

2023

BBMP

Background Guide

INMUN

Letter From The Director



Dear Delegates,

It is my pleasure to welcome you to Inventure Academy's Model United Nations 2023! It is an honour for me to serve as the Chairperson for the Bruhat Bengaluru Mahanagara Palike.

The agenda we will be addressing focuses on the significant implications of urbanization in Whitefield, a densely populated and rapidly developing area of Bangalore. This region holds immense potential and is emblematic of the challenges and opportunities that arise from unplanned urban growth. Together, we will delve into the multifaceted aspects of this issue, considering its impact on various stakeholders, such as residents, businesses, and the environment.

As Members of the Legislative Assembly, you hold the responsibility of representing your Political Party and upholding its beliefs and policies throughout our committee. While doing so, I urge each of you to approach our discussions with an open mind. Your unique perspectives, insights, and innovative ideas will play a pivotal role in shaping the direction of committee and ultimately contribute to the overall success of the committee.

I implore each of you to conduct comprehensive research. While conducting your research, you should aim to delve into the broad implications and gradually zoom in on specific areas of concern. It is also important to look at past solutions and propositions, to gauge an understanding of what works and what doesn't. This will allow you to present well-informed arguments and propose effective policies during committee.

I trust that the gravity of this situation and the pivotal nature of your roles in Bangalore's planning will inspire each of you to challenge the boundaries of conventional debate and propose innovative, impactful policies. Please don't hesitate to reach out to me or any member of the EB for doubts or clarification. I look forward to meeting you all on the committee!

Warm Regards,

Ameya Mundkur

Chairperson of the BBMP - bbmp@inventureacademy.com

Introduction



Purpose of the background guide

This background guide is there to act as your instruction booklet - it'll help you understand the context of the agenda, committee and your role as a member of this committee. It is important to note, the background guide will help you understand which direction to go when researching, but should not be your only source of information before coming to the committee.

To effectively contribute to the committee discussions and debates on addressing unplanned urbanization in the Whitefield area, it is crucial to conduct thorough research and gather information from various reliable sources. The background guide serves as a starting point for your research, providing you with an overview of the agenda and the committee's objectives.

Overview of the BBMP

The Bruhat Bengaluru Mahanagara Palike is one of the largest municipal corporations in India. It is the administrative body that is responsible for governing and managing Bangalore. The BBMP was formed in 2007 by merging the Bangalore Mahanagara Palike (BMP) with surrounding local government bodies. Its jurisdiction covers an area of over 800 square kilometres, allowing it to oversee both the urban and suburban regions of Bengaluru.

The BBMP oversees the maintenance and development of the city. It focuses on Bangalore's urban planning, infrastructure development, public health, solid waste management, water supply, property tax collection, maintaining roads and drains, parks and gardens, issuance of trade licenses, and more.

Bengaluru, being a rapidly growing city, faces several challenges as traffic congestion, inadequate infrastructure, waste management issues, encroachment, and environmental concerns grow substantially day by day. The BBMP undertakes various initiatives to address these challenges, including infrastructure development projects, waste management programs, lake rejuvenation efforts, and urban planning initiatives.

In the BBMP, Members of the Legislative Assembly (MLA) are responsible for discussing concerns in their constituency, collaborating to come up with solutions, and then implementing those solutions in their ward. Note to keep in mind - It is important to keep in mind The BBMP's financial resources primarily come from property tax collection, grants from the state and central governments, and other revenue sources. Managing the finances effectively is crucial for the committee to carry out its responsibilities efficiently. When proposing resolutions, it is extremely important to understand the financial undertaking of those solutions, as they may take away from other important initiatives.

Historical Context of Whitefield



A brief history of Whitefield

Urbanisation has drastically changed not just Whitefield but Bangalore as a whole. A robust plan is required for Bangalore's future but in order to formulate that, the contours of the region's history must first be understood. The prior condition of Bangalore is arguably a manifestation of the peace we want to reinstate in the present and future.

Whitefield's history dates back to the late 19th century, when its British namesake David Emmanuel Starkenburgh White decided to establish a quaint village for Eurasian and Anglo-Indian communities. David White, chairman of the Bangalore District Board at the time, was also the founder of the Anglo-Indian Association of Madras. He established the Coorg and Mysore segment of the organisation. This branch presented a petition to the Government, requesting it for land. The Maharaja of Mysore generously provided the Association with 4000 acres of land. This gave White, an Anglo-Indian himself, the opportunity to create a settlement, the inhabitants of which he hoped would invest their time in agriculture so that the community would flourish into that of self-reliant farmers. White desired to set up "a self-sufficient Anglo-Indian village, one where everyone would work towards the common good and no man would own property." White's charming dream soon morphed into a reality. A number of visitors thronged what was previously known as the 'Garden City'. One of them was Lord Connemara (Former Governor of Madras), who journeyed to the pass between Kaolin Hill and Hamilton Hill on horseback to get his first glimpse of the settlement valley. This greenery existed at the heart of residences too. Down the road adjacent to the Memorial Church Property in Whitefield, there was once a 'village green' containing a village pond that collected stormwater and hence prevented flooding in the low-lying residential areas.

However, the charming modesty of White's social welfare-oriented vision has long faded.

In the early 20th century, several bungalows were constructed as residences for British officers and their families. Soon after, the Whitefield Railway Station was constructed. The Bengaluru-Madras railway line expanded to accommodate Whitefield in 1882, linking Whitefield to the busiest and economically most active cities at the time. Around 80 years later, Whitefield began its transition from a residential area to an industrial city. In the 1960s and 70s, a multitude of public sector corporations, including Hindustan Machine Tools, Bharat Electronics, and ITI Limited, built manufacturing units in Whitefield.

The industrial rise of Whitefield was quickly followed by infrastructural development. Commercial areas, residential complexes, educational institutions, and healthcare amenities were rapidly set up in the area. However, the sheer speed of this urbanisation left little to no time for the renovation of the region to make it more suitable for its new commercial roles.

The stark contrast between White's tranquil paradise and the industrial hub that Whitefield is today is also reflective of a vast variation in the area's culture and way of life. In other words, the area is no longer simplistic and its economy revolves around businesses stretching far beyond agriculture.

Factors contributing to urbanization in Whitefield

The causes of urbanisation in Bangalore and, specifically, Whitefield, can only be identified by analysing crucial moments in the city's history. Bangalore's urbanisation is a product of the manifold industries that flourished in the region.

Historical Context of Whitefield



The busiest industry to begin in Bangalore was cotton mills. The American Civil War caused an increase in the demand for cotton, which is why several ginning and spinning factories were constructed in Bangalore. Traces of Bangalore's industrialization can be spotted even in the middle of the 19th century. Multiple businesses, including cotton textiles, silk weaving, and steel manufacturing, emerged in Bangalore at the time. The British were proactive in setting up and encouraging the development of mass production units in the city, a token of their several industrial endeavours in India during their rule.

Bangalore's commercial facet only grew after India's independence. Factories utilized modern machinery and equipment to increase efficiency and enable large-scale production. Entrepreneurs and investors, including both residents of Bangalore and foreign individuals, also saw the wide scope for Bangalore's industrial journey; Bangalore was soon brimming with enterprise, supported by capital investment. A similar series of events influenced Whitefield's growth. Whitefield developed tremendously after ITPL (International Tech Park) was established in 1994; the development of this facility attracted multinational corporations such as Infosys, Wipro, and Tata Consultancy Services. This culminated in what is now considered the IT boom in the latter part of the 1990s and the early part of the 2000s and in the process, Whitefield became a paramount technology hub in India.

As multitudinous companies arrived in Whitefield, they constructed many office spaces - primarily within ITPL - and employed several individuals. This led to the development of infrastructure that supported the industry and made operations run more efficiently. Examples include the construction of Outer Ring Road (now Puneeth Rajkumar Road) and of the metro rail line, which gave people and corporations in Whitefield access to efficient and cheap transportation.

The growth of the industry also increased the number of employment opportunities, which attracted people from across the country to Whitefield, therefore resulting in a sudden rise in the area's population. Following this, apartment complexes, gated communities, and villas were built as residences. The influx of people was a large contributor to urbanisation as it also created a necessity for urban amenities and better infrastructure. Therefore, several commercial spaces, shopping centres, healthcare facilities, and educational institutions were constructed to cater to the larger populace. This created a positive feedback cycle; the plethora of housing options and recreational facilities, which were constructed to cater to the growing population, attracted even more people to Whitefield, hence driving urbanisation. In other words, many people sought the high standards of living offered by an urban area and the lively, gargantuan community in Whitefield.

Therefore, a concoction of social, cultural, and economic factors fuelled urbanisation in Whitefield. This is contrary to the environmental beauty and peace that pulled many British officials to the region during the colonial era. All four of these factors may exert a positive influence on Whitefield if present in the perfect balance; currently, industrialization in Whitefield has taken priority over all else, which inadvertently has had negative effects on the area.

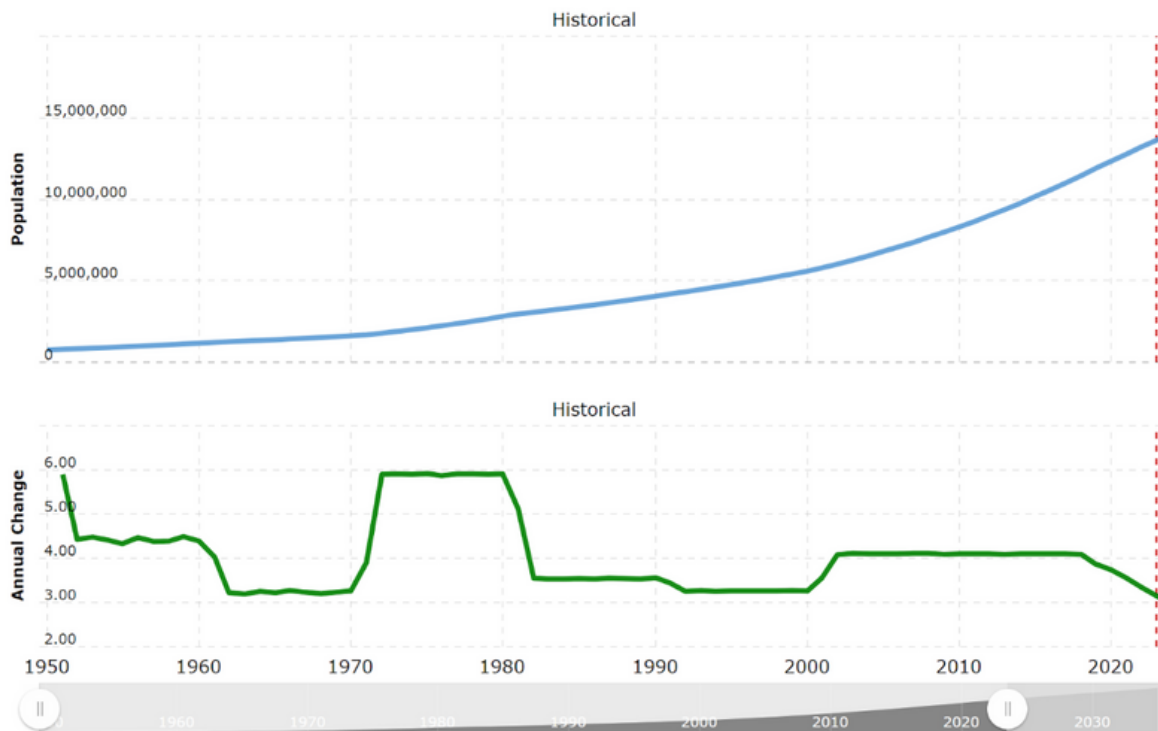
The next section will contain more information about the specific demographic, residential, commercial, and industrial changes that took place in Whitefield.

Urbanization Trends in Whitefield



Population growth and demographic changes

One of the key factors causing urbanisation in Whitefield was the sudden and unexpected rise in the area's population. Dileep Rao, who has been a resident of Whitefield for the last five decades, says that in 1965, Whitefield housed a meagre 1,500 to 2,000 people, predominantly Anglo-Indians. On the other hand, the population around 2011 rose above 100,000, according to The Census 2011. Considering that the town only housed 51 individuals in 1810, this statistic is evidence of Whitefield's tremendous growth.



Data Source: [United Nations - World Population Prospects](#)

The above graphs display the population of Bangalore (top graph) and the annual percentage change in the population of Bangalore (bottom graph), from 1950 to 2023. The graphs display that Bangalore's population has risen steadily over this time period, following the consistent industrial development in the city.

In 1972, the percentage annual change in Bangalore's population skyrocketed from 3.26% (in the previous year) to 5.90%. This yearly populace change stayed nearly constant until 1980, which is evidence that the establishment of a multitude of corporate and manufacturing segments in Bangalore at the time - including Hindustan Machine Tools, Bharat Electronics, and ITI Limited - marked the very beginning of rapid urbanisation in the entire city, including but not limited to Whitefield.

Moreover, according to a British government website, the greatest decennial per cent change in Whitefield's population was between 1980 and 1990. This suggests that the influx of people was largely influenced by the technology boom, which occurred during this period. However, the population growth in Whitefield didn't end there; the population of the town rose by a whopping ten per cent between 2010 and 2020.

Urbanization Trends in Whitefield



In addition to the changes in both Bangalore and Whitefield's populations, it is imperative to understand the demographics of these regions. Currently, within the Bengaluru Urban District, the population is a gargantuan 96,21,551. The sex ratio, which is considered rather imbalanced, is 916 females for every 1,000 males, with 5,02,2661 male residents in comparison to 45,18,890 female residents. This is relatively more even in the case of children, whose sex ratio is 944 females for every 1,000 males. A large proportion of Bangalore's population is composed of workers. 39,98,286 individuals are considered 'main workers' by the Government of Karnataka. These workers work in a multitude of industries, including readymade garments, textiles, engineering, chemical work, etcetera. The most prominent of these industries is that of readymade garments, which employs 97,976 male workers and 3,09,059 female workers; of the predominant occupations held by residents of Bengaluru Urban, this is the only one engaging more women than men. Unfortunately, despite the employment of women has increased over the years, Bangalore has the lowest female work participation rate - a mere 24% - compared with other metropolitan cities within developing countries.

The statistics for Whitefield are similar. The area has a male population of 97,704 and a female population of 89,064. The community of Whitefield is also largely composed of an ageing population. The population's median age is 50.7 years, with a very small proportion being under the age of 35. This imbalanced demographic may mean that many of Whitefield's residents are retired and hence, reside in the area because of the abundant amenities or perhaps because their ancestors did (when Whitefield was merely a tranquil village), which may have also caused other family members to remain in the area.

The distribution of Bangalore's populace in the 19th and 20th centuries contrasts with the current demographics. A huge number of Anglo-Indians used to inhabit Bangalore; at one point in time, Bangalore had the second-largest Anglo-Indian populace, behind only Calcutta. Today, the Anglo-Indian population is approximately 10,000. Furthermore, the diversity of Bangalore's residents has grown, as evidenced by the growing number of languages spoken by the city's inhabitants. In 1991, Bangalore's residents conversed in Kannada (spoken by 38% of them), Tamil (28%), Telugu (17%), Urdu (13%), Malayalam (3%), and Hindi (2.5%). According to the 2011 Census, a mere 20 years later, Bangalore housed Marathi speakers (2% of the population), Bengali speakers (0.6%), Konkani speakers (0.6%), and Odiya speakers (0.55%). In fact, today, Bangalore is one of the few cities in India whose citizens speak more than 100 languages.

Clearly, Bangalore has become a more diverse city over time, having attracted individuals from multifarious backgrounds; citizens come not only from India but from regions around the globe, including France, Japan, and the U.K.

In committee, it is crucial that you understand the impact of Whitefield's dynamic population on its rapid urbanisation, and vice-versa. It is also important to analyse the strengths and weaknesses of having a vast and diverse population; in other words, can Whitefield's varied populace be used to both steer and regulate industrial development?

Expansion of residential, commercial, infrastructure, and industrial Areas

Following the massive population growth that has and continues to take place in Whitefield, residential areas have expanded and developed exponentially. In the last 10 years, 28500 new residential units have been constructed in Whitefield. In fact, real estate websites show that there are over 892 upcoming projects in Whitefield alone.

Hence, naturally, a multitude of housing options are available in Whitefield, which lie within mid-and-high price ranges. Whitefield's residential properties range from two-bedroom apartments to luxury villas but the 2 BHK and 3 BHK flats are highest in demand. Taking up 49% of the total demand, 3 BHK apartments are most popular in Whitefield; this is also why 3 BHK apartments consume 43% of the total supply of housing in the region. With 35% of the total demand

Urbanization Trends in Whitefield



and 43% of the total supply, 2 BHK flats come a close second. These statistics suggest that a large proportion of Whitefield's populace is composed of the working population probably living alone or as part of nuclear families. The multifarious residence options present in Whitefield also attract more individuals to the area; this creates a positive feedback cycle since greater immigration would result in more residential projects for new inhabitants of Whitefield. In addition, this entails a higher return of investment for those investing in real estate in Whitefield, which leads to more frequent purchases of residential properties in the region.

Another reason for high investment in real estate is the notable infrastructural development in the area. Four-lane roads, including the Whitefield Road passing through Mahadevapura and Varthur Road passing through Marathahalli, connect Whitefield with other parts of Bangalore. A plethora of public and private modes of transport are present in Whitefield. This includes the BMTC bus network, which is both an efficient and economical mode of transport that enables locals to travel on a daily basis. Taxi cabs and auto rickshaws are also easily available, making private transport more accessible. The Whitefield Railway Station is nearby and so is the Hoodi Railway Station, a mere 7 kilometres from Whitefield. The second phase of Namma Metro is currently being built; the Purple Line extension will sprawl across 13 stations, ranging from Byappanahalli to Whitefield. These developments serve as reasons for people to settle in Whitefield, increasing demand for residential and commercial properties in the area, and hence causing a rise in real estate prices; this, in turn, makes Whitefield one of the most sought residential and commercial areas in the whole city.

The metro's construction is expected to significantly increase commercial activity in Whitefield. Office space rentals are projected to increase by 8 to 10 percent in the coming two years following the metro's completion in the latter part of this year. The Colliers report is a study that has monitored the commercial effects of progress in the metro's construction over the last decade. The average annual supply of office space in Whitefield rose by 10 percent, and gross leasing increased by 18 percent in the commercial years 2017-2022, which marked the beginnings of the metro project, in comparison to commercial years 2011-2016 (before the metro's construction).

Although delegates should consider the predicted commercial growth of Whitefield in the future, it is also imperative that they reflect on the area's commercial expansion in the past and the causes of this expansion. As mentioned in Chapter 3b of this background guide ('Factors Contributing to Urbanisation'), Whitefield morphed into an industrial city from a residential region in the 1960's and 1970's. This was the result of the establishment of multiple manufacturing units in Whitefield by multiple public sector companies, including Hindustan Machine Tools, Bharat Electronics, and ITI Limited. The IT boom took place at the end of the 1990's and beginning of the 2000's, starting with the construction of ITPL (International Tech Park Limited) in 1994. The establishment of the tech park attracted multinational corporations like TCS (Tata Consultancy Services), Infosys, and Wipro. The arrival of these companies naturally led to a rise in gross leasing of office spaces and, ultimately, commercial expansion.

Today, due to Whitefield's growing population, multiple amenities have been made available, including five-star and seven-star hotels, healthcare facilities, national and international schools, and shopping centres/shopping malls (such as Phoenix Market City, Nexus Mall, etcetera). These amenities also attract people to the area, increasing the populace and eventually, causing the expansion of residential areas.

Therefore, residential, commercial, and infrastructural expansion are all interconnected and interdependent. As industry and commerce have flourished, so have residential properties to meet the rising demand for them. As delegates and representatives of Bangalore's constituencies, ensure that you identify how your respective constituencies have developed over time and what their futures look like, in terms of commercial, infrastructural, and residential growth/decline. In addition, make note of how they are physically (transportation-wise) and commercially connected to Whitefield.



Environmental and health implications

Rapid urbanisation in Bangalore has been the root of several types of pollution, as well as a multitude of health issues. One pertinent subcategory of issues is the contamination of water sources and water bodies. According to the International Journal of Current Advanced Research, 30 to 50 percent of Bangalore's water supply has been lost as a result of the contamination of ground and surface water sources by industrial effluents, domestic waste, and the pesticides/fertilisers used in modern agriculture. Additionally, as mentioned in Aarti Kelkar's study in 2016, the movement of untreated sewage, industrial effluents, solid waste, and building debris into lakes has led to the contamination of 90 percent of Bangalore's lakes. In fact, the results of a water quality analysis of 80 of the city's lakes confirmed that nearly 40 of the lakes were polluted. This is evidence that the lack of planning in waste management and disposal is a major cause of water pollution. It is also crucial to note that a lack of water may ultimately cause a number of individuals to move out of Bangalore, hence reducing the city's population and its prospects for industrial growth in the future.

Atmospheric pollution has an equally adverse impact. The World Health Organization (WHO) defines air pollution as the "contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere." The excessive quantities of smoke, carbon dioxide, nitrogen oxides, hydrocarbons, aldehydes, lead oxide, etcetera in Bangalore's atmosphere have significantly changed its 'natural characteristics', hence causing tremendous air pollution as per the WHO's definition. Although vehicles, industries, and power stations/factories are all sources of this pollution, transportation is by far the most prominent cause. This is depicted by the diagram below:

Major sources of air pollution in Bengaluru City

Source	Source PM10 (TPD)	% Contribution
Transport	22.4	42
Road dust	10.9	20
Domestic	1.8	3
DG Set	3.6	7
Industry	7.8	14
Hotel	0.1	-
Construction	7.7	14
Total	54.3	100

Source: Department of Planning, Programme Monitoring & Statistics, Government of Karnataka (2016a)

The above diagram confirms that transportation is responsible for a whopping 42 percent of the content of particulate matter with diameters up to 10 micrometres (PM10) in the air, that is, 22.4 of PM10 in terms of Temperature Programmed Desorption (TPD). With more frequent private vehicle registrations and the rising usage of environmentally unfriendly fuel sources, transportation was also the cause for almost all of the carbon monoxide content, over 80 percent for that of nitrogen oxides, 40 percent of that for volatile organic compounds, and 20 percent of that for Sulphur dioxide in 1998. In lieu of the fact that Bangalore's industrialization took root in the 1990's, the dangerously high quantities of these contaminants is owing to commercial and infrastructural development in the city.

Implications of Urbanization



As mentioned before, waste management is one of the leading problems in Bangalore and is also the cause of many of the other environmental problems that plague the city. The following table displays the average weight of solid waste generated by various zones in Bangalore on a daily basis:

Zone	Zonal average weight/per day (MT)
Bommanhalli	324.1
Dsarahalli	131.6
East zone	904.2
Mahadevapura	401.4
R R Nagar	155.4
South Zone	719.4
West zone	870.9
Yelahandka	92.6
Total waste for all zone	3599.7

Data Source: International Journal of Current Advanced Research

As displayed by the table, Mahadevapura (the one in which Whitefield is located) generates the fourth largest quantity of solid waste out of the 8 zones presented. A subcategory of solid waste, gargantuan amounts of electronic waste are also generated. Currently, Bangalore is the third-largest producer of electronic waste amongst the other cosmopolitan cities within India. This is no surprise since the growth of technology companies, as well as the increasing usage of electronic devices by citizens, has caused electronic waste to skyrocket in the Bangalore Urban district. In a single year, this district releases approximately 8000 tonnes (8,000,000 kilograms) of electronic waste.

Naturally, a combination of these multifarious types of pollution has engendered several health issues. The table below highlights both the airborne and waterborne diseases that are prevalent in the Bangalore Urban District:

Environment related health problems

Air related disorders		Water borne diseases	
Allergy	36.1 %	Gastroenteritis,	6.9 %
Asthma	13.8%	Dysentery,	9.2%
Bronchitis	3.4%	Diarrhea	7.5%
Nausea	3.7%	Hepatitis	1.0%

Source: Centre for Sustainable Development, 2012

The table proves that of all the air related disorders, allergies are the most prominent, and of all the water borne diseases, dysentery is the most common. In addition to the disorders shown in the table, vector borne diseases like dengue, chikungunya, and malaria prevail in the area. In the entirety of Bangalore Urban District, 57 percent of the citizens suffer from air related disorders, and over a third of them suffer from throat irritation, skin rashes, and sneezing as a result of allergies. Moreover, 25 percent of individuals are forced to tolerate water borne diseases. Some of these health problems, such as asthma, may be chronic, therefore having a long-term impact on numerous residents of Bangalore.

In this section, the adverse effects of urbanisation across the whole Bangalore Urban District have been highlighted. Being part of the district, the figures in Whitefield specifically are similar. As delegates, ensure that you assess the environmental impact of urbanisation on your respective constituencies, what measures your political party has taken in the past to tackle environmental issues, and how you can collaborate with other members of the committee to improve air and water quality in Whitefield.

Implications of Urbanization



Social and cultural implications

A key aspect of urbanisation's repercussions is its impact on society. This section, through the personal anecdotes of long-term residents of Whitefield, will highlight the effects of urbanisation on the narratives of various communities, especially that of the Anglo-Indians, who were the first inhabitants of Whitefield.

The Memorial Church and Whitefield Club properties were constructed decades ago and hence, are close to the hearts of the Anglo-Indian residents of Whitefield. The Club was supposed to serve as a community centre/gathering area for the Anglo-Indians residing in Whitefield village. Festival celebrations, group meetings, and conversations about current affairs usually took place within the Club. However, as stated by a current resident whose family was one of the first settlers in Whitefield (during the 1880s), "Not many people come here anymore. There are so many apartment complexes and gated communities that have their own clubs so one does not see a lot of people here." Modern residential and commercial properties have encroached on the land owned by these Anglo-Indian settlers, who were among the first occupants of Whitefield. In fact, in the years 2005 to 2007, the government approved a road widening project for a whopping 216 roads, including the Whitefield main road. In order to broaden these roads, the Memorial Church and the Whitefield Club would have had to be demolished; hence, the Anglo-Indian residents protested against the project. Despite their expressions of discontentment towards the government's projects, the BBMP, armed with a bulldozer and the police force, destroyed the wall of the Whitefield Club at 6.00 a.m. on a day in the year 2016. The residents stated that they haven't received any compensation for the demolition of this property, and are forced to continue paying property tax even for government-owned land.

As was mentioned in Chapter 2a of this background guide - A brief history of Whitefield - the ancestors of these Anglo-Indian settlers once enjoyed the serenity of a quaint village, a setting perfectly embodied by Whitefield in the late 1800s and early 1900s. Lord Connemara was one of the famous personas taken aback by the area's beauty. However, today, Lord Connemara's favourite viewpoint has heavily changed, probably for the worse. Hamilton Hill no longer exists, having been utilised for new developments (likely to be apartments). The 'village green' has been converted into a park and playground, and the pond replaced by a decorative concrete fountain. Long-term residents like Margaret Lunel remember dangling their feet in the muddy ponds and the flood of memories that they represented; not only has the tranquillity of the community been vanquished but the absence of the pond has caused frequent flooding in the lower areas of the settlements. This is evidence that the water bodies that have been disturbed by excessive construction in Whitefield have both an environmental impact (such as the flooding) and an impact on society. In the words of Paul D'Souza, whose house was one of the first abodes to be constructed in the Inner Circle when Whitefield was established in the early 1900's, "The new Whitefield has no soul. It is only made of glass and steel."

On the other hand, urbanisation has had some positive effects too. The development of medical stores, grocery stores, and hospitals in Whitefield has increased convenience for the area's residents; in contrast to the system today, settlers had to travel all the way to the town of Bangalore to access these commodities in the past.

Other positive effects can be observed across the entire city of Bangalore. According to a study that took place in 2012, among India's metropolitan cities, the mean age of marriage for women is greatest in Bangalore and Mumbai at 28 years old. In response to these statistics, Rohit Manghnani said the following to the Deccan Herald newspaper: "Women have become more career-oriented in Urban India. This has coincided with the services sector booming in India. Larger job opportunities have meant that women are more financially independent now and therefore under less parental pressure to marry." Bangalore's urbanisation has nullified the importance of adhering to conventional gender roles and has incentivized women to engage in paying occupations as well as receive a formal education. The large number of Paying Guest (PG) homes in Whitefield, for women specifically, is also evidence of the high number of female working professionals in the area. Currently, around 91 PGs for women are available in Whitefield only. This robust social progress displays that although rapid development has had a negative impact on Whitefield's historical communities, there are some positive social aspects to this urbanisation too.

Implications of Urbanization



The social implications of urbanisation are subtle but play significant roles in the standards of living of Bangalore's citizens. They also determine the rate of population influx, in addition to occupational/economic reasons. It is pertinent to address the plethora of issues that the Anglo-Indian community faces today, in a way that economic growth is still possible not only in Whitefield but across the city. In association with these double-edged objectives, the next section will delve into the economic consequences of unplanned urbanisation in Whitefield.

Economic consequences

The sheer impact of Whitefield's rapid urbanisation can perhaps be observed most starkly in the gargantuan change in its economic conditions. Urbanisation in Whitefield has resulted in rapid and robust economic growth in the region. As IT parks have been constructed and multinational corporations have established offices in Whitefield, employment opportunities have skyrocketed and caused an influx of skilled workers. These factors have naturally caused a rise in income levels and a better quality of life for the residents of Whitefield.

According to the LinkedIn Salary Study, Bangalore has the highest weighted average compensation in India. Avik Das and Shilpa Phadnis reported that the average weighted compensation of Bangalore in 2018 was 12 lakhs, with Delhi NCR and Mumbai tying for second at 9 lakhs each. Moreover, as per the Economic Research Institute's Global Salary Calculator, the average base salary per annum/year for jobs in Bangalore is 8,05,764 Indian rupees. This is equivalent to an average hourly rate of 387.39 Indian rupees.

As mentioned in Chapter 3b of this background guide - Expansion of residential, commercial, infrastructure, and industrial Areas - the industrial growth in Whitefield was also followed by the development of Whitefield as a thriving marketplace. As the population of Whitefield rose, businesses saw an opportunity to cater to a larger customer base, which is why multiple urban amenities like shopping centres, hotels, and various other forms of entertainment were established in Whitefield. Hence, this area of Bangalore has gathered a massive number of investments, and nurtured entrepreneurship.

However, poorly planned urbanisation can cause income inequality and the shortage of resources. The rising population of Whitefield has led to this area facing a number of challenges, including traffic congestion and a scarcity of public amenities. In fact, the establishment of expensive and luxurious residential properties has driven up the price for housing, making it unaffordable for those earning with a lower income bracket. Moreover, as per the United Nations, income disparities are more prevalent in urban areas than rural areas. The Gini coefficient of income inequality is greater in urban regions than rural regions in 36 countries, out of 42 nations.

Data about poverty and income disparity in Bangalore is limited. Of all sources, the most reliable one would be the 1991 Census, which aptly illustrates income inequality in the city. The results of the Census displayed that less than one-fourth of the city's total income was possessed by half of the population. Within the lower income stratum, 8 percent of the total income was held by 24 percent of the households; within the high stratum, a mere 4 percent of households shared 19 percent of the city's income. Even in 1991, income levels existed in extremes; in other words, they were unstable, suggesting that income was distributed unevenly throughout the city.

Implications of Urbanization



However, there are also estimates of the current economic state of Bangalore. The United Nations says that “slums are the most notable extreme of the spatial concentration of urban poverty and disadvantage.” Last year, 401 slums were officially identified, housing a total of 1.35 million people or 25 percent of the city’s populace. Recent education and health surveys suggest that the city contains 770 slums, whereas activist groups investigating and supporting slums and other low-income areas in the city claim that there are 800 to 1,000 slums in Bangalore. According to these groups, if the poor individuals who don’t live in slums are also taken into consideration, approximately 40 percent of Bangalore’s population come under the definition of poor. Although these statistics do not perfectly align with each other, all the figures are evidence of the wide gap in income and hence, living standards, among the citizens of Bangalore. Moreover, most slums are located in both the center and peripheral areas of the city, which indicates that they may be concentrated in Whitefield as well, considering that it lies around the outskirts of Bangalore.

The lack of access to amenities such as water and sanitation are tell-tale signs of the financial divide in Bangalore. A third of the city’s population has negligible to no access to water from pipes. This is why over half of the entire city’s populace source water from public fountains, which are typically maintained badly and have damaged pipes, causing their water contents to be polluted. In fact, a study conducted on five slums in 1996 revealed that two of the five had access to no drinking water whatsoever, two depended entirely on public fountains, and only one had access to an appropriate supply of water from borewells. 800 to 900 slum residents were forced to rely on one to two borewells and a single tap; they had to walk between 20 and 1,000 meters just to attain water. These problems have worsened due to severe land disputes, which have prevented necessary infrastructure from being extended into such low-income areas.

Many areas have never had and continue to lack adequate latrines to maintain a semblance of both personal and communal hygiene. According to an official report written in 1994, a whopping 113,000 households had no latrines at the time, while around 17,500 had only dry latrines. A study surveying 22 slums confirmed that 9 had no latrines; this meant that 35,400 citizens did not have access to toilet facilities. Even within the slums that had managed to avail some latrine facilities, further income segregation prevented a large proportion of the populace from using the amenities. Another ten of the studied slums had access to 19 public latrines but these obviously did not suffice for the 16,850 households (102,000 individuals) they were supposed to serve, and since a fee was charged for the usage of these public latrines, families falling under low income brackets could not afford them. Many women not only could not afford these bathrooms but also did not want to defecate in public due to frequent harassment. Unfortunately, they could not construct their own public toilets due to very few sewer connections having been developed. This led to a massive decline in the hygiene of slums.

Naturally, women and children faced a number of diseases, most of which were water-borne or caused by a lack of personal hygiene. Common illnesses included scabies, diarrhea, cholera, typhoid, and eye infections. Anemia and intra-uterine diseases were prevalent amongst women, while children suffered worm infestations. Overall, the staggering poverty in Bangalore, resulting from its rapid urbanization, has had a butterfly effect; income disparities have caused lack of access to necessities and ultimately, poor health among large populations.

The adverse economic repercussions of Bangalore’s urbanization have perhaps been swept under the rug, covered up by the rapid growth of the economy in this city. Even though economic developments have definitely benefited a significant population of Bangalore and specifically, Whitefield, the citizens earning relatively low incomes - who account for a staggering proportion of the city’s populace - have been hit hard by these changes. Therefore, as delegates, it is imperative that you take into consideration both the positive and negative aspects of Whitefield’s economic advancement and contemplate how you can solve income disparity, as well as resource shortage, in Whitefield through more careful planning.



Views of local residents and community organisations

Before taking any concrete action within the sphere of urban planning, it is crucial to understand the demands of the public. In Whitefield specifically, the residents have consistently expressed discontentment due to the lack of planning accompanying the rapid urbanisation in Whitefield. Residents of Whitefield have rarely been consulted pertaining to decisions regarding industrial construction and infrastructure development. This is the main cause of citizens' dissatisfaction.

In 2015, nearly 10,000 residents of Whitefield assembled on the streets to protest against the substandard infrastructure in the area. The protestors included people belonging to a variety of age categories, with both children and senior citizens participating in the movement. According to the Deccan Chronicle newspaper, the voters cried, "My tax and my vote have failed."

A large portion of the protestors were also employees in the technology sector; in fact, a whopping 5,000 protestors gathered in ITPL (International Tech Park Limited) to express their disappointment in the poor public infrastructure.

This campaign also revealed that the primary problem irking citizens is the traffic in Whitefield. Mothers are especially affected as they become worried about their children when the latter take 3 to 4 hours to arrive home from school. The traffic is owing to the poor condition of roads and footpaths, as well as the long waiting period involved in the approval of new projects and the slow development of those that have been approved. Fortunately, as the campaign gained traction, the BBMP filled potholes on the roads, thereby attempting to extinguish one of the causes of traffic congestion. However, these new patches of the road had been laid in a shoddy manner and were only temporary.

In addition, the Anglo-Indian community also expressed dissatisfaction with the rapid pace of urbanisation in Whitefield. As mentioned in Chapter 4b of this background guide - Social and cultural implications of urbanisation - the construction of apartment complexes and gated communities around the Anglo-Indian neighbourhood resulted in a lack of people visiting the Whitefield Club as they had access to their own clubs. This led to a loss of the close-knit community that, at one point, used the club to celebrate festivals and interact with one another. The Anglo-Indian residents also expressed their disapproval of the road widening project that took place between 2005 and 2007 because the project would have led to the destruction of the Memorial Church and Whitefield Club; the residents did not want the remnants of the older community to be destroyed. However, the BBMP persisted and demolished the two properties in 2016 using a bulldozer, having given no prior notice or warnings to the residents. One of the Anglo-Indian residents said, "No one was here to protect the place. They haven't given us compensation for it even now." The entire community was deeply upset by the demolition of what was once cherished by their ancestors.

Long-time Anglo-Indian residents also miss the tranquillity of the village that Whitefield had once been. J E Giddens, who has been living in Whitefield since the 1930s, recalls how the 'village green' was once brimming with lantana plants, and how hyenas and jackals would often wander through the vegetation. However, the natural beauties of the 'village green' have now been replaced with concrete structures and ornate fountains.

Paul D Souza also still owns a Bungalow in Whitefield, which was passed down from generations of ancestors who resided in the village. Paul believes that the tree stump in his garden was actually used by Winston Churchill, former prime minister of the United Kingdom, to tether his horse whenever he would come to meet the Inn Keeper's daughter, Rose Hamilton. A telephone pole once fell onto the treasured stump, nearly destroying it. In other words, the faulty infrastructure in the area had threatened to demolish a relic. The memories cherished by the long-time residents are fading away due to the rapid urbanisation in the area, which has led to ample industrial construction. The poor infrastructural planning has meant that there is no distinction between commercial and residential areas; the mixed spaces are inadequate for both residents and growing industries.



Communities in Whitefield have repeatedly expressed their dissatisfaction with the government's planning, as well as the work of construction companies and real estate developers. However, the government has not paid heed to their remarks. As representatives of Bangalore's various constituencies, it is important that you collaborate with others to encourage the BBMP as a whole to better understand the citizens' desires and take actions to improve their standards of living.

Perspectives of developers and real estate agencies

Real estate agencies and developers have primarily benefited from urbanisation in Whitefield due to the growing populace and the rising need for residential, commercial, and recreational properties. This has encouraged several developers to invest heavily in construction in Whitefield.

A plethora of technology companies have been and continue to be attracted by Whitefield. This has attracted many working professionals to the area and thereby caused a rise in demand for housing. Developers and real estate agencies have capitalised on the growing populace, hence constantly building new residential properties. To complement residential properties, recreational areas have also been constructed to entertain the massive population in Whitefield.

In connection to this, many mixed-use developments have come up, which combine residential, commercial, and recreational spaces. In this case, several shops and eateries - sometimes, even an entire mall - are built right beside a residential property, making the commercial and recreational spaces accessible to residents. Real estate agencies and developers aim to create lively, self-sustaining communities through such mixed-use developments, to attract a wide range of buyers and tenants who appreciate the convenience of such spaces.

The improvement in infrastructure following urbanisation has also increased convenience and accessibility, and provided a multitude of amenities to the residents of Whitefield. As many potential tenants and buyers were keen to avail such benefits, the prices of properties rose significantly, thereby increasing the revenue earned by real estate agencies.

However, the urbanisation in Whitefield has also posed challenges to construction companies and real estate agencies. The demand for housing in Whitefield is highly volatile, hence making it difficult to manage the constantly changing demand-supply relationship. Urbanisation has led to the deterioration of the environment. Many of Whitefield's citizens are now aware of the multiple environmental issues in Bangalore. Therefore, to attract people to developments, real estate agencies and developers must use sustainable development practices during and after construction, and must create structures that are environmentally friendly. The construction process would therefore require more careful planning and eco-friendly, costlier materials that would ultimately make the process more expensive.

Developers and real estate agencies have enjoyed a much larger share of the advantages of Whitefield's urbanisation in comparison to local residents. However, in order to keep up with environmentally friendly practices currently being encouraged and eventually mandated by the government, these companies will need to invest more money in construction. As elected representatives in the BBMP, it is important that you work alongside developers and real estate companies to ensure sustainable development and real estate growth in Whitefield.

Existing and Past Government Policies and Initiatives



Urban planning policies and regulations

In order to tackle the plethora of issues caused by urbanisation, not only is the government required to work towards solutions, but civilians are also supposed to fulfil their duties as citizens. The BBMP has created a set of regulations to ensure that civic responsibilities are fulfilled.

The BBMP urged the residents to follow certain instructions to help improve conditions in Whitefield. The instructions include travelling via the metro station instead of by car. Civilians are also urged to use shared cycles and motorbikes in order to reach the metro station. The government also subsidised BMTC buses to incentivise civilians to commute by public transport rather than private transport. The BBMP also encourages citizens to give their land to the government so that trees can be planted and the environment can thereby be replenished.

In 2018, Mr. Ajay Seth, the Managing Director of Bangalore Metro Rail Corporate Limited (BMRCL), promised citizens that he would create a coordination panel. Therefore, citizens were urged to join the panel and play a part in tackling the issues caused by urbanisation in Whitefield.

The government has also established regulations regarding residential development plans for Bangalore as a whole. They have reserved 10 percent of residential land for public parks and open spaces; this land must be provided to the BBMP free of cost. At least 5 percent of the total residential plot area should be allocated for civic amenities; these amenities must be constructed by the developer and maintained by the appropriate residents association.

Pertaining to non-residential developments, 10 percent of the total area must be provided to the government for the purpose of creating public parks and open spaces. The following table details the minimum requirements for parking area, officially given by the BBMP:

Sl. No	Type of use	One car parking of 2.5m x 5.5m each shall be provided for every
1	Theaters and Auditoriums except Educational Institutions.	25 seats of accommodation subject to minimum of 20
2	Retail Business (shops, Shopping complexes, Malls, etc)	50sqm of floor area
3	Multiplex integrated with shopping	40sqm of floor area plus requirement of parking according to Cinematographic act
4	Wholesale and Warehouse buildings	150sqm plus 1 lorry parking space measuring 3.5 m x 7.5 m. 1 additional for every 500sqm or part thereof
5	Restaurant establishment servicing food and drinks and such other establishment	75sqm of Floor area
6	Lodging establishments, hotels and Tourist homes	80 sq.m of Floor area.
7	For star hotels	For every 2 rooms. Additional 10% of the total requirement shall be reserved as parking for visitors.
8	Office buildings (Govt/Semi-Govt.& Pvt)	50sqm of Floor area
9	Hostels	Professional college hostels: 1 for every 5 rooms and others: 1 for every 10 rooms.
10	Industrial Buildings	100sqm of floor area plus 1 lorry space measuring 3.5 m x 7.5 m for every 1000 sq.mt or part thereof
11	Nursing homes	50sqm of Floor area
12	Hospitals	100sqm of Floor area
13	Multi- dwellings Units	A. Dwelling unit measuring more than 50 sq.m up to 150 sq.m of floor area. Additional 1 car park for part thereof, when it is more than 50% of the prescribed limit. B. Additional car parking for each two Dwelling units, if the DU is less than 50 sq.mt C. 10 % of additional parking shall be kept for visitors car parking.
15	Kalyana mantaps, Convention centers	50sqm of Floor area.
16	Recreational clubs	50sqm of Floor area.
17	Educational buildings	150sqm of Floor area
18	Other Public and Semi-Public Buildings	100sqm of Floor area

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In addition to these requirements, 5 percent of the total area must be reserved for surface parking.

The government has also established stringent regulations for commercial entities/businesses in Bangalore. Some roads, including MG Road, Brigade Road, etcetera, have been established as commercial areas. Based on road width, the government has set certain requirements for the **ground coverage** and **Floor Area Ratio (FAR)** in the case of commercial areas. The following table provides details of these requirements:

Road width (m)	FAR	Coverage
Less than 9	1.50	55 %
Above 9 and up to 12	1.75	50 %
Above 12 and up to 18	2.25	50%
Above 18.0 up to 24.0	2.50	45 %
Above 24.0 m up to 30.0	3.00	40 %
Above 30.0 m	3.25	40 %

A number of urban planning policies and regulations have been established by the government. However, the issue with most of these rules is the fact that they are not enforced effectively. It is your responsibility to find out how you can help ensure these regulations are followed so that Whitefield becomes a better-planned space.

Efforts by the BBMP to manage urbanisation in Whitefield

The state government has allocated vast funds and set up a number of schemes in order to manage urbanisation in Bangalore by addressing the social, economic, and environmental problems that had risen due to the unexpected, significant industrial development that took place in Bangalore. One of the key focuses of these schemes is the alleviation of poverty, which is a result of the income inequality fuelled by rapid urbanisation.

Many of the programs that were implemented in Bangalore replicated those being executed in other metropolitan cities in India.

National Urban Livelihood Mission (NULM)

The National Urban Livelihood Mission (NULM) scheme has been implemented in multiple Indian cities. This project is an endeavour to reduce the vulnerability of poorer residents of urban areas so that they are not prone to financial challenges. There are six key components involved in the execution of this project: providing training and education for skill improvement, enabling more people to be self-employed, capacity building, supporting street vendors, assisting the homeless by giving them shelter for free, and catalysing social development among low-income groups through **self-help groups (SHGs)**. Unfortunately, this program, which was launched in 2014, did not become successful even by 2017. With an achievement level of 5.99%, Bangalore had performed worse than all the other Indian cities wherein the scheme was implemented. The failure of this project was a result of a lack of effort from the BBMP, strict regulations, and multiple implementation errors. The process of executing the scheme was outdated, targeted an unsuitable set of beneficiaries, and did not take the practical issues faced by the urban poor into consideration, according to Kotaiah, a former director of

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Karnataka German Technical Training Institute. This is because the regulations of the policy stated that only adults and people who already may be working would be supported by the scheme. Therefore, people who are employed and may have to work 8 or more hours a day would find it difficult to make time for additional training. In response to this, Kotaiah said that “eligibility criteria should be extended to students too.” These skill development programmes also did not guarantee jobs for all attendees; the urban poor would rather spend their time working additional hours for higher wages than attending professional development programmes.

Moreover, the training programmes offered by the scheme were advertised only in newspapers and attracted few applicants; newspapers have now become an archaic and ineffective method of communication. Self-employment programmes also did not succeed because subsidies are only given to the beneficiaries once they avail a bank loan and pay the entire amount back with interest. The problem here is that banks are not prepared to open accounts for the urban poor and demand collateral for all the loans requested. People are also not ready to wait a long time for the subsidy amount of a mere 7 percent, which is paid only after the full repayment of the loan.

Furthermore, it is unknown whether the BBMP had worked towards the institution development aspect of the project as there was no information on their efforts. It is likely that they haven’t worked on this aspect considering that no citizens are open to being part of self-help groups. This is because the cost of starting a self-help group must be paid by the poor themselves. Therefore, families earning below the poverty line turn to micro-financial solutions, which help them attain loans instantly. The BBMP also neglected the problems of street vendors entirely, which the scheme was supposed to address. Lekha Adavi of the Alternative Law Forum, who had contributed to campaigns for street vendors’ rights, said, “We have been demanding that the BBMP survey street vendors and provide them facilities like lights, toilets, drinking water, protection from the sun and rain but it did not pay heed for a long time.” The city’s civic authority began the survey many months after the beginning of the scheme. Fortunately, they also conducted a new survey at the beginning of this year for street vendors across the entire city. However, conducting survey after survey only helps to identify the issue; the implementation of the solution is still to be done.

Jawaharlal Nehru Urban Renewal Mission (JnNURM)

This project started on December 3rd, 2005, and was launched by the Government of India. This project began with the aim of urging cities to work towards improving existing services in a financially sustainable way. Within JnNURM, there are two Sub-missions: one is called The Urban Infrastructure and Governance (UIG) and the other is called the Basic Services to the Urban Poor (BSUP). The Government of India has deemed 65 cities in the country eligible for the mission, including Bangalore and Mysore.

The Comprehensive Development Plan (CDP) for Bangalore was approved by the Government of India in October of 2006. The Government of Karnataka also signed a Memorandum of Agreements (MoA) in December of 2006. However, this CDP was altered after 8 urban local bodies and 110 villages officially joined the city of Bangalore, thereby forming the BBMP. The revised plan estimates the capital investments for Bangalore to be 71, 723 crore; this large investment will be used to fund projects aimed at making Bangalore economically productive, as well as equitable.

There are multiple bodies working together in order to make this project a success. The State Level Steering Committee (SLSC) works directly under the Chief Minister to identify, prioritise, and recommend project proposals that suit the guidelines of JnNURM. The State Level Empowered Committee (SLEC) works under the Chief Secretary to the Government. It facilitates decisions regarding project approvals and manages the various bodies working under the JnNURM so that they are synchronised, thereby ensuring the processes of planning and implementation go smoothly.

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Finally, there is a State Level Nodal Agency (SLNA) that aids Urban Local Bodies (ULBs) in sending their project proposals to the SLSC for approval, manages grants, and provides funds to ULBs. The SLNA's main function is to keep track of financial and physical progress of projects within the JnNURM and to implement/enforce all the reforms in the guidelines of the JnNURM.

Amrut Nagarothana Scheme

The Amrut Nagarothana Scheme, also called by the names 'Mukhyamantri Nagarothana' and 'Nagarothana Yojane', was launched in the 2016-17. The scheme aims to catalyse infrastructure development in urban local bodies (ULBs) throughout the state of Karnataka. Budget allocations have been divided into funds for grade separators, the maintenance of lakes, the management of solid waste, the development of alternative roads for faster commute, and the creation of hospitals and institutions.

The scheme has achieved a majority of its aims since its launch. It has developed 2,146 kilometres worth of roads in Bangalore with stable drainage systems, as well as 67 lakes. Through the scheme, 11 new parks have been constructed and 15 existing parks have been improved. 42 new schools have also been constructed and 26 old buildings have been renovated. In terms of healthcare facilities, 40 new Primary Healthcare Centers (PHCs) have been developed and 84 old Primary Healthcare Centres are in the process of being renovated.

The scheme's success is owing to the appropriate and strategic allocation of funds. 20 crore Indian rupees were allocated for the school projects in the budget, and all of this money was used to improve existing facilities and develop other necessary facilities in the school buildings.

The BBMP has not released much information about the progress of the project but will not be creating any more sub-projects within the scheme this fiscal year (2023-2024), as per the budget that they recently released.

The BBMP's projects aimed at managing urbanisation are not limited to only those above; they have allocated significant funds towards other projects too, such as making public transport more affordable by providing subsidies to the BMTC bus network. However, many of these schemes have been unsuccessful or have been implemented very slowly due to the several stringent regulations that must be followed. As delegates of the BBMP, it is crucial that you evaluate the errors made in the past and find ways to avoid making the same mistakes in future projects focusing on the management of urbanisation.

Collaborative projects by NGOs and other stakeholders

Many BBMP initiatives have not been successful due to the lack of available staff and their inability to manage the implementation of multiple projects at the same time. The work done by non-governmental organisations (NGOs), which complements government initiatives, has helped multiple projects oriented towards social welfare and urban planning cross the finish line.

Whitefield Rising, a non-profit organisation, has worked on several projects ranging from waste management to the improvement of government schools, in order to make Whitefield a positive and ecologically sustainable environment.

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Whitefield Rising worked with the Karnataka State Pollution Control Board (KSPCB) in 2015 to create awareness among children about the importance of celebrating festivals in an environmentally-friendly manner and how this can be done. They showcased a series of skits in

government schools and private schools to creatively convey the importance of conserving the environment.

Whitefield Rising collaborated with the KSPCB once more in a campaign against the severe air pollution caused by work in the Graphite India Factory, especially because of the factory's faulty construction. Their consistent campaigns resulted in the complainants having the opportunity to present their concerns directly to the Supreme Court of India. Following this, counsel of Graphite India was forced to address the pollution-related accusations that had been raised against them and ultimately had to pay a hefty amount of 50 lakh Indian rupees, under the Polluter Pays Principle, to compensate the individuals affected by the contamination. The case finally had a positive outcome as Graphite India made a number of repairs to their factory unit to minimise the release of harmful fumes from the factory.

Whitefield Rising has also collaborated with the BBMP officials and elected representatives of constituencies in and around Whitefield after the state government's new policy prohibiting the utilisation of single-use plastic. The NGO and the BBMP worked together to start campaigns against the use of disposable products and flex hoardings: these are the outdoor banners used for advertisements and are highly wasteful due to their frequent replacement.

Moreover, Whitefield Rising has made significant progress in the improvement of government schools in Whitefield. They have worked closely with Whitefield Ready and Rotary Bangalore IT Corridor to support a total of 2578 government school students. Their efforts towards the upliftment of Ramagondanahalli Government School have been especially fruitful. In collaboration with Inventure Academy and Teach for India, Whitefield Rising has given the school qualified, dedicated, and passionate teachers; they also kickstarted English medium lessons in 2019. Throughout their work with Ramagondanahalli Government School, they have aimed to improve the quality of education, provide extracurricular activities to ensure that students attain holistic development, and help students intake the right amount and kind of nutrition on a daily basis. To fulfil their last aim, Whitefield Rising enabled the school to serve breakfast to the students on a daily basis.

Whitefield Rising is only one of the organisations devoted to improving living standards in Whitefield. There are many NGOs across Bangalore that have and continue to cooperate with the government to fulfil social welfare goals in the city. It is crucial that you find ways to enable the BBMP to collaborate effectively with NGOs and other civil society organisations to ensure the success of a greater number of schemes.

Questions that a Resolution Must Answer



Before you create a resolution, it is important that you understand the relevance of the agenda in your respective constituencies and the ways in which you can contribute to initiatives that improve urban planning in Whitefield. You must gather this information through further research that stretches beyond the scope of the background guide. However, as the executive board, we would like to give you some guiding questions that will help you in your own research and in the formation of a robust resolution. These questions are only meant to lead you in the right direction and it is up to you as to how you would like to approach the agenda. However, ensure that you keep these questions in mind.

1. How can the BBMP increase collaboration with civil society organisations and other stakeholders to tackle environmental, social, and economic issues in Whitefield?
2. How can the BBMP persuade citizens to follow existing regulations and ultimately, the new rules created to improve the management of urbanisation in Bangalore as a whole?
3. How may the BBMP maintain standards of living and fulfil social purposes while also supporting economic growth in Whitefield?
4. What are the ways in which the national government can support the BBMP and state government in both tackling the issues that have been caused by rapid urbanisation and planning urban areas more carefully?
5. What are the actions that can be taken by the civilians/the civic body in Whitefield to curb social, environmental, and economic issues?
6. In what ways can the massive population of Whitefield be managed? How may the vast populace be utilised optimally and in an advantageous manner rather than being viewed as a burden?
7. How can existing schemes be altered and taken forward so that they become more effective in the near future?

Resources to refer to for research



In order to make the process of research easier and more effective, we have collated a set of resources that will help you build your knowledge about the agenda and the possible solutions to the problems arising from urbanisation.

- Lewis Rice's 1887 Mysore Gazette (for historical context)
- BBMP Official Website:
<https://bbmp.gov.in/home>
- BBMP Bengaluru Mission 2022:
<https://bbmp.gov.in/mission-home>
- BBMP Welfare Department Schemes
<https://site.bbmp.gov.in/departmentsites/welfare/welfareSchemes.html>
- Government of India - Ministry of Housing and Urban Affairs Official Website:
<https://mohua.gov.in/>
- Whitefield Rising Official Website:
<https://whitefieldrising.org/>
- Bangalore Political Action Committee (BPAC) Official Website:
<https://bpac.in/>
- Open City Official Website:
<https://opencity.in/>
- Sensing Local Official Website:
<https://www.sensinglocal.in/>
- Urban Living Labs Official Website:
<https://unalab.eu/en/urban-living-labs>
- Citizen Matter Magazine Official Website:
<https://citizenmatters.in/>
- The City Fix Magazine:
<https://thecityfix.com/>
- Census Handbook, Bangalore:
https://lsi.gov.in:8081/jspui/bitstream/123456789/6028/1/20616_1951_BAN.pdf



TPD (Temperature Programmed Desorption): This is a technique used to find the amount and types of surface groups in Carbon materials that specifically contain Oxygen. This is done by heating an object in an unreactive atmosphere and monitoring the range of exhaling gases, namely Carbon dioxide and Carbon monoxide

Ground Coverage: The maximum built-up area on any floor, divided by the plot area, into 100

Floor Area Ratio: The ratio of a building's floor area to the size of the parcel of land on which it is located.

SHGs (Self-Help Groups): Self-help groups are unofficial associations of citizens who come together as a community with the aim of improving their collective standards of living.

Civil Society Organisations (According to the United Nations): Non-State, not-for-profit, voluntary entities formed by people in the social sphere that are separate from the State and the market. CSOs represent a wide range of interests and ties. They can include community-based organisations as well as non-governmental organisations (NGOs).



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