, and Mephistopheles, as well as other timeless works. The museum is a semicircular structure. Exhibits on various themes are displayed in distinct galleries.³⁸



Figure 19: Salarjung Museum

photo: Syed Aswan

³⁸ Salar Jung Museum, Hyderabad, Telangana, India

HIGH COURT



Figure 20: high court

photo : by Syed Aswan

The Telangana High Court is the highest court in India's state of Telangana. Founded by the 7th Nizam Mir Osman Ali Khan, it was formerly known as the High Court of Hyderabad for the then-Princely State of Hyderabad Deccan until being renamed the High Court of Andhra Pradesh on 5 November 1956 under the State's Reorganizations Act, 1956. In light of the state's split, the Telangana High Court was renamed the High Court of Judicature at Hyderabad.³⁹

³⁹ About Us (tshc.gov.in) high court for telangana and andhra pradesh states

OSMANIA HOSPITAL



Figure 21:Osmania Hospital

photo : Syed Aswan

Osmania General Hospital, located in Afzal Gunj, Hyderabad, is one of the oldest hospitals in India and is named after its founder, the last Nizam of Hyderabad. It is one of the state's major enterprises and is controlled by the Telangana government.

The hospital building is a historic edifice in in need of repair and refurbishment.⁴⁰

⁴⁰ Osmania General Hospital - Wikipedia

3.9 - LOCALS' PERSPECTIVES

Most iconic monument of Hyderabad THE CHARMINAR has the major foot fall every day. The pedestrians find uncomfortable to walk through the water stagnated lanes. The project initiated by government to make the surrounding of monument pedestrian friendly is working at very slow pace. The pot holes are overflowed with drainage water during rainy season which has to clean every day. The shop owners of the shopping bazar around Charminar lack in maintaining cleanliness resulting in filthy smell of garbage and left-over foods of hotels. Government should understand the importance of maintaining lanes to attract tourism. The sanitary workers need to find Modern solution for easy flow of drainage water. Shopping bazaar and the food stalls are to be maintained properly to ensure smooth flow of pedestrian.

3.10 - GARDENS PARKS IN THE CITY

The Park is a luxurious nature which acts as the city's lungs. A range of activities can be accommodated depending on size and geography of the park. In order to cover most residential neighborhoods through pleasant walk, parks should really be scattered. Four types of green spaces can be categorized.

Neighborhood Park: The Park is dispersed equally across the small residential street and generally serves residential neighborhoods within a pleasant walkable distance.

Community Park: This Park typically serves numerous residential neighborhoods within a short walking distance, allowing for more active recreational and gardening activities.

City Park: This Park is significant at the city level. City parks are large, manicured spaces with a variety of recreational facilities and services that are often conveniently accessible by public transportation.

Regional Parks: Massive accessible to the public parks, pathways, and green space networks provide a variety of services that benefit from environmental or green construction.

Table 10: Parks Resources⁴¹

no	Resource	No.	Area in acres
1	Major parks	49	266.91
2	Colony parks in East Zone	65	27.36
3	Tree parks in East Zone	29	11.6
4	Traffic islands and central media in East Zone	5	0.43
5	Colony parks in South Zone	115	46.83
6	Tree parks in South Zone	122	43.04
7	Traffic islands and central media in South Zone	30	8.39
8	Colony parks in Central Zone	212	83.31
9	Tree parks in Central Zone	22	59.14
10	Traffic islands and central media in Central Zone	59	16.29
11	Colony parks in West Zone	58	30.88
12	Tree parks in West Zone	46	38.74
13	Traffic islands and central media in West Zone	22	11.51
14	Colony parks in North Zone	71	22.52
15	Tree parks in North Zone	69	23.74
16	Traffic islands and central media in North Zone	43	3.71
17	Fountains	85	
18	Cement pots for plants	4778	
19	Native trees for Urban Landscape	127	

Source: Parks - GHMC

⁴¹ Parks - GHMC information about resources and area of land occupied for park in hyderabad.

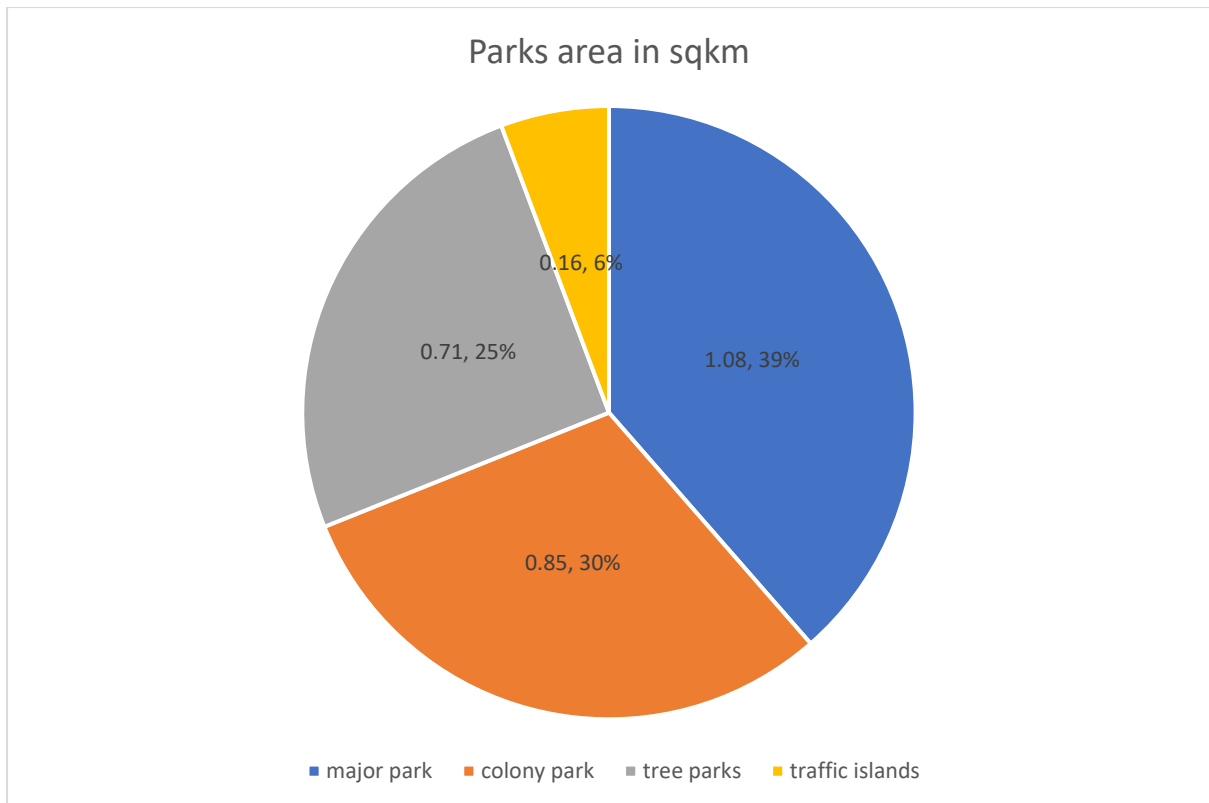


chart 3 Park Area

Source: Parks - GHMC

Table 11: Parks areas

No.	Resource	No.	Area in acres	Area in sqkm
1	Major Parks	49	266.91	1.08
2	Colony Parks	521	210.9	0.85
3	Tree Parks	288	176.26	0.71
4	Traffic Islands	159	40.33	0.16
	Total	1017	694.4	2.8

Source: Parks - GHMC

3.11 - LOCAL COMMUNITY AND CONSERVATION

In the government, there is a great deal of suspicion about the preservation of public constructed heritage. However, the perspective of the government, which finances conservation, is quite different.

It is the renovation of a private building's public facade. The regulatory reforms imposed under colonial administration are directly responsible for this ownership issue.

As a result, it is past time for the government and the community to unite, even if the present planning instruments do not appear to be capable of facilitating cooperation. Aside from historic significance, the most prevalent argument for maintaining ancient buildings is that they are important public resources.

Table 11: Redevelopment required Stages

Government Level	Local Authority	Community Level
Clear regulatory stumbling blocks	Invest government resources / money	Include everyone in the society.
Reduce the number of programme rules.	Simplify processes and permits.	Prepare thoroughly.
Coordination of the programme	Decentralize	Make use of rightful owners.
Invest a wide range of resources	mobility problems	Simplify your planning.

The fact that an ancient structure is not 'listed' on the protected heritage list does not justify its demolition for rapid answers to urban issues.⁴²

⁴² 21004_CS_Abdul.pdf (chitkara.edu.in)

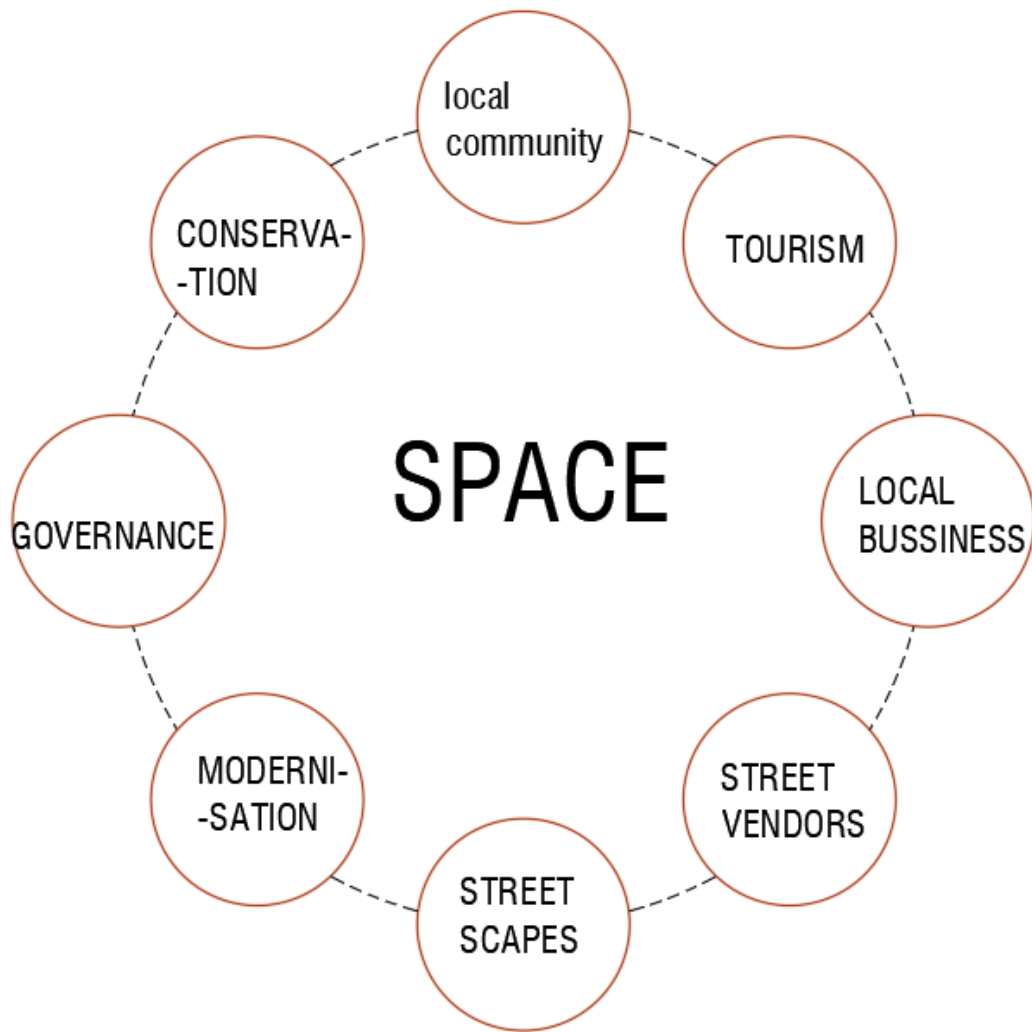


Figure 22: Space Program

Buildings around Charminar must be protected because they are not on the historic list. Both the local authorities and the community are united in their desire to destroy it and build a new complex that would help to decongest the region.⁴²

After analysis, the interrelationships series creates a circuit that begins and ends with the local community. In the center of everything, space remains a source of dispute.

The wealth of our traditional urbanism – and the quality of our public space – is being trample upon by the ambition to build "modern" cities and the "property" focused strategy to development established by colonial powers.

Chapter 4.0 - GOVERNMENT AND PUBLIC AUTHORITIES' INTERVIEWS

4.1 - MUNICIPALITY OF HYDERABAD

Hyderabad Metropolitan Development Authority

S. BALAKRISHNA

4.2 - ARCHITECTURAL AND URBAN DESIGN OFFICE

AD AND ASSOCIATES STUDIO

MOHD ABDUR RAOOF

4.3 - GREATER HYDERABAD MUNICIPAL COOPERATION

Health field department

K.V.S. PRASAD

4.4 - ASSISTANT URBAN DEVELOPMENT OFFICER

GREATER HYDERABAD (GHMC)

AYESHA PARVEEN SANA

4.5 - KRISTI NON-GOVERNMENTAL ORGANIZATION (NGO)

Working with the urban poor development

MS. INAYA SALMA

4.6 - REAL ESTATE HOLDER

Businessman

Mr. Anil Kumar

4.7 - INFORMATION TECHNOLOGY

Student Ms. Mona Ilyas

SURVEY:

We conducted a sociological survey with the assistance of Hyderabad government officials, architects, organisations, and stakeholders, as well as students, and we also examined local viewpoints. The following questions concern current health issues, the development of Hyderabad, the relationship between people and government, equal women's rights and empowerment, immigrant people, Hyderabad development policies, green infrastructure development, the development of the Musi River, and other issues related to Hyderabad rapid urbanisation. This survey is really useful in our research because the interviewees have diverse points of view while still providing us with similar responses.

Q1. How Has This Health Emergency Changed The Daily Working Life Of The People You Know?

- Since the advent and eruption of COVID19 there has been a dramatic change in the working styles of people globally, and Telangana India is not different. Children who were never used to Online Education have no choice but to adopt this style. The youth have after warnings of the peak of the Pandemic changed their lifestyles abandoning night-outs and boycotting places of eating and reduced socializing radically.

The elderly citizens have been the most affected, and still live in a dilemma for their daily chores especially medical treatment at hospitals that are still infested with Covid19 threats from odd patients. The working classes after a lull of 6 months have started their occupations but many especially in the IT sector still find it hard to cope with the new "work from home" system that saves on the Employers but badly affects the various sectors like; Transport, Food & Restaurants, Real Estate Rentals (after migration of work forces etc.). Hospitality industry has taken huge beatings after this Covid19 Health Emergency.

- On the positive note, families have had time and opportunity to spend time together and exchange and strengthen relationships, despite of the various ill-effects of the Pandemic. Lots of NGOs were put to test to help those in need and the city and state in general saw a great spirit among people and organizations to serve those suffering people from the Pandemic. This also led to the bonding of people with one another proving that there still remains a lot of human values.
- This health emergency has changed daily working life of many people from eating food to breathing air we have to be more conscious than before. Wearing mask, using sanitizer or washing hands frequently is included daily routine. Purchasing anything or meeting people has become little awkward as we need to maintain Social distancing. A lot had changed in everyone life.
- The never expected happened in centuries. This emergency has created awareness among everybody on protecting themselves. It has also affected working trend and view most of the companies have asked their employees to work from home. In a way there is a lot of savings for a company, but in turn there is huge business loss also.
- Public health emergency become threat of an illness or health condition caused by infectious agents or other harmful biological or biochemical substances, epidemic and pandemic disease, or novel and highly fatal infectious agents that possess highly risk to number of human facilities.
- Covid-19 has led to an unprecedented global crisis exposing the new nature of health threats and emergencies, linked to food systems, human-wildlife and globalization. To counter this health emergency, response has

been initiated by all governments, the scientific community and people, fighting a virus.

- This health epidemic has changed many people's everyday working lives, from food to breathing, and we must be more vigilant than ever before. A regular routine includes wearing a mask, using a sanitizer, and washing hands regularly. As we need to preserve social distancing, buying something or meeting people has become a little uncomfortable. In everyone's life, a lot had changed.
- Health emergency has improved a lot in the current situation but still many government hospitals are understaffed or not much equipment.
- Wellbeing crisis has improved a great deal in the current circumstance yet at the same time numerous administration clinics are understaffed or very little hardware.

Conclusion:

Covid19 has changed the working styles of people in Telangana. The youth have changed their lifestyles abandoning night-outs and boycotting places of eating. The elderly citizens have been the most affected, and still live in a dilemma for their daily chores. Hospitality industry has taken huge beatings after this Covid19 Health Emergency.

Q2. In General, What Do You Think About The Development Of Hyderabad As A Social System?

- Hyderabad has for centuries maintained its pride of being a Cosmopolitan Hub for various cultures and ethnic groups. Establishment of modern educations and health infrastructure helped it even consolidate the social inter-action base into a harmonious land of unified diversity. However, the change in the political fever spearheaded by divisive forces has also impacted the city for trends that were never thought for or desired by

many. There seems to be ripples in the social structure in the minds and attitudes of the people, despite the state government doing its best at least on the surface to maintain the societal order and social system of the city.

- Hyderabad as social system has still to be more organized to function. as the people from neighboring districts and cities are settling in Hyderabad the population is increasing. with these basic facilities are only reaching to 70% of population. there are many organizations collaborated together to work for the betterment of society and are getting positive result. the GHMC always initiate new program to give facility to every person living in Hyderabad. lot of advancement has been progressed in city as it is becoming hub for IT companies and industries. the order and law are followed by majority but not everyone.
- There have been lot of developments in & around the Hyderabad past 5 years. Specially Infrastructure and Real estate has been developed a lot. Even the social life of Hyderabad has changed as there is much seemed life for individuals and families.
- social system depends on various things such as location, socioeconomic status, race, religion, societal function, or other features. Here location is very excellent in climatic wise. Because of IT industries which have been started decade back the social system of Hyderabad has been change, now the people of Hyderabad adopted different lifestyle, and get to know different culture and technology change the social system. Hyderabad's easily adopted the globalization.

- Hyderabad is a developing city. In my way Hy connects to the people in many ways. I shall call you about the traffic rules which we have implemented on the public right now for the safety and betterment. Police has started many rules and most importantly they are working on the slogans to warn the public about the accidents. "SPEED KILLS" / REDUCE SPEED"/ "DON'T TEXT DRIVE"/ "ARRIVE ALIVE "are few of them. Above all the challans that are being charged are so high that we find very few people without helmets.
- Social system in Hyderabad is good. There are plenty of social activities provided by different groups all around which also provides ample opportunities
- Social framework in Hyderabad is acceptable. There are a lot of social exercises given by various gatherings all around which likewise gives adequate freedoms

Conclusion:

Hyderabad's social system depends on various things such as location, socioeconomic status, race, religion, or other features. Hyderabad has easily adopted globalization, but there are plenty of places to develop in city for social activities provided by different age groups.

Q3. What Is The Relationship Between The Local Population And The Government? Is There Separation Or Integration?

- Apparently there seems to be a bonding between the people and the government. However, the recent local body elections that play a major role in this bonding exercise have spelled out a scary environment for the people of Hyderabad and other places of the state. There seems to be a

communal wave that is brewing amongst a fairly large section of the society. The governments over confidence and certain major lapses have enabled the divisive forces to make dents into the otherwise very peace-loving peoples of the state. It's still not late for the government and the people to rectify their stances for a better place to live in peace and harmony.

- relationship between local population and government is compatible enough to progress together. there are lots of initiatives starting to make integration between them. the public as well aware of government planning to develop the standard of living of city. the media of this city plays very good role in this relationship. every program of government s broadcasted and reviews of the public are also considered. the public opinions taken seriously in some issues. I hope there will be more transparency in between local population and government.
- Obviously, it is integrated. Because without local population votes there is no government. It is the people who make government.
- There seems to be a link between the people and the government. However, the recent local body elections, which play an important role in this bonding phase, have created a frightening atmosphere for residents of Hyderabad and other parts of the state. A communal wave appears to be brewing among a substantial portion of the population. Governments are in a state of trust and certainty.
- The local population on commits Govt easily depending on their type of work. Since work in HMDA, I can tell you their such restrictions or something

difficult such in meeting your needs you get permission easily depending on your type.

- In my perspective the people with reservation and other benefits can be considered as integration others can be considered as separation.
- In my point of view individuals with reservation and different advantages can be considered as combination others can be considered as partition.

Conclusion:

There seems to be a communal wave that is brewing amongst a fairly large section of the society. The governments over confidence and certain major lapses have enabled the divisive forces to make dents into the otherwise very peace-loving peoples of the state. I hope there will be more transparency in between local population and government. It is the people who make government.

Q4. What Do You Think About The Issue Of Women's Roles And Rights?

Hyderabad Projects And Policies To Balance Gender Equality In Hyderabad: What Do You Think?

- The issue of women's emancipation and empowerment is an issue that is far from addressed in the entire country and Hyderabad is no different. There are different reasons and factors contributing to this male hegemony prevalent since ages. However, the present GHMC Elections in Hyderabad have proved that if there is a will there can be change. The strength of the Women Corporators has risen to 80/150 in the Council. This points towards a positive role for women of the State of Telangana. Also, in bureaucracy and

other corporate sectors there has been a sharp rise in women participation which is a positive development.

- Women's rights and roles in Hyderabad is very well protected. The women here get lots of opportunities to participate in various competitions and challenges. Talented women get good encouragement from the government. Employment for women is more now than previous years. Night shifts in IT companies is safer for them. Government has initiated SHE teams for only women. These group of women police and constables ensures to get every safety and also ensures that women are getting their rights and roles properly. This team is only for women by women. I expect more from these types of organizations.
- Any country or state has to give equal rights to Women. In our state this been accepted and being implemented well. Even there has been proper sanity for women's and being improved on regular basis
- Those experiences must be encouraged. As a result, we must concentrate on establishing and opening a social club in addition to the current ones. These types of interactions will benefit not only individuals and society, but also the state's advancement in various fields.
- Oh yes women have the people rights. We have a she teams of the protection of women Swami Vivek Anda said 'just as a bird cannot fly with one wing only' a nation cannot March farad if the women are left behind. Today, A women is considered liberal, full of freedom, rights and equity and all the aspects.

- Nowadays gender equality and rights for women has substantial growth in top cities in India and same goes with Hyderabad
- These days sex correspondence and rights for ladies has considerable development in top urban communities in India and same goes with Hyderabad

Conclusion:

The strength of the Women Corporators has risen to 80/150 in the Council. Night shifts in IT companies is safer for them. Government has initiated SHE teams for only women. Swami Vivek Anda said 'just as a bird cannot fly with one wing only' a nation cannot March farad if the women are left behind.

Q5. What Do You Think About The Theme Of Interaction Between People Of Different Ages Or Nationalities? Projects And Policies To Encourage Greater Interaction In Hyderabad Between People Of Different Ages Or Nationalities: What Do You Think?

- Hyderabad has remained a city with absolute cosmopolitan characteristics and the same is soundly maintained. However off-late there is a ripple being created between peoples of different faiths by vested interests.
- Telangana in its roots is always an inclusive date. Hyderabad to start with is always famous for its Tehzeeb and diversity of including the locals and also the immigrants without partiality or discrimination. People of different nationalities always find solace in this city of Nizam's. Government of

Telangana adding to the existing has always encouraged the same. One example is the marathon race or 5k run which are organized weekly. This helps in the interaction and getting up between the people of different nationalities be it Arab, African, or Europeans.

- We need to encourage such interactions. So, we have to focus on forming and opening social club along with existing. These kinds of interactions would help not only individuals, society, but also will be of great help in development of state in various fields.
- Telangana has always been a welcoming state. To begin with, Hyderabad has always been known for its Tehzeeb, or diversity, which includes both locals and immigrants without bias or discrimination. People of various nationalities have always found refuge in Nizam's capital. Telangana's government has always encouraged this, in addition to what is already in place. The marathon race is an example of this.
- To interact between different ages and nationalities, governments or private companies can conduct different fairs like science agriculture etc. so the youth can interact and learn with experience people
- To interface between various ages and identities, governments or privately owned businesses can direct various fairs like science farming and so on so the adolescent can cooperate and learn with experience individuals

Conclusion:

Hyderabad has remained a city with absolute cosmopolitan characteristics and the same is soundly maintained. People of different nationalities always

find solace in this city of Nizam's. Government of Telangana adding to the existing has always encouraged the same. One example is the marathon race or 5k run which are organized weekly. This helps in the interaction and getting up between the people.

Q6. What Do You Think About The Work Of Immigrants In Hyderabad?

Projects And Policies For Immigrant Work In Hyderabad: What Do You Think?

- Immigrant workers of different states of the country have cherished employment opportunities in the City of Hyderabad for ages. From the time of the Nizams of Hyderabad till now this trend continues. Unlike many other states and cities, Hyderabad has remained a safe haven for immigrant workers. In sectors of Housekeeping, Constructions, and Restaurant Businesses, the city has offered immigrants dignified placements and taken care of their esteem at best. Covid19 Mayhem and other calamities have proved the way they were handled by the general public and government in all compassion.
- For centuries, immigrant workers from various parts of the world have coveted job opportunities in Hyderabad. This pattern has continued since the time of the Nizams of Hyderabad. Hyderabad has remained a safe haven for immigrant workers, unlike many other states and cities. The city has provided immigrants with opportunities in the fields of housekeeping, manufacturing, and restaurant management.

- I feel Immigrants in Hyderabad do play a Major role and also, we need to encourage immigrants to work along locals. In term it helps state to grow in every direction.
- Immigrants in Hyderabad, I believe, play a significant role, and we must enable immigrants to work alongside locals. In general, it aids the state's progress in all aspects.
- Immigrants join Hyderabad Lots of people are migrating from rural areas and different states to Hyderabad they aver their own stuff. They have their own business such as they can produce their vernacular business and work one them and have rights to fall. For example, let me tell you about UP, they are good at Zari work, Lucknow is famous for Lucknow work, Kashmir's are good at dry fruits and apples and they do run tier business here govt helps them.
- As I didn't run over any worker, I don't know about it

Conclusion:

Hyderabad experienced a large scale of migration from coastal areas, Rayalaseema and other parts of region. Poverty was the main factor for this rural-urban migration because of the employment development. This population shift resulted in enormous pressure for shelter and services fraying the infrastructure. A policy framework, transnational in nature, is the only way to promote stability, prosperity and security.

Q7. What Do You Think Of Green Infrastructure In Hyderabad? Projects And Policies To Make Green Infrastructure In Hyderabad More Accessible To The Public?

- Like any other city in the country, Hyderabad also has shrunk in its green pastures. Acute accommodational needs of the inhabitants and growth of population and expansion of the business domains has put pressures on the housing needs of people that led to massive construction projects on norms that even violate the open space norms. However, the government of Telangana has taken sound initiatives to uplift Bio-diversity projects and it appears that the green pastures and areas of the city are taking a fresh breather.
- Green infrastructure has been on top priority in Hyderabad. Government and people both are aware of plantation in city. Regular and common places like jogging tracks, road dividers, parking bays are designed in such a way that it has some area covered with green grass. projects like Haritha haram are being initiated to create more parks and green space. Public is also opting for vertical garden in elevations for commercial and residential building
- Our state already in process of creating Green Infrastructure. I would suggest the Government should take or handover its projects to private companies to develop and maintain.
- In Hyderabad, green infrastructure is a top priority. Both the government and the general public are aware of the city's plantation. Regular and

popular areas, such as jogging trails, road dividers, and parking bays, are built with some area of green grass. More parks and green space are being created through projects like Haritha haram. In addition, the general public is opting for vertical gardens.

- Green infrastructure in Hyderabad Our cm KCR is currently working on green projects has on started some projects such as green and smart cities to the development of districts, like Warangal, Karimnagar etc. Some steps are also been taken by the govt. Like setbacks are mandatory during the permission and 40% of the land is to be used for cutup area and 60% of land is to be considered for landscaping and Parking ETC.
- Green infrastructure is still not up to the mark. Government should raise awareness and also make people responsible in developing green infrastructure in and around neighborhoods and if they meet some certain criteria government can give them appreciation certification or maybe tax benefits.
- Green foundation is as yet not sufficient. Government should bring issues to light and furthermore make individuals mindful in creating green framework in and around neighborhoods and on the off chance that they meet some specific models' government can give them appreciation affirmation or possibly tax breaks.

Conclusion:

Green infrastructure has been on top priority in Hyderabad. Government and people both are aware of the plantation in the city. More parks and green space are being created through projects like Haritha haram. Government should hand over its projects to private companies to develop and maintain. Hyderabad needs to bring issues to light and make individuals mindful in

creating a green framework, he says. The government should raise awareness and also make people responsible for developing green infrastructure in and around neighborhoods.

Q8. How Is It Possible To Develop An Urban-Scale Project Around The Musi River To Encourage Social Interactions In That Area?

- Globally all riverside developments have taken place keeping in view the risk factors involved for habitat around the river beds. However, the scenic beauty and environs are normally crafted in to spots that are of importance to tourists and local habitat as centers of recreation and entertainment. Hyderabad's Musi river side is also crafter on line of the Thames, Nile and Seine rivers in London, Cairo and Paris. It is saddening to note that the city administration did not maintain the riverside and neglected it to the highest level.
- Musi River is a very great and resourceful gift for Hyderabad if maintained properly. Due to lack of maintenance, it has become hub for disposal of drainage and garbage. The water of the river is not fit for using. Many projects are made for development of Musi River but never came into action. It has very poor maintenance around and across whole city. There are lot of possibilities to develop social-interaction around it. There can be built up meeting halls for weekend gathering of various organizations. This can increase better understanding between age groups and nationalities. Musi River can be used as great source for travelling short distance through boats. Tourism will also get boosted with this idea.

- As mentioned earlier urban scale project around Musi River would be great idea and would definitely help state to grow but to do so first project to be done is to get Musi river clean and then should handover to private companies to develop Infrastructure along the river with various concepts.
- Hyderabad's water security depends on integrated Musi River management and on several water features that mark out the city. In addition, urban homes should be engaged in the recycling of waste water and the collection of rainfall. The telangana water project has ensured a water future in the city for several decades, the Hyderabad Municipal Water And sewerage Board said. The excellent mountain meant that the city's hunger for water also was quenched by Yellampally and Nagarjuna Sagar.
- Musi river has a badge called Purana pool which connects old and new cities. We have a Tank Bund which is but on Osman Sagar connecting the two cities Hyderabad and Secunderabad, this place is good for the social interactions between the two cities. In some manner Musi River has to be developed and encourage the social interactions between the two cities
- Take example of necklace road at Hussain Sagar I think same model can be implemented.
- Take illustration of Jewelry Street at Hussain Sagar I figure same model can be carried out.

Conclusion:

Hyderabad's Musi river side is also crafter on line of the Thames, Nile and Seine rivers in London, Cairo and Paris. It is saddening to note that the city administration did not maintain the riverside and neglected it to the highest level. The water of the river is not fit for using. It has very poor maintenance

around and across whole city. There are lot of possibilities to develop social-interaction around it.

Q9. What Projects Do You Think Are Urgent To Avoid Flooding In Hyderabad?

- It is important that Regulations as per the Master Plans taking safety measures for people in general are taken up first with deterrents as necessary. Lakes and Flood water collection ponds and water bodies are equipped with outlets in event of heavy rains and flooding. Such provisions are to be made after necessary technical and safety norms are taken into account. Under any or no circumstances shall greedy builders or developers be allowed to construct illegal structures that might block out-flows casing severe damages to structures and loss to life.
- Musi river is a very great and resourceful gift for Hyderabad if maintained properly. Due to lack of maintenance, it has become hub for disposal of drainage and garbage. The water of the river is not fit for using. Many projects are made for development of Musi river but never came into action. It has very poor maintenance around and across whole city. There are lot of possibilities to develop social-interaction around it. There can be built up meeting halls for weekend gathering of various organizations. This can increase better understanding between age groups and nationalities. Musi river can be used as great source for travelling short distance through boats. Tourism will also get boosted with this idea.
- Hyderabad Government and GHMC need to find out all the drainage system has to be rectified on a large scale and whenever applied need to check and rectify all the lakes and ponds which have been occupied illegally.

- It is critical that regulations based on Master Plans that provide safety measures for citizens in general be implemented first, along with any appropriate deterrents. In the event of heavy rains and floods, lakes and flood water storage reservoirs and water bodies are provided with outlets. After taking into account the appropriate technical and safety standards, certain arrangements will be made. Under no conditions will greedy builders or developers be permitted to install illegal structures that could obstruct out-flows, resulting in significant structural damage and human death.
- Hyderabad Government and GHMC must examine all drainage services that need to be upgraded on a large scale, as well as verify and repair all lakes and ponds which have been occupied illegally.
- To avoid flooding in Hyderabad first GHMC has to demolish all illegal establishments which are blocking seepage and the government has to setup a separate department like taskforce to keep tab on clean water, encroachments, seepage system.
- To try not to flood in Hyderabad first GHMC needs to crush all illicit foundations which are hindering leakage and the public authority needs to arrangement a different division like taskforce to keep tab on clean water, infringements, drainage framework.

Conclusion:

The uncontrolled expansion of cities led to the overloading of civic infrastructure. Storm water drain system cannot manage the increased intensity of rainfall. It is necessary to sustain regularly the rainwater collection drains. For early warning, surveillance, modelling, forecasting and decision assistance, science and technology must be created. At least several ideas should be put into effect at the largest Hyderabad city corporation & state government.

Chapter 5.0 - INDIAN CITIES CASE STUDY

The street and river development involves the ability to become a cultural and heritage focus for the city. By beautifying streets and waterways, the city travels through all locals and tourism public, attracting more visitors and increasing revenue to the city. Ahmedabad, Delhi, and Bangalore are the subjects of this case study.

5.1 - AHMEDABAD, GUJARAT INDIA

5.1.1 - Background

Since the city of Ahmedabad was formed near the Sabarmati River in 1411, the river has been a vital element of its life. In addition to being a major source of water, it served as a backdrop for social and entertainment activities.

Contaminated water slowly pours into rivers via storm drains, and industrial waste dumping endangers human health and the ecosystem. For years, there has been a widespread belief that the Riverfront has the ability to transition from an unpleasant state to a key municipal asset. Proposals to accomplish the same have been proposed since the 1960s, and it wasn't until 1998 that this multi-dimensional project was created and implemented by the city.⁴³

5.1.2 - About the river

The Sabarmati River splits Ahmedabad into west and east parts before joining the Monsoon River, which runs north-south through the city. Formerly, the river served as the city's primary water supply. The riverbank was utilised for agricultural activities during the dry period. Various informal national economies, such as the Sunday farmers market, were also held there. Many city dwellers and the homeless began to reside in urban slums along the river's

⁴³ Sabarmati Riverfront – Sabarmati Riverfront

banks throughout time. Rainwater runoff polluted with sewage, as well as the disposal of toxic waste into rivers, represent significant health and environmental concerns. In addition to the degradation of the environment's condition, the river itself is becoming unusable to the majority of the population. Till the 1970s, residents could only enjoy the growth of the river that flows through the city center.⁴³

5.1.3 - Different Development zones

Different development in that zones are river walkway, street, parks, market place, laundry campus and public toilet.

Land use:

The existing land use along the river; the range, location, and configuration of the available reclaimed land; development potential; structural road network and urban morphology; Ahmedabad development Bridges proposed in the plan; and the possibility of providing adequate infrastructure in new development projects are the main considerations for allocating land use for part of the land reclamation.



maps 11 Sabarmati riverfront

Source: Sabarmati Riverfront – Sabarmati Riverfront

River walkway:



Figure 23: River walkway Source: Sabarmati Riverfront – Sabarmati Riverfront

This project's core part is a two-story continuous riverfront walkway that runs across each riverbank. The lower-level walkway was constructed slightly above the water level to facilitate walkers and bicycles while also providing water. A number of city-level public features will be situated on the top-level walkway. They offer Ahmedabad with such a roughly 11.5-kilometer-long pedestrian walkway in the city center.

Streets:

Carefully constructed for riverfront distances, serving as a useful route for a variety of people and extending public spaces.

Distance from the river both riverbanks run parallel to the river, allowing for waterfront development to continue. The primary site is within walking distance. Connects the riverfront streets to the remainder of the city.

Private pedestrian routes with parking areas and broad driveways are available to bicycle trucks on all riverfront streets. Existing projects and, if necessary, prospective riverfront developments include access lanes on one

or both sides of the road. Infrastructure services and rainwater lines go beneath the access lane and below the center border.



Figure 24: River walkway Source: Sabarmati Riverfront – Sabarmati Riverfront

Parks:

The project has developed about 26% of the landfill in order to provide public space in the city core. Public parks and gardens, as well as shaded squares and urban woods, make up this open area. The Park must relax in a crowded



Figure 25: Parks development Source: Sabarmati Riverfront – Sabarmati Riverfront

architectural context, increasing the city's livability and giving the city with much-needed green space. The Park, on the other hand, serves as a public gathering platform for social and casual gatherings.

Market on the Riverfront:

Raviivari, an outdoor Sunday marketplace hosted beneath the Bridge, has relocated next door to its former position at old building (Haveli). It is intended to be an open-air market with a functional layout with platforms and spaces for vendors to show and market their products.



Figure 26: Market development

Source: Sabarmati Riverfront – Sabarmati Riverfront

On Sundays, the public market beneath the trees will feature "Raviivari" events as well as other seasonal markets. Tourist rest places, public bathrooms, multipurpose plazas, vehicle passageways, and parking lots have been established at the market.

General facilities:

Many public facilities are presently operational, while others are being constructed on landfills, therefore this section has particular criteria.

On a nearby location, the River Front Market was built to host the Sunday public market. Market stations, sitting spaces, paved walkways, food stalls, automobile access, park, and public restrooms in designated areas are all available at the market. The Exhibition Center provides trade show facilities that serve the riverfront business community. The Event Ground is a location where national and regional gatherings can be conducted. The Laundry Campus offers amenities for the laundry communities, which formerly had to do their laundry along the riverside.

5.2 - CHANDNI CHOWK, DELHI INDIA

5.2.1 - Background

Chandni Chowk is one of Old Delhi's largest and trendiest marketplaces. It's close to the Delhi railway station. The Red Fort is located to the east of Chandni Chowk. It was planned by Shah Jahan's daughter Jahaanara and erected by Indian Mughal emperor Shah Jahan in the 17th century. A market that was formerly divided into canals to reflect moonlight is now one of India's largest wholesale markets.⁴⁴

5.2.2 - About Chandni chowk

A shallow water channel was constructed from the Yamuna, which ran down the center of the straight road today known as the Chandni Chowk Bazaar, with roadways and stores on each side. The inclusion of a pool in the complex's center added beauty to the bazaar's square design. The market was well-

⁴⁴ Chandni Chowk - Wikipedia

known for its silver traders, which contributed to the name "Silver Street," as silver is known in Hindi as Chandni, a small variant of which creates Chandni.⁴⁴

5.2.3 - Redevelopment of Chandni Chowk Street

The study seeks to adopt steps to reduce present mixed traffic congestion and other associated difficulties in such a way that the measures are both economically and culturally viable. Energy usage, protecting the environment, and so on.

The project also intends to adopt steps to reduce present mixed-traffic jams and other associated difficulties in the perspective of financially and practically possible solutions: power usage, atmospheric friendly... It involves, among other things, the development of Chandni Chowk's walkway, the development of a walkability landscape while retaining the new element of Chandni Chowk, an interconnected plan for all services, the establishment of historical habitats, and so on. It comprises the route connecting from Fatehpur masjid to Lal Jain temple at Chandni Chowk.⁴⁵

5.2.4 - Vision for the Chandni chowk

The planned project is designed to create an enabling environment for the upcoming restoration and revival of Chandni Chowk. Develop structural elements continuity in the surroundings to boost the street's vision. The major goal is to enhance pedestrian's freedom of movement and security by giving pedestrians value in automobiles. The multiple roles of Chandni Chowk as a commercial route, social gathering area, and seasonal ceremony hub are

⁴⁵ Shahjahanabad Redevelopment Corporation (delhi.gov.in)

expected and preserved. Plants will be placed on both sides of the street to help restore the environment.

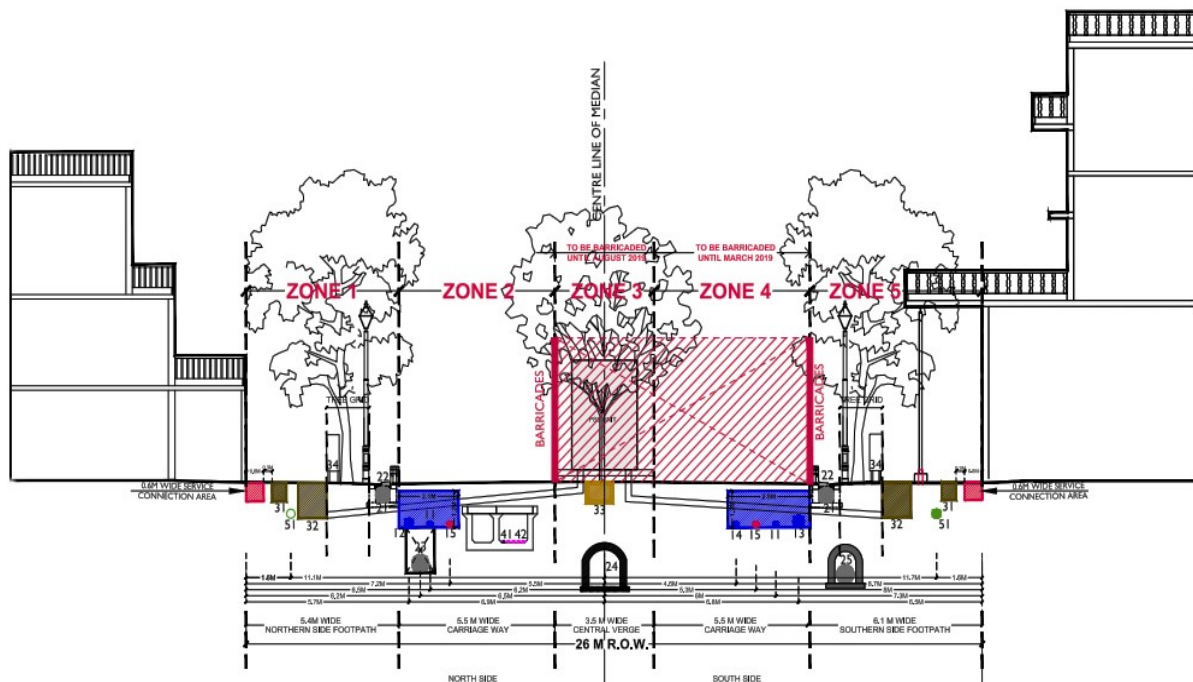


Figure 27: street elevation and zones division

Source: [Shahjahanabad Redevelopment Corporation \(delhi.gov.in\)](http://Shahjahanabad Redevelopment Corporation (delhi.gov.in))

As shown in fig the zones have been divided to handle the busy street, which has a pedestrian pathway, landscape elements, eco-friendly vehicles for the public to move from one end to the other, and some social gathering places for the public in between. All of these factors attract both locals and tourists.

Urbanization has resulted in an increase in population in this region, which is Delhi's biggest and oldest wholesale market. The damage and misery in the surrounding area, as well as the passageways constructed to house electricity lines, underground power lines, and gas and water pipelines, compelled the authorities to consider rehabilitating the danger zone.

This is a particular initiative for citizens, merchants, and government officials who have already been waiting for 15 years to visualize a clean, non-invasive, utilized, clean, and natural green area. Shahjahan Abad Redevelopment Corporation manages the project, which began in 2004 and it has been completed in March 2020. ⁴⁶



Figure 28: Visualization of street

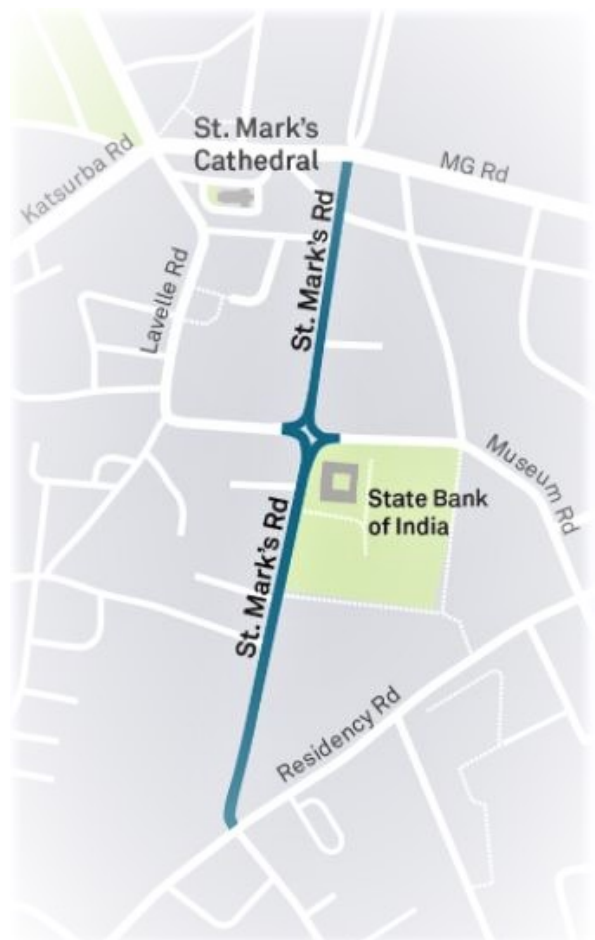
Source: Revamp of the Shopper's Paradise in the heart of Old Delhi- Chandni Chowk (worldarchitecture.org)

⁴⁶ Revamp of the Shopper's Paradise in the heart of Old Delhi- Chandni Chowk (worldarchitecture.org)

5.3 - ST. MARKS STREET, BANGALORE, INDIA

5.3.1 - Background

Saint Marg Street is one of the most significant commercial districts in Bangalore, India. The distance from Brigade Street to St. Marks street is 950m, adjacent to mahatma Gandhi Road. The avenue is dedicated following St. Mark's Basilica, which is located a couple of miles away.⁴⁷



maps 12 St. Marks Street, Bangalore, India

Source: Case Study: St. Marks Rd.; Bangalore, India | Global Designing Cities Initiative

⁴⁷ Case Study: St. Marks Rd.; Bangalore, India | Global Designing Cities Initiative

The 0.90kilometres Street is part of the main commercial area and links MG Avenue at Kumble Ring to the north and Resident status Avenue in the southern at the cash pharmacy junction.

5.3.2- About Saint Marg Street

This one-way road renovation has addressed several key issues, including inadequate planning and development, poor maintenance regulations, and ineffective service administration. It suffered from various widths of driving lanes, including improperly placed utilities at unsafe intersections with trees and disjointed damaged sidewalks in the center of the road.

5.3.3 - Redevelopment of Saint Marg Street

Through upfront investment, the goal is to balance existing applications, improve user experience, develop and boost urban environment, moderate traffic, and decrease disturbing construction projects. This will be a good structure for long-term urban development sustainability.



Figure 29: Before and after street development

The rows were partitioned such that they matched to two uniform-width vehicle lanes from the cash pharmacist junction to Mark's Square and 3

uniform-width vehicular lanes from Mark's Square to the River Blue Sphere. These portions all have one-way traffic in opposing directions. St. Mark's Road features wide sidewalks on both sides and bike lanes on one side.

It has been determined that the number of pedestrians strolling on the street has grown by up to 250 percent in daily life. The time it takes to cross the street using the roadside walkway has also been decreased from 3 to 5 minutes. At the same time, there is a drop in traffic flow. It has been determined that the number of pedestrians strolling on the street has grown by up to 250 percent in daily life. The time it takes to cross the street using the roadside walkway has also been decreased from 3 to 5 minutes. At the same time, there is a drop in traffic flow.⁴⁷

5.3.4 - Essential aspects

- Sidewalks have been improved and expanded.
- Secured one-way cycling paths.
- Transportation lanes that are uniform.
- Taxi, rickshaws, and parking spaces are all specialized and tiled.
- Between both the powered and non-powered routes, there is a vegetated strip.
- Holes and barriers are used to preserve and promote current trees.
- Underground services, including the construction of entry tunnels for utility line

Chapter 6.0 - FOREIGN COUNTRY CASE STUDY

6.1 - KUCHING WATERFRONT, MALAYSIA

6.1.1 - Background

The main goal of this development project is to increase marketing and project creates an enthusiasm that represent this location's personality, community, heritage, and uniqueness. The aesthetic characteristics and richness of the location as a riverside market are considered during the design. The importance of social culture festivals and concerts, as well as the tradition and architectural of this location, is highlighted in the design.

6.1.2 - About redevelopment Kuching Malaysia

Kuching Waterfront New Expansion Project is a collaborative development project between Ibraco Berhad, which is listed on the main market of Bursa Securities, and Pelita Holdings Sdn Bhd, a subsidiary of the Land Trust and Development Authority, through the newly formed joint venture Ibraco.⁴⁸

Since about the nineteenth century, Kuching's waterfront has seen numerous transformations: from a tiny town to a busy harbour with factories and docks, to the lovely riverfront promenade we see today as well as tonight. With the launch of the Shanxi waterfront development, we are seeing the beginning of a new era of transition.

The new Malaysia Riverside Proposed Project is a component of Yang Amat Berhormat Pehin Sri's idea for a bigger Kuching city, upgrading the Sungai Kuching River Bank into a multipurpose waterfront plaza that would serve as

⁴⁸ Kuching Waterfront New Extension | Ibraco Berhad

an excellent location for outdoor recreation. This initiative to improve the natural beauty of Shuangxi in Kuching would make it a popular tourism destination for both residents and visitors.

This expansion is a rehabilitation and reclamation project that extends the current Kuching Waterfront Esplanade about one kilometre from the Grand Margaret Hotel. The significance of this development project is that it will turn the existing waterfront area into a dynamic modern waterfront development project with an active boardwalk to serve the public, visitors, various end users, and surfers. However, it is also the focus of many commercial activity among the neighbouring villages and inhabitants.

6.1.3 - Land use features

This new Kuching Waterfront expansion is divided into many major areas:

The Landscape Gardening Plaza is a manicured open-air public square for the enjoyment, gatherings, and activities of the general public.

The Riverside Pedestrian Mall creates outdoor walkways and semi-closed public promenade spaces along the essential multimodal waterside promenade beside the bottom floor of high-rise serviced apartments and amenity podiums, the latter of which include F & B restaurants, cafés, and retail stores.

Through festival tourism, entertainment centres, and stores exhibiting local handicrafts and souvenirs, the event promotes cultural stage performances, works and crafts of local artists. Don't miss out on the Waterfront Pavilion, which provides a unique opportunity to witness the beautiful Sungai Sarawak sunset, as well as the Themed F & B shops, which serve local food and specialties.

Office Park is the location of all domestic and international enterprises, Private jetty and exclusive seaside residential development.⁴⁸

6.1.4 - Strategies

The design idea is a festival market with positive cultural elements, a seasonal and day trade activity presenting a range of everyday requirements and local specialties in colonial structures, Chinese shopping houses, and modern amenities available. It also encircled the pier, which functioned as a vantage point for the expansion bridge and a walkway connector. The initiative addresses the need for a sustainable environment and the ability to revitalize waterways, improve quality of life, and increase civic involvement. It contributes to Sarawak's legacy and culture by fusing tradition and technology while realizing city-river connections.



Figure 30: Riverfront walkway

Source: KUCHING WATERFRONT walkwayy - Bing images

6.2- THE AVENUE DES CHAMPS ELYSEES PARIS, FRANCE

6.2.1 - Background

The Champs Élysées is a roadway that runs through the heart of Paris, connecting the south-east to the north-west. It is a huge road that runs from the Place de la Concorde to the Arc de Triomphe and is 1.2 m long and 230 m wide. The street is divided into two sections: the thriving northern portion, which runs from Round Point to Place de étoile, and the attractively planted southern section, which runs from Round Point to Place de étoile.

The southern portion, from Place de la Concorde to RondPoint, which is attractively planted. This enormous avenue features 70-foot-wide walkways and double rows of trees to keep pedestrians out. However, crossing 10 lanes of traffic (approximately 87 feet) is difficult for pedestrians. The average daily traffic is around 84,000, with 10.67 accidents per junction per year.



Figure 31: Street View *Source: Champs-Élysées - The Most Beautiful and Famous Avenue in Paris (introducingparis.com)*

The Champs Élysées has been the venue of numerous historic military parades and public gatherings due to its closeness to several Paris landmarks such as the Arc de Triomphe. On Bastille Day, that boulevard hosts Europe's largest military parade. From the end of November until the end of December each year, the Commission participates to the illumination of the Champs Élysées for year-end celebrations.⁴⁹

6.2.2 - About avenue des champs

On the outskirts of Paris, the original Champs Élysées consisted of market gardens, meadows, and marshes. In 1616, Marie de Médicis, the Queen of France's wife, chose to expand the axis of the Palais des Tuileries' gardens by a horse chestnut-lined boulevard. The axis of the Tuileries park and the avenue leading to the Place de l'Etoile were extended in 1724.

The Champs-Élysées had become a popular boulevard by the late 1700s, and the trees on each side had increased. The avenue des Champs Élysées was given to the city in 1828, together with sidewalks, fountains, and public illumination. The Champs-Élysées had become a centre of cafés, hotels, and luxury houses by the 1860s, when Baron Georges Eugène Haussmann gave Paris its current appearance. The affluence of the 1960s, on the other hand, drew airlines, auto dealerships, fast food restaurants, marijuana merchants, and parked cars. Rents have dropped dramatically, and many commercial premises have remained empty.⁴⁹

6.2.3 - Redevelopment of street

Mayor Jacques Chirac of Paris began a \$45 million initiative to restore historic sites and public spaces in 1990. The goal of the renovation, according to

⁴⁹ re:Streets | The Avenue des Champs Elysees (restreets.org)

Barube, was to update a magnificent promenade popular with Parisians, both French and expats, by restoring the city's lost life with its excellent dignity."



Figure 32: Street View

Source: Champs-Élysées - The Most Beautiful and Famous Avenue in Paris
(introducingparis.com)

Among the key elements of the Champs Élysées redevelopment

- Removing parking lots from the road's edge and building a new underground car park with 850 seats to improve the view of the boulevard.
- Widening of the sidewalk.
- A second row of trees is being planted.
- Lampposts and bus stops, for example, should be reduced and rearranged.
- New rules on advertising, signage, and patios will help to modernize shops.
- Changes to the land use plan to encourage the restoration and development of functions such as hotels and movies, therefore resurrecting a portion of the activity for which the boulevard was once renowned.

Chapter 7.0 - OUTCOMES FROM THE CASE STUDIES

With the assistance of case studies of riverside and street rehabilitation in different locations the objective of our project is to connect Charminar Street to the Musi River. We've compiled a list of the many features we've learned via case study evaluations.

7.1 - CASE STUDY REVIEW

Table 12: Case StudyReview

SABARMATI DEVELOPMENT AHMEDABAD,INDIA	Development centered on the city Attracting potential investors promoting economic development River revitalization Improvement of infrastructure Growth of recreational activities
CHANDINI CHOWK DELHI,INDIA	The objective of this project is to increase pedestrian mobility and security. Tourism in the city has increased. Development of recreational facilities Creating an open space Charging the groundwater Street facades development

	Distance plays a variety of roles as a commerce route, a social place, and a seasonal event center.
St. Marks Road,Development Bangalore, India	Develop walkways secured cycle tracks at one way Constant road. Develop parking for two and four wheeler Landscaped on the both the sides.
THE AVENUE DES CHAMPS ELYSEES PARIS, FRANCE	Develop the tourist business in this country. The pedestrian environment is improved. A wonderful walking experience is created by two rows of hardwood broad pathways, patio seats, and street cafés. Gives you a safe place to go out at night. The streets are lit, establishing a new evening vibe.
KUCHING WATERFRONT, MALAYSIA	Promoting local companies such as the seafood restaurant and the dry market. Development with a commercial focus. Entertainment developments, such as a meditation resource persons and a walkway. Improvements to the river's appearance.

7.2 - DEVELOPMENT QUALITIES

The characteristics given in the city development are based on the studies mentioned above.

- Make use of edges, connections, and access.
- Locations to explore and areas to go
- Determination of required distances
- Making public amenities available
- Making use of natural components
- Versatility in design and heritage protection
- Regional methods and a variety of financing options
- Land use planning

7.3 - NEED TO PLAN URBAN DEVELOPMENT

In many elements of life, such as sustainability, economy, socio-cultural preservation, and historical preservation, urban development helps to bettering the quality of life. Make the city a major trade and business center with world-class infrastructure.

Provide the city with appealing investment possibilities in order to stimulate economic growth and security.

Develop the city into one of the country's most important tourist destinations, complete with world-class amenities.

Delightful leisure and recreation features, such as gardens and waterfalls.

The achievement of economy's growth project's in urban character.

Enhance the general level of living for urban people.

Provide a pleasant living atmosphere.

It is freely accessible to the general public and is guaranteed by the government as a public entertainment complex.

Chapter 8.0 - BUDGET

To understand the city's part in urban growth, one must first understand the investment and allocation for the growth and function of city infrastructure, as well as their portion of the overall state's budget. The Greater Hyderabad municipal cooperation funding for 2019-2020 is 8,500 crore, while the funding for 2020-2021 is 10,000 crore.

Table 13: Annual budget

head	Budget 2019-2020		Budget 2020-2021	
	Indian rupees (in crore)	European (in crore)	Indian rupees (in crore)	European (in crore)
Capital funding	4130₹	48.58€	4215₹	49.58€
Revenue funding	1250₹	14.70€	1385₹	16.29€
Ghmc total expenditure	5380₹	63.29€	5600₹	65.88€

According to the GHMC budget, 15 percent of the budget is allocated to the improvement of Charminar and the musli development of the city's streets during the 2020-2021 period. In the city of which 20 percent is devoted to the city's sidewalks and 6 percent is devoted to improving the city's facades infrastructure, 30 percent of which is devoted to Parks and roads. Knowing this, it can even be mentioned that the government has begun to take extreme measures to enhance the city of Hyderabad.⁵⁰

⁵⁰ GHMC BUDGET 2021-22.pdf

Table 14: Division of budget

headings	Budget 2020-2021	
	Indian rupees (in crore)	European (in crore)
Heritage restoration	84₹	0.98€
Road restoration	168₹	1.97€
Greenery	109.2₹	1.28€
Drain stormwater	42₹	0.49€
Sewage lines	67.2₹	0.79€
graveyards	33.6₹	0.39€
Telangana haritha haram	42₹	0.49€
Musi development	210₹	2.47€
others	84₹	0.98€
total	840₹	9.88€

Source: GHMC BUDGET 2021-22.pdf

GHMC allocates about 5600 crore in budget for city development, as shown in the tables for each department of development, and this all works under the direction of the urban development minister.

Chapter 9.0 - PROBLEMS AND MANAGEMENT

This chapter is about discussing issues and management issues. Everything started in Hyderabad, which is famous as the center of technology. Hyderabad has many great restaurants and businesses. Charminar Golconda Fort and other archaeological sites may be found there. Charminar is a 16th-century building with four arched spire and a landmark in the old town near PatharGatti, a traditional and walkable distance to the Musi River. Through basic concepts and a series of related questions. The Charminar Consolidation is supporting millions of dollars in public funds. Riverside greenery, pedestrian paths, convenient places?

9.1 - STRATEGY FOR URBAN REDEVELOPMENT

Preserving nature and heritage	Resolving mobility	Edge redevelopment	Adaptive Reuse	Reusing land resources
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- Improving the architectural built area helps to contribute in practical and aesthetic improvement, as well as counteracting the area's negative image. It also makes it more appealing, with the goal of greater socio - economic restoration.
- Designing an appealing urban landscape, assisted by improvements in public transport and other future mobility methods, can enable residents and tourists enjoy a higher quality of life.

issues	site level plan	design action	design strategies
Development unintegrated with the natural systems	Environmentally sensitive locations and activities must be preserved.	Developing low-density active recreation spaces within in the project's natural zones	Land resources were used as the site's structural components.
Negligence of city heritage and facades	the street's historic monuments and facades are losing their dignity	restoration of historical buildings on the site area in order to preserve the city's identity and heritage	Preserve and utilize old structures and facades in order to encourage and maintain the city's ancient traditions, aesthetic and historic legacy.
Imbalanced pressure are caused by unstructured density.	Making densely populated areas	Developing small and densely designated districts in appropriate locations while respecting the environment resource system	Adequate density and patterns are assigned to save land and natural resources.
The metropolitan city's public transportation system is not well connect-ed.	promoting the use of public transportation for day-to-day activities	Assigning government duties along the transport system to encourage the usage of public transportation.	A public transportation system connects the transit system to the area.
Activities that are separated and scattered	Developing a hybrid of IT-based developments and special dwellings, essential services, and businesses	Selecting a range of services, such as residential development, mixed-use infrastructure, and leisure facilities, inside natural regions that are essential for regular life activities.	The arrangement of services in a systematic order, as well as the intersection of the those activities

Increased reliance on vehicles	Designing walkable communities	Developing social amenities within 500m to 1 km walkable distance	Connecting a healthy bicycle and pedestrian network with an enjoy living, study, and leisure atmosphere
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Table 15 issues and strategies

9.2 - HYDERABAD PROBLEMS AND SOLUTIONS

Problem 01: As you can see in fig, the Charminar is surrounded by a lot of fruit vendors and small businesses, which causes a lot of issues for the general public and tourists?



Figure 33: traffic chaos near charminar

Source: syed aswan

Recommendation:

These street sellers and vendors confront several challenges and inconveniences in conducting business, while local residents and tourists

encounter similar issues. As a result, we can create a market area at the Musi Bank that is accessible for vendors and small enterprises, as well as comfortable for residents to shop. At the same time, we can create an appealing border for visitors and pedestrians surrounding Charminar Street, complete with a tiny pocket garden and a variety of additional facilities.

Problem 02:

The charming street footpaths, which are filled by hawkers and street food stalls, are having a negative impact on pedestrians and clogging traffic? As you can see in fig.

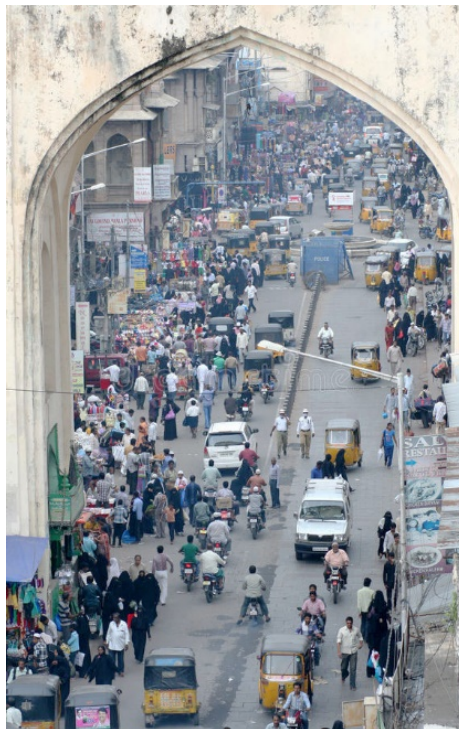


Figure 34: Traffic chaos street

Source: syed aswan

Recommendation:

Currently, the main road is 24 meters wide and the walkways on both sides are 2 meters wide, indicating that there is insufficient space for car traffic and pedestrian flow. To enhance the city of the neighborhood, the roadway must be redeveloped.

A 10-meter road should be proposed, with dedicated lanes for electric buses, non-powered rickshaws, and restricted motorcycles and other motorized vehicles. As a result, there is a pollution-free zone, and it is successful in conserving Hyderabad's heritage. Space of 7 meters at the both sides are recommended to enable pedestrian mobility easier and safer, even for activities such as small cafes and cycle parking and remaining spaces can be develop for vegetation for division.

Problem 03:

There is no place for communal or recreational activities because the Charminar area is totally crowded and jammed with business structures. Is there a scarcity of open space for the people to spend their leisure time?

Recommendation:

At musi Bank, We developed a cultural and leisure area that included an open theatre, cultural center, riverfront promenade, coffee bar, and portable installation for events, as well as a tiny pocket garden surrounding the Charminar and green space to store anything.

Problem 04:

Parking is a significant issue surrounding the Charminar and its streets, as well as near the Musi; because to its commercial zone area, there has to be a parking lot for every mode of user?

Recommendation:

Finding parking in highly populated places is getting increasingly challenging as vehicle rises. The search for available spaces may consume valuable time, expand the number of vehicles on the road, and raises major difficulties to

public infrastructure. Management of smart parking technology facilities to make it easier for city inhabitants to drive and park their vehicles.

Problem 05:

There aren't enough spaces for people of all ages and nationalities to mingle in order to increase tourism?

Recommendation:

Such connections must be encouraged. As a result, in addition to existing social clubs, we must focus on creating and opening new ones. These sorts of connections would benefit not just people and society, but also the city development in a variety of sectors. One example is the marathon race or 5k run, which are conducted on a weekly basis, and we add more innovative things near to the site.

Problems 06:

For public access, there must be development along the Musi River's edge?

Recommendation:

The waterfront edge design should have a strong public access design that will adapt to most usage, including different sorts of boats that reflect the user's input. Recreation and possibilities for human contact with water should be promoted where possible, and the design should not exclude future additions of elements to increase public access.

9.3 - IMPACT OF HYDERABAD ON THIS SOLUTIONS

The mission for revitalization is to build a magnificent city that reconnects musli and Charminar. The aim is to reduce traffic congestion in the neighborhood, encourage free pedestrian mobility, supply basic equipment, and improve the surrounding green space, all while displaying a rich heritage and culture.

The merchants' organization is opposed to the inability to restrict vehicle entrance into the territory since it has an impact on their sales and economy.

When it came to the idea that the area would be a car-free zone, the main concern of traders was the loading and unloading of goods. For this issue, we worked on it and decided that this stretch of road would just be a no-motorized zone from 8 a.m. to 10 p.m. Thus, between them, they can allow the loading and unloading of goods on motor vehicles.

Potential points:

- Maintenance: To begin, the streets must be maintained on a regular basis in order to keep the passageways neat and clean. Law enforcement officers and sanitation workers patrol the streets to keep tourists safe and to reduce the usage of garbage cans.
- Second, officials should clean the areas around museums, marketplaces, and community centers on a daily basis.
- Walking on the street: Due to the large retail area, crossing wide and congested streets is difficult for pedestrians.
- Expensive rents: The boulevard continuous success resulted in expensive rents, which resulted in the loss of businesses in the area, giving birth to the street in the city original name.
- Access for pedestrians: patio eating spaces and sidewalk canopies can occasionally disrupt pedestrian flow of traffic.

9.4 - HYDERABAD SUSTAINABLE POLICY

Goal 1: No Poverty

India is one of the countries with a high number of people living in poverty and are struggling to fulfill the most basic needs like health, education etc. In Hyderabad, many of such people work as street vendors and hawkers. These people do not have much security and are constantly harassed by authorities and criminal organizations. In our project we are providing them an opportunity to run their business in an organized manner like the market of Porta Palazzo in Torino. This will provide them visibility, security, and some respect. This will help improve their financial status. This will also help the government by letting them keep tabs on these hawkers and collect some taxes.

Goal 3: Good Health and Wellbeing

Sustainability demands healthy lives and promoting well-being for all ages. In Hyderabad, one of the major problems is the lack of green recreational areas. In our site, the design at the banks of River Musi, will increase the number of green spaces. Along with this we are also design the area around Charminar to be a Pedestrian area. The green area will encourage people to come out of their homes, rather than sit at home. This is going to increase the number of people who would walk in the area and reduce the number of possible road accidents.

Goal 8: Decent Work and Economic Growth

Our design hosts an organized market which gives the street hawkers and vendors a proper place which is safer and more concrete. It gives them a

chance for visibility and respect. This is a good way to provide them economic growth and financial stability. It also protects them from criminal organizations and they get associated with the authorities.

Goal 11: Sustainable Cities and Communities

The world is becoming increasingly urbanized. Currently over half of the world's population has been living in cities. This is causing the cities grow at an accelerated pace and is causing many troubles. Many people who work in the cities are in the state of poverty and live-in slums. In our project, we design spaces that improve the quality of life and work for these people and by increasing their visibility and respect, we are building a community which has more equal access.

Goal 12: Responsible Consumption and Production

The designed market is going to give clear acknowledgement to the small scale business, which will benefit the vendors and also give them a reasonable pricing for their products. Generally the price of the products can determine the way they are being used. Many people waste and mistreat the cheaper products. In this project we are also improving the use of the natural environment around the river Musi, which has been underused and almost used as a dump for the past couple of decades. By working on the zone, we are also improving the quality of environment around the area.

Goal 13: Climate Action

Similar to the previous mentioned point, our project improves the environmental impact on different zones of the site. We are working on a pedestrian only zone near Charminar and improving a green zone around the river which is going to decrease the air pollution.

Goal 14: Life below Water

As mentioned earlier, River Musi has been used to dump garbage for a couple of decades which has made it unusable. The river is completely polluted. By this project we are going to get the river cleaned and habitable. This is going to improve the quality of water and also having a positive effect on the functioning of ecosystems and biodiversity.

Goal 15: Life on Land

Nature is critical to our survival, it provides us with oxygen, food, water and other important resources. Human activity has altered the earth's surface which has cornered nature and almost diminished. The river has such an effect on the life on land around it. In a tropical country like India, water bodies help cool the zones. By developing the river and getting it cleaned, the quality of life around it will be improved. We are providing a safe environment around Charminar for pedestrians which is also going to preserve the heritage sites that were deteriorating due to the pollution in the site.

10.0 - CONCLUSION

Creating a design that influences urbanisation criteria is usually difficult since these areas are still under a lot of pressure from capital growth and commercial considerations. This specific theoretical use of specific land and natural resources while preserving natural areas and heritage legacy by developing compressed high-rise development, mixed-use livelihood and free carbon footprints as a sustainable model and incorporating it into the planning area, thereby reducing the environmental impact for future generations.

A lively city is not a static setting or a scenery, but the "show" architecture of the last 25-30 years intended to build. The study offered a knowledge of what urbanization is and how its advantages may enhance quality of life. Urban living city accounts for the greatest proportion of the whole development system, and a lively city will enrich street development, leisure activities and recreational areas.

The preceding chapter detailed the characteristics of urban growth along the Charminar and Musi rivers based on the psychological requirements of various groups of people. In each interview, a new aspect of the interviewee's social life was highlighted. This design necessitates that we as designers understand the many requirements of various groups of people in order to build a dynamic city surrounding.

Charminar is located in the heart of the city. The city core is now a dynamic center for market, tourism, manufacturing, and business. This pedestrian's business route has the natural benefit of attracting people who travel. Due of

their bad infrastructure, Charminar Street and the Musi River are being ignored by the citizens and the government.

By linking Charminar Street to the Musi River, it has the potential to draw visitors from all over the world. At the same time, we can enhance tourism and retail plazas, creating additional area for vendors and other services. I hope that my thesis will be useful in urban revitalization and will stimulate future research.

Apart from being a connection of Charminar and Musi, with shared open spaces, natural resource, infrastructural, and cultural landmarks for all Hyderabadis. This is the most significant initiative for the city in terms of its positive impact and feel good aspect! Greetings to our city, and stay ahead of the many delights that Hyderabad has to offer.

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