



a better bengaluru.

A Corporate Real Estate perspective

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A CORPORATE REAL ESTATE PERSPECTIVE

"EMERGING COMMERCIAL MICRO MARKETS"

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BENGALURU - THE EVOLUTION AS COMMERCIAL AND IT HUB OF INDIA

INTRODUCTION

From being known as 'Garden City' or 'Pensioners' Paradise in 1980s to becoming the 'Silicon Valley of India' by 2000s, Bengaluru has seen tremendous growth trajectory in the last few decades. From a humble beginning of 13 companies accounting for Rs 16 crore worth of software exports in 1991, the city today wears the crown of being India's IT capital, contributing to Rs 6.3 lakh crore in software exports in 2022.

Over the years, "Bangalore" became "Bengaluru" and along with this, it has gradually strengthened its position as a Global IT Hub. It houses a third of the software companies contributing more than 35% of the national exports'.

BENGALURU'S GROWTH STORY



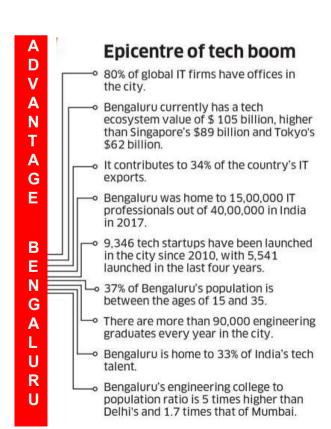
Bengaluru accounts for 15.8% of the total population of the state.

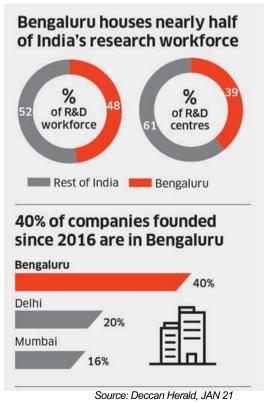


It has the largest number of high-growth companies in India, the fourth-largest in Asia.



80% of the world's global IT companies have centres in Bengaluru, including setting up their Research and Development Centres. Bengaluru also has thriving Start-up Culture. It is known as 'Start-up capital of India', considering its booming entrepreneurial culture and the fact that it is home to 40 of the 102 billion-dollar-valued start-ups.





2023



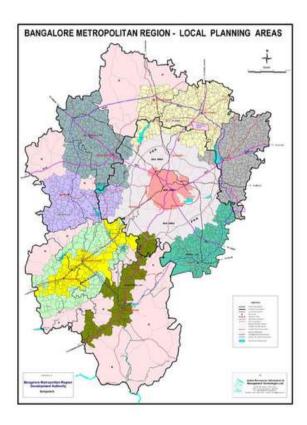


BENGALURU – SPATIAL DEVELOPMENT AND VISION 2031

SPATIAL DEVELOPMENT

Bengaluru has seen unprecedented spatial growth in last two decades as an economic and commercial hub, triggered by IT & ITeS driven development. Due to widespread inmigration for employment opportunities, Bengaluru's population has grown by almost 50% since the 1990s. Bengaluru has been expanding rapidly over the last three decades. Bengaluru is now the largest city in India after Delhi and Mumbai. The city shelters about half of Karnataka's urban population.

Spatially, BBMP (Bruhat Bangalore Mahanagara Palike) covers an area of around 780 sq. km while the Bangalore Metropolitan Region (BMR) covers an area of around 8005 sq. kms comprising of Bangalore Urban District, Bangalore Rural District and Ramanagara District. It is the second largest metropolitan region of India.



VISION 2031

Structure plan for the Bangalore Metropolitan Region for the horizon year 2031 framework advocates a synergy between sectoral socioeconomic planning and spatial planning which is currently being land use based, to now evolve as spatially integrated environment and investment planning with inclusiveness as the main focus. Vision 2031 envisages to address regional disparities and promote balanced regional development through:

- Strategic policy framework for planning, management and development in the region with focus on ecology and inclusiveness.
- Sectoral development in coordination with the National and State planning policies and regional guidance.
- Securing consistency between various local plans (both rural and urban) for contiguous or neighbouring areas by dovetailing existing plans and providing the framework for future plans, therefore ensuring streamlined and realistic development

The mission of vision plan is to develop and promote strategies that encourage investment opportunities thereby creating more equitable and sustainable regional economic conditions and growth prospects by offering a unique quality of life; and simultaneously encourage the decentralisation of economic activity ensuring balanced growth and sustainability in terms of resource management.

The biggest challenge faced in terms of implementation of Vision 2031 is to effectively manage the natural resources and ecology of Bengaluru metropolitan region through strategic intervention.





BENGALURU – GROWTH DRIVERS AND CHALLENGES

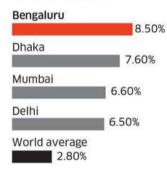
THE GROWTH DRIVERS

The Growth story of Bengaluru started with the announcement of The New Software and Computer Policy 1984 and post liberalisation, it became the address for home grown organisations such as Wipro and Infosys. In the last decade alone, Bangalore has accounted for 35% of Global inhouse Centres (GIC) in India. The value of R&D done in India is estimated to be around \$40 billion and is expected to increase in the years to come. With unprecedented growth of Software Industry, Bengaluru become the address for most IT Giants across world. Planning policies and the massive influx of investments have overhauled a city and created a space for unprecedented levels of technological creativity and disruptive innovations.

Further, Bengaluru was also a vibrant industrial hub and EMC Hub. It has had a concentration of both Central and State Public Sector Undertakings which has been reflected in the employment in these units.

As the Silicon Valley of India and a major centre for skilled workers, Bengaluru attracts a diverse range of professionals, including start-up enthusiasts, corporate investors, and migrant workers. Over the years, Bengaluru has also consolidated its position as a most connected cities of world, providing the basic infrastructures required for growth of different sectors. At 1.36 crore, the city's population, today, has grown to more than three times what it was in 1990. The UN's World Population Review further predicts that the population will grow by more than 30% to 1.8 crore by 2035.

Bengaluru has the highest projected growth rate in the world till 2035



The city has seen almost 1005% increase in urban built-up area between year 1973 to 2017 clearly showing the tremendous spatial growth driven by expanding population and urbanization.

CHALLENGES

Contrary to this promising picture, though, in July 2022, the city ranked 146th out of 173 in the Global Liveability Index 2022 released by the Economist Intelligence Unit, making it the least liveable city in India.

The rampant growth in the last three decades came at a price. The pace of infrastructure growth has not kept with population pressure and demand driven market leading to over exploitation of natural resources. Unplanned and sporadic growth has led to the dwindling of hundreds of lakes and wide expanses of green belt. Glaring infrastructure blunders came under the scanner when the city was brought to its knees with large regions inundated with water due to heavy rains last year. Further, Over the years, increasing congestion in the city has also handicapped its mobility infrastructure.

Current metro area population in Bengaluru

• ²⁰²³ 1,36,08,000 3.15% 1,31,93,000

• 2021 1,27,65,000 • 2020 1,23,27,000







BENGALURU – LIVABILITY PARAMETERS AND INFRASTRUCTURE GAPS

EASE OF LIVING

EOL by Ministry of Housing and Urban Affairs (MOHUA), Gol, is a framework to assess improved wellbeing of citizens with goal to improve liveability Index. The Index examines liveability of 114 Indian cities across a set of 3 pillars, which include a total of 14 categories and 50 indicators on the subjects of Quality of Life, Economic Ability and Sustainability.

In 2019, MOHUA came out with ranking of different cities based on Ease of Living.

Quality of Life Ţ Assessing Social Economic Managing Urban Wellbeing Robustness Spaces Education Level of Economic Environment Green Spaces and Health Development Housing and Shelter Economic Buildings **Energy Consumption** Wash and SWM Opportunities Mobility · Gini Coefficient City Resilience Safety and Security Recreation **EASE OF LIVING**

Bengaluru was assessed in category of 4 million plus population cities and landed up in bottom three cities of India in 2018, triggering debate on what are the factors that lead to lower ranking. Further, in the Global Liveability Index released recently by The Economist Intelligence Unit (EIU). The information and technology hub Bengaluru has emerged as the least liveable city in the country with a global rank of 146 in year 2022.

Bengaluru's Global image is under threat due to inadequate transport infrastructure, scarcity of water, pollution, traffic congestion, pollution, high cost of living, etc. Massive construction activities and pollution has affected the salubrious climate of Bengaluru, experiencing a strange mix of hot and cold.

The ever expanding city is finding it very hard to keep up with the Infrastructure demand. It is a major challenge for the urban local bodies to formulate and implement plans for basic infrastructure, transport systems, pollution control system and waste management system in Bengaluru.

TRAFFIC AND TRANSPORTATION

Urban mobility is one of the major challenges that is negatively impacting the quality of life of Bengaluru. The area allocation under transport and communication is around 7.3% in Revised Master Plan 2015 for Bengaluru, whereas the general norm is 20%. With weak mobility, the employees with increased disposable incomes began to use private vehicles, contributing to the present day's illfamed traffic jams. Vehicular ownership in Bengaluru is almost 64% due to poor public transportation options. The traffic volumes at most of the junctions have already exceeded capacity. Further, Business growth in the city has caused an unregulated urban sprawl adding to existing challenges.







BENGALURU – LIVABILITY PARAMETERS AND INFRASTRUCTURE GAPS

WATER - A SCARCE RESOURCE

It is a well established fact that the Bangalore region is one of the most sensitive regions with respect to water resources. One of a handful of urban agglomerations in the world to be situated above the 1000 metre mark. With no perennial sources of water, the city's development has been totally driven by a reliance on the nearest perennial source, River Cauvery, situated at a distance of 108 KM and more crucially, at the lower elevation of 450 metre. The scenario has become increasingly critical with the uncontrolled over- exploitation of ground water resources. The city's groundwater reservoirs are being rapidly depleted without an adequate opportunity for recharge.

Water Ecosystem is severely affected by Urbanisation. In 1961, the number of lakes and tanks in the city stood at 262. These, and open spaces have been encroached by enhanced demand for real estate and infrastructure` consequent to urbanisation. Temporal analysis of waterbodies indicate sharp decline of 58% in Greater Bangalore attributing to intense urbanisation process

Ground water and surface water pollution is another major concern. Urbanisation has impacted the natural water bodies and drainage system of the city.

AIR POLLUTION

Vehicular pollution is one of the major contributors to air pollution in Bengaluru. Additionally, Bengaluru is also impacted high degree of particulate matter (PM) of 2.5. PM due to low mixing height. Further, poor road condition and construction activities are contributor to the pollution. Air quality index varies from poor to severe in many major traffic junctions across Bengaluru.

POOR WASTE MANAGEMENT

Bengaluru generates around 1400 MLD wastewater, as per. The city has total treatment capacity of 721 MLD, but on an average, only 520 MLD gets treated. Most of Bengaluru's wastewater flows downstream untreated to natural drainage network causing pollution and unhygienic situation. Reuse of waste water and water harvesting are needed to ensure long term water sustainability.

Solid waster management is done through Bruhat Bengaluru Mahanagara Palike. Currently, the city generates around 6,233 tonnes per day in BMA, of which 5,757 tonnes come from BBMP. It is estimated that the figure will increase to 13,911 tonnes by 2031.

While door to door collection and segregation is in place with BBMP area, the newly developing peripheral areas within BMA are still lacking proper solid waste management along with required statutory framework to do so.

Going forward, BBMP is planning to augment the solid waste management infrastructure across Bengaluru city.



Urbanisation has had a heavy cost on air quality in the city





BENGALURU – STATUTORY FRAMEWORK FOR URBAN GOVERNANCE

INFRASTRUCTURE DELIVERY THROUGH STATUTORY FRAMEWORK

Urban Infrastructure development in Bengaluru is one of the biggest challenge in terms of meeting the needs of the growing population due to fast paced development of its peripheral areas as effective resource management. To cater to the needs of a vast and diverse population base, the responsibility to provide basic infrastructure and municipal services lays with numerous local bodies and agencies. The governance structure of Bengaluru is as below:

	ID 1 (D 1 M 1 D 1)			
Urban planning/Town planning	Bruhat Bengaluru Mahanagar Palike (BBMP)			
	Bangalore Development Authority (BDA			
	Bangalore Metropolitan Region Development Authority (BMRDA)			
Infrastructure - Water, Public Health, Tranportation, Law and Order, etc	Bangalore Water Supply & Sewerage Board (BWSSB)			
	Bangalore Metropolitan Transport Corporation (BMTC)			
	Bangalore Metro Rail Corporation Limited (BMRCL)			
	Lake Development Authority (LDA)			
	Karnataka Slum Clearance Board (KSCB)			
	Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC)			
	Bangalore International Airport Area Planning Authority (BIAAPA)			
	Bangalore Electricity Supply Company (BESCOM)			
	Police Department , Public Works Department			
	Health Department , Education Department			
	Revenue Department. Town Planning Department Horticulture Department, Motor Vehicles Department			

URBAN GOVERNANCE

Indian Constitution has provided three tiers of federal structure Union, State and Local specifying powers and responsibilities for all tiers of the governments. Urbanisation has triggered unprecedented growth which needs effective governance and efficient management. As a step towards the same, The Bruhat Bengaluru Mahanagara Palike Act, 2020 was notified to provide for an independent legislation for the purposes of improving decentralization, integration of public participation at various levels of municipal governance and to ensure efficient decision making by the Bruhat Bengaluru Mahanagara Palike. Through this recent BBMP Act, the municipal corporations have got more powers in which they can implement developmental schemes through which they can bring improvisation in those areas there are overlapping powers and functions.

Bengaluru is one of the few cities in India which encourages active public participation in Urban governance and highest municipal revenue collection. Basic Infrastructure development and maintenance is being managed by BBMP. Though there are many challenges, through public-private participation, it's been gradually managed through many nodal agency responsible for infrastructure delivery.

In recent budget, BBMP is provided with INR 2,300 crores to implement the Nava Bengaluru Kriya Yojane for development of efficient and consumer friendly infrastructure in the city.

Presently, there are many infrastructure projects in various stages of implementation in Bengaluru. Once completed, these projects will have a marked influence on the city's character and provide some relief to citizens from incessant infrastructure woes.





MAJOR INFRASTRUCTURE PROJECTS SHAPING BENGALURU'S FUTURE

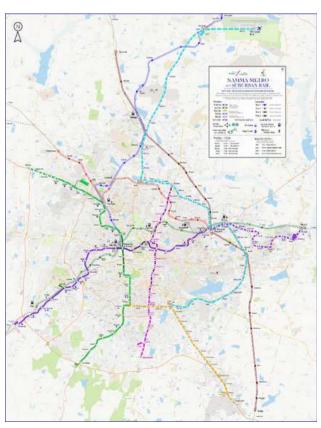
MAJOR PROJECTS UNDER DEVELOPMENT TO ADDRESS INFRASTRUCTURE GAPS

Nearly 127 km of metro and 270 km of road projects are in various stages of construction in Bengaluru. These projects will transform the way citizens travel in Bengaluru and is likely to unlock the incremental real estate development potential of over 3.5 million sq m (38 million sft) in the next five years across select key impact markets. Few major projects in offering are:

- Bengaluru Metro Project (Namma Metro): One of the major intervention to address traffic woes, Namma Metro has a mix of underground, at grade, and elevated stations. Currently, the Bengaluru Metro Rail Scheme is operational in a network spanning 56 kilometres. Work on connect Central Silk Board Junction to Kempegowda International Airport, spanning 58.19 kilometres and featuring 30 stations, is under progress and in future another 40 Kms of route are expected to be added making it second longest metro-network after NCR.
- BBMP presented Rs 11,157-crore budget for Bengaluru for year 2023 consisting of Roads, Flyovers, Traffic junction improvement, traffic management plans and parking lots.
- Satellite Town Ring Road (STRR): Impact of the project: STRR will largely benefit the manufacturing and logistics sectors, making it easy for the distribution and transport of goods to the interiors of Karnataka. The sixlane STRR corridor will pass through three districts of Karnataka (Bengaluru Rural, Bengaluru Urban and Ramanagara) and one district of Tamil Nadu (Krishnagiri) and ensure high-speed connectivity to the proposed Bangalore-Chennai Expressway.

- Peripheral Ring Road (PRR): This 116 Kms
 of high speed ring road is expected to connect
 major satellite town in outskirts of Bengaluru
 easing development pressure. The land
 acquisition for the proposed alignment is
 underway and once completed, it will ease the
 traffic burden on the ORR
- Bengaluru Suburban Rail Project (BSRP):
 The BSRP will crisscross the entire city and comprise of four corridors KSR Bengaluru City to Devanahalli, Baiyappanahalli to Chikkabanavara, Kengeri-Cantonment-Whitefield and Heelalige to Rajanukunte. The BSRP would facilitate the promotion of affordable and mid-income housing in the region, connecting it with employment hubs in the central and eastern parts of the city

Namma Metro Network







BENGALURU REAL ESTATE DEVELOPMENT ADDRESSING INFRASTRUCTURE GAPS

BENGALURU REAL ESTATE – AN INTRODUCTION

Bengaluru is one of the most sought after markets of India in terms of Real Estate Development. Real Estate market has been mainly driven by growth of IT & ITeS and Service oriented economy such as telecommunication, biotechnology and manufacturing of electronics, machinery, automobiles, food, etc. The growth of IT has presented the city with unique challenges of creating world class infrastructure to match the image of "Brand Bengaluru" as the Silicon Valley of India.

Real Estate plays a major role in creating required infrastructure in terms of Commercial and Residential development driven by expanding service sectors and growing population. Bengaluru property market saw highest growth in rents across different sectors and saw emergence of new areas of investment due of expanding city. The snippet of developing markets are given below:

- North: The Bengaluru International Airport being located on the Northern part of Bengaluru, has established to be a major growth market. The Aerospace & Hardware Parks developed have added to the growth of Commercial Real Estate zoom in areas like Jakkur, Sahakarnagar, Yellahanka and bagalur area.
- South: The South Bengaluru, which has developed to a great extent, after the development and growth of the ELCITA Region, where Electronics city has developed into a most happening place. There is a high potential of growth happening around South Bangalore in areas like Kankapura Road, Bannerghata Road etc.

- East: The East of Bengaluru, has been highest Commercial space developing area.
 The development of growth of Whitefield and the adjoining areas like the ORR and K.R.
 Puram has made this place a most preferred space for IT sector to have their bases set up in these areas.
- West: The West of Bengaluru is slowly developing to be a space to look out for in Commercial / Residential sector. The infrastructure growth has been quite good, due to metro connectivity and the ten lane Bangalore – Mysore Highway. The upcoming areas like Yeswantpur, Rajajinagar and Mysore road is driving the demand for commercial space.

BENGALURU - MAJOR GROWTH CORRIDORS







EMERGING MICRO-MARKETS – MAJOR GROWTH DRIVERS IN TERMS OF REAL ESTATE AND LIVABILITY

HEBBAL: Located in a strategic position and in close proximity to the Bengaluru International Airport, Hebbal forms an intersection point for all the roads that lead to the airport. The marvellous infrastructure is not all that's in Hebbal; the beautiful Hebbal Lake preserves the locality's nature quotient. People in and around Bengaluru frequently visit the lake, where one can go boating and rejuvenate themselves for the coming week. Several Commercial and residential projects are also under development in and around the locality.

The Hebbal flyover connects the Outer Ring Road and the Bellary Road, which is a part of the national highway NH-7 leading to Hyderabad. The presence of the Outer Ring Road makes Hebbal accessible to other major localities in Bengaluru. The Bengaluru International Airport is only about 30 km from Hebbal

ELECTRONIC CITY: Electronic city a pioneer in Information Technology Infrastructure Development, with approx. 200 IT/ITES Companies including Infosys, Wipro, TCS, HCL, Tech Mahindra, Biocon etc. located here. Electronic City lies in the southernmost outskirts of Bengaluru. Phase I lies right next to the Hosur Road, sandwiched between Phase II on its east and Phase III on its west. It consists mostly of retail hubs of electronic goods and services, with large land parcels dedicated to IT-SEZs. Being Country's largest IT/Industrial Park, Electronic City is one of the most preferred Residential Markets among Home Buyers & Investors. Further, Planned Namma Metro Phase-2 (R V Road – Bommasandra) completing this year will make it one of the most sort after markets.

MARATHAHALLI: Located in south-eastern part of Bangalore. Marathahalli lies adjacent to the old airport on HAL. It has Doddenakundi to its north, Kundalahalli, and Brookfield to its east and Kadubeesanahalli on the south. Marathahalli has witnessed a huge change over time as an outcome of IT Boom and its proximity to Commercial Hubs such as Whitefield, Electronic City, HAL Airport, Retail Development & Affordable pricing have been the key contributors to its growth. With its emergence as a selfsufficient township, a large number of flats and IT companies have also come up in the area. Easy accessibility to Whitefield, Silk Board, Bellandur, Electronic City & HAL is the key market driven for development of this area.

HOSUR ROAD: Hosur Road is a lengthy and efficacious four to eight-lane highway running through the National Highway 7. The 'villages' of Bommanahalli, Hebbagodi, Singasandra, Chandapura, and Attibele which once held the status of out-skirt suburbs, now fall within the developing belt of Hosur Road, bringing in growth, movement, and progress to these areas. The growth of Electronic City as a large IT hub within the city led to the development of Hosur Road as well, creating a brand new and highly equipped residential and commercial market. With excellent connectivity to Namma Metro of Baiyappanahalli, it is one of the Real Estate investment hotspots in Bengaluru.

SARJAPUR ROAD: Sarjapur Road is situated strategically in south-eastern Bangalore and links to Madivala from Sarjapur. This locality has witnessed considerable development and has found favour with IT professionals working in major zones like Electronic City, Whitefield, and Marathahalli. The area is home to the Market Square Mall along with several hypermarkets, supermarkets and educational institutes. Its emerging as one of the best localities in terms of in-place infrastructure and connectivity.





THE ORR ORBIT: The 60 km ORR is one of the prestigious road networks in the city winding its circular way through prime localities of Hebbal, Banaswadi, Kengeri and Kengeri Satellite Town, KR Puram, Marathahalli, Mahadevapura, Sarjapur Road, HSR Layout, Madivala, BTM Layout, JP Nagar, Banashankari, and Nagarbhavi. Bengaluru witnessed average annual gross office leasing of 13.9 million sft, with the ORR micro-market accounting for 45.0% of total leasing volume. The infrastructure development across ORR has developed in a very planned way making these location high in term of liveability index.

NORTH BENGALURU: Once dotted with extensive vineyards and tracts of arid land, the northern side of the city began its evolution in 2008 with the opening of the country's first greenfield airport. The international airport singularly drove real estate demand in the surrounding areas which were just sleepy villages. Presently this micro-market is metamorphosing into a prime office destination and the third most preferred location in the city for occupiers not only this year but also over the next five years, next only to the Outer Ring Road (ORR) and Whitefield.

BENGALURU COMMERCIAL REAL ESTATE TRENDS

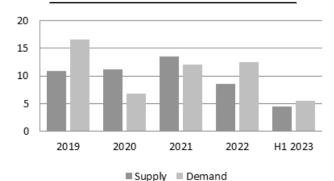
Bengaluru continues to remain as one of the top commercial real estate markets in India witnessing absorption of around 5.5 msf office space in year H1 2023 and accounting for almost 15% share in gross lease volumes in India, though this figure is much lower than H1 2022.

Co-Working space has emerged as the major occupiers segment contributing to 20% of the total lease volume. IT-BPM sector continues to be the major demand driver accounting for 40% of leased space during H1 2023, followed by BFSI (25%). H1 2023 recorded supply of 4.5 msf and a healthy pipeline of supply is due for completion in the second half of 2023. Around 15 msf is expected to be supplied in the next one year.

Bengaluru office market continues to be investor driven. Besides E-com, IT, ITES, the Co-Working space office requirement will contribute to the demand of commercial office space in Bengaluru in future. With an estimated supply addition of 11-12 msf during H2 2023, we anticipate vacancy to rise further in the coming quarters. Most of the supply is slated in the ORR sub markets.

After having steady rentals since last 2-3 years, rental appreciation is seen in few micro-markets in H1 2023 due to sustained and positive investment outlook. At the city level, office rentals have remained stable in most micro-markets. Going forward, Bengaluru commercial market is expected to sustain its demand – supply paradigm in the coming years.

Demand and Supply in Bengaluru commercial Market in million sft



Commercial Rental Trends in INR/sft/month	2019	2020	2021	2022	H1 2023
Bangalore - Central	75-150	75-140	75-120	80-180	85-190
Bangalore - South	80-100	75-90	75-90	70-105	75-110
Bangalore - North	85-125	85-125	80-100	85-120	85-125
Bangalore - East	35-65	40-70	50-70	50-70	55-75





Bengaluru Commercial Real Estate Trends

Major Deals in Bengaluru Commercial Market - H1 2023					
CLIENT	Building Name	Area (SFT)	Location	Lease/ Sale	
BHive Workspace	Triumph Towers	105000	Church Street	Lease	
Indiqube	Subramanya Arcade	169000	Bannerghatta Rd	Lease	
Indiqube	Shariff Centre	120000	St Marks Road	Lease	
Scale Facilitation Ltd	RMZ Eco World	70000	Outer Ring Road	Lease	
JLR	Brigade Tech Gardens	57500	Whitefield	Lease	
Narayana's Learning App	Independent Building	25000	Koramangala	Lease	
G4S Group	Prestige Centre	9000	Church Street	Lease	

BENGALURU RETAIL REAL ESTATE TRENDS

In H1 2023, Bengaluru retail sector saw return of positive investment sentiments with leasing of around 0.6 msf of space. Mainstreet retail hubs like Indiranagar, Jayanagar and Koramangala saw new leases and store openings by prominent brands like Khazana Jewellers, Bounce Inc, Pantaloons etc. The superior grade malls namely Phoenix Market City, Brigade Orion and Nexus Koramangala continue to record retailer churns owing to low availability of space. Popular brands across apparel, sports goods, F&B, accessories & lifestyle have recorded brisk activity in both main-street and mall space in Bengaluru.

Around 0.3 msf of space was added to Bengaluru retail market in year H1 2023. Due to sustained demand and scarcity of Grade A retail space, most micro-markets saw fall in vacancy to 12 - 15%. Rentals saw appreciation in most micro-markets owing to sustained demand. Overall rentals across prominent main streets in the city recorded an average 4-5% y-o-y growth. Around 1.2 msf of Grade A supply is expected during the year, but with a large portion of that space already pre-leased, it is likely to result in a marginal rise in superior grade mall vacancy by end of 2023.

Area	2020	2021	2022	H1 2023
MG Road	125-300	125-300	125-300	175-325
Brigade Road	150-370	150-370	150-370	150-400
Commercial Street	125-300	125-300	125-300	125-350
Indiranagar 100 feet Rd.	125-250	125-250	125-250	125-275
ayanagar	100-250	100-250	100-250	100-300
Sampige Road, Malleswaram	125-150	125-150	125-150	125-150
Koramangala	100-150	100-150	100-150	100-150
Vittal Mallya Rd.	150-400	150-400	150-400	200-400
New BEL Rd.	125-175	125-175	125-175	125-175
Marathahali Jn.	100-150	100-150	100-150	125-150
Kamanahalli Main Rd.	100-150	100-150	100-150	100-150



Bengaluru Commercial Real Estate Trends

Major Deals in Bengaluru Retail Market - H1 2023						
CLIENT	Building Name	Area (SFT) Location		Lease/ Sale		
Bounce Inc	Brigade Orion Mall	40000	Rajajinagar	Lease		
Pantaloons	PCR Garden Mall	22000	Electronic City	Lease		
Khazana Jewellers	Independent Building	15000	Jaynagar	Lease		
Ethnix by Raymond	Independent Building	8800	Jaynagar	Lease		
Namdharis	Independent Building	7000	Yelahanka	Lease		
Mango	Independent Building	5500	100 Ft Rd , Indiranagar	Lease		
United Colours of Benetton	Phoenix Market City	2700	Whitefield	Lease		



Bengaluru, often referred to as the **Silicon Valley of India**, is facing a significant challenge of traffic congestion. The city's rapid growth, coupled with an increasing number of vehicles on the road, has resulted in congested streets, prolonged travel times, and a decline in overall livability. This report aims to analyze the traffic situation in Bengaluru and propose strategies to decongest the city and alleviate traffic-related challenges. The include promoting strategies walking. enhancing public transport systems, improving self-sustainable livability, creating integrating metro rail with the suburban rail system, establishing 15-minute satellite towns, fostering participative democracy, ensuring bus and metro line connectivity, enhancing last mile connectivity, and incorporating bicycles in metro cars and trains.



The city of Bengaluru has experienced a remarkable upsurge in the number registered vehicles, resulting in a significant contribution to the prevalent traffic congestion. As per the data provided by the Bengaluru Traffic Police Department, the statistics reveal a notable increase of nearly 30% in the number of newly registered two-wheelers and cars in the city during January 2023 when compared to January 2022. Specifically, the number of registered vehicles in January 2023 amounted to 48,528 (comprising both cars and twowheelers), whereas it stood at 37,969 in January 2022 and 43,247 in January 2021. This substantial surge in vehicle ownership has consequently led to a surge in traffic volume, further intensifying the congestion issues witnessed on the city's roadways.

The impact of traffic congestion in Bengaluru on commuters' travel times has been exceptionally severe. It is astonishing to note that drivers in Bengaluru spend a staggering 260 hours, equivalent to nearly 11 days, stuck in rush hour traffic every year. According to TomTom Traffic Index Ranking 2022, Bengalureans face an average travel time of 29 minutes and 10 seconds to cover a mere distance of 10 kilometers. Such prolonged travel times have earned Bengaluru the dubious distinction of being ranked as the second-most congested city in the world. The consequences of this significant delay extend beyond mere frustration commuters. The reduced productivity resulting from the extensive time spent in traffic leads to substantial economic losses. Estimates suggest that the annual productivity loss amounts to billions of rupees for the city. These distressing figures highlight the urgent need to traffic congestion crisis address the Bengaluru. It is imperative to implement effective strategies and initiatives that not only reduce travel times but also enhance productivity and improve the overall quality of life for residents.

The detrimental consequences of excessive traffic congestion in Bengaluru extend beyond travel delays and economic losses. One significant concern is the severe implications it has on air quality. The emissions from vehicles make a substantial contribution to air pollution in the city, with the Central Pollution Control Board (CPCB) frequently reporting that Bengaluru surpasses the permissible limits for air pollution. According to a recent survey conducted by IQAir, a Swiss air quality technology company, Bengaluru experienced an 8% decline in air quality in 2022 compared to the previous year. The city recorded an annual average of 31.5 g/m³ (micrograms per cubic meter of air) of particulate matter 2.5 (PM2.5) in 2022. This value is over six times higher than the World Health Organization's (WHO) standard of 5 g/m³ of PM2.5, which is crucial for maintaining healthy air quality. Researchers from the Centre for Science and Environment (CSE) have highlighted the worsening levels of PM2.5 in Bengaluru during the winter of 2022-23.





The CSE report revealed that Bengaluru experienced the most severe peak pollution during this winter season compared to the previous four years. The analysis was based on real-time PM2.5 data collected from October 1, 2022, to February 28, 2023 On January 27, 2023, the daily PM2.5 level in Bengaluru reached 152 micrograms per cubic meter (µg/m³), marking the highest 24-hour PM2.5 average recorded in the city since 2019. The adverse effects of pollution on public health and the environment cannot be disregarded. It is crucial to address traffic congestion not only to improve traffic flow but also to mitigate the detrimental impact of pollution on the city. By implementing effective measures to reduce congestion and promote sustainable transportation options, Bengaluru can make significant strides in improving air quality and safeguarding the well-being of its residents and the environment.

According to the Global Livability Index 2023 released by the Economist Intelligence Unit (EIU), Bengaluru has been ranked as the "least liveable" city in India and 148th globally. This ranking takes into account various factors such as stability, healthcare, education, infrastructure, and culture. The traffic congestion issue in Bengaluru plays a significant role in affecting the overall livability of the city. It is imperative to address this issue to improve the quality of life for residents and enhance the city's global standing.

Encouraging residents to incorporate walking into their daily routines is an effective way to reduce traffic congestion. Walking for 30 minutes a day or more on most days of the week has been shown to have numerous health benefits. According to the World Health Organization, walking is an excellent way to improve or maintain overall Developing pedestrian-friendly infrastructure, including wider footpaths, well-lit walkways, and dedicated pedestrian zones, will promote walking as a viable mode of transport. By creating walkable neighbourhoods integrate residential, commercial, recreational spaces, the city can reduce reliance on private vehicles and alleviate traffic congestion.

Improving the efficiency and attractiveness of public transport is crucial for reducing traffic congestion. Expanding the metro rail network and integrating it seamlessly with the suburban rail system will provide a comprehensive public transportation solution. Coordinated planning and implementation of metro and suburban rail projects, along with common ticketing systems and convenient interchange facilities, will encourage commuters to switch between different modes of rail transport seamlessly. This integration will provide commuters with a wider network and increase the attractiveness of rail-based transportation options.

The metro rail system should be complemented by an extensive bus network, with improved frequency, reliability, connectivity. Seamless connectivity between bus and metro lines is crucial for the overall efficiency of the public transportation network. Enhancing the comfort and convenience of bus travel through air-conditioned buses, real-time information updates, and dedicated bus lanes will encourage more people to opt for public transport, thereby reducing private vehicle usage and alleviating traffic congestion. Identifying key bus routes that complement metro lines and integrating them into a comprehensive bus-metro feeder system will facilitate smooth intermodal transfers. Welldesigned interchange facilities at metro stations will further facilitate easy transfers between buses and metro trains. Cities that have successfully integrated bus and metro line connectivity have observed a significant shift towards public transport usage and a subsequent reduction in traffic congestion.







Improving the overall livability index of Bengaluru essential is for reducing unnecessary and travel congestion. Developing green spaces. parks, recreational areas throughout the city will provide alternative destinations within closer proximity to residents, reducing the need for long-distance travel. Enhancing the quality of infrastructure. including roads. systems, and waste management. improve the livability and attract investment in various parts of the city. By promoting mixeduse developments that integrate residential, commercial, and recreational spaces, the city can create self-sufficient communities that minimize the reliance on commuting to the city centre. This integrated approach development will lead to reduced traffic congestion and improved livability for residents.

Establishing self-sustainable hubs within Bengaluru can help disperse the population and reduce traffic congestion. These hubs should be equipped with essential amenities such as educational institutions, healthcare facilities. employment centres. entertainment options. By strategically locating these hubs in different parts of the city, residents can access necessary services within their localities, reducing the need for commutes. Developing sustainable practices such as rainwater harvesting, solar energy utilization, and waste management systems in these hubs will further contribute to a greener and more self-sufficient Bengaluru. Successful examples from cities such as Copenhagen and Singapore highlight the positive impact of creating self-sustainable hubs on reducing traffic congestion and improving the quality of life.

Developing self-sufficient satellite towns within a 15-minute travel radius of Bengaluru can alleviate pressure on the city centre and reduce traffic congestion. These satellite towns should be carefully planned, with the provision of essential infrastructure such as schools, hospitals, shopping centres, and public transportation terminals.

By offering affordable housing options and incorporating sustainable development practices, these satellite towns can attract residents and reduce the need for long-distance commuting. Successful examples from cities like London and Tokyo demonstrate the effectiveness of satellite towns in reducing the influx of commuters to the city centre, resulting in reduced traffic congestion.

Engaging citizens and stakeholders in the transportation planning process is essential for inclusive and effective solutions. Conducting public consultations, utilizing online platforms for feedback, involving community leaders and advocacy groups, and educating citizens about their rights and responsibilities are key steps towards fostering participative democracy. By incorporating diverse perspectives addressing community concerns, transportation policies can better reflect the aspirations and priorities of Bengaluru's residents. Cities that have successfully fostered participative democracy in transportation planning have seen increased citizen satisfaction and support for transportation initiatives.

Addressing the last mile connectivity challenge is vital for encouraging public transport usage. Developing a comprehensive network of feeder buses, shared bicycles, e-rickshaws, and pedestrian-friendly infrastructure will provide convenient options for commuters to reach their final destinations. Integration of smart solutions such as mobile applications for realtime information on last mile connectivity options and seamless ticketing integration will enhance the accessibility and convenience of last mile travel. Public-private partnerships can also play a significant role in investing in innovative solutions such as electric scooters. shuttle services, and ride-sharing platforms for last mile connectivity. Successful examples of cities improving last mile connectivity have seen increased public transport ridership and reduced traffic congestion





To promote cycling and encourage sustainable transportation, bicycles should be allowed in metro cars and trains like in the Western countries. Allowing commuters to bring their bicycles on board the metro will provide a convenient and efficient mode of transportation, particularly for short-distance travel. This initiative will encourage more people to adopt cycling as a means of commuting, reducing the reliance on private vehicles.

Cycling offers numerous benefits, including improved physical fitness, reduced carbon emissions, and decreased traffic congestion. By allowing bicycles in metro cars and trains, Bengaluru can enhance the integration of cycling into the overall transportation system.



The traffic congestion crisis in Bengaluru is a pressing issue that demands immediate attention. The city's rapid growth and increasing number of vehicles have led to congested streets, prolonged travel times, and a decline in overall livability. However, there is hope for a brighter future.

By implementing a comprehensive set of including promoting strategies. enhancing public transport systems, improving creating self-sustainable integrating metro rail with the suburban rail system, establishing 15-minute satellite towns, fostering participative democracy, ensuring bus and metro line connectivity, enhancing last mile connectivity, and incorporating bicycles in cars and trains, Bengaluru can challenges. traffic These overcome its strategies aim to reduce private vehicle usage, provide efficient and sustainable transportation options, and enhance the quality of life for residents. By implementing these strategies and initiatives, Bengaluru can overcome its traffic congestion crisis, improve air quality, enhance livability, and elevate its global standing. It is crucial for stakeholders, policymakers, and residents to work together towards a sustainable and vibrant future for Bengaluru, where efficient transportation and a high quality of life go hand in hand.





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