



Research Article

Fragmented Planning and Splintered Urbanism: A Spatio-temporal Study of Ghaziabad

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This paper engages with debates on the transformation of towns near metropolitan cities in India. Through the case study of Ghaziabad, a city located in the eastern periphery of Delhi in Northern India, we examine the interconnections between industrialisation, urbanisation, and planning. Our paper maps the trajectory of urban morphological changes in Ghaziabad and its development from a town to a city in the post-independence period. Our purpose is to historically document the urban transition in the region of Ghaziabad by focusing on the continuous shift in economic activities, the expansion of planned and unplanned areas, and the incessant flow of poor and middle-class migrants to the city. In doing so we argue that though the planning process in Ghaziabad looks congruous from a distance, yet in reality it is fragmented to the core, resulting in dispersed industrialisation and the formation of a mosaic of residential segregation. The paper also discusses how Delhi's urbanisation and planning interventions have reconfigured the socio-urban changes in Ghaziabad. The growth of an urban agglomeration under the shadow of a metropolitan city, apart from influencing its salient identity, has also hindered its independent growth in comparison to other satellite cities like Faridabad, Gurgaon, and Noida.

Satellite-towns, Urban-planning, Industrial-urbanisation, Ghaziabad, Delhi-NCR

Introduction

This paper engages with debates on the transformation of towns near metropolitan cities in India. Through the case study of Ghaziabad, a city located in the eastern periphery of Delhi in Northern India, we examine the interconnections between industrialisation, urbanisation, and planning. Our paper maps the trajectory of urban morphological changes in Ghaziabad and its development from a town to a city in the post-independence period. Our purpose is to historically document the urban transition in the region of Ghaziabad by focusing on the continuous shift in economic activities, the expansion of planned and unplanned areas, and the incessant flow of poor and middle-class migrants to the city. In doing so we argue that though the planning process in Ghaziabad looks congruous from a distance, yet in reality it is fragmented to the core, resulting in dispersed industrialisation and the formation of a mosaic of residential segregation. The paper also discusses how Delhi's urbanisation and planning interventions have reconfigured the socio-urban changes in Ghaziabad. The growth of an urban agglomeration under the shadow of a metropolitan city, apart from influencing its salient identity, has also hindered its independent growth in comparison to other satellite cities like Faridabad, Gurgaon, and Noida.

The imagination of the city through the ages has been associated with the questions connected to progressive aspirations and upward mobility (despite the attendant social ills) whereas, the vision related to the building of towns is mostly defined in terms of demographic growth, or

according to their functional requirements. In today's parlance, the prefix 'small', 'medium', or 'large' is used to specify the size of a town based on its urbanisation trends and occupational status, but in the 19th century when Engels coined the epithet of 'The Great Towns', it was to reify the ironic reality of a rapidly industrialising England, where poverty and slums had become the hallmark of manufacturing regions in one of the most advanced nations of the world then (Engels 1953). The story of industrial urbanisation as it unfolded in towns and cities in other parts of the world turned out no different. In the Indian scenario, the pattern of urbanisation is characterized by the continuous concentration of population and activities in large cities or towns, which have been demographically upgraded to be cities. Davis used the term 'over-urbanisation' for scenarios wherein urban misery coexists simultaneously with rural poverty with the result that cities can hardly be called dynamic any more (Davis and Golden 1954). In a sense, this is a form of 'pseudo urbanisation' wherein people embrace cities, not owing to the urban pull, but due to rural push (Breese 1969). This kind of dysfunctional urbanisation and urban accretion results in the concentration of population in a few large cities without a corresponding increase in their economic base (Raza and Kundu 1978). Extending this discussion to Northern India, this paper will bring out the interplay of the rural-urban dichotomy in Ghaziabad, and outline Ghaziabad's atypical transformation from a nondescript town to a city with dispersed industrial growth.

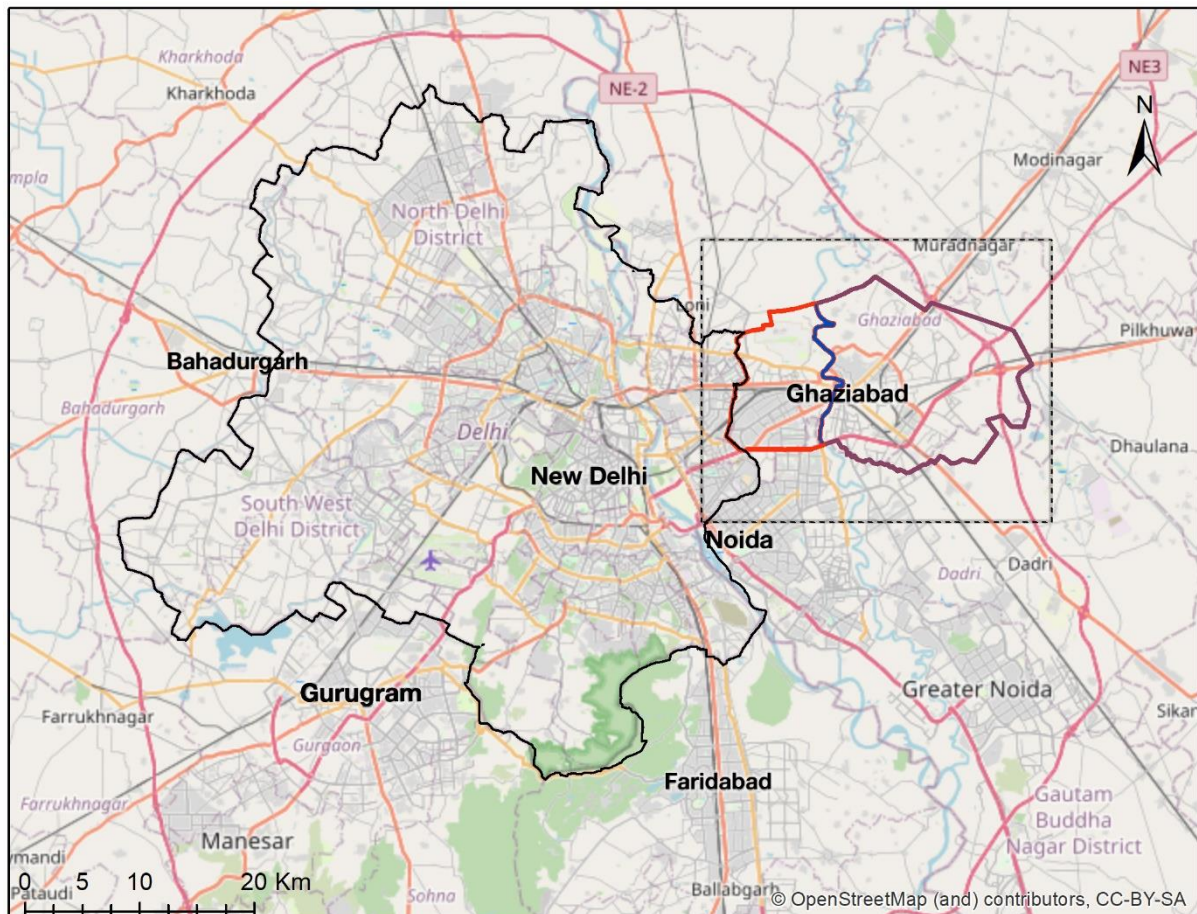


Image 4.1: Map of Delhi and its Satellite Towns (source: Open Street Map / authors).

Ghaziabad, as a city lying on the periphery of Delhi, has not drawn any notable scholarly interest except for the fact that it enjoyed proximity to the capital, hence most studies on this region focused on the fallout of this inter relationship. In contemporary secondary literature, there are important insights on diverse concerns of sustainability in Ghaziabad from a 'peri-urban' perspective (Randhawa and Marshall 2014, Mehta and Karpouzoglou 2015, Priya et al. 2017, Waldman et al. 2017), without scholars really engaging with the historical urban process

that moulded it from the beginning of the post-independence period. This paper looks at how Ghaziabad which was in the mid-19th century perceived as *anaj and sabji mandi* (food and vegetable market) town later grew into a burgeoning industrial city, based on its location, peculiarity, and urban expansion. In this regard, it is crucial to look into the economic, spatial, and social changes in Ghaziabad after India's independence to understand the nature of urban planning in this city. Additionally, Delhi as the capital of the country and an adjoining metropolitan city has had a spillover effect into Ghaziabad which in turn impacted its overall urban growth. Some of the observations in this paper will contribute to certain key issues emerging out of the transformation of towns near metropolitan cities in India. The paper mainly draws on primary sources such as government documents (census data and reports, Ghaziabad Master Plans, Delhi Master Plans), academic publications, media and web reports, and oral interviews. Structured into five sections, the first segment, following the introduction, briefly outlines the study area and reviews existing literature on Ghaziabad. The second section engages with discussions on transforming towns near large cities in India. The third section delineates the economic, spatial, and social transformation of Ghaziabad since independence, with the next section exploring the relationship between industrialisation, urbanisation, and urban planning. The final segment discusses the influence of the Delhi Master Plan on the process of urbanisation in Ghaziabad. We conclude by summarising certain key findings that place the historical and urban development of this city in relation to the metropolis and its implication in the larger context of urbanisation in India.

Studying Ghaziabad

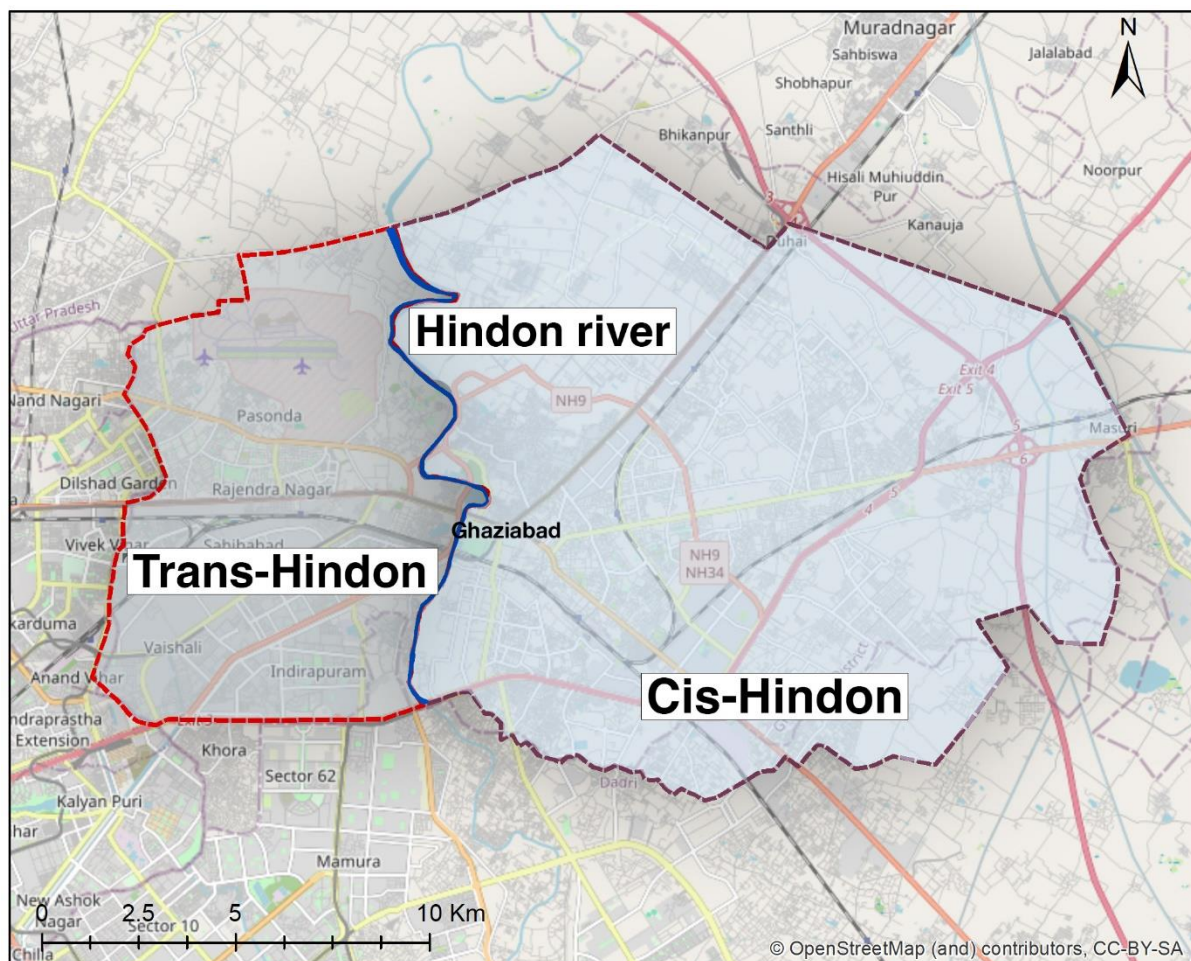


Image 4.2: Map of Ghaziabad Depicting Trans- and Cis-Hindon Areas (source: Open Street Map / authors).

The city of Ghaziabad is located in the Indian state of Uttar Pradesh (UP), on the eastern periphery of Delhi across river Yamuna. Owing to its proximity with Delhi, it has developed into one of the satellite towns of the national capital along with Noida, Faridabad, Gurgaon and others (see image 4.1). It is also one of the largest cities in Northern India with a population of 1.6 million, wherein 82.5% belong to the Hindu community, followed by 14.18% Muslims. The remaining 3.4% belong to the Sikh, Christian, Buddhist, Jain, and other communities (GOI 2011). The river Hindon flows through the city dividing it into the Cis-Hindon Area (CHA) on the east and the Trans-Hindon Areas (THA) on the west that adjoins Delhi (see Image 4.2). While CHA constitutes two thirds of the area and population, THA constitutes one third of the area and population.

Currently, Ghaziabad has been divided into 80 wards for which elections are held every five years.¹ In the past few decades, it has witnessed rapid commercial development accompanied by the relocation of many small-scale industrial units from Delhi. This in the context of a Supreme Court of India ruling in the early 2000 that ordered the closure of polluting / non-polluting industries from non-conforming zones in the city. This has influenced the land-use plan and livelihood practices of the city to a great extent, as agriculture was negatively impacted to accommodate the mushrooming commercial, industrial, and service sector activities. There has also been a construction boom in recent years with new middle-class colonies emerging in Trans-Hindon region close to the Delhi border. Being located inside the periphery of Delhi, the city has come under scrutiny mainly owing to the ill effects caused by industrial pollution, and the rapid transformation of agricultural land into a built-up area for residential and commercial purposes (Mehta and Karpouzoglou 2015, Mohan 2013). This industrial and residential growth in the city followed a peculiar trajectory which will be explored later in this article. However, at this moment, it is important to look at different kinds of scholarly contribution that have focused on various aspects of this city.

Ghaziabad, so far, has been studied as an industrial city, a peri-urban interface, and through a spatial analysis perspective. There are also some technical studies on the impact of different types of pollution in the Trans-Hindon region. However these attempts are few and far between in comparison to other cities in Delhi's vicinity, such as Gurgaon and Faridabad. Aruna Saxena's book (1989) was an early study of Ghaziabad, focused on the industrial development of Ghaziabad from a geographical perspective, and the book outlined the spatial pattern of industrial land use in different phases of its industrialisation. By analysing specific types of industries such as metal, agriculture, chemical, and others, Saxena brought to light, problems of industrial development in Ghaziabad. Though this work is an important contribution to mapping the historical trajectory of industrialisation in Ghaziabad till the period of the early 1980s, it does not engage with the patterns of urbanisation emerging out of that process. In fact, one barely finds any scholarly work on Ghaziabad in the next two decades that focusses on this issue. It is only in the past decade that scholarly interest has again emerged, using the concept of 'peri-urban' lens that influenced research outlook for this region. The conceptual framework of peri-urban is characterized by the dynamic flow of commodities, capital, natural resources, people, and pollution, and a range of processes that intensify urban-rural linkages, activities, and institutions (Marshall et al. 2009). Studies that view Ghaziabad as a peri-urban space are mainly focused on understanding its sustainability, using an analytical lens that evaluates water supply, pollution, agriculture, health, and the environmental activism in the region from the post liberalisation period onward (Randhawa and Marshall 2014, Mehta and Karpouzoglou 2015, Priya et al, 2017, Waldman 2017). Alongside the analysis of Ghaziabad as a peri-urban space, there is another study that analyses the urban land use patterns and trends from Ghaziabad, using spatial methods. Such research illustrates how the built-up area

¹ "Ghaziabad Population, Religion, Caste, Working Data Ghaziabad, Uttar Pradesh–Census 2011" (<https://www.censusindia.co.in/towns/ghaziabad-population-ghaziabad-uttar-pradesh-800734>), accessed on 12.08.2023.

of Ghaziabad has significantly increased between 1972 to 2009, which is at the cost of a drastic reduction in the cultivable land of the region (Mohan 2013). In addition, there are several technical papers that evaluate the water quality of river Hindon, groundwater issues, heavy metal contamination in the vegetables grown around industrial clusters, air pollution, etc. (Suthar et al. 2010, Chabukdhara and Nema 2013, Sajjad, Jyoti, Uddin 2014, Chabukdhara et al. 2016, Gupta et al. 2021). While each of these studies is a significant contribution to understanding the contemporary challenges of Ghaziabad in a neoliberal context, a socio-historical understanding of the city remains elusive. It is imperative to study the past, to trace changes and plot specific moments in time that made the space amenable to rapid and enduring growth in the last three decades. Moreover, a comparative perspective of urban development in areas near the metropolis or the National Capital Region (NCR), will reveal both the generality and distinctiveness of the changes witnessed in Ghaziabad. Hence, we use the framework of relational space to study satellite towns, and specifically, the nature of urbanisation experienced in Ghaziabad.

Studies on Transformation in Towns near Metropolitan Cities

Binaries such as city and small town, core and periphery, legal and illegal space, reflect a relational aspect where one variable is defined in contradistinction to another. Similarly, a spatial comparison becomes conspicuous when the surrounding areas of a core area or a metropolitan city are identified as peripheral 'satellite' towns. It was in the 1880s in America that the industrial exodus from the city centre to suburbs came to signify the emergence of satellite towns (Taylor 1915). In outer space, the role of a satellite is to revolve around a more dominant object. It is perceived as a relationship that depicts subjugation as the smaller body orbits around a significant and larger entity. When a town is designated a satellite area, it indicates deference to the metropolis, and the subordination of one's own concerns and interests to the core region. In the period between 1960s and 2000s, urban development policies in South Asia indicated a shift in emphasis from metropolitan growth-control strategies to policies that enabled the diffusion of urbanisation (Shaw 2004). Satellite towns were partially effective in meeting the original objectives of absorbing the excess population of the metropolitan core, but this was at the cost of ecological transformation. In the Indian context, a number of satellite towns have been planned, using a land acquisition based development mechanism approach, to supply serviced land to urban markets. Most of them that have been created since independence include Faridabad, Gurgaon, and Noida near Delhi, Bidhannagar near Kolkata, and Navi Mumbai near Mumbai. These projects and their continuous growth, have led to considerable land acquisition and their development as residential and commercial enterprises by the private sector, unlike the largely state-led growth of the metropolis.

The early development of Navi Mumbai is interesting from this angle as it was conceived by the government of Maharashtra, but its implementation was entrusted to City and Industrial Development and Corporation of Maharashtra (CIDCO), a parastatal body, signifying state-market partnerships. Navi Mumbai has an area almost equal to Greater Mumbai, and it was initially supposed to be made up of 14 New Towns that would act as a counter magnet, to draw away potential migrants from the old city, and resettle a part of its existing population. Mumbai is located on a series of small, joined islands reclaimed from the sea. Hence the physical expansion of the built-up area of the city cannot continue beyond the existing land surface. Shaw contends that since India's independence (from 1950s onwards), many such urban settlements and new towns like Navi Mumbai have come up, and this development has coincided with rapid industrialisation in those areas that aimed at easing the burden of core cities (Shaw 2004: 8).

In the case of Delhi, the planning of the capital city in a regional and relational context began in 1960s, with a mention of the Delhi Metropolitan Area (DMA) in the Master Plan of Delhi (MPD) in 1962. Later, the idea of planning the National Capital Region (NCR) was mooted in

1985, which had included more areas beyond the Delhi Metropolis. This notion of planning had major implications on urbanisation trends, reflected in the relationship between the core city and its peripheral regions (Mehra 2020). The MPD 1962 acknowledged the significance of 'ring towns' located within a 25–30 km radius around New Delhi. These ring towns (for example, Loni and Ghaziabad in Uttar Pradesh; Faridabad, Ballabgarh, Bahadurgarh, Gurgaon in Punjab; and Narela in Delhi) were supposed to serve as counter magnets to the national capital, to accommodate surplus migrant populations, and to offer stable employment opportunities. They were initially planned as self-sufficient regions sharing a symbiotic relationship with the metropolis city. In the period of 1970-1980s, the national capital region plan brought more areas under its purview of planning (*ibid.*). If we look at each of these towns, they have each become different cities, owing to the distinct forms of urbanisation and urban culture that distinguish one from another. We will discuss the peculiarity of planning in Faridabad, Gurgaon and NOIDA, before we come to the city of Ghaziabad.

The district of Faridabad shares its boundaries with the national capital of Delhi in the north, Gurgaon in the west, and Uttar Pradesh in the east and south. The river Yamuna separates the district boundary on the eastern side, which is contiguous to Uttar Pradesh. In the city, the old Faridabad area was primarily an agglomeration of villages that was sparsely inhabited prior to Partition. Its development as a town became intertwined with the development of the New Industrial Township (NIT) region, which was planned in the post-Partition period to resettle about 40,000 displaced populations that arrived from West Punjab. In the 1950s, the town served as an important bastion for the resettlement of refugees. However, by the 1970–1980s, Faridabad crystallized from a ring town to a satellite industrial town of Delhi. While initially, the town was built to resettle refugees, it buckled under increasing demographic pressure by the late 1970s owing to migrant flow from other states into this region. The infrastructural lacunae failed to attract middle and high-income groups from outside. Thus, private developers in the town's early stages of development did not have any incentive to supplement the public sector efforts to develop housing or create recreational facilities in the area. As regard to leisure activities, facilities like community halls, theatres, cinema halls, clubs, swimming pools, and playgrounds were practically missing in Faridabad. In the 1980s, social life was dull, and people looked to Delhi for these amenities, especially with regards to entertainment or shopping. Nonetheless, Faridabad managed to gain a reputation of being an important industrial city, and by the 2000s the private real estate magnates got a foothold into the city to provide it with residential and recreational amenities, making it more self-contained and independent, a city in its own right (Mehra 2020).

The study of Faridabad can be compared and contrasted to the urban growth of Gurgaon, as they were both in the same district until 1979. It is interesting to note that Gurgaon, owing to its natural disadvantage of a scarce and low water table, was given a moderate share of burden in terms of demographic growth in the MPD 1962. But certain impulses thereafter led to its transformation into a glitzy city with a robust population and tremendous real estate growth that surpassed many other cities in the NCR. It was the free hand given to private developers like Delhi Land and Finance Limited (DLF) that enabled the meteoric rise of this cosmopolitan city in the post 1990s. Shubhra Gururani labels the urban planning of Gurgaon as 'accommodation and concessions' that went along with the practice of redefining, manipulating, and relaxing development plans under the rubric of 'Flexible Planning'. This strategy encompasses a range of political techniques, through which exemptions were routinely made, plans were redrawn, compromises were made, and brute force was executed. Not a random act, it had a cultural logic that allowed for the material and discursive manoeuvring of state power, the building of legal and extra-legal networks, and of relations of influence. Gururani stretches the scope of her definition of accommodation and concession to include economic practices like 'foreign investments', 'partnership with large private developers', and the setting up of Special Economic Zones through which the state was able

to change the rules of land use, land transfers, tenancy and eventually plan for flexibly in the context of a changing capitalist political economy (Gururani 2013).

The third contiguous area in the Delhi NCR region is NOIDA (The New Okhla Industrial Development Area). The Planning Area / Notified Area of Noida city falls entirely within the district of Gautam Budh Nagar. Surprisingly, this city does not have a name of its own, named after the authority that built it. The genesis of this city has an interesting story. The development of industrial units and warehousing at various locations around Delhi led to speculative land dealings that resulted in unauthorised development. Therefore, on 17 April 1976, the Government of Uttar Pradesh notified and demarcated 36 villages of the Yamuna-Hindon Delhi Border Regulated Area as the New Okhla Industrial Development, under the provisions of the U.P. Industrial Development Act, 1976 (Bali and Bhatia 2022). According to Robert B. Potter and Rita Sinha (1990: 63):

The establishment of new urban communities in order to decentralise population and activities from primate cities and core regions is a well-known weapon in the armoury of the town and country planner. The development of a planned township to house small industries of the informal sector which have been operating in an unauthorised and illegal manner in non-conforming areas of the capital city is an interesting variation on this theme.

The fate of urban development in NCR was evidently tied to the requirements of Delhi whether it was to resettle excess population from the capital city, as in the case of Faridabad in 1949, or to remove the industrial informal sector to NOIDA in 1976 or reposition the service sector of Gurgaon in the 1990s. While each of these cities have made their distinct mark and are recognised for their own standing in the Delhi NCR region, Ghaziabad followed a distinct developmental path. We now turn to the case of Ghaziabad city, which is different from other cities in the NCR region.

Ghaziabad: Transition from a *Mandi* Town to a City

The history of Ghaziabad dates back to the 18th century with the development of three villages, namely *Jatwara*, *Kaila*, and *Bhainja*. In 1740 Ghazi-ud-Din, the *wazir* (minister) of Mughal emperor Mohamad Shah founded the town. Ghaziabad was originally known as Ghazi-ud-dinnagar (Government of Uttar Pradesh 1981). The *wazir* built a fort in the northern region of the Grand Trunk (GT) road, and there were 120 rooms in that fort, which were used as *serai* (resting place) by the Mughal army. Later, he developed a town surrounding the fort and named it after himself. The town had four gates: the *Jawahar Gate*, the *Dilli Gate*, the *Dasna Gate*, and the *Sihani Gate* (GDA 1986). Ghazi-ud-dinnagar was shortened to Ghaziabad in 1865 when Ghaziabad railway station was built by the British (District Gazetteer 1922).² It was a junction for the East Indian Railway and for Sind, Punjab, and the Delhi Railways. During the same period, local farmers and traders established a food and vegetable market (*anaj and sabji mandi*) in town that boosted the urbanisation process.³ This *mandi* was not just helpful for enabling local consumption, but it also catered to the city of Delhi. In 1847, the town's population stood at 5112, and this number almost doubled in the next five decades to 11275 in 1901. In 1941, Ghaziabad was still a small town with a population of 23534, and the people were mainly dependent on trade and a business-based economy (GDA 1986). It is interesting to note that while it took five decades during the pre-independence period for the

² District Gazetteer of the United Provinces of Agra and Oudh Meerut Vol-IV (https://archive.org/stream/in.ernet.dli.2015.16071/2015.16071.District-Gazetteers-Of-The-United-Provinces-Of-Agra-And-Oudh-Meerut-Vol-iv-1922_djvu.txt), accessed 17.12.2023.

³ The food and the vegetable market were managed by the farmers and traders till the Ghaziabad municipality was created in 1924.

population to become double in size, there was significant demographic change after partition that surpassed the expectation of each master plan that tried to contain the town's exponential growth. We now turn to the rapid economic, spatial, and social transformation of Ghaziabad in the post-independence era.

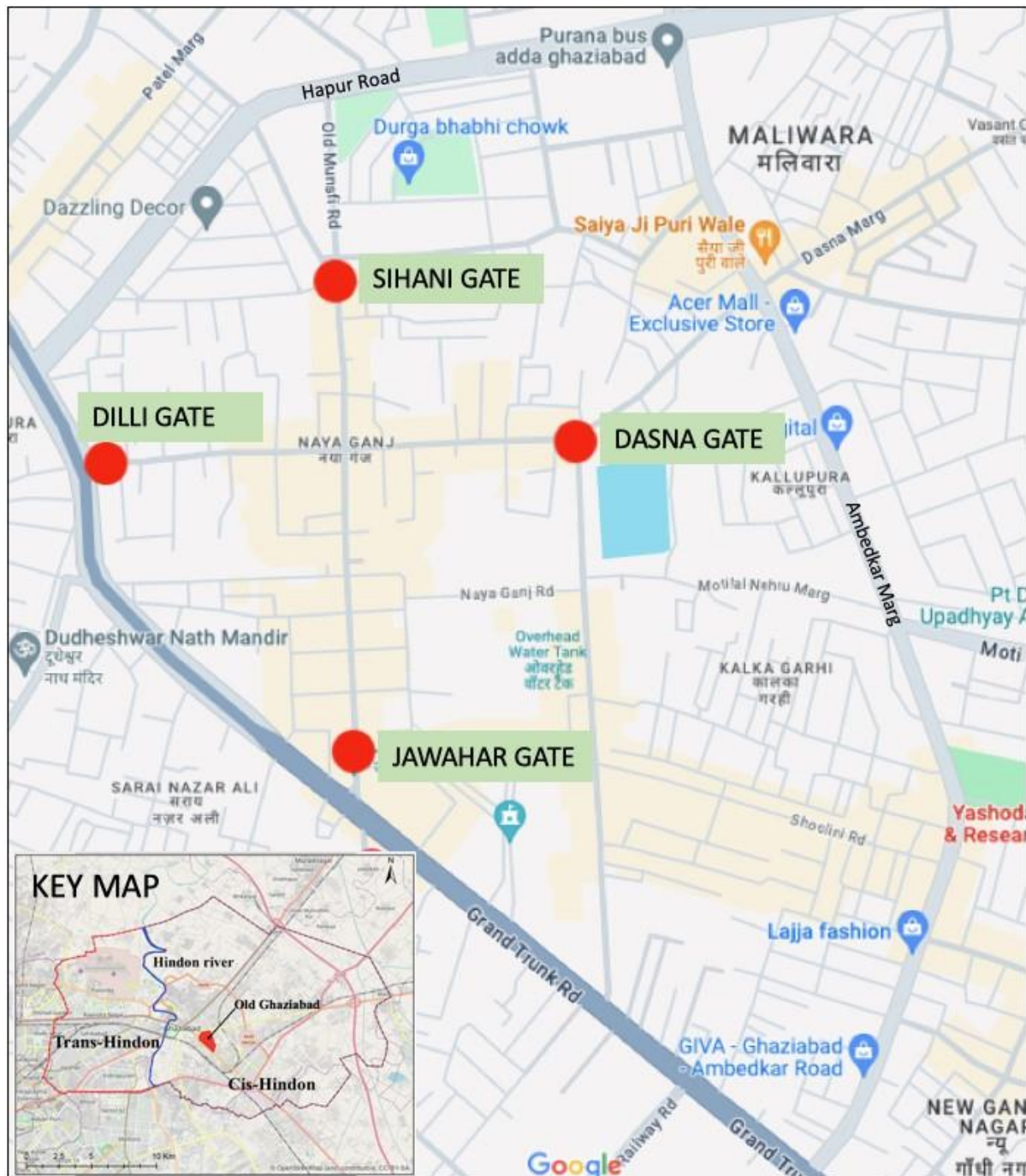


Image 4.3: Map of Old Ghaziabad with its Four Gates (source: Google Maps / public domain).

Economy

At present, the economy of Ghaziabad is dependent on diverse sectors, but starting from the early years of independence till the 1990s, the manufacturing sector was considered Ghaziabad's economic backbone. In the period following Partition in 1947, the national capital of Delhi and many other towns adjacent to it, including Ghaziabad, received refugee populations, displaced from West Punjab (Pakistan). This sudden influx resulted in the addition of about 20,000 new people to the town. The population count of 23534 in 1941 thus shot up

to 43745 in 1951. The inflow of refugees continued through the next decade as well, ensuing in the further growth of the population that stood at 70438 in 1961 (ibid). This was also when the first phase of unplanned industrialisation took place, with 8 industrial units in the town in 1947 increasing to 86 units in 1961 that had 6520 industrial workers (Saxena 1984). Most of these industrial units were set up by refugee entrepreneurs, and the town's economy, chiefly based on trade and business earlier, now had an industrial foundation. The process of planned industrialisation began in the early years of the 1960s, and the period between 1962 and 1981 was considered a peak period in the history of Ghaziabad's industrial growth. From 86 industrial units in 1961, the number increased to 452 in 1981, employing a total of 37731 people (ibid.).⁴ Between 1981 and 1991, there were further expansions to the number of units with 54558 industrial workers being employed.

By this time, Ghaziabad was transformed into an industrial city, where the manufacturing sector was contributing significantly to the economy, employing a total of 37.98% of the population in the workforce (GDA 2007). Along with manufacturing, there was a growth in the business and commerce sectors as well. While in 1971, people employed in business and commerce numbered 6350, this figure significantly grew to 29953 (20.8% of the total workforce) in 1991 (ibid.). Between 1991 and 2001, despite economic turmoil in the country and the closure of a few industries,⁵ the manufacturing sector continued to contribute to the economy by giving employment to 39% of the total workforce, followed by 20% workforce in the business and commerce sectors (GDA 2007). The early years of the 2000s decade was a period when, due to the curtailment orders of the Supreme Court of India, several polluting industries from Delhi were also shifted across industrial areas in Ghaziabad (Randhawa and Marshall 2014). By this time, Ghaziabad was the second largest industrial city in UP after Kanpur, and it was home to different kinds of large, medium, and small industries that included steel plants, industries manufacturing electroplated items, tapestries, diesel engines, bicycles, railway coaches, heavy chains, brass brackets, lanterns, glassware, pottery, paint, and varnish. Ghaziabad also developed an electronics sector and set up several tobacco farms and cigarette factories at this time.⁶ As an important centre of business and commerce, Ghaziabad was supplying various products and equipment to regional, national, and international markets (Asian Development Bank 2010).

The economy of Ghaziabad started transforming from 2001 onwards as a result of neoliberal economic policies, wherein the emphasis was to shift from manufacturing to the finance and service sector. The contribution of manufacturing decreased from 39% in 2001 to 35% in 2011. There was a further decrease between 2011 and 2020 in manufacturing along with a decrease in the business and commerce sectors. While the share of the construction sector went up, the contribution of manufacturing decreased from about 35% in 2011 to 30% in 2020. The contribution of business and commerce also went down from 20% in 2001 to 15.5% in 2020. The share of construction increased from 13% to 18% in the overall economy of Ghaziabad. Interestingly, construction was less than the state average (14.3%) between 2011 and 2012, but it has since risen steeply again (Das and Vaibhav 2021).⁷ The proximity of Ghaziabad to Delhi is generally seen as the biggest reason for the booming construction sector. In other words, the economy of Ghaziabad is slowly moving towards real estate, which is one of the

⁴ Apart from the establishment of Hind Cycle Limited (Government of India Undertaking), all other industrial units were owned and managed by private entrepreneurs till the early 1980s. Later, other public sector units such as Bharat Electronics, Central Electronics, and others were established.

⁵ Alongside economic turmoil, industries were also closing because the technology used became outdated. According to one estimate, 20% of the industrial units in the Meerut Road Industrial Area were shut down.

⁶ "Ghaziabad: India" (<https://www.britannica.com/place/Ghaziabad-India>), accessed 25.08.2023.

⁷ "Noida is Growing, Ghaziabad is Fading. The Story of Uttar Pradesh's Two Boom Towns" (<https://theprint.in/opinion/noida-is-growing-ghaziabad-is-fading-the-story-of-uttar-pradeshs-two-boom-towns/710074/>), accessed 08.08.2023.

most prominent trends of the neoliberal economy across the country. However, though Ghaziabad is also witnessing this shift, it is much slower than the other satellite towns of Delhi that include Noida, Gurgaon, and Faridabad (ibid.).

Spatial Change

Comparison of Proposed and Developed area in Ghaziabad (in hectares)					
Urban Area in 1961	Proposed developed areas in GMP 1961	Actual Area Developed in 1981	Available developed area in 1984	Proposed developed area in GMP 2001	Actual Area Developed in 2001
573.52	5853.50	4365	5933	10039.23	8485.00

Source: GDA 1985, GDA 2007

Image 4.4: Comparison of Proposed and Developed Area in Ghaziabad in Hectares (source: GDA 1986, 2007 / authors).

For several decades before independence, Ghaziabad was still located within the limits of its four medieval gates, but from 1941 onwards, it started expanding outside these gates in an unplanned manner. In 1947, Seth Chabil Das and Seth Mukund Lal arrived here from Yamuna Nagar (earlier in Punjab and now in the state of Haryana) and established Mukund Nagar.⁸ In the same period refugee entrepreneurs established industries on the Bulandshahar Road that was outside the four gates. From the early 1950s to 1961, industrial expansion took place mainly in the form of roadside establishments on Patel Marg (the western-most road of the city) and in Mukund Nagar. Together it was called the Patel Nagar-Mukund Nagar Industrial area. This phase presented a haphazard growth pattern because of the intermingling of industrial units with residential areas (Saxena 1984). Planned industrial and residential development began in the early 1960s, initiated by the Uttar Pradesh State Industrial Development Corporation (UPSIDC) and the Ghaziabad Improvement Trust (GIT). The table below (Image 4.4) provides details of differences between proposed and actual developed areas in the different master plans of Ghaziabad from 1961 to 2001. It shows that there was a significant increase in the development area of Ghaziabad during this period, increasing from 573 hectare in 1961 to 8485 hectare in 2001.

We try to investigate what this expansion entails in terms of actual development on the ground. In the early 1960s, 3800 acres of land was acquired by the UPSIDC for industrial development (GDA 2007). Thereafter major industrial areas were developed in different parts of the town including the Meerut Road Industrial Area, Anand Industrial Estate, Prakash Industrial Estate, Rajender Nagar Industrial Estate, and Loni Road Industrial Area. There was also a vast industrial expansion in the oldest industrial area of Bulandshahar Road. While industrial development was undertaken by the UPSIDC, the GIT was responsible for other urban development activities that included building new residential colonies. The area under Ghaziabad Municipality that included Loni Town along with an additional number of 137 villages in the vicinity, was declared a ‘regulated area’. For the development of this area between 1961 and 1981, a special development scheme (also known as the first master plan of Ghaziabad) was prepared by the Town and Country Planning Office of UP. A scientific land-use plan was made to demarcate areas according to different functional purposes (GDA 1986). Planned residential areas that were developed between 1961 and 1981 included Raj Nagar, Kavi Nagar, and Shastri Nagar in the east and Lohia Nagar in the north. A few other areas included Shalimar Garden, Rajender Nagar, and Lajpat Nagar. The new residential areas were

⁸ Interview with Ved Prakash, Retail Shop Owner, Age 65, Old Ghaziabad (09.02.2023).

also developed in the Trans-Hindon Region of the north of the GT Road (GDA 1986). While new residential areas had low density of population with middle and upper middle-income housing having well-ventilated structures, wide roads, parks, and other community facilities, the old residential area of Ghaziabad had high population density and narrow lanes with no parks or open spaces. There was mixed use of land in the older areas for both residential and commercial purposes. Many Punjabis who had relocated to India after partition, over a period of time acquired wealth as entrepreneurs (industrialists and businessmen) and preferred to shift to new colonies from old Ghaziabad.⁹ Alongside the district headquarters-related state government offices, Ghaziabad also had many central government offices. Most of them are located today in the Cis-Hindon Region of Raj Nagar, Navyug Market, and Hapur Road. There are very few government offices in the Trans-Hindon Region (GDA 2007).

Land Use Change in Ghaziabad from 1972 to 2009

Class	1972	1975	1989	1997	2001	2006	2009
Build-up	37.74	43.61	34.83	49.47	48.87	57.43	63.17
Cultivated Land	52.53	51.26	51.32	34.42	33.11	24.99	21.13
Forest	3.81	3.59	2.60	8.97	12.97	11.73	6.80
Water Bodies	1.16	1.34	1.58	3.54	0.85	0.79	2.09
Transport Network	4.66	0.15	9.46	3.29	3.94	4.86	6.59
Others	0.10	0.05	0.20	0.32	0.26	0.20	0.22
Total	100	100	100	100	100	100	100

Source: Mohan 2013: 11 (owned by authors)

Image 4.5: Land Use Change in Ghaziabad from 1972 to 2009 (source: Mohan 2013: 11 / public domain).

Between 1982 and 2001, while there was some expansion in industrial areas, there was also significant development in the construction of new residential areas. In 2001, there were eight industrial areas in Ghaziabad including Dasna, Loha Mandi, GT Road, Kavi Nagar Sector 17, Bulandshahar Road Site 1, Loni Road Site 2, Meerut Road Site 3, and Sahibabad Site 4 (ibid.). The newly planned residential areas that were developed during this period included Govindpuram, Pratap Vihar, Swarn Jayanti Puram, Chiranjeev Vihar, Avantika, Vasundhara, Vaishali, Indrapuram, and others. While the first five residential areas are located in the Cis-Hindon Region with 3-story apartment blocks, the last three are located in the Trans-Hindon Region with multi-storey apartments. Till the early 1990s, residential areas were mainly developed by the Ghaziabad Development Authority (GDA) and the Uttar Pradesh Housing and Development Board (UPHDB). Later, many private developers also bought land from the villagers to build housing and commercial complexes.¹⁰ By the year 2001, a total of 4670 hectare of land had been developed for residential purpose in Ghaziabad, which amounted to 55.03% of the total development area of the city. This was followed by industrial use (20.16%), with 6.13% being used for roads and bus stands (GDA 2007). The major development of residential areas was also due to the rising value of land and housing in Delhi. Apartments in Ghaziabad were approximately half the price of apartments in Delhi, and there was a significant increase in the number of people who worked in Delhi but lived in Ghaziabad (Randhawa and

⁹ Interview with Sunil Khaneja, Punjabi Industrialist, Age 79, Nehru Nagar, Ghaziabad (10.03.2023).

¹⁰ Interview with Sushil Raghav, Freelance Journalist and RTI Activist, Age 52, Karkar Model village near Site 4 Industrial Area, Sahibabad (15.03.2023).

Marshall 2014). Since 2001, there has been a further expansion of residential areas in both the Trans-Hindon as well as the Cis-Hindon Regions. While development mostly took place within preexisting areas in the Trans-Hindon Region, in the Cis-Hindon Region the residential and commercial property was mostly developed on acquired agricultural land located beside Meerut Road. Earlier, people were buying apartments to live in them, but now people are also buying apartments for purposes of investment, due to the immense growth in the real estate sector. This period also witnessed the conversion of roadside industrial units into shopping and commercial areas.¹¹ The process of industrial, residential, and commercial development in Ghaziabad has resulted in the major transformation of agricultural land use, both in a planned and unplanned manner. A study by Mohan (2013) shows the details of land use and the changes it underwent between 1972 and 2009 in Ghaziabad.

The table (image 4.5) demonstrates the total cultivated land that comprised the largest proportion (52.63%) of the total geographical area of Ghaziabad in 1972. Over the years, there has been a steady decline in the proportion of agricultural land. Particularly from 1997 onwards, this proportion decreased from 34.42% to 21.13% (in 2009). In other words, the amount of cultivated land has shrunk almost to half between 1972 and 2009. While agricultural land has decreased, there has been a corresponding increase in built-up land area. From 37.74% in 1972, the built-up land has nearly doubled to 63.17% in 2009. Besides planned development, land use patterns have also changed due to the massive conversion of agricultural land for the development of informal settlements. Though industrialisation was a significant feature of urbanisation in Ghaziabad, there was no provision for housing and infrastructural services for industrial workers.¹² In the absence of affordable housing for industrial and other unorganized sector workers, there has been a massive growth of unauthorised colonies and slums in different parts of Ghaziabad developed by local private builders (mostly erstwhile farmers).

According to the latest figure, there are 321 unauthorised colonies in Ghaziabad (GDA 2023).¹³ Most of these are built on agricultural land with no regular ownership titles, which are outside the ambit of municipal intervention and services. As per government estimates, 33% of Ghaziabad's population lives in slums (GDA 2007) and many of these informal settlements are located adjacent to industrial areas. For example, the informal settlements inhabited by workers near the Sahibabad industrial areas include Indira Colony, Rajiv Colony, Shaheed Pyarelal Colony, Arthala, and others (ibid.). In addition, about 1000 hectares of rural land has been developed into urban villages. There has been a massive expansion of built-up areas beyond the boundary of the *lal dora*, literally the 'red thread' (the classification assigned to villages for habitation, referred to as *abadi*) in these villages.¹⁴ Some of these villages include Karheda, Raeespur, Harsanw, Indrapuri, Mankanpur, Sihani, Khukna etc. (GDA 2007). Though these villages are within the municipal jurisdiction, they are treated like other informal settlements that lack basic amenities.

¹¹ Interview with Sushil Raghav, Freelance Journalist and RTI Activist, Karkar Model village near Site 4 Industrial Area, Sahibabad (15.03.2023).

¹² Interview with Brajesh Singh, Age 70, Secretary, Ghaziabad District at the Centre of Indian Trade Union (CITU), Site 4 Industrial Area, Sahibabad (30.03.2023).

¹³ *Ghaziabad Vikas Kshetra me Jonvar Chinihit Avaidh Calaniyon ki Soochi* (<https://gdaghaziabad.in/wp-content/uploads/2019/08/avedh-colony-list.pdf>), accessed 23.04.2023.

¹⁴ *Lal dora* villages are part of municipal wards, governed by the Ghaziabad Municipal Corporation. Though *lal dora* villages in urban areas are administered by urban local bodies and represented by the ward councilor, our past studies show that some villages continue to have *panchayats*. These *panchayats* do not have access to government schemes / programs anymore. They only play a role in intervening / resolving social conflict in the village or organize village social events.

Social Milieu

Along with economic and spatial transformation, the social character of Ghaziabad also underwent significant change, with different communities migrating and competing for shelter, jobs, and services. These social groups included the inhabitants of old villages, people displaced after Partition, employees of the state and central government departments, migrants who have been continuously arriving since the process of industrialisation began, and the aspiring middle and upper middle-class residents of Delhi and other major cities seeking affordable accommodation. The majority of earlier inhabitants continue to live in villages, defined as *lal dora* areas. There is a domination of Gujjars and Rajput castes over here, with a significant presence of backward and Dalit (untouchable) castes. Most Gujjars and Rajputs have lost their agricultural land that was acquired either for industrial, residential, or commercial development by UPSIDC, GIT and GDA.¹⁵ Agriculture continues to be the source of livelihood for a significant number of people in the villages that have so far survived land acquisition. Despite being powerful inside the village, it is noteworthy that middle-class and upper-caste farmers today cannot be equated with the urban middle classes. This is for two reasons. First, they do not have the social and cultural capital that is required for people in a globalising world, and second, compared to the urban middle-classes, they have been adversely impacted by industrialisation and urbanisation that depleted the region's natural resources, environmental stability, disrupting the social structures that enabled their interaction with small, or lower-caste farmers (Priya et al. 2017). As far as Dalit populations are concerned, many of them were earlier landless peasants, working on lands owned by the Gujjars and Rajputs. After the acquisition of cultivable land, not only did they lose their livelihoods, but they also did not receive any compensation for it. Some of them started working in industries, while others were forced to take up their ancestral profession as sanitation workers in the public and private sector.¹⁶

In the post-independence period, refugee migrants to Ghaziabad settled in Ghandhi Nagar and Mukund Nagar areas that were within the old town. While a majority of them started their own businesses, there were a few who established industries. Till date, many of them continued staying in those colonies within the old town, but those who acquired wealth and status settled in middle and upper-class colonies like Nehru Nagar, Kavi Nagar, and others.¹⁷ During the 1960s the refugee population outgrew the older populations of Ghaziabad, but continuous labour migration for livelihood opportunities in the industries, once again changed the social milieu of the town. The lower labouring classes usually resided near their workplaces, either in slums or unauthorised colonies. Many of them also resided in rented accommodation inside *lal dora* villages. The migrant populations generally received little or no recognition from the state and were often looked down upon by village residents as well. The relocation of polluting industries from Delhi to Ghaziabad resulted in another wave of migrants who added to the woes of resettlement colonies and squatter settlements (*bastee*): areas such as Rajiv Colony, Ambedkar Nagar, Chitrakoot, Ramnagar, and Balaji Vihar (Karpouzoglou et al. 2018).

Apart from lower working-class migrants, there was also a significant increase in the white collar migrant population in Ghaziabad who worked in government sectors and the service economy. The majority of people working in government offices reside in the Cis-Hindon region, with those working in the service economy largely located in multistorey residential apartments of the Trans-Hindon area in places like Vasundhara, Indirapuram, Vaishali,

¹⁵ Interview with Sushil Raghav, Freelance Journalist and RTI Activist, Age 52, Karkar Model village near Site 4 Industrial Area, Sahibabad (15.03.2023).

¹⁶ Interview with Ram Sahay, Age 86, Born in Ghaziabad village in Indargarhi (09.02.2023).

¹⁷ Interview with Sunil Khaneja, Punjabi Industrialist, Age 79, Nehru Nagar, Ghaziabad (10.03.2023)

Kaushami etc. Many from the latter category also work in Noida and Delhi. As Priya et al. (2017: 12) puts it:

Locally, the popular perception divides people on either side of the river. The Cis-Hindon area is perceived as socio-culturally a part of UP while the Trans-Hindon, even while being located in UP, has the image of being more a part of the metropolis of Delhi.

The discussion above illustrates that there has been significant economic, spatial, and social transformation of Ghaziabad city from the post-independence period till date and that there seems to be a deepening chasm between residents from either side of the Hindon River. Having taken place in a span of just a few decades, these transformations have been rapid. The town before independence burgeoned into a city with migrant populations working in dispersed industrial enclaves. Government officials, planners, builders, property dealers, industrialists, rural residents, and migrant workers have all contributed to these changes. The *mandi* town which had seen its first stage of expansion through business and commerce, became transformed into an industrial city in the post-independence period. In the past twenty years, Ghaziabad has been reconfigured in accordance with neoliberal principles, favourably disposed towards the service sector. The continuous growth of population along with the expansion of economic activities, has demanded and led to the rampant transformation of agricultural land into build-up areas meant for industrial, residential, and commercial development. Along with state-driven market-led initiatives, the local private builders also played an important role in this development. These economic and spatial transformations have been accompanied by a continuous shift in the social character of Ghaziabad which now comprises erstwhile villagers, relocated populations from Punjab, industrial workers (mostly migrants), and middle-income groups. The next section will focus attention on the urban planning and governance of Ghaziabad by keeping in mind the social flux the city witnessed in a short span of time.

Dispersed Planning and Governance

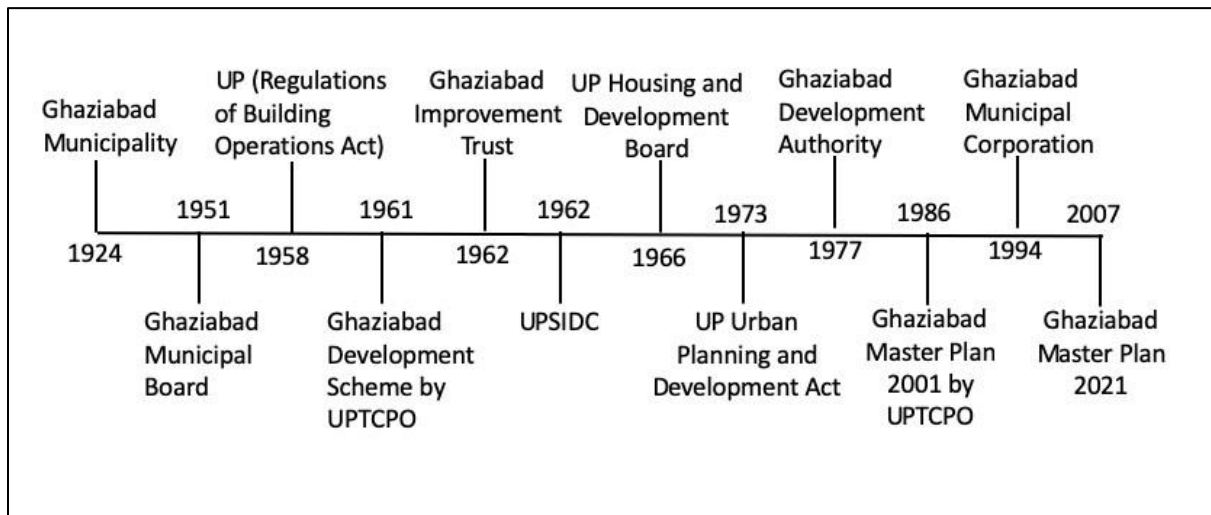


Image 4.6: Urban Planning and Governance in Ghaziabad (source: authors)

The story of the creation of governing agencies, the formulation of regulations, and the drafting of urban plans in Ghaziabad can be comprehended in the form of a timeline, demonstrated in Image 4.6. From 1924 onwards, the town was under the jurisdiction of a municipality, which

was upgraded to the level of a Municipal Board in 1951 and later to a Municipal Corporation in 1994 after the 74th Constitutional Amendment Act.¹⁸

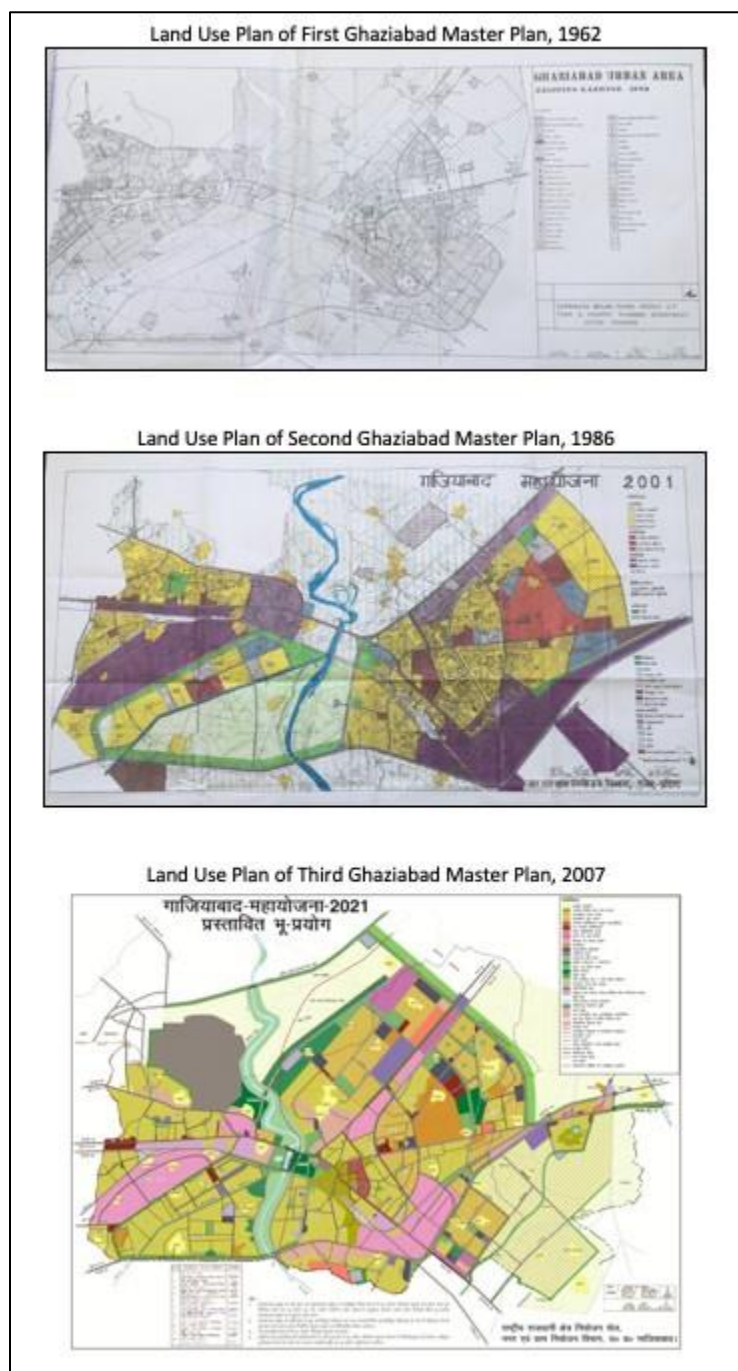


Image 4.7: Land Use Plans of Ghaziabad (source: GDA 1986 / authors).

The early years after independence witnessed unplanned industrial and urban development in Ghaziabad. Proper institutional planning began only after the formulation of the UP (Regulations of Building Operations) Act in 1958. Based on this act, the Uttar Pradesh Town and Country Planning Office (UPTCPO) drafted the Ghaziabad Development Scheme. At the same time, two important agencies were simultaneously created: the UPSIDC in 1961 and the GIT in 1962. The UPSIDC was responsible for planning industrial areas. Along with providing licenses, it also gave loans for buying land to establish industries (GDA 1986). The GIT was responsible for implementing the development scheme. The development scheme had a land-use plan, which demarcated areas according to different functional purposes e.g., educational, market, business, industrial, residential, recreational zones, parks, etc. In 1966, the UP Housing Board was additionally created, which gave a further boost to the development of planned residential areas in Ghaziabad. After a few years in 1973, the UP Urban Development Act was passed, and this act led to the formation of the GDA in 1977. The GIT was merged into this newly formed authority. The role of the GDA surrounded the

preparation of a master plan for the planned development area, the acquisition of land, the construction of houses, and the provision of physical and social infrastructure. In 1985, the second Ghaziabad Master Plan was prepared by UPTCPO, and declared by the GDA in 1986. The third master was due in 2001 but it was declared by the GDA only in 2007.

¹⁸ The 74th Amendment Act of 1992 provides the basic framework for the decentralisation of power and authority to the Urban Local Bodies (ULBs) or city governments.

From the above timeline, it looks like there has been a smooth transition between haphazard urban growth to planned settlements in Ghaziabad owing to the creation of agencies, the formulation of acts, and the drafting of plans, which would have systematically administered the process of urbanisation in the town. However, a closer analysis of this planning process reflects a different ground reality. There has been a rapid growth of unauthorised colonies and slums since the formulation of the first plan but none of the plans recognised their existence. For instance, the land use maps of the second and third plans show unauthorised colonies and agricultural land as recreational areas or vacant land, fit for future development. In India, there are planned industrial towns, also called project towns (Sivaramkrishnan 1977, Meher 1998), or cities where industries were established later (Sandesara 1988, Dupont 1990). While project towns were mostly located in dispersed rural locations, the others were located in the proximity of large cities or towns that already existed across the country. Industrialisation in both categories was the outcome of the national industrial policy, formulated in the early years after independence—during the first and second five-year plans (Jakobson and Prakash 1967, Sandesara 1988). In the former, planning preceded the growth of the town; in the latter, planning was often seen as an afterthought to stem the sprawl caused by industrial growth.

Ghaziabad is indicative of the latter trend, where industrial and urban planning began 20 years after the first phase of the unplanned industrialisation and urbanisation process unfolded. The creation of agencies like UPSIDC and GIT did not address then existing problems and challenges of the town rooted in the history of its urban process; rather they focused on establishing new industrial and urban development areas. Alongside neglecting the problems faced by old Ghaziabad, and the urban sprawl that had already taken place between 1940 and 1960, the first development plan and later the other master plans did not take into consideration the requirement of housing for industrial and migrant workers. The plans also neglected the needs of existing villages (*lal dora* areas) already within the municipal limit, and of the villagers who lost their farms because of land acquisition. This negligence led to a housing shortage for migrant workers and resulted in the growth of unauthorised colonies and slums that seemed intentional especially because there was no dearth of land for building residential colonies for middle and high-income groups. Urban planning in Ghaziabad has hence always overlooked socio-economic realities, which have resulted in dispersed industrialisation and the creation of segregated residential spaces within the city. Moreover, being in the proximity of Delhi has had its pros and cons as the planning of the satellite town was overshadowed by the needs of the Metropolis which lay adjacent to the city. This is evident from how differently the Master Plans of Delhi framed policies on the contiguous regions, especially Ghaziabad.

Delhi-Ghaziabad Relations in Official Framing

Ghaziabad has always been viewed in relation to Delhi in the strategic scheme of things. Whether it is the Delhi or the Ghaziabad master plan, the thrust has always been on how Delhi's pressure of urbanisation could be systematically apportioned. As discussed earlier, Ghaziabad was a part of DMA in the MPD 1962 along with other 'ring towns' of the capital. The Trans-Hindon region of Ghaziabad was part of the land use plan of the MPD 1962 (Image 4.8). It stated that Ghaziabad would ideally be considered a future industrial town, which would employ approximately 50,000 workers in the manufacturing sector, which had a total population of 3,57,000 in 1981 (DDA 1962). Though this projection could not be met in 1981, eventually, Ghaziabad became a major industrial hub by 1991, with a population of 5,11,759, and employing 54,000 industrial workers (GDA 2007). Even the succeeding master plans envisioned Ghaziabad as part of the larger entity of Delhi. The year 1985 saw the declaration of Delhi as the National Capital Region (NCR). The objective was to reduce Delhi's urbanisation

burden through the creation of 11 regional centres that were located at distances of 60-160 km from Delhi in Haryana and UP (Nath 1993).¹⁹

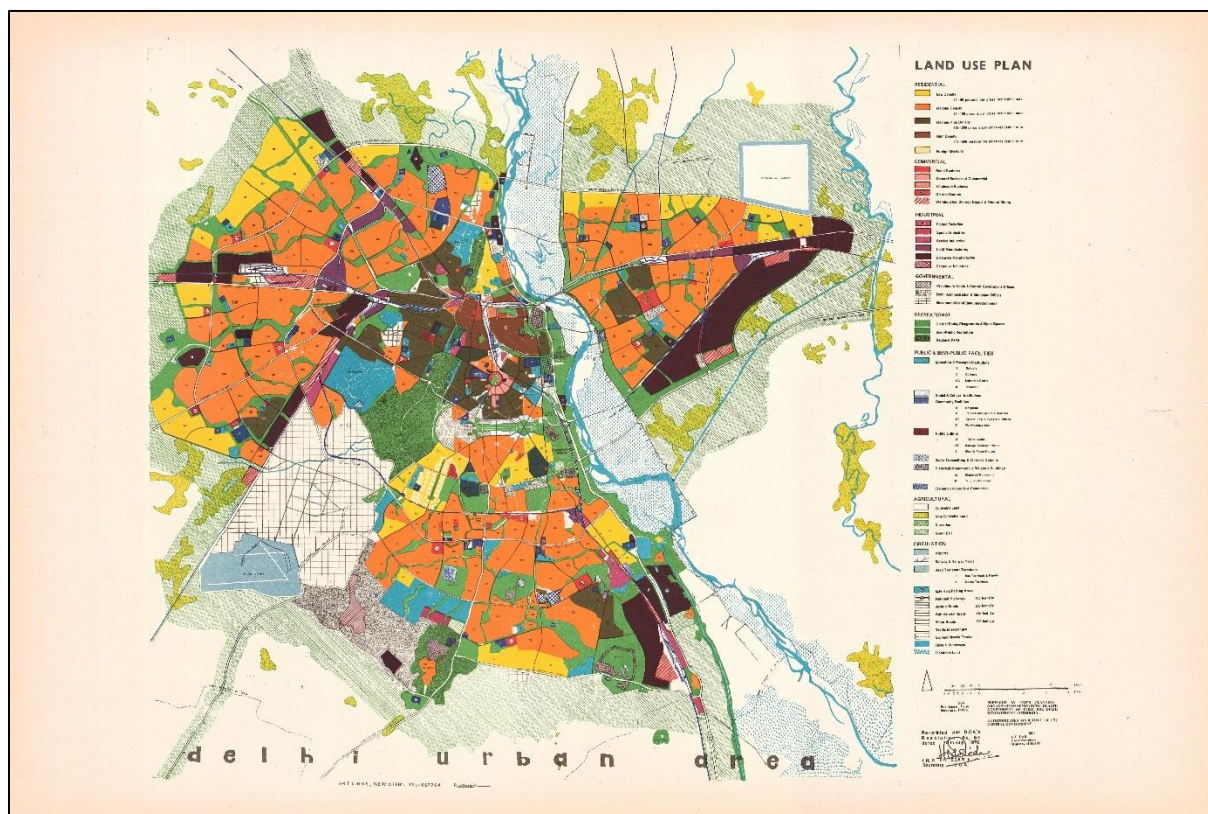


Image 4.8: Land Use Map of MPD 1962 (source: https://dda.gov.in/sites/default/files/inline-files/Proposed_Land_Use_Plan_1962.pdf / authors).

Ghaziabad as a part of DMA was further mentioned in the MPD 2001 where the stated purpose was, “to bring in decentralization in whole sale trade, new markets especially space extensive should be located in the towns of DMA”, and to establish wholesale market for “iron and steel” in Ghaziabad (DDA 1990: 30). Similar kinds of proposals were made for Faridabad and Gurgaon. The third master plan of Delhi renamed the DMA as the Central National Capital Region (CNCR). Among others, Ghaziabad was also part of the CNCR. The plan suggested that the opportunities presented by the CNCR should be maximized to enable it to effectively compete with Delhi, offering comparable employment, economic activities, a comprehensive transport system, housing, social infrastructure, and quality of life and environment. Alongside, it recommended that larger industries be located in the urbanised areas of this zone (DDA 2007). The idea of CNCR has been rearticulated in the Draft MPD 2041 (DDA 2021). It was not just that the Delhi plans viewed Ghaziabad as a satellite town (in the form of a ring town of CNCR), but that the Ghaziabad plans also began to conceive of the region in conjunction with Delhi. The second Ghaziabad Master Plan recognises Ghaziabad as a ring town of Delhi, and at the same time also a gateway to Delhi for UP and other Northern States. The Ghaziabad plan reflects on its role as a ring town to oblige the metropolis by accommodating various activities outsourced from Delhi, including setting up of government offices, the offices of the public sector industries, warehouses for raw material and finished products, iron and steel business etc. In light of these recommendations, the proposed plan systematically promoted

¹⁹ These regional centres include Meerut, Ghaziabad, and Bulandshahr from Uttar Pradesh, Panipat, Rohtak, Sonapat, Gurgaon, Rewari, Alwar, and Faridabad from Haryana.

the activities of Delhi in an organized manner in the development area of the Ghaziabad master plan (GDA 1986).

There is however a sudden shift in the tone of the third master plan of Ghaziabad. It states that Delhi has unfavourably affected the independent identity of Ghaziabad. Though the plan is critical of Delhi's detrimental impact on the urban changes of Ghaziabad, it also suggests that proximity to Delhi can be used to improve the economic activities of ring towns by developing its institutions, entertainment activities, and modern technology parks. This bears deep resemblance to the third master plan of Delhi, both in terms of its overall vision, as well as the type of uses for further development that are defined under the plan. For example, the third Ghaziabad plan is highly focused on 'regional integration' and the development of commercial centres, multiplexes, and 'planned' residential localities that are similar to those in the capital (GDA 2007). The formulation of the master plan of Delhi and Ghaziabad brings out the constrained relationship between the metropolis and its adjoining urban areas where socio-spatial changes and environmental degradation becomes part and parcel of the overall economic growth of both regions. One can only speculate on whether overall pecuniary gains surpass the damage caused by the ecological degradation entailed in allowing such processes to continue.

Conclusion

In this paper, we attempted to historically analyse the significant changes that have transformed a small *mandi* or market town of Ghaziabad into a burgeoning city replete with industrial enclaves. We suggest that there is a speculative urban transformation afoot, owing to a neoliberal influence and real estate development that has had far-reaching consequences. These economic changes and expansion have led to a rapid transformation of cultivable land for other purposes including a rise in the built-up areas for industrial, residential, and commercial development. There has also been a constant shift in the social milieu of Ghaziabad. A town with an erstwhile population of Gujjar and Rajput villagers, and Dalit communities was overshadowed, first by the dislocated populations of Punjab who settled there in the post-Partition period, that later accommodated the incessant flow of low-income (mostly industrial workers), and middle-income migrants. Presently, the social character of Ghaziabad represents a mosaic of diverse communities that inhabit different parts of the city.

Urban planning in Ghaziabad began in the aftermath of a period of haphazard industrialisation, resulting in an unbridled sprawl. While the first master plan demarcated industrial zones and development areas for residence and other projects, it overlooked the extant challenges of old Ghaziabad, which was to provide housing for industrial workers. This negligence led to the growth of unauthorised colonies and slums. Most of the new residential areas that were developed as a part of the plan only catered to the housing needs of middle and high-income groups. In sum, urban planning in Ghaziabad has been fragmented, resulting in dispersed industrialisation and the creation of segregated residential spaces. Apart from internal factors, Ghaziabad's proximity to Delhi has resulted in the incessant movement of people and commodities, which has added to the woes of this city.

The analysis presented in this paper indicates, that unlike other satellite towns of Delhi, which eventually acquired a distinct identity, like the planned industrial city of Faridabad or the cosmopolitan city of Gurgaon, Ghaziabad is yet to claim any specific characteristic that encapsulates its independent urban existence. In fact, despite witnessing rapid industrial urbanisation, one finds a deep disconnect between the economic opportunities provided by the industrial enclaves and the residential requirements available for migrant labour. It is also a suburb or satellite town of Delhi, where the Trans-Hindon region, which is closer to the capital city, seems to be well-connected to the Delhi transportation or Metro system. But, on the other hand, the internal transport and communication infrastructure of Ghaziabad remains

neglected. Those residing in the immediate suburb of the Trans-Hindon region relate more to Delhi's culture as they regularly commute to work to the national capital. But within Ghaziabad city itself, there is limited interaction between CIS and the Trans-Hindon middle-class residential colonies. This implies that the city lacks a uniform urban culture or resists any particular classification where urban taxonomies such as 'suburb', 'satellite', or 'industrial' fall short of describing its character in any cogent way. Hence, we argue that fragmented planning, splintered residential urbanism and dispersed industrial urbanisation represent the urban processes of change in Ghaziabad.²⁰ In a relational sense, the policy decisions of the Delhi metropolis impinges upon this city, which has prevented it from acquiring a singular identity in comparison to the other cities like Faridabad (industrial city), Gurgaon (cosmopolitan culture), and NOIDA (industrial cum residential city), and this is despite of Ghaziabad being considered part of the NCR as a distinct and recognised entity. Nevertheless, the socio-spatial changes in Ghaziabad over the past several decades indicate that it is an evolving dynamic space, where possibilities of urban growth never cease to exist.

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References

- Asian Development Bank (ADB), (July 2010). *Volume IV-C: Economic and Financial Analysis: Detailed Project Report for Improvement of Solid Waste Management in Ghaziabad*. Wilbur Smith Associates: National Capital Regional Planning Board, Asian Development Bank.
- Bali B., N. Bhatia., (2022). "Development, Prosperity and Aspirations: A Narrative from the Peri-Urban Areas of Noida". *Journal of Land and Rural Studies* 10(1): 54-74.
- Breese G., (1969). *Urbanisation in Newly Developing Countries*. New Delhi: Prentice Hall.
- Chabukdhara M., Nema., (2013). "Heavy Metals Assessment in Urban Soil around Industrial Clusters in Ghaziabad, India: Probabilistic Health Risk Approach." *Ecotoxicology and Environmental Safety* 87: 57-64.
- Chabukdhara M., et al., (2016). "Heavy Metal Contamination in Vegetables Grown around Peri-urban and Urban-industrial Clusters in Ghaziabad, India." *Human and Ecological Risk Assessment* 22(3): 736–752.
- Davis K., Golden H.H., (1954). "Urbanisation and Development in Pre-Industrial Areas." *Economic Development and Cultural Change* 3(1): 6-26.

²⁰ 'Splintering Urbanism' is a term coined by Steven Graham and Simon Marvin (2001) to refer to ways in which infrastructure, information, communication, and technology fragment the experience of living in a city.

- Delhi Development Authority, (1962). *Master Plan for 1962*. New Delhi: Delhi Development Authority.
- Delhi Development Authority, (1990). *Master Plan for 2001*. New Delhi: Delhi Development Authority.
- Delhi Development Authority, (2007). *Master Plan for 2021*. New Delhi: Delhi Development Authority.
- Delhi Development Authority, (2041). *Master Plan 2041 Draft*. New Delhi: Delhi Development Authority.
- Engels F., (1953). *Condition of the Working Class in England in 1844*. London: Progress Publishers.
- Ghaziabad Development Authority, (1986). *Ghaziabad Mahayojna 2001* (Ghaziabad Master Plan 2001). Ghaziabad: Ghaziabad Development Authority.
- Ghaziabad Development Authority, (2007). *Ghaziabad Mahayojna 2021* (Ghaziabad Master Plan 2021). Ghaziabad: Ghaziabad Development Authority.
- Government of India, (2011). *Census of India* New Delhi: Office of Registrar and Census Commissioner, Ministry of Home affairs.
- Government of Uttar Pradesh, (1981). *Census 1981*. District Census Handbook, Series 22, District Ghaziabad, Uttar Pradesh.
- Graham S., S Marvin, (2001). *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge
- Gupta L., et al., (2021). "Assessment of PM10 and PM2.5 over Ghaziabad, An Industrial City in the Indo-Gangetic Plain: Spatio-temporal Variability and Associated health effects." *Environ Monit Assess* 193 (735): 1-21 735
- Gururani S., (2013). "Flexible Planning: The Making of India's "Millennium City", Gurgaon," in Rademacher A., Sivaramakrishnan K., (eds.) *Ecologies of Urbanism in India: Metropolitan Civility and Sustainability*, pp. 119-144. Hong Kong: Hong Kong University Press.
- Jakobson L., Prakash V., (1967). "Urbanization and Regional Planning in India." *Urban Affairs Review* 2 (3): 36-35.
- Karpouzoglou T., Marshall F., Mehta L., (2018). "Towards a Peri-urban Political Ecology of Water Quality Decline." *Land Use Policy* 70: 485-493.
- Marshall F., et al., (2009). *On the Edge of Sustainability: Perspective on Peri-urban Dynamics*. STEPS Working Paper 35. Brighton: STEPS Centre.
- Meher R., (1998). "Social and Ecological Drift of a Planned Urban Centre: A Study of Rourkela, Orissa." *Sociological Bulletin* 47(1): 51-72.
- Mehra R., (2020). "Mapping the Core-Periphery Dynamics of Delhi Metropolis," in Deka, M. (ed.) *Urbanism in South Asia, North East India, Outside In*, pp. 190-212. New Delhi: Primus Publications.

- Mehta L., Karpouzoglou T., (2015). "Limits of Policy and Planning in Peri-urban Waterscapes: The Case of Ghaziabad, Delhi, India." *Habitat International* 48: 159-168.
- Nath V., (1993). "Planning for Delhi." *GeoJournal* 29(2): 171–180.
- Potter R.B., Sinha R., (1990). "NOIDA: A Planned Industrial Township South-east of Delhi." *Geography* 75(1): 63-65
- Priya R., et al., (2017). *Local Environmentalism in Peri-urban Spaces in India: Emergent Ecological Democracy?* STEPS Working Paper 96. Brighton: STEPS Centre.
- Randhawa P., Marshall F., (2014). "Policy Transformation and Translation in Peri-urban Delhi, India." *Environment and Planning C: Government and Policy* 32: 93–107.
- Raza M., Kundu A., (1978). *Some aspects of Dysfunctional Characteristics of Urbanisation. Socio-Economic Development Problems in South and South East Asia*. Bombay: Popular Prakashan.
- Sajjad H., Jyoti, Uddin R., (2014). "Exploring Water Quality Index and Risk on Quality of Life in an Industrial Area: A case from Ghaziabad City, India." *International Journal of Environmental Monitoring and Analysis* 2(2): 65-72.
- Sandesara J.C., (1988). "Small-Scale Industrialisation: The Indian Experience." *Economic and Political Weekly* 23(13): 640-654.
- Saxena A., (1989). *Perspectives in Industrial Geography: A Case Study of Industrial City of Uttar Pradesh*. New Delhi: Concept Publishing Company.
- Shaw A., (2004). *The Making of Navi Mumbai*. New Delhi: Orient Longman.
- Sivaramkrishnan K.C., (1977). *New Towns in India: A Report on the Study of Selected New Towns in the Eastern Region*, A Homi Bhabha Fellowship Award Project with support from the Indian Institute of Management Calcutta. New Delhi: Centre for Policy Research.
- Suthar S., et al., (2010). "Water Quality Assessment of River Hindon at Ghaziabad, India: Impact of Industrial and Urban Wastewater." *Environ Monit Assess* 165: 103–112.
- Taylor G.R., (1915). *Satellite Cities: A Study of Industrial Suburbs*. New York, London: D Appleton and Company.
- Venkataraman A.K., Devadas V., (2014). "Exploring the Concept of CBDs in the Indian Context." *International Journal of Research* 1(5): 203-212.
- Waldman L., Bisht R., Saharia R., Kapoor A., Rizvi B., Hamid Y., Arora M., Chopra I., Sawansi K.T., Priya R., Marshall F., (2017). "Peri-Urbanism in Globalizing India: A Study of Pollution, Health and Community Awareness." *International Journal of Environmental Research and Public Health* 14: 1-17.

Online Resources

- Das V.K., Vaibhav V., (06.08.2021). "Noida is Growing, Ghaziabad is Fading. The Story of Uttar Pradesh's Two Boom Towns." *The Print* (<https://theprint.in/opinion/noida-is-growing-ghaziabad-is-fading-the-story-of-uttar-pradeshs-two-boom-towns/710074/>), accessed 08.08.2023.

District Gazetteer of the United Provinces of Agra and Oudh Meerut Vol-IV (1922). (https://archive.org/stream/in.ernet.dli.2015.16071/2015.16071.District-Gazetteers-Of-The-United-Provinces-Of-Agra-And-Oudh-Meerut-Vol-iv-1922_djvu.txt), accessed 17.12.2023.

Ghaziabad Population, Religion, Caste, Working Data Ghaziabad, Uttar Pradesh—Census 2011 (<https://www.censusindia.co.in/towns/ghaziabad-population-ghaziabad-uttar-pradesh-800734>), accessed 12.08.2023.

“Ghaziabad Vikas Kshetra me Jonvar Chihit Avaidh Calaniyon ki Soochi (List of Unauthorised Colonies in Ghaziabad Development Area).” *Ghaziabad Vikas Pradhikaran* (Ghaziabad Development Authority GDA) (<https://gdaghaziabad.in/wp-content/uploads/2019/08/avedh-colony-list.pdf>), accessed 23.04.2023.

Ghaziabad: India (<https://www.britannica.com/place/Ghaziabad-India>), accessed 25.08.2023.

Mohan M., (2013). “GeoVisualisation and Spatio-temporal Modelling from Satellite Imagery: A Study of Million+ City, Ghaziabad, NCR Region, India.” *International Cartographic Conference Proceedings*, pp. 1-19. Dresden, (https://icaci.org/files/documents/ICC_proceedings/ICC2013/_extendedAbstract/205_proceeding.pdf), accessed 04.08.2023.

Conference Presentations

Dupont V., (02.06.1990 – 05.06.1990). “The Effect of Industrialization on Working and Living Spatial Patterns in an Indian Middle-Sized Town.” Paper Presentation. *11th International Conference on Modern South Asian Studies* in Amsterdam.