



Informal Settlements in Urban Landscapes: Drivers, Issues, and Pathways Toward Inclusive Urban Development: Through the lens of Chandigarh

¹Sapna Dhiman, ²Rupinder Kaur, ³ Shruti Sidhu, ⁴Mandeep Singh ⁵Ishani Gogoi,
⁶Anubhav Monadal

¹Associate Professor, INDO GLOBAL COLLEGE OF ARCHITECTURE, PUNJAB

²Assistant Professor, INDO GLOBAL COLLEGE OF ARCHITECTURE, PUNJAB

³Associate Professor, INDO GLOBAL COLLEGE OF ARCHITECTURE, PUNJAB

⁴Assistant Professor, SHMCT, Jaipur National University Jaipur, Rajasthan

⁵Assistant Professor, RV College of Architecture, Bengaluru

⁶INDEPENDENT RESEARCHER, SPA DELHI

Corresponding Author: Sapna Dhiman

sapna.dhiman14@gmail.com

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Abstract

Informal settlements—often described as slums, unauthorized colonies, or unplanned urban neighbourhoods—represent one of the most complex challenges of modern urbanization. Long marginalized in planning agendas, they are increasingly at the heart of debates on equity and sustainable urban futures. Their rapid growth is fuelled by rural-to-urban migration, deepening income gaps, fragile governance systems, and displacement arising from conflict and disasters. Lacking secure land rights, essential infrastructure, and safe living conditions, these communities face heightened risks of eviction, poverty, and environmental vulnerability. Yet, they are also vital social and economic ecosystems that sustain urban life through networks of solidarity, informal economies, and resilience strategies.

This paper investigates the root causes, lived challenges, and strategic responses to informal settlements. It analyses drivers such as migration, economic exclusion, and weak institutions, and discusses their associated hardships—ranging from inadequate infrastructure to health inequalities, tenure insecurity, and environmental risks. Policy innovations such as slum upgrading, affordable housing initiatives, land regularization, and participatory governance are examined through case illustrations from Kenya, Brazil and from the Chandigarh–Zirakpur metropolitan interface. This paper argues that the informal settlements are not just urban dysfunctions, but long-term products of exclusionary planning in the heart of the city. The Chandigarh–Zirakpur case is a good example of informality being re-distributed and not solved.

The central claim is that informal settlements should not be dismissed as urban dysfunctions, but should be seen as enduring features requiring inclusive and participatory solutions. When supported through infrastructure investment, secure tenancy, and community-led governance,



these settlements can evolve into resilient neighbourhoods that contribute to sustainable and just cities.

Keywords: Exclusionary urban planning, India, Informal settlements, Peri-urbanization, Metropolitan governance

1. Introduction

Urbanization has become one of the strongest forces redefining human society in the 21st century. Today, more than half of humanity lives in towns and cities, and this share is projected to reach around 70 percent by 2050 (UN-Habitat, 2022). Cities generate opportunities, cultural diversity, and innovation, but they also deepen spatial and social divisions. A visible manifestation of these inequalities is the spread of informal settlements.

Defined by precarious housing, insecure land tenure, weak access to essential services, and overcrowding, informal settlements remain excluded from formal governance and planning systems (Davis, 2006). While dominant in the Global South—in Africa, Asia, and Latin America—they also exist on the margins of advanced economies. Historically dismissed as temporary or illegal encroachments, these areas have persisted and expanded, challenging simplistic notions of their removability.

This paper underscores the need for a paradigm shift: informal settlements should not be treated as marginal or transitional, but acknowledged as durable aspects of the urban condition. By examining their causes, challenges, and policy responses—with supporting case material—this study highlights why improving conditions in these spaces is critical to more inclusive and equitable futures.

While informal settlements are widely studied as outcomes of planning failure, this paper examines them in the context of planned Indian cities like Chandigarh. Here, informal settlements persist due to policy vagueness and relocation strategies. This paper focuses on Zirakpur as an urban overflow area and examines how exclusionary planning in the core city is absorbed and monetised in the urban periphery.

1.1 Analytical approach

This paper adopts an analytical approach rather than extensive primary fieldwork. The main objective is not to generate new statistical findings but to identify how informality is produced, displaced, and managed within the Indian urban system through urban planning and governance practices.

- a) The analysis draws on three main sources: (a) planning and regulation documents, including the Chandigarh Master Plan, GMADA and PUDA development plans affecting Zirakpur; (b) existing literature on urbanism, housing and governance in India; and (c) observational insights from Zirakpur to contextualise housing forms, mobility patterns and service conditions.
- b) These sources are used to explain structural patterns and policy contradictions rather than to claim statistical representativeness. Empirical observations from Zirakpur are applied in an explanatory manner, highlighting repeated spatial patterns and housing



practices visible across its residential landscape. The objective is to trace how planning decisions at the metropolitan core translate into lived spatial conditions at the urban periphery.

- c) This paper contributes to the debate on urban informality by reframing peri-urban settlements not as a failure of planning but as a functional extension of restrictive urban planning in the core. The Chandigarh–Zirakpur interface illustrates how informality is actively redistributed across metropolitan space through the success of planned development in the urban core.

By adopting this qualitative policy framework, the study systematically contrasts the restrictive urban planning of the core city with the flexible regional regulations of the periphery. It demonstrates that peri-urban informality is a functional spatial mechanism rather than an accidental governance breakdown.

2. Causes of Informal Settlements

The rise of informal housing is not driven by a singular factor but by interrelated processes shaped by migration, inequality, governance, and displacement.

2.1 Rural–Urban Migration

Large-scale population movement from villages to towns is a major driver. Migrants seek jobs, education, and healthcare in cities, but the demand for affordable housing far outpaces available supply. In India, for instance, migration accounts for nearly 40% of urban population growth, yet formal housing markets remain largely unaffordable (Kundu, 2014).

2.2 Economic Inequality

Urban housing markets are heavily stratified and controlled by elites and developers, making them inaccessible to low-income households. Excluded from credit systems and subsidies, poorer groups are forced into informal rentals or illegal land occupations (World Bank, 2017). This produces a parallel housing market outside formal legal frameworks.

2.3 Selective Urban Governance

City plans in many developing nations prioritize elite investments while neglecting working-class needs (Roy, 2005). Weak enforcement allows sprawling unregulated settlements, while rigid planning frameworks fail to anticipate rapid demographic change. Informality in Indian cities often exists not due to absence of planning but due to enforcement and policy uncertainty. Planned cities often exclude informal housing while depending on informal labour, transferring housing demand to peri-urban areas rather than resolving them. Urban informality in planned Indian cities is not merely an absence of planning, but a direct outcome of state-enforced zoning. While planned cores depend heavily on low-wage informal labor for construction and services, formal housing frameworks prioritize high-income ownership plots, forcing working-class housing demand into peri-urban margins



2.4 Insecure Land Tenure

Millions remain outside formal property systems and lack legal protection. Insecure tenure excludes families from loans, subsidies, and legal rights, while leaving them vulnerable to sudden eviction by governments or landlords.

2.5 Displacement Through Conflict or Disasters

Armed conflicts, natural disasters, and political instability push people into cities. Refugees and internally displaced groups often occupy informal settlements as accessible spaces to rebuild lives. The Syrian crisis and conflicts in Sub-Saharan Africa are stark examples of displacement pushing vulnerable populations into urban margins (UNHCR, 2020). The key structural drivers influencing the formation of informal settlements are summarized in Figure 1.

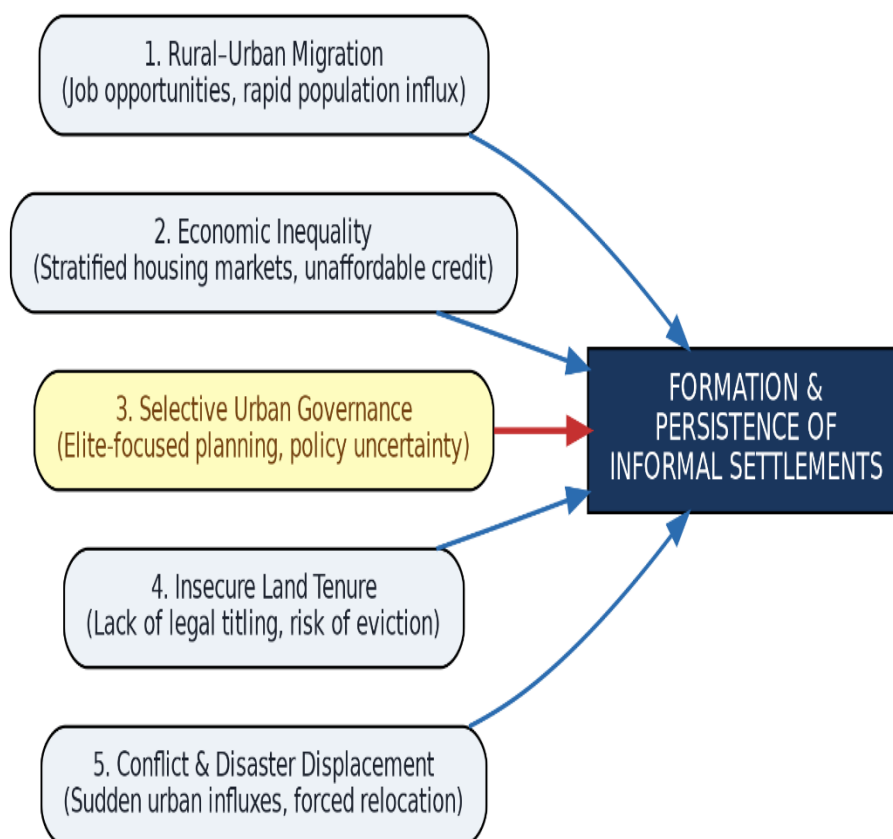


Figure1: Key drivers of informal settlements

Source: Author

3. Challenges Confronting Informal Settlements

Life in informal settlements is marked by persistent deprivation and exclusion across multiple dimensions:



3.1 Deficient Infrastructure

Electricity, piped water, sewage systems, and solid waste management are usually absent or inconsistent. UN-Habitat (2020) estimates that over a billion slum residents worldwide lack steady access to safe water and sanitation, undermining quality of life. Municipal service gaps are particularly acute in fast-growing peri-urban reception zones. While planned cores enjoy centralized water treatment and reliable grid electricity, fringe expansion areas rely on fragmented private vendors, informal tankers, and unregulated borewells. Over time, this infrastructure deficit creates severe groundwater depletion and public health risks for working-class tenants.

3.2 Public Health Vulnerabilities

Overcrowding, poor waste disposal, and unsafe water make residents prone to infectious diseases like cholera, tuberculosis, and respiratory illnesses. During the COVID-19 pandemic, lack of space for distancing, coupled with inadequate healthcare facilities, multiplied risks (Wilkinson, 2020).

3.3 Social and Political Exclusion

Informal dwellers are stigmatized as illegal or encroachers. This stigma alienates them from civic rights, participation in governance, and equitable representation. Persistent exclusion deepens poverty and marginalization (Sen, 1999).

3.4 Environmental Risks

Slums are commonly built on ecologically fragile territories—wetlands, riverbanks, and steep slopes. These locations expose residents to floods, landslides, and pollutants, while broader effects of climate change exacerbate their vulnerability (Satterthwaite, 2011).

3.5 Insecure Occupancy and Eviction Threats

The absence of tenure security results in repeated evictions, destroying homes, livelihoods, and social networks. Forced removals compound urban poverty instead of alleviating it (Amnesty International, 2019).

4. Policy Responses and Pathways

Cities, states, and international bodies have experimented with varied strategies to address informal settlements. Prominent approaches include:

4.1 Slum Upgrading

Rather than demolishing slums, many governments now work to improve them in situ by providing water, roads, sanitation, and power while preserving community ties (UN-Habitat, 2015).

4.2 Affordable Housing Delivery

States and private actors have explored alternative housing supply programs—including community housing, public-private partnerships, and microfinance—which enable incremental improvements (Mukhija, 2012). Traditional state-led housing programs in India predominantly focus on homeownership models rather than affordable rental housing. This ownership bias leaves migrant construction workers, domestic helpers, and service staff without viable



formal shelter options. When public schemes fail to provide flexible, short-term rental frameworks, private informal rental markets step in to absorb the unmet demand across municipal boundaries.

4.3 Land Tenure Security

Granting ownership or occupancy rights stabilizes communities, allows residents to invest in home upgrades, and fosters long-term security. Latin America has used this approach extensively, improving housing and community well-being (**de Soto, 2000**).

4.4 Participatory Governance

Involving residents in decision-making ensures solutions reflect local needs, strengthens trust, and enhances accountability (**Cornwall, 2008**).

4.5 Inclusive Urban Planning

Some cities embrace flexible zoning and inclusive designs that integrate informal settlements into the broader urban structure. Medellín, Colombia, is a strong example where urban infrastructure in marginalized areas transformed social and economic prospects (**Echeverri & Orsini, 2010**).

5. Global Case Insights

5.1 Kibera, Kenya

Nairobi's Kibera, Africa's largest slum, has seen varied interventions—government-led infrastructure upgrades and NGO-led services. Community-driven groups such as Muunganowa Wanavijiji, through Kenya's Slum Upgrading Programme, have improved sanitation and housing access despite persistent challenges (**Lines & Makau, 2017**).

5.2 Favela-Bairro, Brazil

Rio's Favela-Bairro project integrated favelas with the rest of the city by providing infrastructure, regularizing land, and expanding social services. Despite shortcomings, it stands as a pioneering experiment in participatory upgrading (**Perlman, 2010**).

5.3 Indore, India

Indore demonstrates inclusive waste management by formally integrating slum residents into city-wide solid waste programs. This improved sanitation outcomes while generating livelihoods for the urban poor (**Chaturvedi & Gidwani, 2011**).

Comparative Analysis of Global Policy Responses			
Case Study	Primary Strategy	Key Interventions	Core Outcomes
Kibera, Kenya	Slum Upgrading	Infrastructure improvements and sanitation services delivered through government and NGO-led community groups (e.g., Muunganowa Wanavijiji).	Enhanced sanitation and housing access achieved through preserved community ties and collective action.
Favela-Bairro,	Participatory Inte-	Comprehensive provision	Pioneering exper-



Brazil	gration	of physical infrastructure, land regularization, and the expansion of social services to marginalized areas.	iment that successfully integrated favelas into the broader city fabric and social structure.
Indore, India	Inclusive Waste Management	Formal integration of informal settlement residents into city-wide solid waste collection and management programs.	Improved sanitation outcomes and the generation of sustainable livelihoods for the urban poor.

Table 1: Comparative Analysis of Global Policy Responses

Source: Compiled by Author based on literature review

Comparing these international and national cases highlights a crucial policy insight: forced evictions or rigid containment strategies consistently fail to eliminate urban informality. Whether through community-driven upgrading in Nairobi or infrastructure integration in Rio de Janeiro, sustainable solutions require acknowledging informal settlements as permanent components of the urban landscape. For rapidly expanding corridors like Chandigarh–Zirakpur, the key lesson is that municipal service delivery and rental protections must extend across administrative boundaries rather than stopping at core city borders.

6 Primary Case Analysis: The Chandigarh–Zirakpur Metropolitan Interface

6.1 Core Regulatory Exclusions and Displaced Housing Demand

Chandigarh's modernist grid layout and strict municipal bylaws preserve its orderly core, but they create severe housing exclusions for the working-class populations sustaining the city's economy. The Chandigarh Master Plan 2031 prioritizes single-family ownership plots and low-density residential sectors, providing zero formal allocation for affordable, low-cost public rentals. This regulatory stance has been reinforced through systematic eviction drives that cleared major historical squatter clusters within the Union Territory, such as Colony No. 4 and Jaganpura. Because low-wage construction, domestic, and service workers are economically essential to the core city yet structurally excluded from its formal housing market, these clearance policies do not eliminate housing demand. Instead, displaced labor populations are forced across the administrative border into neighboring Punjab to secure affordable shelter, transforming regional spatial dynamics.

6.2 Peri-Urban Absorption in Zirakpur

The administrative border separating Union Territory Chandigarh from Zirakpur in Punjab represents a fundamental regulatory divide. While Chandigarh enforces strict master-planning bylaws and low-density zoning, Zirakpur operates under Punjab state frameworks managed by the Greater Mohali Area Development Authority (GMADA) and the Punjab Urban Plan-



ning and Development Authority (PUDA). GMADA's regional planning framework prioritizes rapid commercial expansion, private investment, and flexible land-use conversions. This institutional divergence turns Zirakpur into an unregulated spatial sponge. Local landholders, private developers, and commercial intermediaries actively monetize Chandigarh's housing deficit by constructing dense rental accommodation. By permitting high-density residential structures and informal building modifications without rigid municipal oversight, Zirakpur absorbs the displaced housing demand rejected by the core, effectively subsidizing Chandigarh's formal economy.

6.3 Everyday Housing Typologies and Mobility Burdens

Unlike traditional squatter settlements composed of self-built mud or tin structures, low-cost housing in Zirakpur takes a commercialized, micro-rental form operating within semi-formal buildings. Spatial observations across high-density corridors like VIP Road and Baltana reveal four dominant housing typologies:

1. Unregistered Village Rental Rooms: Single-room units constructed in village abadi extensions operating on short-term, oral cash leases.
2. Paying-Guest (PG) Establishments: High-density room-sharing setups in multi-story buildings catering to young service and construction workers.
3. Subdivided Apartment Units: Formally approved residential flats internally partitioned into micro-units exceeding planned density limits.
4. Unauthorized Subdivisions: Unapproved sub-plots on the municipal periphery lacking statutory planning approval.

Workers living in these spaces face acute municipal infrastructure deficits, including irregular water supply, reliance on private borewells, open drainage, and poor solid waste disposal. To access their workplaces in Chandigarh, residents undergo long daily commutes via two-wheelers or public transport across the UT border. This cross-border movement operates as a compensatory mobility mechanism, transferring transit costs, time poverty, and infrastructure strain onto peripheral workers so that the core city can maintain its aesthetic order without housing its essential labor force.

6.4 The Structural Causal Sequence

The relationship between Chandigarh and Zirakpur follows a clear 3-step chain [6]:

1. Core Exclusion: Chandigarh enforces strict land use and provides no affordable rental housing, driving out low-income labour.
2. Peripheral Market Absorption: Zirakpur relaxed rules absorb this displaced demand through dense, informal rental arrangements.
3. Compensatory Mobility: Daily commuting shifts transport costs, financial pressure, and time poverty onto peripheral workers while keeping core city operations running smoothly.

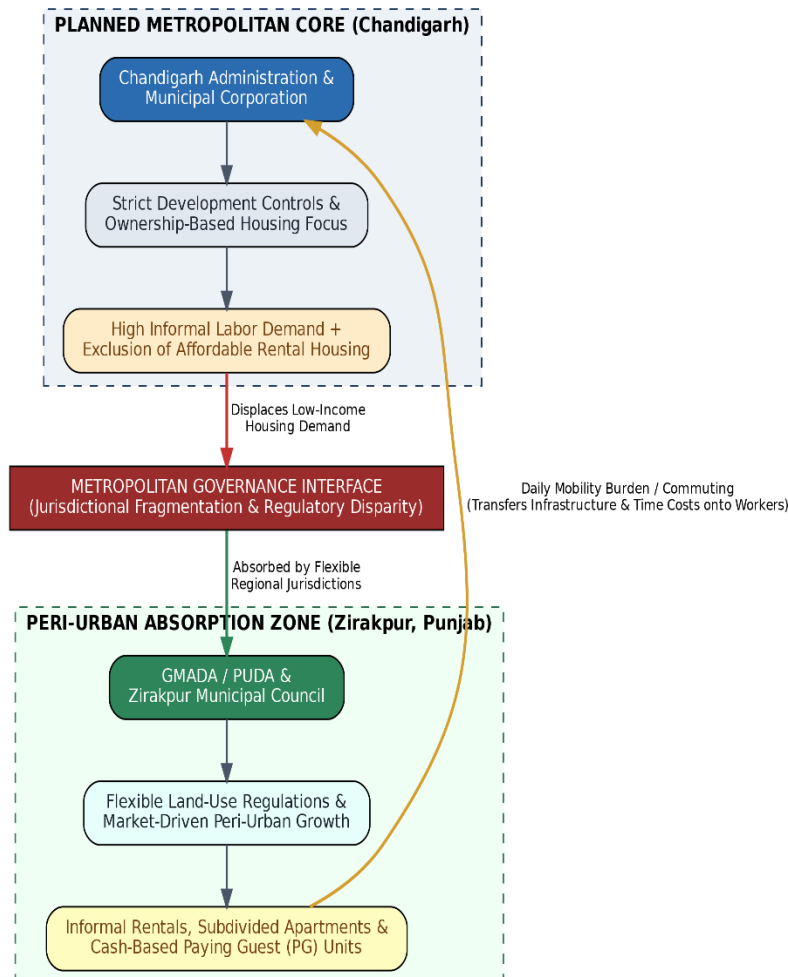


Figure 2: Governance Structure of the Chandigarh–Zirakpur Metropolitan Interface
Source: Author (based on GMADA and PUDA planning documents)

7: Discussion: Policy Contradictions and Regional Spatial Equity

The spatial dynamics observed across the Chandigarh–Zirakpur interface reveal a fundamental contradiction in modern Indian urban planning. On one hand, planned core cities enforce strict aesthetic standards, low-density zoning, and building bylaws to project an image of orderly development. On the other hand, these very regulations generate severe housing exclusion by pricing out the essential workforce that sustains the urban economy.

This creates a regional free-rider problem. The core city reaps the economic benefits of low-wage service and construction labor without allocating land or financial resources to house these workers. Meanwhile, adjacent peri-urban jurisdictions under state authorities like GMADA and PUDA absorb the social, environmental, and infrastructure burdens. Zirakpur experiences severe traffic congestion, unorganized solid waste accumulation, and over-



extraction of groundwater, yet receives no regional tax sharing or infrastructure subsidies from Chandigarh.

Reframing informality through a regional lens demonstrates that peri-urban expansion is not an isolated planning failure. Instead, it functions as a structural valve that absorbs the housing deficits produced by exclusionary master planning in the core. Achieving regional spatial equity requires moving beyond fragmented local governance toward cross-border planning mechanisms that treat core cities and their peri-urban fringes as an interconnected metropolitan whole.

8 Conclusion

This paper shows that informal settlements across urban India are not just administrative errors or governance failures. They are the direct spatial outcome of exclusionary planning in city cores. The Chandigarh–Zirakpur corridor clearly proves that strict municipal bylaws do not eliminate informality; they merely push it into peripheral areas.

While factors like rural migration, income gaps, and tenure insecurity drive housing demand, policies like slum upgrading, land regularization, and low-cost rental schemes offer practical ways forward. Zirakpur situation highlights how peripheral zones end up carrying the social and infrastructural burden of decisions made by core city planners. Moving forward, urban authorities must treat peri-urban areas as permanent, vital parts of the metropolitan system rather than temporary illegal spillovers. Fixing urban informality requires moving past forced evictions toward joint regional planning, rental housing rights, and inclusive governance across South Asian city regions.

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