



# International Journal of Innovative Research in Science Engineering and Technology (IJIRSET)

*(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)*



**Impact Factor: 8.699**

**Volume 14, Issue 8, August 2025**

# Skyline Transformed: Three Decades of Polycentric Urban Growth in Dhaka and Its Implications for Equity, Connectivity, and Sustainable Urban Futures

G M A Balayet Hossain\*, Nafisa Bari, Md. Rigu Sarker, S. M. Arafat Hossain

Associate Professor, Ahsanullah University of Science and Technology, Dhaka, Bangladesh \*

Assistant Professor, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Assistant Professor, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Assistant Professor, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

**ABSTRACT:** Dhaka has experienced a dramatic transformation in its urban form over the past three decades, marked by the rise of multiple business districts and a rapidly evolving skyline. Historically, the Central Business District was concentrated in Puran (Old) Dhaka around Chawkbazar, Islampur, and Nawabpur Road, before shifting to Motijheel–Dilkusha under the 1959 Dacca Master Plan. Since Independence in 1971, however, economic and administrative activities have intensified, driving the emergence of new urban nodes to accommodate rising demands. Today, areas such as Karwanbazaar, Tejgaon, and Agargaon function as vibrant commercial hubs, while streets in Dhanmondi, Uttara, Banani, and Gulshan have developed into corporate centers and high-rise clusters, reshaping the city's image. This paper investigates the drivers of Dhaka's spatial and vertical expansion, with particular attention to the interplay between the demand for commercial space and the production of urban form. While the high-rise boom signals economic dynamism, it also exposes critical planning challenges, including traffic congestion, inadequate utilities, infrastructure deficits, and widening socio-spatial inequality. The uneven and often spontaneous nature of this transformation underscores the urgency of rethinking urban governance to ensure sustainability, equitable access, and spatial justice. By mapping Dhaka's shift from a mono-centric to a polycentric urban structure, this study identifies key development nodes and evaluates their role in shaping the city's evolving identity. It argues that inclusive and future-oriented planning strategies are essential to channel multi-nodal growth toward resilience, connectivity, and balanced metropolitan development.

**KEYWORDS:** Business district, Dhaka city planning, High-rise development, Transformed skyline, Multi-nodal growth, Polycentric City, Urban Transformation, Urban morphology.

## I. INTRODUCTION

Dhaka, the capital of Bangladesh, has undergone a significant urban transformation over the past thirty years. Once marked by a predominantly monocentric urban form, with its commercial heart in Old Dhaka (around the Buriganga River port) and later in Motijheel, the city's structure has evolved into a polycentric system featuring multiple business nodes. The population of the Dhaka metropolitan area increased from approximately 3 million in 1980 to over 18–20 million by the late 2010s, reflecting massive rural-urban migration and primate city dynamics [1],[2]. Rapid urbanization and economic growth (Bangladesh's GDP grew 5–6% annually between 2000 and 2010) have physically manifested in Dhaka's changing skyline and decentralized economic spatial organization [3]. Today, Dhaka boasts over 800 high-rise buildings (defined as structures taller than 10 floors) scattered across different parts of the city. In contrast, a generation ago, mid-rise buildings were concentrated only in a single downtown area. The city's skyline, once clustered around Motijheel's mid-century office blocks, is now punctuated by multiple clusters of high-rises across the metropolitan area.



This research examines how Dhaka's skyline and urban morphology have been reshaped by three decades of multi-nodal growth. We trace the historical trajectory of the Central Business District (CBD) from the Mughal-era Old Dhaka and the mid-20th-century Motijheel hub to the present, and analyze the emergence of new commercial centres across the metropolis. We investigate the economic, infrastructural, and socio-political drivers behind Dhaka's vertical growth (skyscrapers) and horizontal expansion, although the planning challenges arising from rapid, often unplanned urbanization. Critical issues such as chronic traffic congestion, infrastructure strain, zoning violations, and socio-spatial segregation are discussed in the context of Dhaka's decentralized urban pattern. Furthermore, we situate Dhaka's experience in a broader context by comparing it with polycentric transitions in other megacities of the Global South, notably Mumbai and Jakarta, to draw parallels and contrasts in drivers and outcomes. Finally, recommendations for integrated urban planning, transportation, and governance reforms are highlighted to ensure Dhaka's multi-nodal growth contributes to a resilient and inclusive urban future.

## II. POLYCENTRIC TRANSITIONS IN MEGACITIES

Dhaka's development is similar to that of other megacities, such as Mumbai and Jakarta, which have also shifted from monocentric to polycentric patterns due to population growth. Comparing Mumbai and Jakarta reveals common drivers (decentralization caused by congestion, land scarcity, and economic liberalization) as well as different policy strategies. These examples serve as a reference point and cautionary lessons for Dhaka's journey toward polycentric urbanism.

### Mumbai, India: Decentralizing from Nariman Point to BKC

Mumbai traditionally had a single dominant CBD in South Mumbai – the historic Fort area and Nariman Point [Fig. 1(a)], which by the mid-20th century became the financial hub. By the late 20th century, however, severe congestion, exorbitant land values, and a northward population shift spurred the deliberate development of new business districts. The Bandra-Kurla Complex (BKC) in the suburban Bandra area was actively planned in the 1980s by the Mumbai Metropolitan Region Development Authority (MMRDA) as an alternative commercial centre [4], [5], [6]. Built on reclaimed marshland with modern infrastructure and spacious plots, BKC was intended to alleviate the over-concentration of offices in South Mumbai. By the 2010s, BKC had effectively eclipsed Nariman Point as Mumbai's primary commercial hub, much as Gulshan has done to Motijheel in Dhaka. Office space and corporate headquarters flocked to BKC's state-of-the-art towers and amenities [Fig. 1(b)], while the old downtown area of Nariman Point stagnated. In fact, Nariman Point, which was once one of the world's most expensive office locations in the 1990s, had over 20% vacancy by 2014, as major banks and corporations relocated to BKC[7],[8]. The factors behind this shift were analogous to Dhaka's: Nariman Point became saturated and prohibitively expensive, and economic decentralization (in a post-industrial, services-driven era) made a suburban node viable when supported by infrastructure. Mumbai's government took a proactive approach – it planned and serviced BKC to attract businesses, in contrast to Dhaka's more organic (and initially unplanned) decentralization.



(a)



(b)

Fig. 1 (a) Skyline of Mumbai's Nariman Point and surrounding high-rise developments viewed from Marine Drive [9];  
(b) The Mumbai cityscape is expanding with high-rise towers emerging above older low-rise neighbourhoods, reflecting rapid urban transformation [10].

Despite developing multiple nodes (BKC and other secondary hubs, such as Lower Parel or Navi Mumbai), Mumbai still faces severe congestion and inequalities between its city centre and peripheries. One lesson from Mumbai is the importance of transport connectivity – the expansion of suburban rail and new metro lines in Mumbai has helped link the polycentric dots to some extent, enabling commuters to travel between the old CBD and new centres. Dhaka is at the primary stage, following suit, with its first metro line inaugurated in 2022 and more under construction. Another lesson is the need to rejuvenate the old CBD: Nariman Point infamously began “running on empty” as BKC rose, and Mumbai has since tried to revitalize South Mumbai through heritage tourism, residential conversions, and improved transit. Similarly, Dhaka needs to ensure that Motijheel’s decline is addressed, even as the Gulshan or Banani. Mumbai’s experience underscores that polycentric evolution can be rapid when market forces align with planning support, but it also reveals that shifting the locus of growth does not automatically solve urban problems, such as congestion; it simply redistributes them across a more expansive geography.

### Jakarta, Indonesia: The Golden Triangle and Beyond

Jakarta’s urban form has historically centred on the old town (Kota) and the colonial core around Merdeka Square. In the late 20th century, Jakarta developed a new primary CBD in the south – the “Golden Triangle” spanning the Sudirman, Thamrin, and Rasuna Said avenues [Fig. 2(a)] – which now hosts the city’s tallest skyscrapers and most of its foreign embassies. This mirrors Dhaka’s establishment of a new CBD in the Gulshan and Tejgaon area [11],[12]. Like Dhaka, Jakarta’s explosive growth (its metro area now exceeds 30 million people) and chaotic urbanization have led to chronic congestion and infrastructure deficits. Traffic in Jakarta is notorious, much like Dhaka’s, and it has, in fact, motivated some decentralization as businesses and residents sought to avoid commuting through the gridlocked city that has a “pseudo-polycentric” pattern [13]. While multiple centres emerged, the sprawl and car dependence meant that congestion also became multi-nodal, as illustrated by the high-rise clusters and surrounding low-rise neighbourhoods visible in the panoramic skyline [Fig. 2(b)].



Fig. 2 (a) Jakarta’s “Golden Triangle” CBD, bounded by Jalan Thamrin–Sudirman, Jalan HR Rasuna Said, and Jalan Gatot Subroto, home to the city’s densest cluster of high-rise offices [14]; (b) Panoramic view of Jakarta’s central business district, showcasing a dense cluster of modern high-rise buildings contrasted with surrounding low-rise residential neighbourhoods [15].

Jakarta’s authorities attempted to guide growth by investing in transit – opening a metro system in 2019 to connect the southern CBD with other areas by developing planned satellite cities in the metro region (such as Tangerang and Bekasi) to redistribute growth [16],[17]. These efforts are comparable to Dhaka’s plans for new townships, like Purbachal and Jhilmil. A notable difference is the national policy response: the Indonesian government had decided to relocate the country’s capital entirely, planning a new capital city, Nusantara, in Borneo, to relieve pressure on Jakarta. This drastic measure, driven by Jakarta’s environmental vulnerabilities due to flood-prone and overconcentration of development, underscores the severity of Jakarta’s urban challenges. Bangladesh has not contemplated such a move of capital, and Dhaka remains firmly the nation’s political and economic nucleus. Jakarta also illustrates the socio-spatial aspect of polycentric growth. Much like Dhaka, upscale new business districts (the Golden Triangle, suburbs like BSD City) cater to the wealthy and middle-class, while large swaths of

population live in the informal settlements (kampungs). The city's modernization drive has often come at the cost of evicting slums under various "beautification" or flood-control schemes.

For both Mumbai and Jakarta, spatial inequality is pronounced – world-class skyscrapers and malls sit not far from vast slums. This reflects a common issue in fast-growing megacities without inclusive planning; polycentric development can exacerbate segregation, creating pockets of privilege and areas of neglect. The comparative insight for Dhaka is clear: polycentricity is emerging as the new paradigm for mega-urban regions, but the outcome in terms of liveability and equity depends greatly on governance. Cities like Mumbai and Jakarta have established metropolitan authorities to coordinate planning (e.g., MMRDA in Mumbai, the Jakarta city administration spanning multiple local governments), whereas Dhaka's governance remains fragmented among city corporations and agencies. Learning from these cities, Dhaka should enhance its metropolitan governance and ensure that decentralization is matched with investments in connectivity and affordable housing. This approach would help distribute the benefits of multiple centres in a broader lens, rather than forming isolated, high-rise enclaves.

The global South megacities demonstrate that the traditional monocentric city model is becoming obsolete for urban agglomerations of tens of millions [16]. Polycentric growth is a pragmatic response to distribute urban functions. However, it also presents new challenges – multiple "downtowns" can mean multiple congested hubs, and without equitable planning, these shiny new nodes may become exclusive zones separated by socio-economic class [17]. The following case study of Dhaka explores its unique trajectory of multi-nodal development, building on these comparative insights. We document the drivers of change in Dhaka, the characteristics of its emergent nodes, and the planning challenges that have arisen, before proposing strategic recommendations for managing its polycentric urban future.

### III. METHODOLOGY

This study employs a descriptive and exploratory methodology, considering a case study to examine how Dhaka's skyline has evolved over the past thirty years. It primarily relies on qualitative data, including secondary sources, visual records, and thematic analysis. This study adopts a qualitative approach to examine the transformation of Dhaka's skyline through the emergence of multiple central business districts (CBDs). Primary data were collected through field observations, photographic documentation, and visual surveys of major commercial nodes, including Motijheel, Gulshan, Banani, Karwan Bazar, and Tejgaon. Secondary data from planning reports, government publications, newspaper archives, and scholarly literature were used to trace historical development patterns and contextualize the observed changes. The combination of photographic evidence, field-based observations, and archival research enabled a comprehensive understanding of Dhaka's shift from a mono-centric to a polycentric high-rise urban form.

#### HISTORICAL TRAJECTORY OF DHAKA'S CENTRAL BUSINESS DISTRICT (PRE-1971 TO PRESENT)

##### Origins of a Mono-Centric City: Old Dhaka and the Rise of Motijheel

Dhaka's urban and commercial nucleus has its roots in the pre-colonial era. During the Mughal period (17th–18th centuries), the city's main commercial centre developed along the banks of the Buriganga River [18], now located in what is known as Old Dhaka [Fig. 3(a)–(b)]. A network of bazaars (marketplaces) grew organically in the narrow, winding streets of the old city, leading to Dhaka's epithet as the city of bahanno bazaar o tippanno goli (52 markets and 53 lanes) [19]. For instance, Chawkbazar became a principal market square near the river, facilitating trade in commodities such as the famed Dhaka muslin, pottery, and crafts, while connecting local commerce with the riverine trade routes. Under Mughal patronage, Dhaka thrived as a regional entrepôt, although its urban form remained compact and unplanned, centred on the administrative fort and adjacent marketplaces [18]. During this period, the Buriganga riverfront effectively served as the city's primary Central Business District (CBD), although the term "CBD" is a modern one; it was simply the heart of economic life.





(a)



(b)

Fig. 3 (a) Dhaka's Buriganga riverfront in 1861 by F. W. A. de Fabeck, depicting the historic port city before Partition [20]; (b) Historic view of the Buriganga Riverfront skyline in Dacca (Dhaka) during the colonial period, showcasing boats, steamers, and prominent institutional buildings along the riverbank [21].

The colonial era (1760s–1947) witnessed significant changes in Dhaka's fortunes and urban layout. After Dhaka lost its status as the capital to Calcutta in the late 1700s, the city experienced a period of stagnation and population decline. Trade and commerce shrank, mainly remaining in the traditional neighbourhoods of Old Dhaka (Chawkbazar, Sadarghat, Islampur, etc.), which continued to serve the residents. By the mid-19th century, under British rule, Dhaka slowly started to modernize; the arrival of railroads and the development of new residential areas (Ramna, Wari, Gandaria) led to a slight shift to the north [22], [23]. Still, the commercial heart stayed in Old Dhaka, with Nawabpur Road becoming a key commercial route [Fig. 4(a)–(b)]. By the early 20th century, new institutions and retail centers (around Victoria Park and Dhaka University) added to the old bazaars. Still, Old Dhaka remained dominant for wholesale trade and traditional businesses.



(a)



Fig. 4 (a) Nawabpur Road, Old Dhaka, in the early 20th century, lined with timber-roofed market stalls and horse-drawn carts [24]; (b) Nawabpur Road in Old Dhaka during the mid-20th century, bustling with rickshaws, pedestrians, and mixed-use commercial buildings, reflecting the area's role as a key trading hub [25].

A decisive transformation in Dhaka's urban core started in the mid-20th century, especially after 1947, when Dhaka became the capital of East Pakistan [26]. The city's population surged, increasing over 100% from 1947 to 1962 due to rural migration and an influx of refugees from India. This rapid urban growth exposed the shortcomings of Old Dhaka's narrow, congested neighbourhoods in meeting the rising needs of commerce and administration. In response, a more organised approach to urban development was initiated. The government set up the Dhaka Improvement Trust (DIT) in 1956 to oversee the city's growth. One of DIT's early projects was the development of a new, planned commercial district at Motijheel. On what was once swampland on the eastern edge of the city, DIT developed Motijheel in the 1950s as a planned commercial area to house government offices, banks, and businesses that had

outgrown the old quarter. By 1954, the Motijheel Commercial Area had been established on reclaimed marshes. The 1959 Master Plan for Dacca officially designated Motijheel as the central commercial zone (the new CBD), aiming to direct growth there systematically [27]. To support this hub, neighbouring areas such as Tikatuli, Shantinagar, and Kamalapur were planned as residential zones for civil servants and workers in Motijheel. This marked the start of Dhaka's shift from a purely organic, mono-centric layout to a more planned central district, effectively moving the city's "downtown" from the banks of the Buriganga to the area around Motijheel [Fig. 5(a)–(b)].

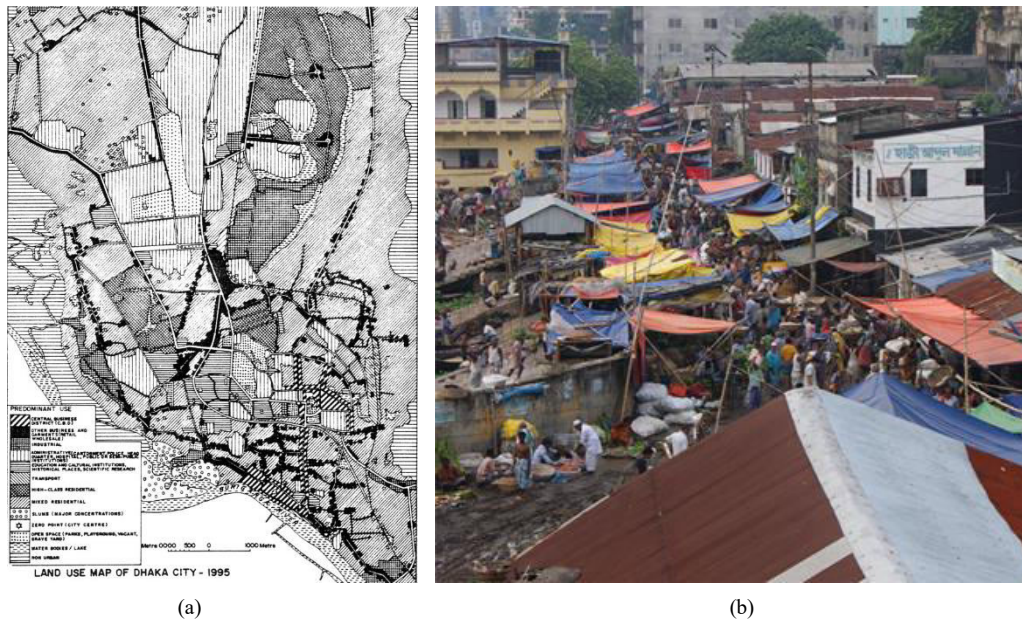


Fig. 5 (a) Land use map of Dhaka City in 1995, highlighting the growth of commercial development along major streets and corridors, reflecting a shift toward linear and mixed-use urban expansion (Source: Dhaka Metropolitan Development Plan (DMDP), RAJUK, 1995); (b) Informal market in Old Dhaka densely mixed-use lined along the street, with makeshift tarpaulin roofs, reflecting the continued presence of unplanned yet essential trade activity within the urban streetscape (Source: Field observation).

After Bangladesh gained independence in 1971, Dhaka (now the national capital) experienced an even faster rate of urbanization, with Motijheel becoming the city's main Central Business District (CBD). Throughout the 1970s and 1980s, the Motijheel–Dilkusha area (often called "Bank Para" because it concentrated bank headquarters) thrived as the financial and administrative hub, hosting the main offices of major banks, insurance companies, corporate firms, and government ministries [Fig. 6(a),(b)]. The concentration of institutions in Motijheel became so prominent that the name became synonymous with commerce and finance in Bangladesh. Meanwhile, Old Dhaka continued to serve as a hub for traditional markets, such as Sadarghat port, Chawk Bazaar, and Islampur's wholesale textile market. Still, it gradually ceded its role as the centre of modern corporate and administrative activities to Motijheel. The urban model for Dhaka remained predominantly monocentric throughout the 1980s: Motijheel stood as the top land-value and employment centre, with Old Dhaka serving as a nearby secondary commercial zone. Most of the city's modern skyline in the 1980s was concentrated in Motijheel, featuring mid-rise and a few high-rise buildings (such as the Bangladesh Bank Building, a rare 20-story tower completed in 1985). Motijheel's dominance during this period was reflected in property values, traffic patterns (a daily influx of commuters from all over the city converging), and civic infrastructure (such as flyovers built to ease congestion in Motijheel).



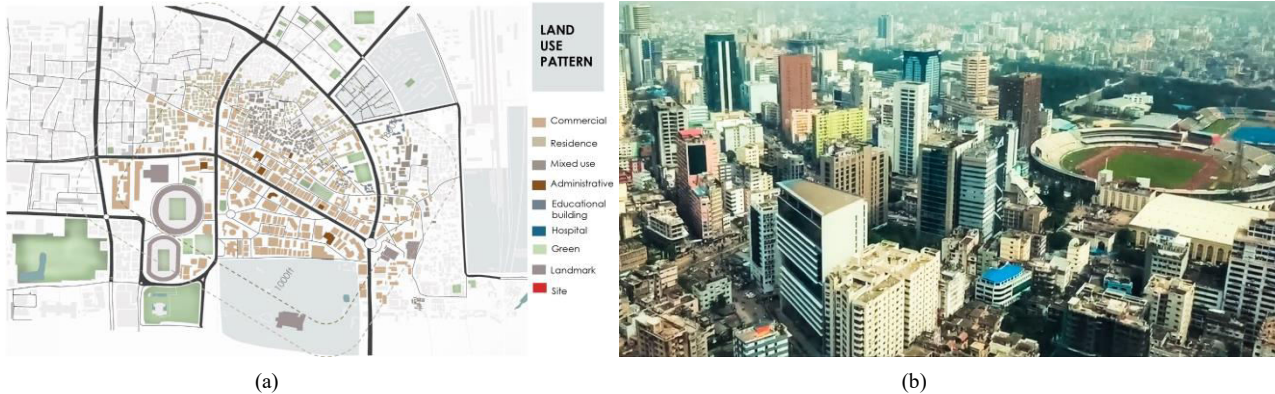


Fig. 6 (a) Land use map of Motijheel area, Dhaka, showing dense commercial, mixed-use, and administrative zoning along major streets and nodes (Source: Academic studies); and (b) Aerial view of Motijheel CBD with high-rise office towers, illustrating Dhaka's vertical and commercial core (Source: Author).

#### DIFFUSION AND THE SEEDS OF POLYCENTRIC GROWTH (1990s–2000s)

By the 1990s, signs of decentralization in Dhaka's urban structure became evident. Explosive population growth (Dhaka's population crossed 6 million by 1990 and continued to rise) and the city's geographic expansion meant that a single CBD was increasingly insufficient and inaccessible for a vast urban area. Dhaka's population in 2025 is estimated at 24,652,900, up from 335,760 in 1950. Over the past year, it grew by 717,200, reflecting a 3% annual increase. Dhaka is one of the world's most densely populated regions, with a density of 23,234 people per square kilometre over an area of 300 square kilometres [Fig. 7(a)–(b)].

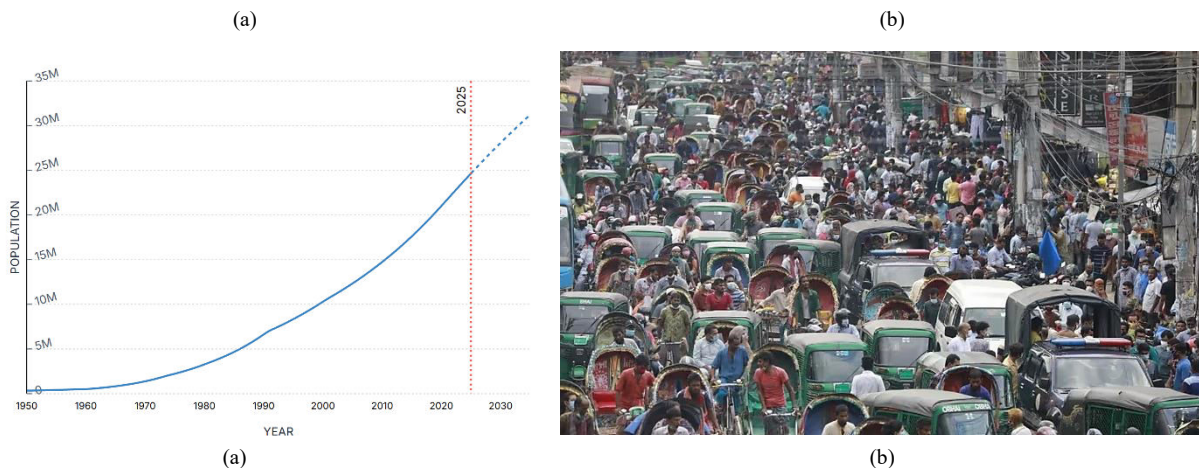


Fig. 7 (a) Dhaka's population growth from 1950 to 2025, surpassing 24 million [28]; and (b) Extreme traffic congestion in central Dhaka reflecting urban overcrowding [29].

Urban planners observed that while Motijheel remained the central commercial hub through the 1980s, the “activities of the CBD” began to spread northward by the early 1990s. Land use maps from 1995 show that significant commercial and office centres grew outside the traditional downtown. Notably, new secondary business districts and retail hubs developed along major transportation routes and in planned residential neighbourhoods.

#### Newmarket, Azimpur, and Elephant Road

In the 1950s, the development of New Market (Azimpur) established a retail hub west of the old city. By the 1980s and 1990s, the New Market area, together with Elephant Road and Gausia Market (which opened in 1965), transformed into a lively commercial district serving an expanding middle class. This evolution shifted retail activity from Old Dhaka to the city centre [Fig. 8(a)–(b)].





(a)



(b)

Fig. 8 (a) Land use map of New Market–Nilkhet showing mixed-use and institutional zones [30]; and (b) Street view of New Market area, a central commercial and pedestrian hub (Source: Online image repository).

### Farmgate and Karwan Bazar



(a)



(b)

Fig. 9 (a) Dhaka Elevated Expressway passing through the Farmgate area, highlighting its emergence as a key transit-oriented commercial node [31]; and (b) High-rise developments around Karwan Bazar, showing the area's transformation into a secondary CBD with media and corporate offices (Sources: Stock image).

Located approximately midway between Motijheel and the newer northern suburbs, Farmgate and Karwan Bazar became key strategic centres. Farmgate, situated at a key transportation junction, has evolved into a bustling, transit-oriented commercial district featuring shopping centres like Hotel, Ananda Cinema Market, and numerous offices. Adjacent to it, Karwan Bazar—originally the city's largest wholesale kitchen market—saw a rise in corporate offices and media outlets nearby, owing to its central position. By the 1990s, Karwan Bazar was home to newspapers, TV studios, and various companies, effectively functioning as a secondary CBD despite the congestion caused by the market [Fig. 9(a)–(b)].



### Gulshan and Banani

Initially planned in the 1960s as elite residential “Model Towns”—Gulshan and Banani in 1964—these areas remained quiet enclaves for the wealthy and foreign embassies during the first two decades. However, from the late 1980s through the 1990s, their character shifted as diplomatic presence increased and businesses began relocating. The availability of large residential plots, better infrastructure, and the area’s prestige attracted private developers to build high-end office spaces, hotels, and retail centres. By the early 2000s, Gulshan and Banani had clearly transformed into a new commercial hub, featuring restaurants, banks, multinational corporate offices, and upscale shopping malls [Fig. 10(a)–(b)].



Fig. 10 (a) Aerial view of the Gulshan–Banani corridor, showing its transformation from a planned residential area into a dense commercial district, [32]; and (b) Street-level view of modern high-rise buildings along Kamal Atatürk Avenue, reflecting the area’s shift toward upscale corporate and commercial development, (Source: Google Street View, Kamal Atatürk Avenue, accessed 2024).

### Mohakhali and Uttara

Mohakhali, situated between Tejgaon and Gulshan, experienced growth with the construction of office towers, including the notable 20-story BRAC University building, which was the tallest in the northern zone at the time. It became a hub for telecommunication firms and development organizations. Further north, Uttara, a planned township founded in 1965, remained mainly residential until the 1980s. Over time, its central sector developed a commercial corridor featuring the Rajuk Trade Centre, shopping malls, hotels, and other amenities, transforming it into a self-sufficient sub-centre by the 2000s [Fig. 11(a)–(b)].



Fig. 11 (a) View of Mohakhali showing dense high-rise clusters and heavy traffic, reflecting its emergence as a commercial and institutional hub (Source: Stock image); and (b) Commercial buildings along Uttara’s Airport Road, highlighting the area’s development into a planned mixed-use urban corridor [33].



This diffusion of commercial activity was driven by necessity. As Dhaka's population approached 10 million by the turn of the millennium, commuting into Motijheel from newly developed residential suburbs became increasingly complex due to distance and growing traffic congestion. In effect, transportation challenges spurred a de facto polycentric adjustment, as residents and businesses sought locations closer to one another to reduce travel friction. Studies noted that by the 1990s, Dhaka's retail and office growth corridors had extended well beyond the historical core, with significant clusters in areas such as Maghbazar-Mouchak, Mirpur Road (from Dhanmondi to Newmarket), Mohakhali, and Gulshan. Consequently, Dhaka was increasingly described as a "polycentric city" by urban researchers, indicating it contained multiple centres of high economic activity rather than a single dominant CBD. A 2009 study identified three major CBDs in Dhaka for analytical purposes, designating them as CBD-A (Motijheel), CBD-B (Kawran Bazar), and CBD-C (Mirpur). This underscores that by the 2000s, Motijheel was no longer the exclusive business district, even though it remained the largest in the area. New nodes had matured to claim significant shares of the city's employment and commerce.

#### **DHAKA'S SKYLINE TRANSFORMED (2010S–2020S): CONSOLIDATION OF POLYCENTRIC URBAN FORM**

In the past decade (2010–2025), Dhaka's multi-nodal character has intensified. High-rise construction expanded beyond the traditional centre, with over 800 buildings taller than 10 floors as of 2025. Symbols like City Centre (37 floors) in Motijheel and the 40-story Pinnacle Tower reveal vertical growth in multiple clusters. Motijheel's dominance has declined, as many corporate headquarters, particularly those of banks and multinationals, have relocated to Gulshan and Banani. Nearly half of Bangladesh's banks and financial institutions have relocated to Gulshan over the last decade. This migration is evident in real estate trends—office rents in Motijheel dropped by up to 50%, while prices in Gulshan soared, making Gulshan Avenue Dhaka's prime commercial address, favoured for modern amenities and proximity to clients. New commercial centres in Dhaka extend beyond Gulshan and Motijheel. In the north, Uttara and Purbachal are part of decentralization efforts, creating satellite towns. In the west, Mirpur hosts offices and a large population, sometimes counted as a CBD. Tejgaon, once industrial, is transforming into a new CBD, attracting mega-projects and corporate HQs like Mirai Tower and companies such as Unilever and BRAC Bank, aiming to develop a modern high-tech district. Agargaon has also evolved from a government and parliamentary area into a civic and IT hub, with institutions such as Bangabandhu Hi-Tech City.

By the mid-2020s, Dhaka's urban landscape has evolved into a polycentric pattern with several high-density centers. The city no longer features a single skyline; instead, clusters of skyscrapers are now visible in Motijheel, Gulshan-Banani, downtown Dhanmondi, and are increasingly found around Tejgaon and along the Mirpur Road corridor. This spreading of the skyline illustrates a broader socio-economic decentralization. The upcoming sections will explore each key new business and commercial hub, their development, character, and contribution to Dhaka's growth, with multiple nodes. They will analyze the factors behind this development and the planning challenges it introduces. The emergence of several key business districts beyond the traditional Motijheel core has contributed to Dhaka's transition into a polycentric city. Each new node has developed unique characteristics shaped by its geography, land-use history, and existing market forces. We focus on six prominent nodes – Karwan Bazar, Tejgaon, Agargaon, Dhanmondi, Banani, and Gulshan – which exemplify this multi-nodal growth.

#### **Karwan Bazar: From Wholesale Market to Commercial Hub**

Karwan Bazar's bustling wholesale market, in the foreground, contrasts with the high-rise offices in the background, reflecting its dual role as a marketplace and commercial hub. Located centrally in Dhaka, it's known as the city's largest wholesale kitchen market, with vegetable stalls, fish vendors, and warehouses supplying much of Dhaka's food. In the 1990s and 2000s, it emerged as a key commercial centre due to its strategic position at the crossroads of major cities, located near Farmgate and between the old and new parts of Dhaka. Media outlets, government agencies, and private firms established offices here, creating a diverse landscape with office buildings and hotels adjacent to the street market [Fig. 12(a)–(b)].



Fig. 12 (a) Street-level view of Karwan Bazar's wholesale market with fruit vendors and umbrellas, highlighting its function as Dhaka's largest traditional kitchen market [34]; and (b) Aerial view of the same market area framed by modern office towers, illustrating Karwan Bazar's dual identity as both a marketplace and a growing commercial hub (Source: Field observation).

The government recognizes Karwan Bazar's potential as a vibrant commercial hub, but acknowledges challenges such as congestion, poor sanitation, and safety issues. Initiatives to relocate the wholesale market to Aminbazar and Jatrabari aim to transform the area into a modern commercial hub, with relocation scheduled to commence in 2024, despite opposition from traders. The plan includes developing high-rise offices, plazas, and better infrastructure to reduce congestion. Some notable structures already define its skyline, and a Line 6 MRT station is planned. Improved land use and transit development could transform it into Dhaka's "Midtown," linking central districts and alleviating Motijheel's pressure, while still serving as a traditional market and a growing business district.

#### Tejgaon: Industrial Zone Turned to New CBD

Tejgaon, once full of warehouses, is transforming with high-rise projects like Mirai Tower, emerging as Dhaka's new CBD. Designated initially in the 1950s by the DIT as an industrial zone away from Old Dhaka, it hosted factories and warehouses for decades, rather than upscale offices. Over the past 10-15 years, as demand for commercial land increased, Tejgaon's large plots and open spaces have become prime for redevelopment. By the early 2020s, it's rapidly becoming Dhaka's CBD, boosted by strong connectivity and commercial investments. Its strategic location, situated between the affluent Gulshan/Banani to the north and Motijheel to the south, along with major roads and the new Metro Rail Line 6, enhances its growth prospects. Recently, Tejgaon has undergone infrastructure upgrades, including wider roads, improved pavements, and bridges around Hatirjheel, which have enhanced accessibility. This has increased land values and attracted major corporate tenants, including companies such as Akij Group, Unilever Bangladesh, Robi Axiata, and BRAC Bank, which have established large offices there. The area is also attracting international brands, with luxury car showrooms and new hotels, including Hilton and Swissôtel. These investments position Tejgaon as a commercial hotspot. Notably, Mirai by Nirman—an upcoming 138-meter, 33-story office tower—will be one of Dhaka's tallest buildings. Chosen for its central location and scenic Hatirjheel, Mirai's futuristic design aims to symbolize Tejgaon's ambitions [Fig. 13(a)–(b)].



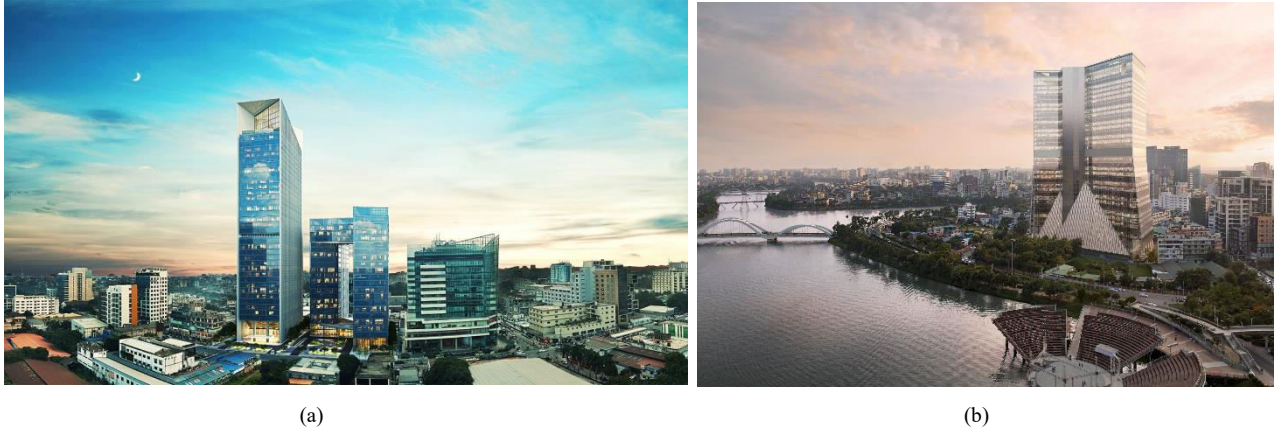


Fig. 13 Emerging Architecture in Tejgaon area (a) SKS Tower symbolizing Dhaka's upscale commercial growth [35]; and (b) Grand Hyatt Dhaka at Hatirjheel, highlighting waterfront skyline development [36].

Tejgaon is transitioning from an industrial periphery to a modern CBD with “international-grade architecture and next-generation commercial space.” The government has also shown interest in this shift; parts of Tejgaon are on track to be redeveloped under new planning schemes (for example, an area called Tejgaon Industrial Area has been earmarked in the Detailed Area Plan for mixed-use conversion). If current trends continue, Tejgaon could relieve some pressure on Gulshan and become an extension of the high-end business district, effectively creating a continuous corridor of commerce from Tejgaon through Kawran Bazar/Farmgate to Motijheel. The challenge will be managing this growth, ensuring infrastructure keeps pace, and that the industrial relocation (factories moving out) is carried out sustainably without displacing workers. Nonetheless, Tejgaon became a prime example of Dhaka's skyline “leapfrogging” to new locales in the 2020s.

#### Agargaon and Sher-e-Bangla Nagar: Institutional Node and Emerging IT Hub

Agargaon, along with Sher-e-Bangla Nagar, is a key urban node in Dhaka, anchored by government, administrative, and institutional functions, now evolving into a tech and education hub [Fig. 14]. Planned in the 1960s by architect Louis Kahn as the site for the National Parliament, Sher-e-Bangla Nagar features a modernist layout. Agargaon, located west of Tejgaon, has developed government ministries, including the Planning Commission, the Election Commission, the Meteorological Department, and museums. Known for its bureaucratic quiet and historic sites, such as BICC, it gained new importance in the 2010s with the establishment of the Bangladesh High-Tech Park and ICT institutions. The early 2000s witnessed significant development, including the construction of the IDB Bhaban, the emergence of housing tech companies, and the establishment of the ICT ministry. Recent investments include technology parks, a Software Technology Park, and plans for an Innovation & Design Centre, aiming to become a Bangladeshi “Silicon Valley.” The area also hosts major health and education facilities, making it a civic and knowledge hub.



(a)



(b)

Fig. 14 (a) Jatiya Sangsad Bhaban, the modernist National Parliament complex designed by Louis Kahn, anchoring Sher-e-Bangla Nagar's planned administrative core (Source: Stock image); and (b) Agargaon's evolving skyline with the IDB Bhaban and MRT Line 6 station, marking its transition into a tech and institutional corridor [37].

Agargaon, while less dense than Gulshan or Tejgaon, decentralizes government in Dhaka, moving away from Paltan and Motijheel. The 2022 MRT Line 6 enhances connectivity, thereby boosting the potential for future development. Some private offices located near Mirpur Road and Begum Rokeya Avenue cater to NGOs and ministries. Ample government land presents an opportunity to develop Agargaon into a low-congestion, green, and spacious administrative zone, contrasting with the congested Motijheel area. Proper management can enable planned, polycentric growth, balancing security and vibrancy to prevent it from becoming sterile after hours.

#### **Dhanmondi: A Residential Enclave Turned Mixed-Use Centre**

Dhanmondi shows the unintended effects of urban growth in Dhaka [Fig. 15]. Initially planned in the 1950s as a peaceful, green suburb for the upper class, it attracted commercial development as Dhaka grew. By the 1990s and 2000s, land use had undergone dramatic changes, with private homes being replaced by schools, hospitals, shops, and offices, often in violation of zoning laws. Now, Dhanmondi is a busy urban centre with high-rise buildings, malls, and university campuses. In 2008, it was noted that the area lost its gardens and greenery due to commercialization. Surveys indicate that over 50% of plots are designated for non-residential use. Residents face traffic, noise, and loss of tranquillity.



(a)



(b)

Fig. 15 (a) Aerial view of Dhanmondi Lake and surrounding residential areas, reflecting its origins as a planned, green suburban enclave (Source: Stock image); and (b) Street view of Dhanmondi's Shatmosjid road lined with commercial high-rises, showing its transformation into a busy mixed-use urban center [38].



Dhanmondi has become a central urban hub, boasting top schools, healthcare facilities, and popular shopping and dining options. Its central location attracts NGOs and small businesses, functioning as a secondary business district with its micro-economy. This growth, driven by unchecked commercialization, raises concerns about sustainability. Other neighborhoods, such as Gulshan and Banani, have seen similar but less extensive changes. Future plans must consider retrofitting infrastructure and maintaining livability, despite Dhanmondi's heavy commercialization. Its vibrant, mixed-use character remains attractive for new businesses, especially educational and medical centers.

### **Gulshan and Banani: The Rise of an Elite Business District**

Gulshan's skyline features modern office towers, such as Gulshan Centre Point, and high-rises along Gulshan Avenue, reflecting its commercial growth in this once-residential area [Fig. 16]. Gulshan and Banani are among Dhaka's wealthiest areas. Initially planned as residential neighborhoods, since the 1990s, they have evolved into Dhaka's 'New CBD.' Gulshan Model Town, developed in the 1960s with residential plots and small commercial zones, experienced minimal business activity for decades, with residents commuting to Motijheel or Banani Bazaar for their daily needs. The area's profile rose when foreign embassies moved there in the 80s. By the 1990s, private companies catering to expatriates, diplomats, and the upper class fueled high-end development, including embassies, hotels, shopping malls, and offices for multinationals, banks, airlines, and upscale local firms. Banani, nearby, also became a sought-after corporate hub. Gulshan's rise is evident, as nearly half of Bangladesh's banks have relocated their head offices there in the last decade, despite the central bank remaining in Motijheel. Banks like Shahjalal Islami Bank and Dutch-Bangla Bank shifted to Gulshan Avenue for convenience and prestige. Corporate leaders say Gulshan is better suited for clients from the industrial zones north of Dhaka (Gazipur, Tongi, Savar), due to its proximity to luxury hotels and the airport, which is essential for foreign visitors, as well as its safer and cleaner environment. The concentration of large firms attracted top law firms, consultants, and IT companies to Gulshan. Banani, connecting directly to Gulshan, complements it with upscale restaurants, trendy cafes, and boutiques, creating a live-work-play hub for Dhaka's elite.



Fig. 16 (a) Aerial view of Dhaka's Gulshan Central Business District (CBD), showing dense high-rise development that defines the city's elite commercial skyline (Source: Digital image archive); and (b) View along Banani-Gulshan Road, lined with modern office towers, illustrating the corridor's transformation into a key business and corporate zone (Source: Digital image archive).

Gulshan's skyline now rivals Motijheel's, with tall buildings like Cityscape Tower and Gulshan Centre Point shaping the horizon. The Gulshan-Banani node has become Dhaka's top high-end business area, surpassing Motijheel. However, this growth caused issues, as Gulshan and Banani lacked infrastructure for high-density use. Narrow streets face traffic jams, parking spills over, and sewerage systems are strained. Commercialization also violated RAJUK regulations, with many roads re-designated retroactively. Despite concerns, authorities accept Gulshan's new role, tightening security after the 2016 terror attack, with surveillance and controlled access making parts of Gulshan semi-gated for the wealthy and foreigners. The Banani-Gulshan area exhibits socio-spatial exclusivity, characterized by the highest land values, which exclude all but the wealthy. Nearby Korail slum, on land between Gulshan and Banani towers, highlights stark inequality, housing over 100,000 poor residents in precarious conditions. Authorities have tried to evict Korail to 'beautify' Gulshan Lake, emphasizing tensions between elite spaces and informal settlements, a topic for later discussion on segregation. Gulshan now represents Dhaka's cosmopolitan face—luxury apartments, diplomatic

missions, and Grade A offices—that has transformed the city's mono-centric model. Dhaka has at least two CBDs: Motijheel (old) and Gulshan/Banani (new), with others vying to join.

These multiple hubs—such as Karwan Bazar's central commercial corridor, Tejgaon's revival as a CBD, Agargaon's institutional cluster, Dhanmondi's mixed-use development, and Gulshan-Banani's upscale business area—collectively create a “skyline transformed.” Dhaka's growth has been uneven, characterized by concentrated pockets of vertical expansion across the city. What has caused this growth pattern, and what are its effects? We will now examine the factors driving Dhaka's vertical and spatial development that shape this multi-nodal landscape

#### **DRIVERS OF VERTICAL (HIGH-RISE) GROWTH AND SPATIAL EXPANSION IN DHAKA**

The evolution from a monocentric to a polycentric Dhaka did not occur by chance. Several powerful drivers have interacted to push development toward multiple centres, favouring both vertical densification (high-rises) and horizontal sprawl. Key among these drivers are – rapid economic growth and globalization, real estate market dynamics, transportation and mobility factors, and the regulatory or planning environment.

##### **Economic Growth and Globalization**

Since the 1990s, Bangladesh's economy, primarily driven by Dhaka, has experienced rapid growth, with annual GDP growth rates of over 5-6% during the 2000s and 2010s. Dhaka contributes approximately 36% of the national GDP from just 1% of the land, underscoring its significant influence. This growth spurred investment and business activities requiring new infrastructure. The garment boom led to the establishment of new offices and housing in Uttara, Tejgaon, and Gulshan for international clients. As Bangladesh went global, multinational firms opened branches in areas like Gulshan, featuring modern offices to attract top talent. Lifestyle globalization also fuelled demand for luxury hotels, shopping malls, and international schools, leading to high-rise developments such as five-star hotels in Gulshan and the Bashundhara City mall. Economic liberalization created multiple growth centres: manufacturing in Tejgaon, finance in Motijheel, and multinationals and embassies in Gulshan. Similar to Mumbai's polycentric growth, Dhaka's integration with global markets post-1990 spurred new commercial hubs outside the old CBD to serve various needs.

##### **Real Estate Dynamics and Land Market**

Dhaka's real estate market drives vertical growth. By the late 20th century, the scarcity and high cost of land in the traditional centre led developers to seek larger, more affordable plots on the outskirts, such as Tejgaon and Gulshan. The government began auctioning or redeveloping public lands in the 2000s, further encouraging high-rise developments—over 800 were planned by 2025—although a lack of zoning enforcement led to the construction of makeshift structures. Gulshan's high rents attracted businesses, reinforcing its status, while declining Motijheel's cheaper rents reduced its appeal, creating a cycle where new CBD nodes grow vertically while older one's decline.

##### **Mobility and Transportation Factors**

Dhaka's transportation issues have driven polycentric growth. Traffic congestion forces businesses to close due to employees and clients, with commuting times exceeding an hour for a 5 km distance. This congestion wastes 3.2 million hours daily, prompting the development of sub-centres in Mirpur and Dhanmondi, reducing travel to main centres like Motijheel or Gulshan. Studies show that polycentric cities improve travel efficiency, which is vital for Dhaka. Infrastructure choices, like the lack of mass transit, led to growth near road junctions, like Farmgate. New metro lines may shift growth to stations like Agargaon and Uttara, with land-use plans around Karwan Bazar and projects like Hatirjheel lake drive boosting connectivity. Dhaka's mobility crisis has created a multi-nodal city, with future transport tailored to multiple centres.

##### **Urban Planning, Policies, and Governance**

A critical underlying driver has been the nature of Dhaka's urban governance. Weak enforcement of zoning has allowed areas like Dhanmondi, Gulshan, Banani, and others to develop into commercial areas beyond their original plans. In many cases, this was a response to market demand and a lack of alternative spaces. Since the city authorities did not create new commercial districts, businesses established themselves wherever they could. The Detailed Area Plan (DAP) 2016-35 now formally proposes a polycentric metropolitan model (with a constellation of urban nodes), but this is in hindsight of what has already occurred organically. Arguably, policy neglect in guiding growth meant that private sector decisions largely shaped Dhaka's multi-nodal form. One positive policy direction has been the decentralization of government offices, with the establishment of a secondary government office zone in Sher-e-Bangla



Nagar/Agargaon and the relocation of some functions out of Motijheel (for instance, RAJUK itself has moved to Mohakhali).

Incentives for satellite towns like Purbachal aim to create planned sub-centres on the outskirts of the city. The government encourages relocating disruptive land uses, such as those in Karwan Bazar and Tejgaon, to free up prime land and enhance the city's functionality. Moving polluting industries to fewer central areas and replacing them with office towers can boost economic value and reduce negative externalities. However, coordination among agencies like city corporations, RAJUK, and the traffic police is often slow, preventing plans like the Structural Plan's polycentric vision from proceeding without central government initiative. Dhaka's polycentric growth primarily results from economic and congestion pressures, with planning lagging. Future policies must better guide infrastructure development and inclusivity at these nodes.

#### **PLANNING CHALLENGES IN A POLYCENTRIC DHAKA**

The multi-nodal growth of Dhaka, while economically beneficial in many ways, has led to numerous planning and management challenges. A polycentric megacity is difficult to govern, and Dhaka's experience highlights issues such as severe traffic congestion, infrastructural stress, inadequate services, zoning conflicts, and socio-spatial segregation. We will discuss these concerns sequentially, noting how they manifest in Dhaka's various centres.

#### **Traffic Congestion and Mobility Woes**

Traffic congestion in Dhaka is a daily issue costing billions in lost productivity. The spread of business districts has not eased congestion, but instead increased congestion in multiple corridors, as commuting patterns have become multidirectional. Dispersed employment centres strain the transportation network, causing long commutes for residents, such as those in Uttara or Mirpur [39]. Despite some decentralization, many people still travel considerable distances, resulting in a mismatch between housing and job opportunities. A World Bank report states that Dhaka's average traffic speed dropped from 21 km/h to 7 km/h over a decade, resulting in approximately 3.2 million work hours being wasted daily, highlighting a failure to expand transport infrastructure in line with urban growth. Polycentric cities require robust transit links, such as ring roads, express bus lines, and rail, to connect their nodes efficiently. Dhaka is beginning to improve transit with the 2022 metro rail and plans for additional lines and a BRT, but until then, roads are congested. Areas like Gulshan face bottlenecks at key intersections, and Motijheel suffers from gridlock during peak hours, which may be eased when the metro extends there in 2025. Karwan Bazar–Farmgate remains congested due to traffic congestion at intersections. Lack of parking exacerbates congestion, as evident in Motijheel's unplanned system and neighborhoods like Dhanmondi and Banani, where narrow streets and unauthorized parking lead to severe traffic issues [Fig. 17].



Fig. 17 (a) Aerial view of a densely built commercial roundabout in central Dhaka, illustrating the intricate mix of land use and the resulting strain on urban mobility and infrastructure (Source: Stock image); and (b) Traffic jam on Mouchak-Moghbazar flyover during evening rush hour [40].

The government recognizes these problems; solutions like flyovers (e.g., Mohakhali near Banani, Mouchak near Maghbazar) give temporary relief but shift congestion elsewhere. The Dhaka Transport Coordination Authority plans an integrated public transport network connecting key hubs by 2030. Dhaka's success depends on such interventions; without them, multiple centres could cause gridlock rather than ease congestion. Some optimism about workplace distribution has prevented worse chokepoints, such as those in Motijheel. If Gulshan offices were still in Motijheel, the old city would be in constant traffic. Currently, Dhaka often feels congested everywhere. Effective traffic management, mass transit completion, and measures such as congestion pricing or car restrictions may be necessary to address its traffic issues.

### Infrastructure and Service Strain

Rapid vertical growth in Dhaka strains the infrastructure, with utility networks initially built for low density serving only the old city and key areas. As districts like Gulshan and Mirpur expanded, utilities faced shortages and outages, harming daily life and business operations [41]. High-rises depend on deep wells due to limited sewer coverage. Flooding worsens due to encroached canals and inadequate storm drainage, affecting both historic and newly developed areas, such as Bashundhara, as infrastructure lags. The World Bank notes uneven growth raises flood and earthquake risks. Many high-rises lack earthquake resilience, risking seismic damage. The power supply has improved, but peak demand for AC and lighting remains high; local failures continue to occur in older areas, such as Motijheel. Waste management in commercial zones is strained; markets and offices generate large organic and office waste, often left uncleared. City agencies struggle with waste in busy areas. Public parks are often reduced in commercial zones, which lowers livability and increases urban heat due to the lack of greenery [Fig. 18].

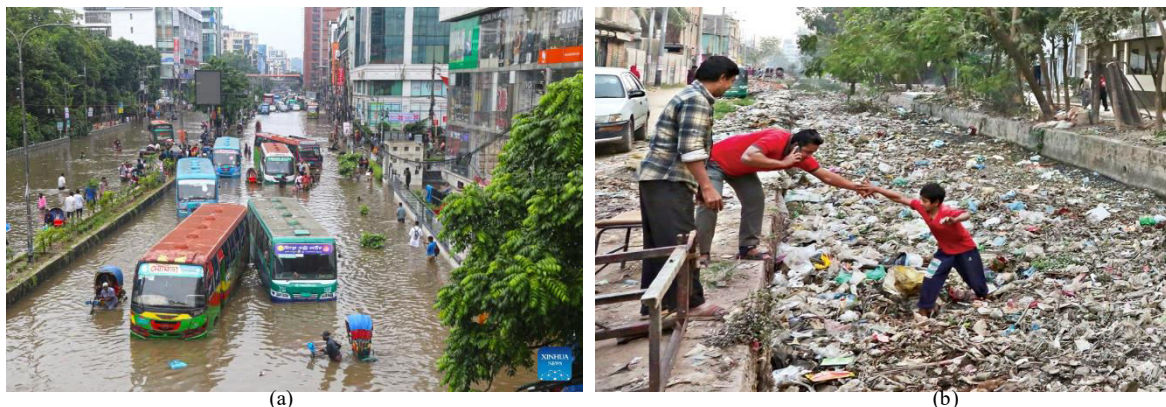


Fig. 18 (a) Flooded major road in Dhaka following heavy rainfall, disrupting transport and exposing inadequate drainage infrastructure [41] and (b) Garbage-choked canal in Dhaka, illustrating severe drainage congestion and poor waste management [42].

Services such as transportation, education, and healthcare are unevenly distributed across Dhaka, resulting in imbalances. Many facilities are concentrated in Dhanmondi, forcing others to travel there, while new suburbs often lack them. The government aims to develop self-sufficient suburban areas, but progress is slow. The old city core suffers from neglect—narrow lanes lack proper water and gas lines, and fires, such as the 2019 Chawkbazar blaze, reveal infrastructure weaknesses in crowded areas. Dhaka's infrastructure development is reactive rather than proactive, failing to support growth evenly. Polycentric growth requires distributed investments in power, water, and waste management. Some improvements, such as a new water treatment plant and grid substations, are in place, but overall, service provision is inadequate, with many areas experiencing shortages and breakdowns that require urgent attention.

### Zoning, Land Use, and Regulatory Challenges

One of the hallmarks of Dhaka's urban growth has been the blurring of planned land-use zones, often in violation of official regulations. The unchecked commercialization of residential areas, such as Dhanmondi, Gulshan, and Banani, serves as a prime example. Rajdhani Unnayan Karttripakkha (RAJUK) – the city's development authority – has historically designated these areas as residential zones, where building codes prohibit commercial use. However, due to inadequate enforcement and pressure from landowners and businesses, those regulations were frequently ignored. By the mid-2010s, reports indicated that properties in residential areas, such as Dhanmondi, Gulshan, Banani, and Uttara,



were being used for commercial purposes in clear violation of the rules, often without consequence. This failure of regulation has resulted in several consequences:

Firstly, it has created incompatible land uses side by side, causing friction. For example, quiet residential streets in Gulshan now host restaurants or bars, leading to noise that residents object to. Alternatively, an office opening in a purely residential building increases foot traffic and congestion in a cul-de-sac. The original residents often feel their rights have been trampled (as seen in Dhanmondi's case, residents complained that RAJUK violated the terms of their plot leases by allowing commercialization). In some instances, litigation has occurred, but enforcement remains inconsistent [Fig. 19].



Fig. 19 (a) Mid-rise commercial buildings (fire traps) in Dhanmondi, Dhaka, reflect the area's transformation from a residential neighborhood to a mixed-use commercial hub [43]; and (b) Pedestrians, including a schoolgirl, risk crossing a busy road in Dhaka despite the presence of a nearby footbridge, highlighting inadequate pedestrian infrastructure and safety awareness [44].

Secondly, zoning violations result in an infrastructure mismatch; for example, a road designed for low traffic now experiences heavy traffic due to commercial use, or a local electrical transformer that was sized for homes now must power office air conditioners [Fig. 20].



Fig. 20 (a) Severe traffic congestion in central Dhaka, illustrating the persistent mobility challenges caused by inadequate road capacity and increasing vehicle numbers [45]; and (b) Dhaka North City Corporation (DNCC) workers managing a dense cluster of overhead utility cables, highlighting infrastructural complexity and maintenance challenges in high-density urban areas [46].

Thirdly, regulatory laxity has fostered a speculative real estate environment. Developers may believe they can evade regulations by building higher than allowed or changing usage if they have the right connections. For example, mid-rise apartments have emerged in Old Dhaka's alleys, where only low-rise structures were previously suitable, thereby endangering safety in densely populated areas. Even in Motijheel, some buildings were constructed without adequate parking or setbacks due to lax enforcement during construction booms [Fig. 21].



(a)



(b)

Fig. 21 (a) Narrow alley in Old Dhaka with exposed utilities and limited access, revealing infrastructural constraints in high-density areas (online image repository), and (b) Overcrowded commercial street in Motijheel, where informal parking and high pedestrian traffic overwhelm existing infrastructure [47].

Not all zoning changes are negative; cities evolve, often requiring updates. Dhaka's issue was that planning lagged behind reality. RAJUK rezoned some roads after the fact, legalizing past changes. Ideally, the city would proactively designate new commercial zones and preserve residential areas, a balance sometimes lost. The DAP 2016-35 aims to clarify zone use, promoting mixed-use and transit-oriented development near metro stations. But its success depends on strong coordination and political will. Historically, influential developers challenged governance, so better development controls, updated codes, and community input are essential to prevent chaotic growth.

### Socio-Spatial Segregation and Inequality

The development of multiple centres in Dhaka has highlighted and, in some cases, exacerbated socio-spatial segregation. Different nodes cater to various socio-economic groups, risking city fragmentation into enclaves of privilege and zones of neglect. Areas like Gulshan, Banani, and Baridhara create exclusive bubbles for the wealthy and expatriates, with gated communities and tall walls separating the elite from the masses. Private security and residents' associations restrict street access, thereby privatizing public space and limiting the mobility of low-income citizens. The Korail slum exemplifies this divide: over 37% of Dhaka's population resides in slums or informal settlements on just 4% of the land, often located near high-income districts, yet they face marginalization in terms of services and inclusion. Despite being located near affluent neighbourhoods, slum dwellers are deprived of basic amenities and have limited access to public spaces, as seen in the aerial contrast between Korail and Gulshan [Fig. 22(a)] and in the vulnerability revealed by frequent fires in the settlements [Fig. 22(b)]. In Dhaka's polycentric layout, distinct nodes have unique class profiles. Gulshan is an upper-class and international area; Motijheel and Paltan are middle-class, serving local businesses; Dhanmondi is an upper-middle-class area with educated residents; Mirpur has a mixed demographic, mainly middle to lower-middle class; Old Dhaka's traders dominate the commercial zones, often lacking high-end development. This sorting is partly market-driven—wealthier individuals and firms outbid others for better areas—and partly historical, as some zones were planned for elites. Consequently, services and infrastructure tend to follow wealth—Gulshan gets better roads and beautification, while areas like Kamrangirchar or low-income Mirpur lag. Spatial inequality is severe: a study reveals wide disparities between upscale Dhanmondi and slums like Kallyanpur, just a few kilometres apart.





Fig. 22 (a) Aerial view of Korail slum adjacent to upscale Gulshan area, showing stark socio-spatial contrast across the lake [48]; and (b) Fire breaks out in the Korail slum, highlighting vulnerability due to poor infrastructure and dense living conditions [49].

The impact of polycentric development relies on policy. Creating nodes in the outskirts can generate jobs near low-income communities and cut commutes. But clustering high-end jobs in areas like Gulshan excludes those unable to afford to live there. Rising property prices cause gentrification, displacing residents, as seen in Dhanmondi and Gulshan, where original residents sold their homes. Efforts to revitalize Motijheel threaten hawkers and informal markets, affecting those relying on the informal economy. Socio-spatial inequality shows in Dhaka: wealthier areas have malls and parks, while poorer zones lack basic facilities [50]. To promote inclusive growth, Dhaka must invest in underdeveloped areas and offer affordable housing near jobs. Otherwise, wealthy zones like Tejgaon CBD risk being surrounded by costly condos, forcing low-income workers to commute far and deepening inequality. Government housing schemes and NGO slum upgrades aim to bridge this gap, but the divide remains, often separated by walls and limited urban access.

Dhaka's multi-nodal expansion illustrates a classic planning dilemma: it has fostered economic growth and lessened reliance on a single urban hub, but has also caused fragmentation and unequal development. Some emerging nodes thrive with vertical expansion and international links, while others struggle with congestion, inadequate infrastructure, or diminishing importance. Consequently, Dhaka's urban identity is shifting—no longer centred around one core but comprised of a mosaic of diverse zones. The changing skyline reflects not just physical development but also deeper socio-economic and architectural changes in the city's fabric.

#### **IV. CONCLUSION**

Dhaka's urban transformation over the past three decades illustrates the complexities of rapid metropolitan growth in the Global South. The city's skyline, once emblematic of a singular, centralized core, has gradually evolved into a polycentric structure shaped by economic liberalization, speculative real estate markets, and shifting planning paradigms. This reconfiguration reflects the city's vibrancy, but it has also exposed its vulnerabilities. The emergence of multiple urban nodes has generated new centres of economic activity and investment, yet it has simultaneously intensified challenges of mobility, inequality, and fragmented governance. Dhaka's transformation, therefore, represents both opportunity and risk—an urban condition that demands careful evaluation and deliberate planning.

The polycentric shift has undeniably diversified Dhaka's spatial and economic profile. The dispersal of commercial hubs has reduced some of the pressures on the historic core while opening new avenues for business, housing, and services. However, this spatial reorganization has also exacerbated long-standing disparities. Elite neighborhoods with world-class amenities coexist uneasily alongside marginalized communities struggling with poor infrastructure and inadequate access to services. The result is a city where growth reinforces socio-spatial polarization, creating enclaves of privilege amidst expanding zones of exclusion. This duality highlights the urgent need for a planning agenda that foregrounds inclusivity, rather than allowing speculative interests to dictate urban futures.

To move toward a more balanced metropolitan structure, several interventions are critical. First, the expansion and integration of public transit systems remain paramount. Without efficient mobility, Dhaka risks locking itself into a cycle of congestion and inefficiency that undermines its economic potential. Second, strengthening infrastructure and enforcing zoning laws are necessary to manage density and reduce the haphazard expansion that fuels inequality. Third, revitalizing historic centers can ensure that the city's heritage is preserved while also distributing urban functions more equitably across different districts. Together, these measures can provide a more coherent foundation for sustainable growth.

Yet technical fixes alone will not resolve the deeper issues of socio-spatial fragmentation. Addressing segregation requires deliberate efforts to promote affordable housing, ensure equitable delivery of services, and actively involve communities in decision-making processes. Such participatory approaches can help bridge the divide between elite enclaves and disadvantaged settlements, fostering a sense of belonging and shared urban citizenship. In this respect, Dhaka's skyline should not only be read as a symbol of vertical expansion or real estate ambition but also as a marker of the city's social and environmental commitments.

Ultimately, the metaphor of a "Skyline Transformed" must capture more than architectural height or commercial spectacle. It should reflect a vision of a city that is resilient to shocks, connected across its multiple centers, and equitable in its distribution of opportunities and resources. Dhaka's polycentric transformation offers valuable lessons: without inclusive planning, it risks reproducing cycles of exclusion and congestion; with forward-looking and participatory governance, however, it has the potential to become a model of sustainable urban development in South Asia. By respecting its history while boldly embracing a fairer and more resilient future, Dhaka can ensure that its evolving skyline symbolizes not only economic progress but also the possibility of an inclusive metropolitan modernity.

## REFERENCES

- [1] Md. S. H. Mondal, "Urban Informal Economy in Bangladesh: A Case Study on Mobile Vegetable Vendor in Dhaka City," *The Qualitative Report*, Nov. 2017, doi: 10.46743/2160-3715/2017.3106.
- [2] M. Moniruzzaman et al., "Decadal Urban Land Use/Land Cover Changes and Its Impact on Surface Runoff Potential for the Dhaka City and Surroundings Using Remote Sensing," *Remote Sensing*, vol. 13, no. 1, p. 83, Dec. 2020, doi: 10.3390/rs13010083.
- [3] S. Islam, M. J. Papia, and S. Yesmin, "The Rural-Urban Migration and its Socio-Economic Consequences: A Study on the Rayerbazar Area of Dhaka City," *International Journal of Publication and Social Studies*, vol. 7, no. 1, p. 12, Mar. 2022, doi: 10.55493/5050.v7i1.4452.
- [4] A. Nayak, K. Keluskar, and V. Pawar, "Fluctuating Currents: Balancing urban growth and restoring native riverine synergies in Mumbai — the case of Dahisar River," *Shima*, vol. 17, no. 2, Oct. 2023, doi: 10.21463/shima.203.
- [5] A. Phadke, "Mumbai Metropolitan Region: Impact of Recent Urban Change on the Peri-urban Areas of Mumbai," *Urban Studies*, vol. 51, no. 11, p. 2466, Jul. 2013, doi: 10.1177/0042098013493483.
- [6] S. Y. Bhatia, G. R. Patil, and K. M. Buddhiraju, "ANALYSING URBAN SPRAWL OF THE MUMBAI METROPOLITAN REGION USING REMOTE SENSING AND SOCIOECONOMIC DATA," *The international archives of the photogrammetry, remote sensing and spatial information sciences/International archives of the photogrammetry, remote sensing and spatial information sciences*, p. 35, Sep. 2023, doi: 10.5194/isprs-archives-xxviii-m-3-2023-35-2023.
- [7] S. M. Makandar and S. A. Naik, "The Patterns of Mobility and the Socio-Spatial Environments Created in and around the important multimodal nodes in a global city - A case of Navi Mumbai," *E3S Web of Conferences*, vol. 170, p. 6002, Jan. 2020, doi: 10.1051/e3sconf/202017006002.
- [8] R. G. Thomas, "Bombay Cinema: an Archive of the City," *Screen*, vol. 49, no. 4, p. 477, Dec. 2008, doi: 10.1093/screen/hjn067.
- [9] "Habiter une métropole d'un pays émergent: Mumbai (1/2) | Lelivrescolaire.fr," <https://www.lelivrescolaire.fr/page/57440742> (accessed Aug. 22, 2025).
- [10] R. Foj, "SPT Announces Strategic Expansion into Indian Market," *SPT - Directional survey tools*, Feb. 06, 2024. <https://sptab.com/spt-announces-strategic-expansion-into-indian-market/> (accessed Aug. 22, 2025).
- [11] A. E. Pravitasari, I. Saizen, N. Tsutsumida, E. Rustiadi, and D. O. Priyadi, "Local Spatially Dependent Driving Forces of Urban Expansion in an Emerging Asian Megacity: The Case of Greater Jakarta (Jabodetabek)," *Journal of Sustainable Development*, vol. 8, no. 1, Jan. 2015, doi: 10.5539/jsd.v8n1p108.



- [12] M. F. Romdhoni and M. Rashid, "URBAN GEOMETRY: CITY SHAPE AND SPATIAL LAYOUT OF 6 INDONESIAN GOVERNMENT CENTERS," *Dimensi*, vol. 47, no. 2, p. 71, Jun. 2021, doi: 10.9744/dimensi.47.2.71-86.
- [13] F. A. Pinagara and S. Khamtanet, "Will Jakarta Still Have Traffic Congestion after MRT?," Jan. 2017, doi: 10.2991/icbmr-17.2017.29.
- [14] "skcbd-fe." <https://www.sewakantorcdb.com/id/help/article/the-golden-triangle-of-jakarta> (accessed Aug. 10, 2025).
- [15] "Golden Triangle of Jakarta - Wikiwand." [https://www.wikiwand.com/en/articles/Golden\\_Triangle\\_of\\_Jakarta#/media/File:Jakarta\\_CBD.jpg](https://www.wikiwand.com/en/articles/Golden_Triangle_of_Jakarta#/media/File:Jakarta_CBD.jpg) (accessed Aug. 22, 2025).
- [16] A. K. Djukardi and F. Srinaga, "Behavioural and functional based design of high-rise public housing project in Jakarta, Indonesia," *IOP Conference Series Materials Science and Engineering*, vol. 615, no. 1, p. 12064, Oct. 2019, doi: 10.1088/1757-899x/615/1/012064.
- [17] J. S. Younger et al., "Greater Jakarta, the world's second largest conurbation – part 1," *Proceedings of the Institution of Civil Engineers - Municipal Engineer*, vol. 168, no. 4, p. 253, Dec. 2015, doi: 10.1680/jmuen.14.00050.
- [18] I. Turok, L. Seeliger, and J. Visagie, "Restoring the core? Central city decline and transformation in the South," *Progress in Planning*, vol. 144, p. 100434, Jul. 2019, doi: 10.1016/j.progress.2019.100434.
- [19] M. V. Criekingen, M. Bachmann, C. Guisset, and M. Lennert, "Towards polycentric cities. An investigation into the restructuring of intra-metropolitan spatial configurations in Europe," *BELGEO*, no. 1, p. 31, Jan. 2007, doi: 10.4000/belgeo.11629.
- [20] M. A. Rahman, "Dhaka before and after Partition," *The Daily Star*, Dec. 02, 2022. Accessed: Aug. 22, 2025. [Online]. Available: <https://www.thedailystar.net/opinion/views/news/dhaka-and-after-partition-3185521#lg=1&slide=0>
- [21] S. Rahman, "Will the riverfront become visible from the Buriganga again?," *The Business Standard*, Jan. 05, 2022. Accessed: Aug. 22, 2025. [Online]. Available: <https://www.tbsnews.net/features/panorama/will-riverfront-become-visible-buriganga-again-353320>
- [22] J. D'Costa, "CHANGES IN URBAN STRUCTURE IN BANGLADESH," *Urban Geography*, vol. 15, no. 8, p. 698, Dec. 1994, doi: 10.2747/0272-3638.15.8.698.
- [23] F. Ferdous, "The spatial analysis and morphological evolution of the 'Bazaar Streets' and urban structure of Dhaka city," *URBAN DESIGN International*, vol. 17, no. 3, p. 206, Jun. 2012, doi: 10.1057/udi.2012.10.
- [24] H. A. Zayed, "Literature and the city," *The Daily Star*, Aug. 04, 2017. Accessed: Aug. 22, 2025. [Online]. Available: <https://www.thedailystar.net/book-reviews/literature-and-the-city-1443673#lg=1&slide=0>
- [25] "File:Nawabpur Road 1975.jpg - Wikipedia," May 25, 2019. [https://en.m.wikipedia.org/wiki/File:Nawabpur\\_Road\\_1975.jpg](https://en.m.wikipedia.org/wiki/File:Nawabpur_Road_1975.jpg) (accessed Aug. 22, 2025).
- [26] M. S. Hossain, "Strategies to integrate the Mughal settlements in Old Dhaka," *Frontiers of Architectural Research*, vol. 2, no. 4, p. 420, Sep. 2013, doi: 10.1016/j.foar.2013.08.002.
- [27] B. Ahmed, M. R. H. Raj, and K. Maniruzzaman, "Morphological Change of Dhaka City Over a Period of 55 Years: A Case Study of Two Wards," *Journal of Bangladesh Institute of Planners*, vol. 2, p. 30, Jan. 1970, doi: 10.3329/jbip.v2i0.9554.
- [28] "Dhaka Population 2025," *World Population Review*. <https://worldpopulationreview.com/cities/bangladesh/dhaka> (accessed Aug. 23, 2025).
- [29] T. Bell, "Proof that poverty is not failure but a trap," *The Guardian*, Aug. 04, 2020. Accessed: Aug. 23, 2025. [Online]. Available: <https://www.theguardian.com/commentisfree/2020/jul/26/proof-that-poverty-is-not-failure-but-a-trap>
- [30] K. Enam and S. M. Rezwan, "Integrating Pedestrian Circulation with Proposed Rapid Transit Route: Design Proposal of a Skywalk for Smart Dhaka," in *Advances in Science, Technology & Innovation/Advances in science, technology & innovation*, 2021, pp. 73–83. doi: 10.1007/978-3-030-63567-1\_7.
- [31] "Eid exodus leaves Dhaka streets unusually quiet | National | FT | The National Financial Portal." <https://www.thehindu.com/article/national/27826/Eid-exodus-leaves-Dhaka-streets-unusually-quiet> (accessed Aug. 23, 2025).
- [32] "Developing into an Asian tiger: What can Bangladesh learn from Southeast Asian miracles," *Asiabusinessoutlook*. Accessed: Aug. 23, 2025. [Online]. Available: <https://www.asiabusinessoutlook.com/treatise/developing-into-an-asian-tiger-what-can-bangladesh-learn-from-southeast-asian-miracles-nwid-1949.html>

- [33] File:Uttara Airport Road, Dhaka (28543570895).jpg - Wikimedia Commons. 2016. [Online]. Available: [https://commons.wikimedia.org/wiki/File:Uttara\\_Airport\\_Road,\\_Dhaka\\_\(28543570895\).jpg](https://commons.wikimedia.org/wiki/File:Uttara_Airport_Road,_Dhaka_(28543570895).jpg)
- [34] A. I. Mithu, Why is it taking so long to relocate Karwan Bazar? 2023. [Online]. Available: <https://www.tbsnews.net/features/panorama/why-it-taking-so-long-relocate-karwan-bazar-668414#lg=1&slide=0>
- [35] "Pinnacle - the Skyscraper Center." <https://www.skyscrapercenter.com/building/pinnacle/36736> (accessed Aug. 23, 2025).
- [36] A. Kamal and A. Kamal, "Reimagining Dhaka's skyline - The Prestige Magazine," The Prestige Magazine -, Jan. 09, 2025. <https://theprestige.global/reimagining-dhakas-skyline/> (accessed Aug. 23, 2025).
- [37] bdnews24.com, "How far along is Agargaon-Motijheel metro rail line?," How Far Along Is Agargaon-Motijheel Metro Rail Line?, Sep. 23, 2022. Accessed: Aug. 23, 2025. [Online]. Available: <https://bdnews24.com/media-en/xixvaujrep>
- [38] M. M. Zarif, Evolving Identity: The changing face of Dhanmondi. 2024. [Online]. Available: <https://www.thedailystar.net/weekend-read/news/evolving-identity-the-changing-face-dhanmondi-3655541#lg=1&slide=0>
- [39] V. K. Seth, "Tale of Two Cities of South Asia: Consequences of Changes in the nature of Manufacturing on Dhaka and Kolkata," Global Business Review, vol. 18, no. 6, p. 1613, Sep. 2017, doi: 10.1177/0972150917713092.
- [40] Samsur Rahman and Samsur Rahman, "Traffic jams persist in Dhaka despite 'special' measures," Prothomalo, Mar. 22, 2024. <https://en.prothomalo.com/bangladesh/3zwtxpje8i>
- [41] "Continuous rain causes severe waterlogging in Dhaka, Bangladesh." <https://english.news.cn/20240713/98f8b332e42d40e1aab39e80775e9bbd/c.html>
- [42] The Financial Express, "DWASA says it is ready to address waterlogging problem," The Financial Express. <https://today.thefinancialexpress.com.bd/first-page/dwasa-says-it-is-ready-to-address-waterlogging-problem-1522690503>
- [43] N. Ali, "The fire traps of Dhanmondi Sat Masjid Road?," The Business Standard, Mar. 04, 2024. Accessed: Aug. 23, 2025. [Online]. Available: <https://www.tbsnews.net/bangladesh/death-traps-dhanmondi-sat-masjid-road-802186>
- [44] The Daily Star, "Today's Gallery (2022.11.08)," The Daily Star, Nov. 07, 2022. <https://www.thedailystar.net/multimedia/homepage/todays-gallery-20221108-3163366#lg=1&slide=2> (accessed Aug. 23, 2025).
- [45] Unb, "Is an alternative capital to Dhaka feasible?," Dhaka Tribune, Mar. 25, 2025. [Online]. Available: <https://www.dhakatribune.com/bangladesh/dhaka/377185/is-an-alternative-capital-to-dhaka-feasible>
- [46] "Overhead transmission lines in Hatirjheel going underground as part of DPDC's megaplan," May 20, 2023. <https://www.dhakatribune.com/bangladesh/311633/overhead-transmission-lines-in-hatirjheel-going> (accessed Aug. 23, 2025).
- [47] A. H. Mahmud, "Street parking - making the illegal legal," Dhaka Tribune, Oct. 10, 2017. Accessed: Aug. 23, 2025. [Online]. Available: <https://www.dhakatribune.com/bangladesh/dhaka/127741/street-parking-making-the-illegal-legal>
- [48] Z. M. N. Uddin, "Dhaka's informal settlements: Redefining urban planning for an inclusive future," The Business Standard, Dec. 11, 2024. Accessed: Aug. 23, 2025. [Online]. Available: <https://www.tbsnews.net/thoughts/dhakas-informal-settlements-redefining-urban-planning-inclusive-future-1016091#lg=1&slide=0>
- [49] C. I. Desk, "Fire breaks out at Korail slum in Dhaka," The Daily Ittefaq, Mar. 24, 2024. Accessed: Aug. 23, 2025. [Online]. Available: <https://en.ittfaq.com.bd/8089/fire-breaks-out-at-korail-slum-in-dhaka>
- [50] B. Ahmed, R. Hasan, and K. M. Maniruzzaman, "Urban Morphological Change Analysis of Dhaka City, Bangladesh, Using Space Syntax," ISPRS International Journal of Geo-Information, vol. 3, no. 4, p. 1412, Dec. 2014, doi: 10.3390/ijgi3041412.





INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  [ijirset@gmail.com](mailto:ijirset@gmail.com)



[www.ijirset.com](http://www.ijirset.com)

Scan to save the contact details