



## PERI-URBAN REGIONS OF INDIAN CITIES: IMPEDIMENTS AND CONCERNS

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### -----ABSTRACT-----

*In Indian cities, peri-urban zones, often known as the transitional areas between urban and rural settings, are seeing fast growth. These areas are distinguished by their intricate socioeconomic dynamics, fast urbanisation, and prevalence of informality. This study looks at the difficulties that peri-urban zones of Indian cities confront, concentrating on the obstacles and worries that exist in these areas. The research consisted of a literature evaluation followed by case studies to determine the most important problems and worries. According to the findings, peri-urban regions in India confront a number of challenges, the most significant of which are inadequate infrastructure, unplanned development, weak governance, and environmental degradation. Concerns include things like how land is used, where people live and work, their health, their children's education, and other public services. The paper comes to a close with a discussion of the implications of these challenges and concerns, as well as offering recommendations to address them in a manner in which city managers can play an important role and track their thought process regarding sustainable planned development for respective cities.*

**KEYWORDS:** *Urbanization, Rural-urban interface, Infrastructure, Land use, Sustainability*

### INTRODUCTION

In the past two decades, India's peri-urban areas have experienced fast urbanisation and population increase, resulting in a variety of issues due to migration and population shifts in search of better employment prospects. In addition, the establishment of industries in capital cities influences the residents' standard of living and well-being. Cities is increasing its development borders and projected ring road, which would significantly improve communication with nearby cities. The urban development borders of their respective cities have expanded. Changes in a development's boundaries create complications. Therefore, land values grew in peri-urban regions, and in-migration contributed to peri-urban densification. Unplanned expansion results in congestion and makes little use of building codes. Rapid urbanisation has put strain on the natural and physical environment, as well as the social and economic fabric of these communities, resulting in the aforementioned difficulties. Inadequate infrastructure is one of the major obstacles encountered by peri-urban communities. The absence of essential utilities such as water, sanitation, and waste management negatively impacts the health and well-being of the inhabitants in these places. Inadequate transportation infrastructure also makes it difficult for locals to obtain essential services such as healthcare and education.

### NEED OF THE STUDY

It is essential to identify and address issues in peri-urban areas. Rapid urbanisation, environmental issues, social inequality, and economic growth are some of the key reasons why it is crucial to appreciate the difficulties these regions face. As cities continue to grow in size and population, peri-urban regions are typically the first to see its impacts. In certain locations, a lack of necessary infrastructure and services may contribute to socioeconomic disparities. Moreover, peri-urban areas are usually populated by vulnerable individuals who are disproportionately impacted by environmental issues such as pollution and land degradation. Addressing these



issues requires a comprehensive understanding of the problems faced by peri-urban regions, which may assist in the design of solutions to support sustainable urban expansion, reduce social inequality, promote economic growth, and protect the environment. By identifying challenges in peri-urban regions, policymakers and urban planners may customise solutions to fit the requirements of peri-urban populations and promote a more inclusive and sustainable future.

## **METHODOLOGY**

This research followed the evaluation of secondary literature sources that the study was based on included reports, articles, government orders, papers, and consultations pertaining to peri-urban areas in India. This was followed by the actual research. In order to have a deeper understanding of the challenges that are faced in India's peri-urban areas, the relevant literature has been subjected to a stringent study. After that, those concerns were enumerated in a methodical manner along with their significance to the situation, and at long last, sufficient suggestions were provided as a supplementary step in this direction.

## **OVERVIEW OF PERI-URBAN AREAS OF INDIA**

In India, peri-urban regions are locations that are transitional in character and positioned between urban and rural areas. These regions are characterised by the cohabitation of urban and rural populations, as well as a variety of commercial enterprises and lifestyles. The rapid growth of India's peri-urban areas is a direct effect of the country's increasing (Tiwari, 2019) urbanisation and population. According to the 2011 Census, India's urban population rose at a rate of 31,8 percent between 2001 and 2011. This expansion (The Control of Peri-Urban Areas and the Development of Small Towns, n.d.) might be linked to the movement of numerous people to peri-urban regions in search of employment opportunities and better living conditions. Peri-urban areas in India (Godha, 2018) are characterised by a diversity of economic activity, including agricultural, small-scale industry, and service industries. These endeavours benefit the local economy. On the other hand, these activities are usually conducted in an unplanned and unmanaged way, resulting in environmental harm and social inequities.

Poor infrastructure, environmental degradation, social inequality, lack of economic possibilities, poor housing, and restricted access to services (Wandl & Magoni, 2017) are only some of the issues plaguing the peri-urban areas of India. To address these challenges (Rajput, 2021) successfully, a comprehensive plan is necessary. This approach should encompass the provision of fundamental services, the promotion of sustainable urban design, and the development of social and economic infrastructure in peri-urban areas. The expansion of urban regions in India's peri-urban areas has both positive and negative effects. Despite the fact that these regions face significant hurdles (Iz A M U Ddin Kh A N Associat, n.d.) resulting from urbanisation, they also have the potential for sustainable development. Peri-urban areas have the potential to serve as a buffer zone between urban and rural regions, to promote agricultural and ecological sustainability, and to offer new opportunities for economic growth and innovation. Additionally, peri-urban locations might provide fresh economic development and innovation prospects.

The expansion of the peri-urban region depends greatly on the interrelationships (Sahana et al., 2023) it maintains with the urban and rural areas. However, if this interconnectedness is not understood and acknowledged, insufficient planning measures may be made for these sectors. Due to the intrinsic duality and complexity of these cities, they provide a unique set of critical concerns that are not present in surrounding (WP 425 - Mrinalini Goswami, n.d.) rural or urban communities. These obstacles (Mondal & Sen, 2020) are specific to these locations. Open sewers in the neighbourhood add to the problem of incorrect solid waste management in the peri-urban districts of Chennai. It has been seen that the water table is lowering and that saltwater has invaded the region. The degradation of peri-urban wetland habitats has led to an increase in the frequency and intensity of urban flooding. In Ahmedabad, wastelands are being utilised as improvised housing by the indigenous populace.

There is usually considerable competition for accessible water supplies in the periphery. Environmental issues (Allen, 2003), such as air and groundwater pollution (Goswami & Institute for Social and Economic Change, n.d.), produced by businesses located in peri-urban areas and affecting agriculture in the region have also been observed. It is common known that Patna's waste is dumped in low-lying areas on the outskirts of the city. Due to the lack of sewage treatment infrastructure in peri-urban areas, ground water pollution is an issue. Because Guwahati has a distinct natural environment, the difficulties (Periurbanization in India, n.d.) it meets are likewise unique. For instance, high rise residential complexes have encroached into environmentally (Dupont



et al., 2005) fragile regions, such as agricultural fields and water bodies. Guwahati also has a distinct population. Consequently, the decline in the region's wetland, woodland, and arable land areas (Mondal & Banerjee, 2021) is a serious reason for worry. In addition to the impact of the territory's declining plant and animal species, the upheaval of the indigenous people that historically inhabited these places is one of the issues the region confronts.

The rising construction in these places has not only affected the environment, but also the economies of the neighbouring communities. Due to a decline in the amount of wetland habitats, urban flooding has grown. Overuse of the region's farmed water resources (Chetry, 2022) has resulted in a deficiency, as a result of the expanding population. Despite the fact that Chandigarh is a developed city, it has a distinct peri urban growth that is accompanied by identical issues. These difficulties include a loss of agricultural land and a 50 percent decline in plant cover, both of which have an effect on the ecosystem. Due to the ongoing degradation of forest land, the lake's silt load has significantly increased. In the city's peri-urban regions (Carruthers & Ulfarsson, 2003), similar problems, such as the destruction of 53 percent of the peri-urban wetlands, are being encountered. As a result of significant siltation in peri-urban wetlands and changes in land use, the flood-resilience effectiveness of the wetlands has decreased by 65 percent. Concentrated on the periphery at higher altitudes for groundwater extraction. Some of the most major water sources (Kumar & Sinha, 2019) have been contaminated by the dumping of industrial waste into surface water bodies. The pollution of the aquifer is a prevalent problem in the region. A rise in the number of shallow tube wells has resulted in a high rate of abstraction (Das & Angadi, 2021) and a precipitous drop in water levels (Narain, 2009) during seasonal transitions.

## **IDENTIFIED CHALLENGES IN PERI-URBAN AREAS OF INDIA**

The peri-urban regions that surround urban centres in India are up against a number of obstacles. Some of the most important difficulties are as follows:

**Poor Infrastructure:** Peri-urban regions frequently lack essential infrastructure including roads, power, water supply, and sanitary services. This is especially true in the United States. This results in deplorable living conditions, damage to the surrounding ecosystem, and potential health risks.

Deforestation, soil erosion, and pollution are all forms of environmental degradation that have been brought about as a direct result of the rapid urbanisation that has taken place in peri-urban regions. This has a negative impact, not only on the health of the local population but also on the local flora and animals.

Peri-urban communities frequently feature a mixed population consisting of people from both rural and urban settings, which can result in socioeconomic inequality. It's possible that people living in low-income areas don't have access to fundamental amenities like education, healthcare, and sanitation.

**Inadequate Housing:** A large number of people living in peri-urban regions make their home in informal settlements. These settlements lack the suitable housing as well as the necessary infrastructure. These communities have a high risk of being affected by natural catastrophes including fires, floods, and landslides.

**Absence of Formal Job Possibilities:** In peri-urban regions, there is frequently an absence of formal employment opportunities, which results in high rates of unemployment and poverty. Residents in peri-urban locations may have a more difficult time gaining access to essential services like healthcare, education, and public transportation than residents of more central metropolitan areas. As a result, this leads to social marginalisation as well as limited chances for economic and social mobility.

## **CONCLUSION**

Significant obstacles and concerns impede the development and progress of the peri-urban regions around Indian cities. The report suggests a number of actions to address these issues, such as upgrading infrastructure, strengthening governance, supporting sustainable land use, and enhancing public services. This study's findings have significance for policymakers, urban planners, and practitioners addressing the difficulties of India's peri-urban regions. Poor infrastructure, environmental degradation, social inequality, lack of economic possibilities, poor housing, and restricted access to services are only some of the issues plaguing India's peri-urban regions. To address these challenges successfully, a comprehensive plan is necessary. This approach should encompass the provision of fundamental services, the promotion of sustainable urban design, and the development of social and economic infrastructure in peri-urban areas. This will be handled by a variety of parties, including town planners, city managers, researchers, and land developers, since it will enable them to establish whether or not



their development goals align with the master plan. In addition, these findings may be useful for determining how to allocate resources to improve the supporting infrastructure and carrying capacity of peri-urban locations. In addition, peri-urban regions must develop plans for ecologically responsible and socially fair growth.

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