

Neccessity for Methodology for Identification of Fringe Areas Having Potentiality to Form a City Region

Ar. Poorva^{1*}, Dr. Subhrajit Banerjee²

¹Research Scholar, Faculty of Architecture and Planning, AKTU, Lucknow, India

²Professor, Faculty of Architecture and Planning, AKTU, Lucknow, India

Email ID: Banerjee.Subhrajit@foaaktu.in;

*Corresponding author:

Ar. Poorva

Email ID: Ar.Poorva@foaaktu.in

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ABSTRACT

As the urban areas are overspilling beyond their carrying capacity in terms of population the growth of the city tends towards Peri-Urban or fringe areas. These fringe areas are naturally converting to a dynamic transformation zone have enormous potential to play a positive role in enhancing urban sustainability at regional and global level. In the similar line of thought, SDG 11.A aims at supporting positive economic, social and environmental links between urban and peri-urban to strengthen Regional and National planning. The challenge of integrating fringe areas to city-region aims to overcome the differences of approach of Urban and Rural planning, utilizing the fringe potentiality and functions to achieve multifunctionality. Development potentiality, which refers to opportunities and possibilities for growth, progress and improvement from various perspectives, including social, economic, environmental and infrastructural development, is the inherent ability or capacity of a region or area for positive and sustainable development. This research paper aims at ascertaining the need for methodology for identifying the fringe areas that are having a potentiality to form a region.

Keywords: Fringe Areas, Urban-Rural Interface, SDG 11.A, Infrastructural Development

1. INTRODUCTION

Fringe areas merge the features of both Urban and rural areas, acting as a transitional space and sunplanned growth, lack of regional connectivity, environmental degradation and infrastructure issues. The fringe areas are a inseperable part of a city, which is inevitably involved in the process of urban expansion and shrinking. Spatial structure, land use, ecological landscape and planning of the urban fringes have always been the concern areas of the related scholars.

The phenomena of peri-urbanization, has severe repercussions, making the fringe areas highly unsustainable (Simon, 2008). The inorganic suburban growth endangers the existing balance of social, infrastructure and economic spheres and creates hindrances towards sustainable development. Existing urban infrastructure is not capable of catering the inhabitants of Urban Areas resulting in low liveability (Howlader, 2020). Fringe area due to its proximity to Urban areas has unutilised potential for development (Rauws, 2011). It can be concluded that peri-urbanization process leads to significant challenges to the fringe areas and prevents the full utilization of fringe areas' development potential. Addressing these issues via a scientific method for integration of the fringe area with urban area is crucial for fostering inclusive development.

Despite historical perspectives of a rural–urban binary, such as in Williams (1973) description of the potency of ‘city’ and ‘country’ in a long-standing cultural and political discourse, increasingly fringe studies recognize these places as increasingly hybrid spaces of multi-functionality (Champion and Hugo, 2003; Holmes, 2008) perhaps as elements of the “urban phenomenon, taken as a whole” (Lefebvre, 2003: 53) or even as just another particular process of urbanization beyond the limited analytic potential offered by the ‘city’ alone (Rickards et al., 2016). The fringe areas, which were previously seen as a rural-urban binary, are now recognized for their potential as hybrid, multifunctional spaces that contribute dynamically to the broader processes of urbanization and development.

The In-migration of the rural population due to emergence of new economic activities is transforming the fringes, a change is been observed in land use and occupational patterns, reduced farm activities, and growth of built structures (Aijaz, 2019). The primary reason for in-migration to fringe areas is the high living costs in the Urban areas. The actual inhabitants and in-migrating inhabitants both benefit from the proximity to the Urban area, however there are severe impacts of Urbanization visible in these fringes. Fringe areas of the Tier II metro cities in India have long been neglected, with basic public services and infrastructure lagging behind more affluent central and northern regions. There is a need for efforts to be made to understand and manage the transformation occurring in Fringe areas. Integrating these fringe areas with the Urban areas via Regional planning approach will lead to inclusive development of the fringe areas and will increase the livability of the fringe areas. It can be inferred that inhabitants of the fringe areas benefit from urban proximity, the fringe areas face adverse impacts of urbanization, such as inadequate public services and infrastructure. There is also need for understanding and managing these changes, proposing regional planning as a strategy to integrate fringe areas with urban areas, fostering inclusive development and improved liveability.

2. GLOBAL SCENARIO OF FRINGE AREAS

Considering the Global scenario, A total of 68% of population will live in the fringe areas by 2030. Peri-urbanization was originally formulated in the context of rapidly growing African and Asian cities and slowly it was applied globally. Fringes around the globe are facing issues of inadequate infrastructure and services coupled with intermixes of non-conforming and conforming uses of land, commercial development in piecemeal manner and Haphazardly developed slums.

The fringe areas in Africa are places of possible disaster outbreaks, infrastructural deficits and other social hazards due to their general lack of planning and institutional integration (Chirisa, 2010). Lack of clear policies on issues of Urban Sprawl in African Countries, because of which the fringe areas were developing spontaneously and Haphazardly. Table 1 describes the issues and concerns of the various fringe Areas of Africa.

Table 1 : Issues and Concerns of Fringe Areas in Global Context

Peri –Urban Areas (Fringes)	Issues
Harare, Zimbabwe	• Informal settlement • Lacked basic Infrastructure services such as Water Supply, Sewage causing disease such as Cholera. • 80% of households could not afford primary water treatment.
Lusaka, Zambia	• 60% population accommodates in Slums and informal settlements • 50% households lacked access to Water. • 90% households lacked access to Sanitation
South Africa	• major cities are destinations of immigrants from poorer countries and South Africa is one chief such destinations. • Lack of Water supply and Sanitation Infrastructure .
Kibera, Kenya	• 80% population is living in slum-like situation. • The population density is 2000/hectare. • there is no garbage collection
Ezbet El Haggana, Egypt	• settlement is close to Nasr City, Ezbet Al-Haggana is one of the most marginalized and impoverished areas. • Lack drinking water with the only source being water-carrier pickups. • most houses of Ezbet Al-Haggana lack electricity as well as sanitary sewerage.

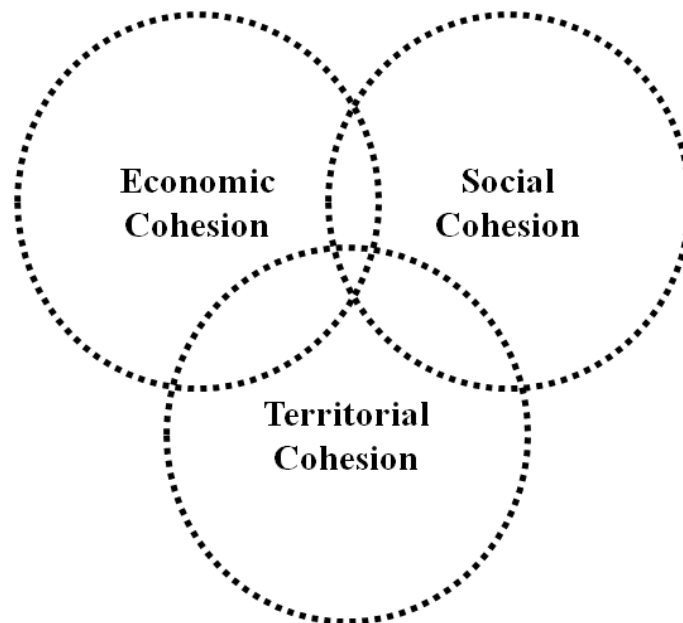
Source: Generated by Author

The above table depicts deficit of adequate infrastructure, rise in informal settlements, High population density, this is due to lack of proper governance institutions and capacity. To cater the issue regional planning emerges as a potent and capable tool for transforming peri-urban zones into a inclusive region, via integrating it the urban areas (JWG, 1976).

Similarly in Romania, Europe disparities were existent in peri-urban and Urban Areas. Issues such as unplanned development, youth unemployment, level of education, climate change and likely, migrant integration were existent. Hence, The European Union with a regional approach launched a Cohesion policy, this policy aimed at allocation of funds for Cohesion of Urban and Peri-urban areas. In order to achieve a balanced and harmonious development, the E.U. continues on its path towards strengthening economic, social and territorial cohesion. The European Union aims to diminish disparities

among its developed and underdeveloped regions via the Cohesion Policy (Paul, 2019). The basis of the cohesion policy is shown in the figure 1.

Figure 1: Basis of Cohesion policy



Source: (Paul, 2019)

In order to achieve cohesion, funds were allocated for European Regional Development Fund which seeks to consolidate economic, territorial and social cohesion at a regional level, described in figure 1. The economic cohesion aimed at dealing with the economic competitiveness focusing upon the need of enterprises, SMEs and competitive sectors of Romanian economy whereas the social cohesion aimed at social inclusion, inclusive growth, improve public health systems, social protection systems, and overall well-being, promoting equal opportunities, Boosting employment and enhancing access to education. Territorial cohesion emphasizes the need to connect different areas—urban and peri urban, via regional accessibility, polycentric development and infrastructural development. The cohesion policy did not yield the expected results as its absorption level was quite low the reason being the novelty of the European financing mechanism, the lack of institutions to manage these funds efficiently. This reveals that mere allocation of funds at the regional levels cannot address the issue of fringe area, a proper scientific methodology is required for the same.

In the case of South East Queensland, Australia depicts highlights three issues of interest such as Infrastructure deficiency issues in Peri-Urban areas, Integration of Regional Planning for Peri-urban areas and growth management of peri-urban communities. The major concerns were Haphazard Suburban Development, challenges of Infrastructure and access to employment and services. A need for Regional approaches that can provide governance, processes that control and distribute growth across a region and facilitate timely provision of community infrastructure and Economic activities. An approach was introduced to deal with the existent issues. It can be summarized here is a need for addressing the development issues of the fringe areas via regional planning approach.

At the global scale policy initiative such as “Urban-Rural Linkages : Framework for action To Advance Integrated Territorial Development” and New Urban Agenda have been introduced as a tool to deal with the Urban-rural linkages. The initiative Urban-Rural Linkages : Framework for action To Advance Integrated Territorial Development is a framework that aims to guide policy and planning by addressing the specific challenges of peri-urban zones, including unregulated growth, infrastructure demands, utilizing potential and the need for coordinated rural-urban linkages, which was launched by UN-HABITAT. Whereas New Urban Agenda aims at creating a framework that supports sustainable urban development, with a focus on integrating peri-urban and urban areas. Aims to utilise the potential of the peri urban(fringe) areas and create better Liveability.

3. INDIAN SCENARIO OF THE ISSUES OF FRINGE AREAS

Peri-urbanisation around metropolitan cities of India has been an emerging and apparent phenomenon in the last few decades. Any ecosystem is bound to be affected when its carrying capacity is pushed to the limits similar is the scenario of fringes areas of India. The existing fringe areas of India are undergoing a transformation and are under tremendous stress due to pressures created by urbanisation (Aijaz, 2019). Table 2 shows the Issues of fringe Areas of different City and Regions of India. The Table 2, has been created on the basis of the identified issues of the fringe areas via literature review.

Table 2: Issues of Fringe Areas

Issue	MMR	Kolkata	Lucknow	Jaipur	Gwalior	Indore
Infrastructure	Existing	Existing	Existing	Existing	Existing	Existing
Regional Disparity	Existing	Existing	Existing	Non Existing	Non Existing	Non Existing
Housing Issue	Existing	Non Existing	Non Existing	Non Existing	Existing	Existing
Haphazard Development	Existing	Existing	Existing	Existing	Existing	Existing

■ Non Existing
■ Existing

Source: Summarised by Author on basis on Literature

It can be summarised from the above table matrix that the major issues in fringe areas are Infrastructure, Regional disparity, Housing Issue and Haphazard issue. The issues of infrastructure and haphazard development are existent in all of the analysed fringe areas. The issues of infrastructure comprise of Lack of basic infrastructure and services in fringe areas such as dependancy on Ground water sources, inadequate frequency of solid waste collection, absence of IHHL in case of Lucknow. Whereas the issue of Regional disparity are existent in Mumbai Metropolitan region, Kolkata and Lucknow. Issues of Housing is existent in MMR, Gwalior and Indore, this is giving rise to informal settlements.

Even in the Mumbai Metropolitan region in the state of Maharashtra, for which a statutory regional plan is prepared by the MMRDA to control future development, the existence of fragmented and uncoordinated planning practices result in unregulated development in peri-urban areas (Aijaz, 2019). The private developers are also able to manipulate villagers with attractive prices for acquiring control over the land. Such conversions of Agricultural lands to other uses leads to unplanned and haphazard development due to lack of adequate infrastructure

In the Scenario of Hyderabad, The current master plan was limited to Hyderabad but currently Telangana has become more like a large city with inter-dependencies and more than 40% of the state living in Urban areas. The development strategy included the urban area within the Outer Ring Road (ORR), encompassing the city limits of Hyderabad; the peri-urban region extending from the ORR to the Regional Ring Road (RRR). The basic aim of this mega master plan is to address the disparities existent between peri urban areas and urban areas of Hyderabad.

In order to address the issues of haphazard growth in the peri urban areas, the Ministry of Housing and Urban Affairs (MOHUA) has planned to provide set of recommendations for extending urban planning to the peri-urban areas. It basically aimed at providing the minimum set of services and infrastructure for the peri urban areas. Ministry has also planned to incentivize the urban planning of the peri urban areas. Similarly to address the issues of peri urban areas, the 2024-25 Union Budget of India includes plans for integrated planning in peri-urban areas. It aims to develop 'Cities as Growth Hubs' through transit and economic planning, including peri-urban areas.

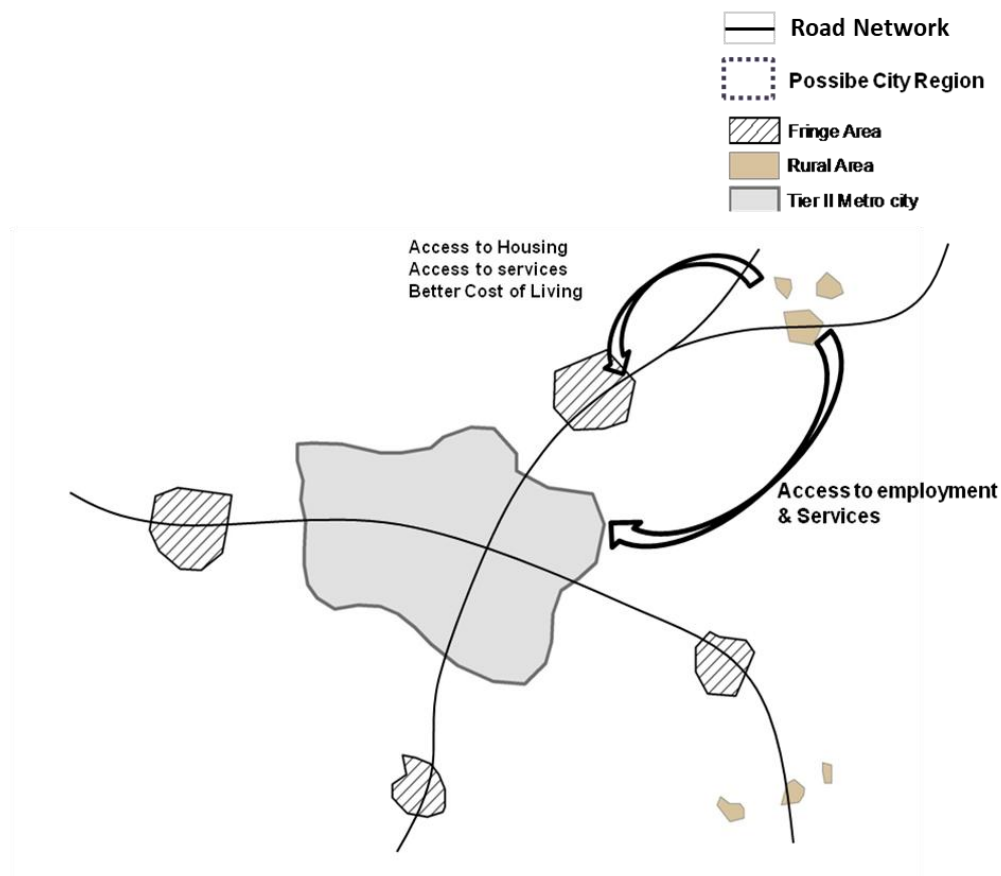
4. IDENTIFICATION OF THE FUNDAMENTAL ISSUE

Area surrounding the Development Boundary area is the Rural Area, people migrate in the search of better opportunities, eventually they grab opportunities in Municipal area of the Urban Area. To avoid daily commutation from rural areas people settle in the peri-urban areas due to better land rates, cost of Living and ease of access to the workplaces. Due to primacy, city can serve people from farther areas also, which leads to creation of multiple fringes. The potentiality of the fringe area is dependant on Liveability parameters such as Housing, Infrastructure, economic opportunities, distance from city centre, social inclusion, mobility and accessibility and security and safety.

Each of the fringe Area has a different value of potential and liveability. A person buying a house/property sees the potential does comparative analysis and chooses the better one. So there is a need to examine if a urban area has multiple fringes, which will have the maximum potential for development so that the difference between fringe and urban area is zero and a city region is formed, till the fringe becomes the part of the master plan Area. This will in turn reduce the chances of unplanned and haphazard development. Hence there is a need for a method to identify max potential fringe area so that the development process is scientific and as per necessity. The potential of each fringe Area is different, it is basically dependant on the Liveability parameters such as Stability, Healthcare, culture and environment, education and Infrastructure. Figure 2

depicts the dependency of rural area on Peri-Urban and Urban Area.

Figure 2: Dependency of Rural area on fringe and Urban Area



Source : Generated by Author

The figure 2 reveals dependency on urban and fringe area, the figure comprises of 4 fringes of a Urban area/city each fringe has different liveability levels. A migrant choosing a particular fringe for settling depends on these liveability levels. The liveability levels, discussed earlier helps in choosing a more potential fringe area. For example, Lucknow Development area has 4 fringes namely, A, B, C, D. The fringe A is located at the least distance from city centre, having better Infrastructure levels, better accessibility and security in comparison to other three fringes due to which it has more potential in comparison to other fringes.

5. NEED OF ADDRESSING THE FUNDAMENTAL ISSUE

The existent fringe ecosystems in addition to the services they provide, are crucial not only for inhabitants of fringes, but also for those in adjacent Urban Areas (CDKN, 2021). As these fringe (peri-urban) ecosystems have been long neglected to enhance development levels, and this results in significant consequences related to environmental degradation and low quality of living. Due to widespread migration to the outskirts of cities, the local government is unable to handle the alteration and administration of ecosystem services. Furthermore, the combination of economic activities such as agricultural, daily wage labor, and industrial causes competition for natural resources and an unfair distribution of risks and rewards. To cater these issues, SDG 11.A is a sub-target of the United Nations Sustainable Development Goal 11, which focuses on making cities inclusive, safe, resilient, and sustainable was introduced. Target 11.A specifically aims to strengthen regional planning by fostering positive economic, social, and environmental links between urban and peri-urban areas.

The growth of the fringe area is initiated by the growth of the mother city and depends on the push and pull factor of the mother city (Howlader, 2020). This depicts that planning of a fringe area via integrating with the Urban area via regional planning can lead to achieve inclusivity, and will help in reducing the disparity between Urban and fringe area such as infrastructural levels, social inclusion, unregulated development, lack of accessibility. The transformation of the Fringe areas reveals a change in character and the emergence of issues as a result of Urbanization, which have an impact on inhabitants' life. Urban areas also have issues, but peri-urban areas suffer more from them (Aijaz, 2019).

Via the Literature on fringe areas it can be identified that, there is a gap of relative lack of attention on equitable spatial

distribution of services and infrastructure. The transformation and evaluation of peri urban settings equitable spatial distribution, socio-spatial and economic factors should be prioritised in the planning process (Sareen, 2023).

The rapid urbanisation of peri-urban areas across India requires targeted and planned intervention to allow cities to grow in a sustainable manner (Aijaz, Guiding peri-urban transformation, 2022). The social, economic, and environmental adversities visible in many PUAs are an indication of the deficiencies in legislation, planning, and governance. As we know by 2050, 68% population will be living in the Urban Areas which is almost saturated, hence the Peri Urban (fringe) areas need to be planned. The major issues existing are carrying capacity is ruled beyond limits, occurrence of unregulated development, emergence of unplanned structures and settlements which leads to issue of services and infrastructure.

In the Upcoming 3 Decades, 67% of the world's population will live in urban areas. 90% of Urbanization will happen in the under developed areas such as East Asia, South Asia, and sub-Saharan Africa. This transformation will take place at a swift pace, leaving the capacities and resources constrained and development challenges are most intense (Sharif, 2016). This makes the relationship between Urban and fringe areas critical as the urban areas are saturated and the fringes are not having capacity to tackle the population shift and there is a lack of a development method for fringes. The urban-peri-urban continuum has a unutilized potential that needs to be used for creating an inclusive region. Planned and responsible actions are needed to utilize potential of the peri-urban areas (Sharif, 2016).

6. CONCLUSION

Tier II cities, which function as significant regional hubs, are experiencing substantial population and economic growth due to urbanization and industrialization. As core urban areas become saturated, the expansion of fringe areas into transitional zones between urban and rural settings becomes inevitable. While Urban areas display problems and deficiencies, the fringe areas are worse in this regard. The fringe areas are facing issues of development such as regional disparity, informal settlements, infrastructural deficit and haphazard development. The fringe areas require proper attention from the administrative agencies. There is an existent lack of effective legal mechanisms for planning, management, and governance. A methodology is required for addressing the issues of development and planning so that the regional discrepancy can be bridged.

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