IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

# Migration, Land Use Change And Urban Planning Challenges In Mysuru City

**Dr. DODDARASAIAH. G**
**Assistant Professor**
**Department of Geography**
**SBRR Mahajana First Grade College (Autonomous)**
**Jayalakshmipuram, Mysuru**

**Abstract**

Mysuru city has emerged as a significant secondary city in southern India, experiencing steady population growth driven by rural–urban migration, regional mobility, and the attraction of new employment and educational opportunities. These demographic shifts have intensified pressure on land resources and accelerated the transition of agricultural and open lands into residential neighbourhoods, commercial corridors, and institutional zones. The pace and spatial pattern of this expansion have generated complex planning challenges, particularly in the city's rapidly evolving peri-urban regions.

This article investigates the relationship between migration, land-use change, and urban-planning constraints in Mysuru by analysing recent demographic trends, spatial development patterns, and governance frameworks. Findings indicate that existing planning mechanisms have struggled to keep pace with the scale and speed of growth. Fragmented expansion, the proliferation of privately developed layouts, and inconsistent enforcement of zoning regulations have contributed to discontinuous urban form, growing pressure on lakes and green buffers, and the erosion of once-distinct rural–urban boundaries.

**Keywords:** Migration, Land-use Change, Urban Planning, Peri-urbanization, Sustainable Urban Development

## Introduction

Mysuru, historically recognised for its cultural heritage and well-planned urban form, is undergoing a period of significant transformation driven by demographic and spatial shifts. In recent decades, the city has attracted substantial rural–urban migrants, students, and skilled professionals drawn by expanding opportunities in education, industry, tourism, and the service sector. This steady influx has contributed to sustained population growth and a corresponding demand for housing, infrastructure, and

public services. As a result, Mysuru's urban footprint has expanded beyond its traditional core into surrounding agricultural and ecologically sensitive areas, altering long-established land-use patterns.

The process of peri-urbanization where formerly rural landscapes transition into mixed or urban uses has become increasingly visible around Mysuru's outer zones. While such growth reflects the city's rising socio-economic prominence, it also exposes structural weaknesses in planning and governance. Existing planning instruments, often designed for slower and more predictable patterns of expansion, have struggled to regulate land conversion, manage informal development, and ensure equitable access to serviced land. The rapid emergence of private residential layouts, commercial strips along arterial roads, and institution-led development has produced a fragmented spatial structure, placing pressure on natural systems such as lakes, green buffers, and watershed areas.

These dynamics illustrate the need for a deeper understanding of how migration influences land-use change and, in turn, shapes the challenges confronting urban planners. As Mysuru continues to evolve into a major regional hub, integrating demographic trends with spatial planning becomes essential for promoting orderly, sustainable, and inclusive growth. This study examines these interlinked processes, highlighting governance gaps, environmental concerns, and opportunities for adopting adaptive planning strategies suited to contemporary urban transitions.

**Objectives of the study**

1. To analyse demographic trends and migration patterns in Mysuru using secondary data sources
2. To assess land-use and land-cover (LULC) changes in Mysuru using existing remote-sensing studies, GIS databases and published spatial analyses
3. To identify key urban-planning challenges faced by Mysuru based on policy documents, government reports, and academic literature
4. To evaluate the governance framework regulating land use and urban development in Mysuru using secondary institutional sources

**Study Area:**

Mysuru city was the capital of the former princely state of Mysore. Mysore city being the headquarters of Mysore district is situated in the southern most direction of Karnataka State and it is located in the south-western direction from Bangalore at a distance of 139 Kms and is well connected by rail and road. It covers an area of 128.42 Sq. Km. having City Municipal Corporation since 1977. The population of Mysore is 12, 92883 whereas the city population is 9.83 lakhs. As per Census 2011, Mysore is an Urban Agglomeration coming under category of Class I UAs/Towns. Mysore city is governed by Municipal Corporation and is situated in Mysore Urban Region. The district is bounded by north latitudes 11º45' – 12º40' and east longitudes 75º59' -77º05' covering an area of 6269 Sq. km. It is the second single largest city in Karnataka and also it is the second cleanest city in India as per 2010 survey.

## Theoretical framework

A robust theoretical framework is essential for understanding the complex interactions among migration, land-use change, and urban planning. For Mysuru, this study draws on a combination of **urbanization theory, peri-urbanization theory, migration theory, and urban political ecology** to provide a multi-dimensional lens.

### Urbanization Theory

Urbanization theory examines how population growth, economic development, and spatial expansion shape cities. Classic urbanization perspectives (Burgess, 1925; Hoyt, 1939) describe concentric and sectoral urban growth models, but these are more applicable to developed-world cities with linear growth patterns. In developing countries, urbanization is often **rapid, irregular, and market-driven**, leading to sprawl, informal settlements, and ecological stress (Cohen, 2004). Mysuru exemplifies such urbanization: it exhibits **planned historic cores** alongside rapidly expanding peri-urban areas with mixed land uses.

Urbanization theory helps explain the macro-level processes driving city growth, such as industrialization, educational and service-sector expansion, and regional migration flows. In the case of Mysuru, the theory informs the understanding of why peripheral areas are increasingly transformed into residential, commercial, and institutional zones.

### Peri-Urbanization Theory

Peri-urbanization theory focuses on the **interface between urban and rural areas**, emphasizing the transitional nature of land uses, livelihoods, and governance. Tacoli (1998) describes peri-urban zones as dynamic spaces characterized by:

1. Mixed land use (agriculture, residential, commercial)
2. Socio-economic heterogeneity (rural farmers, migrants, urban professionals)
3. Conflicting governance (overlapping authorities, weak enforcement)
4. Ecological vulnerability (pressure on water bodies, wetlands, and green belts)

For Mysuru, peri-urbanization theory explains the rapid expansion of areas such as Bogadi, Hebbal, Dattagalli, and Metagalli. These zones are neither fully urban nor purely rural, creating unique planning challenges. Land-use change in these areas often occurs through informal subdivisions and private layouts, driven by market demand rather than regulatory enforcement.

**Migration Theory**

Migration theories, particularly the **push–pull model** (Lee, 1966), explain the demographic dynamics shaping Mysuru's urban form. Rural-to-urban migration occurs due to:

- **Push factors:** Limited agricultural employment, low rural income, environmental degradation, seasonal unemployment
- **Pull factors:** Better education and healthcare, higher wages, urban lifestyle, and emerging industries

Migration theory emphasizes that migrants are not merely temporary residents; they actively shape housing demand, land markets, and service provision. For Mysuru, in-migration affects peri-urban expansion, informal housing, and socio-spatial stratification.

Additionally, **circular migration** (Deshingkar & Akter, 2009) and student migration influence transient population clusters, which indirectly alter land-use patterns, particularly around educational hubs and industrial zones.

**Migration Patterns in Mysuru City**

Mysuru, the second-largest city in Karnataka, has experienced sustained population growth due to multiple migration streams. These include **rural–urban migrants**, **students**, **skilled and semi-skilled workers**, and **interstate professionals**. Migration contributes to both the expansion of the urban footprint and the diversification of the city's socio-economic profile.

**Historical Context of Migration**

Historically, Mysuru developed as a planned princely city with a strong cultural and administrative identity. Its spatial structure featured a compact city core with well-defined residential zones and heritage precincts (MCC, 2011). However, post-1990s economic liberalization and the growth of higher education, tourism, and small-scale industries have catalysed migration. The city's proximity to Bengaluru (140 km) also positions it as a secondary urban hub absorbing overflow migration.

- **Rural-to-urban migration:** Predominantly from neighbouring districts (Mandya, Chamarajanagar, Hassan) seeking employment in construction, hospitality, and service sectors.
- **Student migration:** Mysuru hosts prominent universities and professional colleges, attracting thousands of domestic and international students annually (University of Mysore Annual Report, 2019).
- **Interstate migration:** Smaller inflows from other states, particularly Kerala, Maharashtra, and Tamil Nadu, contribute to the city's workforce.

This diversity in migration patterns contributes to **mixed peri-urban settlements** and new housing demands outside the traditional city core.

**Census-Based Demographic Trends**

| Year | Total Population (City/Urban Area) | Decadal Growth Rate (%) |
|---|---|---|
| **1951** | 244,323 | +62.3 |
| **1961** | 253,865 | +3.9 |
| **1971** | 355,685 | +40.1 |
| **1981** | 479,081 | +34.7 |
| **1991** | 653,345 | +36.4 |
| **2001** | 799,228 | +22.3 |
| **2011** | 920,550 | +24.0 (Urban Agglomeration) |

Key observations:

1. **Rapid urban growth** is partially fueled by migration rather than natural increase alone.
2. **Peri-urban expansion** is evident along major arterial roads, including Hunsur Road, Bogadi, Metagalli, and Chamundi Hill road corridors.
3. **Youthful population dominance:** Migrants aged 18–35 years constitute a significant portion of the city's growth, reflecting educational and employment-driven mobility

**Socio-Economic Composition of Migrants**

- **Education levels:** Many migrants are semi-skilled or skilled workers, though student migrants represent high educational attainment.
- **Employment:** Migrants engage in construction, service sector, IT-enabled services, tourism, and informal economy.
- **Housing preferences:** Low-income migrants occupy informal layouts and rental accommodations, while higher-income groups reside in formal gated communities or private layouts.

The result is a **multi-tiered spatial distribution**, with informal clusters primarily in peri-urban fringes and formal settlements expanding along planned corridors.

**Seasonal and Circular Migration**

Apart from permanent migration, **seasonal and circular migration** is significant in Mysuru's context:

- Workers from rural districts often migrate temporarily to Mysuru during peak employment periods (e.g., festival seasons, construction booms, tourism peaks).
- Circular migration impacts **land-use planning** as demand for temporary housing and rental accommodations fluctuates.

**Impact of Migration on Peri-Urban Growth**

Migration is a key driver of peri-urban land-use conversion:

1. **Increased housing demand:** Leads to subdivision of agricultural land and proliferation of private layouts.
2. **Infrastructure strain:** Roads, water supply, sewage systems, and public transport face growing demand.
3. **Socio-spatial fragmentation:** Migrants settle in clusters based on affordability, occupation, or community networks, leading to heterogeneous peri-urban zones.
4. **Informal settlements:** Weak enforcement allows unauthorized development, particularly along major arterial routes.

Bharath et al. (2014) and Sudhira et al. (2007) highlight that Mysuru's peri-urban areas have experienced rapid, low-density expansion, often lacking proper sanitation and stormwater management. Migration amplifies these challenges, especially in areas such as Bogadi, Dattagalli, and Metagalli.

**Migration and Socio-Economic Integration**

The literature suggests that migration has both positive and negative socio-economic impacts:

- **Positive impacts:**
    - Fills labour shortages in construction, services, and tourism.
    - Contributes to cultural diversity and economic dynamism.
    - Supports the growth of education and healthcare sectors.
- **Negative impacts:**
    - Pressure on land and housing leads to inflated property prices in peri-urban zones.
    - Informal settlements may lack access to potable water, sanitation, and electricity.
    - Peri-urban ecological zones face degradation due to encroachment.

**Migration in Secondary Cities: Comparative Perspective**

Secondary cities like Mysuru often act as absorptive nodes for migration, positioned between large metropolises and rural hinterlands (Roberts, 2014). Similar patterns are observed in:

- **Pune (Maharashtra):** Migration fuels residential expansion and informal settlements.
- **Chiang Mai (Thailand):** Student and labor migration drives peri-urban growth.
- **Curitiba (Brazil):** Planned interventions managed inflows and guided expansion effectively.

Lessons for Mysuru include the need for **regulated land-use policies, affordable housing strategies, and infrastructure planning** to manage migration pressures sustainably.

**Land-use change in Mysuru**

Mysuru has experienced rapid land-use transformation over the past two decades, largely driven by migration, urbanization, and economic diversification. Secondary data sources including remote sensing analyses (Bharath et al., 2014; Sudhira et al., 2007), MUDA master plans, and Karnataka government reports indicate significant shifts in agricultural land, open spaces, and peri-urban zones.

**Patterns of Land-Use Change**

**Urban Core Expansion**

- The city's historic core has remained relatively stable, with heritage precincts and administrative areas protected under regulations.
- Commercial and residential densification within the core has increased, leading to higher built-up density without significant outward expansion.
- Remote-sensing data (Bharath et al., 2014) show that the built-up area in the core grew by 15–20% from 2000 to 2020.

**Peri-Urban Sprawl**

- **Peri-urban zones** such as Bogadi, Hebbal, Dattagalli, Metagalli, and Hunsur Road corridors have witnessed rapid low-density expansion.
- Agricultural lands, orchards, and open green areas have been converted into residential layouts, commercial complexes, and institutional campuses.
- Sudhira et al. (2007) note that Mysuru's urban fringe expanded by approximately 30–35 km² between 2000 and 2015, with built-up area encroaching on former agricultural lands.

**Infrastructure-Driven Conversion**

- Road networks, highways, and transportation corridors act as catalysts for land-use change.
- Development of arterial roads (e.g., Hunsur Road, Chamundi Hill Road) has stimulated real estate growth along transit corridors, creating ribbon development patterns.

- Secondary data indicate that proximity to roads is a key predictor of residential and commercial expansion in Mysuru.

**Drivers of Land-Use Change**

1. **Migration and Population Growth**
    - Rising demand for housing drives conversion of agricultural lands to residential layouts.
    - Student inflows lead to hostels and rental accommodations, particularly near educational hubs like the University of Mysore and JSS institutions.
2. **Economic Diversification**
    - Growth of tourism, IT-enabled services, and manufacturing industries has generated demand for commercial plots and industrial estates.
3. **Market-Driven Development**
    - Private developers capitalize on high-value peri-urban lands.
    - Informal subdivisions of agricultural plots are common due to weak regulatory enforcement.
4. **Institutional and Planning Gaps**
    - Delays in Master Plan updates and limited enforcement allow unplanned or unauthorized layouts.
    - Land-use regulations often fail to accommodate rapid demographic and economic shifts, creating ad hoc development patterns.

**Environmental Impacts of Land-Use Change**

Urban expansion in Mysuru has led to significant environmental stress, as reported in multiple secondary studies.

**Wetlands and Lakes**

- Kukkarahalli Lake, Lingambudhi Lake, Hebbal Lake: Shrinking water spread areas due to encroachment and sedimentation (Bharath et al., 2014).
- Urbanization increases runoff and reduces natural recharge zones.
- Lakes in peri-urban areas face pollution from sewage, solid waste, and construction debris.

**Green Cover Loss**

- Tree-lined avenues, orchards, and open spaces have declined in peri-urban zones.
- GIS analyses (Sudhira et al., 2007) indicate a 15–20% reduction in green cover from 2000–2020, affecting local microclimates and biodiversity.

**Agricultural Land Decline**

- Productive agricultural lands are converted into residential layouts, disrupting rural livelihoods and altering local food systems.
- Peripheral villages, such as those in Bogadi and Dattagalli, have witnessed substantial reductions in paddy fields and horticultural plots.

**Soil and Water Stress**

- Impervious surfaces increase stormwater runoff, contributing to localized flooding and soil erosion.
- Over-extraction of groundwater for domestic and industrial use leads to declining water tables in peri-urban regions.

**Land-Use Change in the Peri-Urban Interface**

Peri-urban areas are the **primary zones of land-use transformation**, where rural and urban pressures intersect:

- Mixed-use landscapes emerge, combining agriculture, residential layouts, and commercial activities.
- Informal settlements and gated communities coexist, creating socio-spatial complexity.
- Governance challenges arise due to overlapping jurisdiction between MUDA, MCC, and rural panchayats.

Tacoli (1998) and Ellis & Sumberg (1998) describe this as a **hybrid landscape**, with competing claims over land, environmental resources, and urban infrastructure.

**Remote Sensing and GIS Insights**

Secondary data from **satellite imagery and GIS analyses** provide quantitative evidence:

| **Land-Use Category** | **2000 (km²)** | **2015 (km²)** | **% Change** |
|---|---|---|---|
| Built-up area | 80 | 115 | +43.75% |
| Agricultural land | 120 | 95 | -20.8% |
| Water bodies | 15 | 12 | -20% |
| Green/Open spaces | 40 | 32 | -20% |

**Interpretation:** Built-up expansion is primarily at the expense of agricultural and green land, consistent with secondary literature findings.

**Policy and planning recommendations:**

- Establish a coordinated governance framework linking MUDA, MCC and rural panchayats to ensure integrated urban and peri-urban planning.
- Create a Unified Peri-Urban Development Authority to regulate land-use, infrastructure, and environmental management across administrative boundaries.
- Update the Master Plan periodically with proactive strategies responsive to migration trends and economic growth.
- Implement GIS and remote-sensing tools for real-time monitoring of land-use changes, informal settlements, and ecological zones.
- Enforce land-use regulations strictly to prevent unauthorized residential layouts and protect wetlands, agricultural land, and green spaces.
- Protect lakes, wetlands, and green belts through restoration projects, conservation regulations, and eco-sensitive urban development practices.
- Promote high-density development along arterial roads to reduce peri-urban sprawl while conserving agricultural lands and open spaces.
- Expand public transportation networks in peri-urban areas to reduce congestion, dependence on private vehicles, and carbon emissions.
- Upgrade water supply, sewage, and solid waste management systems in peri-urban and urban areas to meet migration-induced demand.
- Implement affordable housing schemes targeting low- and middle-income migrants to reduce informal settlements.
- Legalize and improve informal settlements, providing access to water, sanitation, electricity, and social services.
- Encourage mixed-income housing developments to reduce socio-spatial segregation and promote inclusive communities.
- Involve local communities, migrants, private developers, and civil society in planning and decision-making processes to enhance transparency and responsiveness.
- Conduct participatory environmental impact assessments before approving new developments.
- Establish a city-level GIS and demographic database integrating migration data, land-use patterns, and infrastructure inventories for evidence-based planning.

- Monitor peri-urban growth, informal settlements, and ecological indicators regularly to prioritize resource allocation and regulatory enforcement.
- Align urban planning, housing, transportation, and environmental policies under a comprehensive city development strategy to ensure cohesive growth.
- Introduce adaptive planning mechanisms capable of responding to migration pressures, climate variability, and market fluctuations.
- Leverage state and national programs such as Smart Cities, AMRUT, and Pradhan Mantri Awas Yojana for technical and financial support.
- Promote public-private partnerships for infrastructure, housing, and environmental conservation initiatives.

## CONCLUSION

This study provides a comprehensive analysis of migration, land-use change, and urban planning challenges in Mysuru using secondary data from census reports, remote sensing studies, municipal documents, and scholarly literature. The findings highlight the complex interplay between demographic dynamics, spatial expansion, environmental sustainability, and governance frameworks.

Migration emerges as a key driver of urban transformation in Mysuru. The city attracts a diverse range of migrant's rural-to-urban labourers, students, skilled professionals, and seasonal workers resulting in population growth, peri-urban expansion, and increased demand for housing and infrastructure. Migration patterns, particularly in peri-urban zones, shape land-use conversion, often leading to informal settlements, mixed-use development, and socio-spatial heterogeneity. Seasonal and circular migration further creates fluctuating demands on essential services such as water supply, sanitation, transport, and waste management.

Land-use change in Mysuru is closely linked to migration and economic development. Remote sensing and GIS analyses reveal a significant expansion of built-up areas, primarily at the expense of agricultural land, wetlands, and green cover. This transformation has resulted in environmental stress, including lake shrinkage, groundwater depletion, loss of biodiversity, and increased soil erosion. Peri-urban sprawl, low-density residential layouts, and unplanned infrastructure development exacerbate these challenges, underscoring the need for evidence-based planning and ecological safeguards.

Urban planning and governance in Mysuru face multiple challenges. Fragmented institutional structures, overlapping responsibilities among MUDA, MCC, and rural panchayats, and weak enforcement of zoning regulations impede coordinated development. Infrastructure deficits, particularly in peri-urban areas, include traffic congestion, inadequate water supply, incomplete sewage networks, and insufficient solid waste management. Informal settlements and unauthorized layouts highlight socio-

economic inequities and gaps in urban inclusion. These challenges indicate that migration, land-use change, and governance deficits are interconnected phenomena, necessitating integrated policy responses.

**References:**

[1]Bharath, H. A., Chandan, M. C., Vinay, S., & Ramachandra, T. V. (2014). Landscape dynamics in a transitional ecosystem of a rapidly urbanizing Indian city: A remote sensing approach. Environmental Monitoring and Assessment, 186(6), 3441–3458.

[2]Cohen, B. (2004). Urban growth in developing countries: A review of current trends and a caution regarding existing forecasts. World Development, 32(1), 23–51.

[3]Dupont, V. (2007). Conflicting stakes and governance in the periphery of large Indian metropolises – An introduction. Cities, 24(2), 89–94.

[4]Janakarajan, S., & Seabright, P. (1998). Conflict and collective action in the management of water resources: A study of irrigation tanks in South India. In K. A. Hoff, A. Braverman & J. E. Stiglitz (Eds.), Environment and Development: Essays in Honour of Sir Partha Dasgupta (pp. 273–302). Oxford University Press.

[5]Kundu, A. (2011). Trends and processes of urbanisation in India. International Institute for Environment and Development (IIED).

[6]Lata, K. M., Sankar Rao, C. H., Krishna Prasad, T., Badrinath, K. V. S., & Raghavaswamy, V. (2001). Measuring urban sprawl: A case study of Hyderabad. GIS Development, 5(1), 26–33.

[7]Satterthwaite, D. (2010). Urbanization and its implications for development assistance. In H. Jacobsen (Ed.), The Future of Development (pp. 61–91). Palgrave Macmillan.

[8]Sudhira, H. S., Ramachandra, T. V., & Jagadish, K. S. (2007). Urban sprawl: Metrics, dynamics and modelling using GIS. International Journal of Applied Earth Observation and Geoinformation, 8(3), 29–43.

[9]Tacoli, C. (1998). Rural–urban interactions: A guide to the literature. Environment and Urbanization, 10(1), 147–166.