

## CHAPTER 27

### Balancing Spatial Expansion and Socio-Economic Inclusion in Peri-Urban Area: A Case Study of Nashik

*Ramakrishna Nallathiga<sup>1</sup> and Nikita Kishor Raut<sup>2</sup>*

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#### ABSTRACT

Spatial expansion of cities exerts a lot of pressure on natural resources and socio-economic development in peri-urban areas. Now addressing these issues in planning process by result in unsustainable and exclusive development. Nashik has come a long way with rapid urbanization driving its spatial expansion while increasing the peri-urban area, witnessing great socio-economic and environmental challenges. This research discusses the fast-changing nature of spatial growth and socio-economic changes while investigating issues of socio-economic disparity and sustainable development in the peri-urban areas of Nashik. The paper analyzes spatial trends of growth, demographic change, infrastructural deficiencies, and socio-economic inequalities therein and comes out with issues impacting peri-urban transitioning areas. The research employed mixed-method strategies i.e quantitative and qualitative methodologies: spatial analysis through GIS and socioeconomic assessments through household surveys and interviews. It contains structured household surveys that indicate demographic trends, standard of living, and access to basic needs while at the same time holding interviews with town planners and city officials to learn how governance and policy frameworks deliver. The results expose the adverse impacts of uncontrolled urban expansion, which include the loss of agricultural land, lack of infrastructure, housing affordability problems, and socioeconomic isolation of poorer citizens. The study finally links best practices and case studies to develop an integrated planning framework that places spatial development strategies in focus with socioeconomic responses, particularly concerning equal access to resources, infrastructure, and opportunity.

**Keywords:** Peri-urban development; Spatial expansion; Socio-economic inclusion; Urban-rural linkages; GIS.

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#### 1.0 Introduction

##### 1.1 Background

In fast-developing urban areas such as Nashik, urban sprawl has drastically altered peri-urban regions, which are transitional zones between rural and urban environments.

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<sup>1</sup>Corresponding author, School of Real Estate and Facilities Management, NICMAR University, Pune, Maharashtra, India (E-mail: [nramakrishna@nicmar.ac.in](mailto:nramakrishna@nicmar.ac.in))

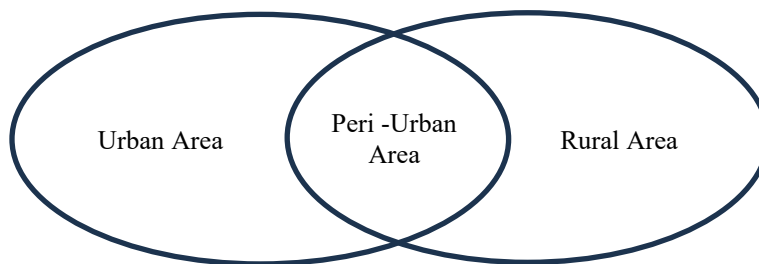
<sup>2</sup>School of Architecture and Planning, NICMAR University, Pune, Maharashtra, India

Triggered by population growth, migration, and industrialization, these regions have quickly transformed from agricultural to urban land use. Informal in nature, with mixed-use development and inadequate connectivity, unplanned expansion has caused socio-economic and spatial inequalities, limiting access to basic services, housing, and employment for poorer segments of the population (Chhangani, 2023).

## 1.2 Definition

The terms of the Peri- Urban have evolved from the word ‘peripheral’ (Janakarajan, 2010). Peri- urban regions are a phase of an area which falls between rural and urban; that is, they afford features of both classes of grounds. The general meaning of the peri-urban area refers to a dynamic zone that is presumed to be more than the peripheral or the edge separating an urban centre from a non-urban centre (Ravetz, 2013).

**Figure 1: Peri -Urban Area**



*Source: Compiled by authors*

## 1.3 Aim

To investigate and propose integrated planning strategies for achieving sustainable development in the peri-urban areas by balancing spatial expansion with socio-economic inclusion.

## 1.4 Objective

- *To analyze the current state of peri-urban development:* Explore spatial scale and distribution, populational changes, infrastructural gaps and socio- economic inequalities in the peri-urban Nashik.
- *To examine the adequacy of physical infrastructure and land use:* Examine the challenges faced regarding the role of infrastructure provision and land use planning for socio economic inclusion of peri-urban areas.
- *To identify successful case studies and best practices:* Examine and critique different experiences of integrated planning to enable sustainable peri-urban development from around the world.

- *To evaluate obstacles and challenges:* Determine what concerns the planning of physical infrastructure and socioeconomic inclusion in peri-urban areas.
- *To develop a conceptual framework for integrated planning:* Suggest an intervention strategy that combines the provision of structural physical infrastructure with socio economic interventions especially for peri urban areas.

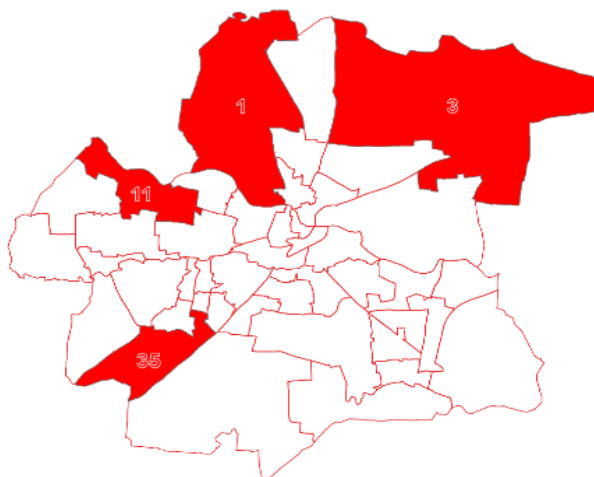
### 1.5 Scope of work

Urban land use expansion in peri-urban areas is an important challenge to expanding cities, both as an opportunity and threat for sustainable development. It usually occurs through rapid expansion of urban land uses, contributing to displacement, increased socio-economic disparities, and environmental degradation (Salem, 2024). Though peri-urban regions are becoming increasingly prominent in urban planning, they have limited research attention. The majority of studies are concentrated on metropolitan cities, leaving the smaller urban peripheries and their distinct issues unexplored. Many reviews also have a narrow spatial focus, prioritizing land use or infrastructure over socio-economic interactions. This study attempts to fill this gap by formulating a comprehensive framework for peri-urban Nashik, tackling urban sprawl, socio-economic requirements, and environmental sustainability.

### 1.6 Site overview

As one of the growing urban centers in Maharashtra state, peri-urban landscapes of Nashik are undergoing rapid urbanisation. Nashik has a geographic area of about 264.23 km<sup>2</sup> wide and is located on the Mumbai-Agra National Highway – NH 3 and within the Mumbai-Pune-Nashik industrial triangle.

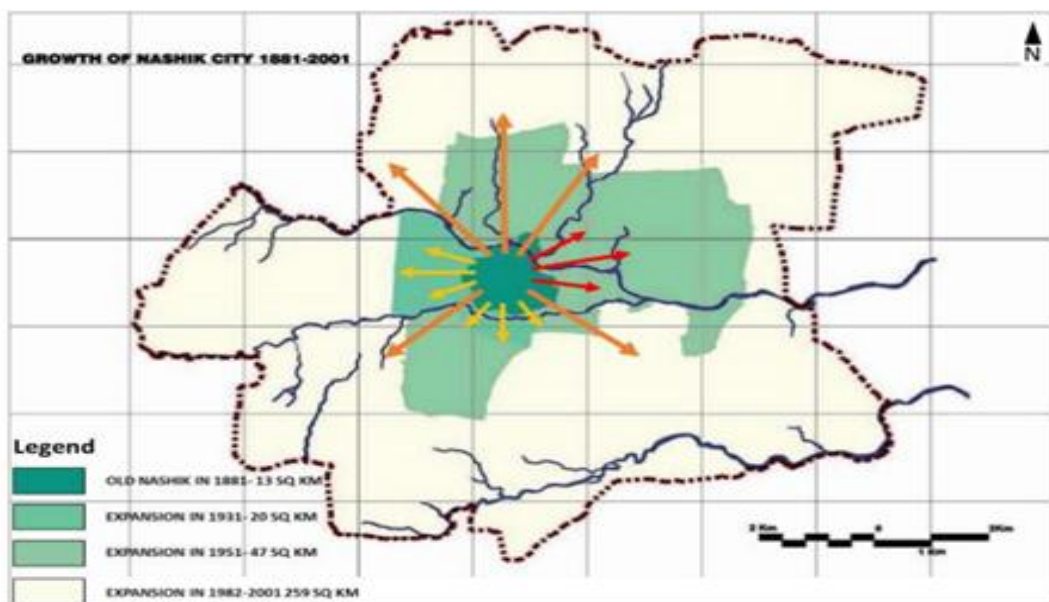
**Figure 2: Growth of Nashik City 1881 -2001**



*Source: DP Report of Nashik 2016 -36*

This positioning has triggered tremendous growth of the urban area, the city's population is now over 1.8 million as of 2021 (Nashik Municipal Corporation, 2021). Adgaon, Ambad, Makhmalabad and Gangapur localities in the peri-urban areas of the city continue to undergo lot of land-use changes where agricultural lands are being converted to residential and industrial use to cater for the increasing population density and industries in the city. Peri-urban Nashik is marked by stark socio-economic inequalities, with marginalized groups such as migrants and low-paid workers being deprived of basic amenities like water, healthcare, and education. Increased luxury gated community development in juxtaposition with informal settlements has widened inequality, and socio-economic zones are clearly delineated. The affordability of housing is still a big challenge, with real estate development leading to the displacement of slum dwellers. Although Nashik is under the Smart City Mission, its services and infrastructure are not able to cope with the needs of the fast-growing peri-urban population (Smart City Nashik, 2022).

**Figure 3: Key Focus Area (Ward Wise)**



*Source: Compiled by authors*

### 3.0 Literature Review

#### 3.1 Peri-urban development

Peri-urban regions are defined as areas between the conventional urban and rural regions and is therefore an area of high spatial growth and land use dualism. When cities and

towns expand, their hinterland comes under increasing social, economic and physical pressures due to conversion for real estate, infrastructural requirements and the demographic reshuffle. These areas usually undergo unregulated growth, which leads to socioeconomic difficulties like inequality, marginalization, and land-use conflicts (Allen, 2003). Sustainable peri-urban development therefore requires a symbiotic planning approach to both spatial and social-economic growth and developments that allows for infrastructure amidst the denial of agricultural land (Simon, 2008).

### **3.2 Spatial expansion and its impacts**

The Causes of urban sprawl; population pressure, job opportunities, speculation on real property and availability of sizable tracts of land for development. In India, the peri-urban contexts are usually vulnerable to the speculation and the duality of rural land for residential or commercial purposes results in an unplanned growth (Pradhan, 2013). Researchers have established that this expansion occurs without infrastructure services hence putting pressure on smaller local governments to provide infrastructure services (Shaw, 2007).

#### **3.2.1 Impact on land use and agriculture**

The growth of cities such as Nashik toward their surrounding peri-urban zones leads to change of land use from agriculture to urban. This not only makes fragmentation of agriculturally rich land but also decreases the food security factor (Satterthwaite, 2010).

#### **3.2.2 Challenges in infrastructure provision**

When the cities grow the provision of the necessary amenities for the public such as roads, sewer systems, water supply and several others are very daunting. The findings also show that in many cases, peri-urban areas are poorly serviced in terms of physical infrastructure relative to central business districts (Allen, 2003). This leads to an unequal distribution of services, and most people living in peri-urban areas will at times do without some basic services (Narain, 2009). Proper planning strategies are required in order to supply infrastructure as a support structure of spatial growth, as well as developmental lines that are relevant to the populations found within the peri-urban territories (Narain, 2010).

### **3.3 Socio-economic inclusion**

Population in peri-urban areas is a mixed population that comprises of the old rural dwellers, the new settlers from core urban areas and squatters. This diversity poses a problem for social integration because these groups require different successful integration solutions.

#### **3.3.1 Employment and livelihoods**

Employment was found easily in peri-urban areas employing sectors that include construction, manufacturing and services. However, the migration from rural to urban areas is

characterised by some form of tension because the change from farming to taking up non-farming employment is occasioned by the growth of urban areas. It is thus essential for integrated planning to factor how it can establish new employment that can effectively accord the peri-urban society, especially women and the urban poor a chance (Mondal, 2021).

### **3.3.2 Housing and informal settlements**

Housing in peri-urban areas is mainly regarded as being of an informal nature, for a sizable percentage of the population lives in slums or other forms of informal shelters (Shaw, 2007). Due to high costs of houses, people are forced to construct their own houses in an improper way hence leading to increase in number of people being evicted from their houses or compounds and lacking in basic facilities (Dupont, 2008). Any plan designed towards sustainable peri-urban development should therefore incorporate issues of housing and tenure security to improve people's position in the economic sphere of the society (Fox, 2014).

## **4.0 Results and Discussions**

### **4.1 Integrated planning approaches for peri-urban development**

The tension between spatial growth and economic-social equity can only be well managed through integrated planning solutions. Use of conventional sectoral strategies for planning that either promotes urban expansion or protects the rural areas fail to capture peri urban dynamics (Narain, 2009). As a result, more comprehensive and spatial, environment and socio-economic strategies are important for sustainable development (Kim, 2014).

### **4.2 Strategies for managing spatial expansion**

With regard to physical planning several policies have been advanced to control spatial expansion in the peri-urban areas such as the use of the green belt policies, the land pooling policies, and the use of zoning. These strategies seek to check the undesirable urban development but encourage efficient compact utilization of resources in the provision of urban areas (Allen, 2003). In Indian scenario more specifically, the policy tool of land pooling schemes has indicated significant effectiveness in including rural land in urban development plans besides paying a fair price to the rural landowners.

### **4.3 Promoting socio-economic inclusion**

Policies aimed at promoting socio economic equity in Peri urban areas need to consider spatial and social aspects of the urban transition. This encompasses housing accessibility, increased access to services and equal employment opportunities (Fox, 2014). Therefore, in line with this study decision-making process that involves peri-urban communities is important so that development reflects the needs of the people.

## 5.0 Conclusions

In conclusion, as Nashik's population increases, well-coordinated land planning and management are necessary in order to meet rural and urban demands sustainably. Through combining inclusive planning, employment, and housing, peri-urban development can benefit all the residents and not only the elite. The study analyzes new issues in service delivery, land utilization, and socio-economic integration in Nashik's peri-urban zones. Following the analysis, it will set out a policy framework to connect spatial planning and socio-economic objectives for sustainability. The suggestions shall be based on accessibility, infrastructure, public involvement, and proactive land utilization policies to ensure these issues are effectively addressed.

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