Building Sustainable Cities and Managing Migration in India

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Abstract:

The rise in population, especially in urban areas, due to migration poses a lot of economic challenges. These challenges have placed pressure on cities and created opportunities for economic growth and development. People migrate to urban areas in search of better employment opportunities, social conditions, and a good quality of life. With the increase in population growth of the population, the city needs to address problems such as housing, safe and clean drinking water, public health, urban crime and sanitation. The paper examines the relationship between migration and sustainable management. It emphasises the need for integrated planning and migration management. It even highlights the need for adequate infrastructure. Using secondary data and the goal of sustainable development (11), the study reviews case studies from different states of India. The challenges faced by states as populations rise due to migration have created a need for well-designed, sustainable cities with adequate housing, modern infrastructure, and effective environmental protection. The paper concludes with policy suggestions to help cities become more sustainable and better manage migration.

Introduction:

Urbanisation, or urban transition, refers to a shift in population: people move from rural to urban areas in search of better job prospects. In rural India, job opportunities are limited, and the majority of the workforce depends on the agricultural sector.

Migration, whether internal or international, is a primary driver of urbanisation, creating both opportunities and challenges for cities, migrants, and governing bodies. It is the liability of the governing body to implement corrective measures to mitigate problems and manage migration through proper urban planning and implementation.

The world's population is growing and shifting toward urban areas, necessitating sharper, stronger planning policies. For instance, the share of the urban population is projected to rise from 55 per cent in 2018 to 60 per cent by 2030. These demographic changes will necessitate sustainable development, a topic discussed throughout the study.

India is experiencing a rapid shift of population from rural to urban areas, primarily in metropolitan cities such as Mumbai, Delhi, Bengaluru, and Chennai. While international experience indicates that urbanisation drives growth when supported by sound economic planning—including efficient labour markets, robust infrastructure, and strong institutional coordination—India faces challenges. Specifically, urban infrastructure in critical sectors such

as transport, housing, water supply, sanitation, and governance has not kept pace with economic growth. This mismatch has contributed to rising population density, resulting in congestion, informality, and greater strain on infrastructure. As a result, potential productivity gains are weakened.

Social and economic inequalities have created a lot of challenges for urban residents, forcing them to settle in slum areas and also creating a lot of other environmental challenges like air and water pollution. Poor waste management and climate change further complicate efforts to address urban development challenges.

Review Of Literature

Amartya Sen's inclusive growth theory states that development should expand people's capabilities, freedom, and opportunities. Migrants must have access to health care, jobs, and housing. Sustainability must be socially inclusive. Excluding migrants weakens urban sustainability. Gro Harmen Brutland (1987) also emphasises the need to integrate migrants into urban systems to ensure long-term sustainability. This theory was foundational to SDG 11.

Przybysz, Lima, Sá, Resende, and Pagani (2024) examined the integration of city master plans with sustainable and smart urban development (Journal: Sustainability). They mapped sustainable city planning and evaluated how these projects fit into smart-city master plans. The study identified regions that excel in these areas and assessed their levels of innovation and technological adoption. It also identified frameworks that can be used in future planning to benefit smart cities. The main research limitations identified were the lack of software integration within government, difficulties collecting relevant information, the complexity of SUD concepts, and the difficulty of incorporating public feedback, especially in evaluating city master plans.

Ashutosh and Chaudhary (2025), highlight that the concept of sustainability in urban cities raises both the opportunities and the challenges faced by particularly the migrant populations, depriving them of the need to consider proper housing, local governance and other socio-economic factors.

Navdeep Singh & Sandeep Rana (2024). In the article The Role of Migration in Shaping Socioeconomic Landscapes Their main argument was that migration, both internal and international, significantly transforms urban labour markets, increases diversity, impacts infrastructure, and alters socioeconomic conditions in megacities. Focus: Discusses how internal and international migration influences these aspects—useful for migration studies.

Timothy Akinwande and Eddie Chi Man Hui reviewed extensive discussions on affordable housing for the urban poor. As the first comprehensive review spanning multiple countries, this

study identifies significant knowledge gaps in concepts, methods, and geographical coverage. The main finding is a clear need for further research and policy development on sustainable, affordable housing for the urban poor.

Riaz Ahmed (2024) in the article Urban Development Challenges and Solutions in Indian Municipalities – International Journal of Emerging Knowledge Studies. examines the key challenges facing local government in pursuing sustainable urban development and discusses viable solutions to address them. Local governance can promote effective urbanisation by considering environmental sustainability, social equality and equity, and economic resilience.

Muhammad Farhan Bashi, Wided Ragmoun, Alfalih Abdulaziz, and Madiha Bashir (2025). Analysing that there is a need to systematically explore conceptualisation and empirical investigations into sustainable and smart cities within the scope of the modern Anthropocene. Second, researchers need to reimagine 21st-century urbanisation to understand key attributes and the nature of post-Anthropocene urbanism, thereby helping to create more-than-human, truly sustainable, and smart cities. Overcoming these deficiencies will yield novel solutions to challenges posed by modern urbanisation.

Objectives Of The Study

The study aims to develop an understanding of sustainable cities and to examine the causes and impacts of migration on urban areas. It also seeks to analyse the key challenges created by migration in cities and to assess relevant policies through case studies of different cities. Finally, the study proposes strategies for building sustainable cities and managing migration effectively and inclusively.

Methodology:

The research design is based on a descriptive and analytical study. Secondary data are used to study the problems. Data sources include government publications and census reports. Qualitative analysis is used to elucidate theoretical detail, drawing on empirical evidence from multiple case studies.

Indian case studies

Delhi

Delhi's rapid growth, driven by large-scale migration, particularly from Uttar Pradesh and Bihar, has created significant challenges for employment, infrastructure, urban sprawl, pollution, and housing. Despite some green efforts being driven by the government for integrated sustainable planning, like the smart city missions, Delhi is not a core 'Smart City'. It focused on green buildings, efficient transit systems (such as Metro), waste management,

and housing facilities to manage its projected population of 37 million by 2028, balancing economic growth with environmental constraints. Delhi's case study is an example of how rapid growth and increased migration have posed several challenges to the government, which they try to manage through integrated urban planning, green infrastructure, and smart city principles on an immense scale.

Mumbai

Mumbai's massive migration (43% migrants by the 2011 Census, mainly from UP, Gujarat, etc.) fuels rapid growth, straining infrastructure. (Migration to Mumbai, Thane from other states slows down, 2014) People migrate to Mumbai for better jobs, higher wages, healthcare, and education, drawn by its economic opportunities. Migrants are often young (average age 20-21), with a significant male majority (64%), seeking work in the city, says the Rosset geography department. (Migrant labourers in Kerala, 2023) Mechanisation in agriculture and rural economic distress push people towards cities like Mumbai. (Bhattacharjee & al., n.d.) A 30-year roadmap (2025-2050) aims for net-zero emissions, with a focus on sustainable buildings, waste, green spaces, energy, and transport. (Mumbai Climate Action Plan, 2022) Strategies include reducing energy use, promoting the use of green materials, and adapting existing structures. Tackling massive daily waste (7,000-7,500 tonnes), including significant plastic, through circular economy principles and reducing drain dumping. (A Culture of Circularity: Driving Social and Behavioural Change for India's Urban Waste Transition, 2025) Managing sprawling growth through planned suburbanization (like past expansions in Chembur, Salsette) and integrating new development sustainably.

Ahmedabad

Ahmedabad manages migration and sustainability through rapid urbanisation, attracting migrants through economic growth (textiles, IT), but faces challenges in housing and services. Around 74 lakhs in the city, with metro area growth around 2-2.4% annually (as of 2022-23). Ahmedabad district is highly urbanised (84% in 2011) and experiences significant labour migration, which drives growth. (Ahmedabad City Population 2026 Literacy and Hindu Muslim Population, 2026) Slum populations absorb much of the migration, with high growth rates; a 2018-19 survey identified over 8,000 homeless persons, but shelter capacity was far less. (A STUDY OF SHELTERS FOR THE URBAN, n.d.) Significant urban poverty reduction in Gujarat (Ahmedabad's state) from 28% (1993-94) to 10% (2011-12). (Bhatkal et al., 2015) CRCAP aims for net-zero emissions by 2070 through renewable energy, efficient water/waste management, and low-carbon transport. Ahmedabad Municipal Corporation (AMC) has provided public utilities and non-eviction guarantees to more than 13,000 slum households

since 1995. (Bhatkal et al., 2015) Civil society groups like SEWA (Self-Employed Women's Association) have organised informal workers, though government collaboration has become strained. Civil society groups like SEWA (Self-Employed Women's Association) have organised informal workers, though government collaboration has become strained. Focus on sustainable urban transport (SDG 11) to improve access to services, despite the challenges posed by rapid motorisation. Efforts to provide basic services (electricity, water, sanitation) to slum dwellers are ongoing, but the design and location of shelters for circular migrants remain problematic.

Bangalore

Bangalore's rapid growth, driven by migration for employment (especially in the IT/industrial sectors) and education, strains resources, making sustainable management crucial, with statistics indicating a population of over 13.6M (2023) and high congestion. (Vivan, 2025) Karnataka has Master Plans for only a fraction of Urban Local Bodies (ULBs) and a few City Mobility Plans (CMPs). Focus on Water Sensitive Urban Design (WSUD) for stormwater/groundwater retention, crucial for drought/flood resilience. Initiatives in energy-efficient buildings and transportation aim to reduce the carbon footprint, with research focusing on sustainable transitions. Migrant worker housing in fringe areas requires planning based on key priorities (e.g., affordability and proximity).

4.1.5 Chennai

Chennai's migration patterns contribute to significant population growth and urban sprawl, creating challenges for balancing sustainable urban development. Approximately 85,000 migrant labourers arrive

in the city daily as part of the "floating population". (Five-six million people on the move: Interstate migration balloons in India, 2017). Interim targets include a 1% reduction by 2030 and a 40% reduction by 2040. Chennai has one of the lowest per capita water availabilities among India's large cities and faces water governance challenges and climate change vulnerabilities. (Thangamayan et al., 2019, pp. 79-83) The disposal of solid and biomedical waste is a major problem, with municipal dumping yards such as Kodungaiyur and Perungudi degrading the local environment.

Jaipur

Jaipur is one of India's fastest-growing cities and the "primate city" of Rajasthan, acting as a major hub for education, employment, and tourism. This has created a significant "pull effect," resulting in high levels of rural-to-urban migration, predominantly from within the state. The city is participating in programs like the "Sustainable Cities Integrated Approach Pilot" (SCIAP) to strengthen planning and resilience. This includes developing a comprehensive

Greenhouse Gas (GHG) inventory and a Sustainable City Strategy (SCS). Improving urban mobility is a high priority, with a focus on sustainable transport modes (e.g., metro systems, improved bus routes), congestion control, and the creation of pedestrian-friendly spaces. Initiatives aim to improve water supply and wastewater management through public-private partnerships (PPPs) and advanced technologies. Jaipur collaborates with national and international organisations to exchange knowledge, build capacity, and access climate finance.

Hyderabad

Hyderabad has a large migrant population, attracted by its IT boom and economic opportunities, which both drive growth and pose a planning challenge. The city aggressively protects natural water bodies (lakes) and integrates green corridors to prevent encroachment and ensure ecological balance. Government Order 111 (GO 111) is a key policy in preserving sensitive catchment areas and green zones. To reduce traffic congestion and pollution, measures such as promoting electric vehicles, extending the metro network, and building a public transport system should be implemented. There is a rise in green architecture, renewable energy, particularly solar power, and in waste management planning.

Pune

Pune manages migration and sustainability through its Smart Cities Mission, focusing on infrastructure expansion, public transport (BRTS, Metro), road improvements, and planning future tunnels to ease congestion driven by population growth and economic activity. Developing better public areas, integrating waste management (e.g., around sorting centres) to formalise processes and improve urban aesthetics and emphasising participatory governance and community involvement in planning sustainable projects.

Surat

Rapid population growth driven by industrialisation (textiles, diamonds) puts immense pressure on resources and infrastructure. The susceptibility to climate shocks (e.g., floods, heatwaves) strains services such as waste and water management. Surat manages rapid migration and advances sustainability through proactive strategies, such as NITI Aayog's pilot project for Surat, which focuses on regional economic master planning, treats the city as a growth hub with sustainability at its core, and moves beyond reactive urban management. Aiming to be India's first 'eco city', targeting significant carbon emission reduction, developing the Surat Metro, and implementing Integrated Traffic Management Systems (ITMS) for efficient movement, alongside promotion of Non-Motorised Transport (NMT) for lower-income groups.

Findings And Discussion

The study finds that migration drives urban growth but also poses several challenges, including informal settlements, sanitation, poor housing, access to clean drinking water, traffic congestion, health care, and environmental degradation. Rapid urbanisation has increased the pressure on local governance and basic services. At the same time, there is a lot of evidence from smart city initiative programmes and Public Private Partnerships demonstrating the need to improve waste management, public transportation and service delivery. The findings also suggests that need for effective waste management, proper housing, sanitation, green infrastructure and public transportation. Strengthening Smart City initiatives and PPPs with greater transparency, inclusivity, and sustainability will be essential for achieving resilient, equitable, and environmentally sustainable urban development.

Recommendations

Based on the findings of this study, several recommendations can guide efforts to achieve sustainable cities and manage migration. These suggestions were used to address challenges related to infrastructure, environmental sustainability, governance, and financial constraints, while ensuring the creation of better, more inclusive, and more resilient urban spaces. Urban sprawl should be controlled through zoning regulations and better public transit connectivity to reduce congestion and promote compact, walkable cities. Furthermore, urban planning must integrate green spaces, water management systems, and climate-resilient infrastructure to address environmental concerns. The government should focus on green buildings and sustainable waste management systems. Expanding recycling programs, enhancing waste segregation, and building composting infrastructure will mitigate environmental degradation. Additionally, adopting circular economy models can reduce waste generation and promote resource efficiency. The public-private partnerships model can play a crucial role in scaling up infrastructure projects, particularly in waste management, water supply, and transportation.

Conclusion

The study concludes that sustainable city-building and migration management are closely interconnected. Rapid urbanisation has intensified challenges such as housing shortages, inadequate infrastructure, waste management issues, air pollution, and limited local governance capacity. However, integrated planning, technological innovation, smart city initiatives, public–private partnerships, and participatory governance offer significant opportunities for sustainable urban development. Effectively managing migration through

Inclusive Urban Policies Can Strengthen Economic Growth, Social Cohesion, And Environmental Sustainability. Achieving Resilient And Liveable Cities In India Requires Coordinated Efforts Among Governments, The Private Sector, And Communities.

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