

# URBAN SPRAWL VS. URBAN INFILL - A COMPARATIVE NARRATIVE

- Lavanya Chilakabathini, Sr. Urban Planner and Policy Analyst

## Introduction

In the sprawling landscape of urban growth, two contrasting narratives unfold, revealing the complex dynamics of city development. This comparative exploration delves into the stories of urban sprawl and urban infill, highlighting their impacts through both Indian and global examples.

## Urban Sprawl: Unchecked Expansion

Imagine the once serene countryside of Haryana, where fields and open spaces stretch as far as the eye can see. This was the setting before Gurugram began its dramatic transformation. As Delhi's economic engine sputtered, its expansion reached out, consuming the surrounding land. What was once an agricultural haven soon morphed into a burgeoning urban expanse. In this sprawling narrative, Gurugram epitomizes the unchecked expansion of urban areas.

Urban sprawl in India, has not been merely about adding new buildings. It is a sprawling tale marked by the loss of valuable agricultural land and green spaces, escalating pollution levels, and increasing demands on unsustainable resources.

As per the National Institute of Urban Affairs (NIUA) report, urban sprawl and unplanned development have led to significant challenges in Indian cities, including inadequate water supply, sewerage infrastructure, affordable housing, and transportation options. The report further reveals that such uncontrolled growth strains public finances, requiring substantial investments in infrastructure roads, sewage systems, and electricity that often stretch municipal budgets to their limits (NIUA).

Health implications follow closely in this narrative. The National Institute of Health (NIH) (.gov) highlights the rising health concerns linked to urban sprawl in cities like Delhi, Mumbai, and Bengaluru. A Report by NIH states that "Rapid urbanization and extensive urban sprawl have led to a significant reduction in green spaces, heightening the vulnerability of cities to climate change. The transformation of the Southwest Indian Subcontinent Monsoon, alongside increased seasonal variability and frequent temperature anomalies, remains a pressing issue" (Imam & Banerjee, 2016)



Urban sprawl in Bangalore has led to significant environmental and infrastructural challenges, including the loss of green spaces, depletion of water bodies, and increased pressure on public services. The city's rapid and unplanned expansion has transformed once agricultural land into urban settlements, causing habitat fragmentation and reducing biodiversity.

These changes have exacerbated traffic congestion, air pollution, and social inequalities within the city. A study by Sudhira et al. (2007) highlights that Bangalore's spatial growth between 1973 and 2003 expanded by over 632%, with built-up areas encroaching upon agricultural and forested lands, leading to unsustainable development patterns (Sudhira et al., 2007).

Globally, Los Angeles illustrates the consequences of unchecked sprawl. The city's expansion into surrounding areas has led to widespread suburban development, marked by severe traffic congestion, polluted air, and an increased dependency on cars.

The report "Strategy 3A: Increase Housing Density and Limit Urban Sprawl" highlights the need to boost housing density and curtail urban sprawl to tackle issues like traffic congestion and environmental impacts. This strategy advocates for infill development and higher-density housing to mitigate the expansion of urban areas into undeveloped land, thereby promoting more sustainable and liveable communities (Los Angeles County, 2024).



## Urban Infill



### Redevelopment and Efficiency

In contrast, the narrative of urban infill tells a story of deliberate and thoughtful development. Take Ahmedabad's Sabarmati Riverfront Development as a prime example. Once a neglected area along the Sabarmati River, it has been transformed into a vibrant space filled with residential, commercial, and recreational facilities. This project has not only revitalized the riverbank but also curtailed the city's sprawl by making efficient use of existing urban land.

Urban infill development can be viewed as a response to the outward spread of urban areas, which often leads to economic downturns and neglect in the central parts of cities. This strategy targets the revitalization and effective use of vacant or underutilized land within established urban areas. By focusing on these internal spaces, infill development seeks to counteract the decline of central city regions and address the challenges posed by outward expansion, thereby fostering more sustainable and balanced urban growth (Mado, Garba, Ahmed, Gitaland, & Belel, 2021)

According to the World Bank's report Transit-Oriented Development Implementation Resources & Tools, urban infill development helps preserve agricultural and natural lands that might otherwise be lost to sprawling developments. By focusing on maximizing the use of land within existing urban areas, this approach prevents unnecessary expansion into rural and greenfield areas. The report, prepared by IBI Group and World Resources Institute India, emphasizes the role of infill development in promoting sustainable and compact urban growth (World Bank, 2021). The revitalization of underutilized spaces not only enhances economic activity but also boosts the financial health of these cities.

The Transit-Oriented Development Implementation Resources & Tools also outlines key tools that support urban infill development, particularly around transit hubs. These tools emphasize optimizing land use near transit corridors to reduce urban sprawl, improve access to public transit, and incorporate mechanisms like land value capture to finance infrastructure. By focusing development around these hubs, cities can promote sustainable growth, reduce reliance on vehicles, and protect green spaces (World Bank, 2021)

Urban infill plays a crucial role in mitigating urban sprawl, particularly within the context of Indian cities. It involves the strategic repurposing of underutilized or vacant spaces within already developed areas, ensuring that new developments integrate seamlessly with the existing urban fabric. In cities such as Delhi, where land availability is increasingly scarce, urban infill can promote the creation of compact housing and mixed-use developments, in line with the principles of sustainable urban growth. An exemplary case is the 62 Jorbagh b project in Delhi, which demonstrates how urban infill can optimize space and infrastructure while fostering community integration and enhancing environmental sustainability (Sree et al., 2020).



Portland, Oregon, presents a global narrative of urban infill success. Known for its strategic approach to increasing density within its urban core, Portland has repurposed brownfields and developed mixed-use neighbourhoods. Portland's Residential Infill Project (RIP) is aimed at addressing housing shortages by modifying zoning regulations to allow diverse housing types such as duplexes, triplexes, and fourplexes in predominantly single-family residential areas. This approach encourages compact, infill development, promoting housing affordability and increasing neighbourhood diversity. Key achievements include new design standards for smaller homes and incentives for constructing affordable housing units, such as the "deep affordability bonus" (City of Portland, 2021).

Arlington, Virginia, offers another compelling narrative with its Rosslyn-Ballston Corridor. The focus on high-density, mixed-use development along a major transit line has transformed the area into one of the most desirable and walkable urban corridors in the United States. The Arlington County Planning Department's "Rosslyn-Ballston Corridor Development Plan" (2023) highlights the success of this approach in limiting sprawl and reducing car dependency (Arlington County Planning Department, 2023).

## Conclusion

The choice between sprawl and infill is not merely one of development style but of long-term sustainability. While urban sprawl may promise short-term growth, it is the strategic, compact growth of urban infill that paves the way for more resilient, equitable, and livable cities.

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