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Assessment of Urban Basic Services and Slum Redevelopment Prospects in Aligarh City

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Abstract - *Rapid urbanization in Indian cities has resulted in the expansion of slum settlements characterized by inadequate access to basic urban services. Medium-sized cities such as Aligarh face increasing pressure on water supply, sanitation, housing, and solid waste management systems, while institutional and financial capacities remain limited. This study assesses the condition, accessibility, and utilization of urban basic services in selected slum areas of Aligarh city and examines redevelopment prospects in light of national standards and best practices.*

The study is based on a review of planning standards, policy frameworks, and documented slum redevelopment projects in India, supported by secondary data and field-level observations. Service conditions related to water supply, sanitation, drainage, electricity, and housing are compared with benchmarks prescribed by MoHUA, CPHEEO, PMAY-Urban, and Service Level Benchmarks. Selected national case studies, including Ahmedabad, Chennai, Bhopal, and Indore, are reviewed to identify critical success factors and recurring implementation challenges.

The analysis reveals a significant gap between service availability and actual utilization, influenced by tenure insecurity, poor maintenance, affordability constraints, and limited community participation. The paper argues that relocation-based redevelopment often weakens livelihoods and social networks, whereas in-situ upgrading integrated with municipal systems yields more sustainable outcomes. The study proposes a structured framework for phased service improvement and slum redevelopment in Aligarh, emphasizing community participation, governance coordination, and long-term service sustainability.

Key Words: Urban Basic Services, Slum Redevelopment, Accessibility, Utilization, In-Situ Upgrading.

1. INTRODUCTION

Rapid urban growth in India has intensified pressure on cities to provide essential services such as water supply, sanitation, housing, and electricity. Projections indicate that nearly 40% of India's population will reside in urban areas by 2030, accelerating the growth of informal settlements. Slums emerge where planning systems fail to accommodate low-income populations, resulting in congested housing, insecure tenure, and limited access to basic services.

Slum residents face persistent challenges related to poor sanitation, irregular water supply, inadequate drainage, and unreliable electricity, which directly affect health and quality of life. Despite multiple government initiatives such as JNNURM, PMAY-Urban, AMRUT, and Swachh Bharat Mission, service delivery in slums remains uneven due to governance gaps, implementation constraints, and weak community engagement. This study focuses on Aligarh city to examine existing service conditions in slum areas and explore redevelopment strategies aligned with national standards and proven planning approaches.

1.1 Current Indian Government Initiatives for Slum Development and Urban Basic Services

- Jawaharlal Nehru National Urban Renewal Mission (JNNURM): Launched in 2005 to improve urban infrastructure and provide basic services to the urban poor through integrated city-level reforms.
- Pradhan Mantri Awas Yojana – Urban (PMAY-U): Launched in 2015 to achieve "Housing for All," with a specific focus on in-situ slum redevelopment and affordable housing for economically weaker sections.
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT): Aims to strengthen water supply, sewerage, and drainage infrastructure in urban areas, directly impacting service delivery in slum settlements
- Swachh Bharat Mission – Urban (SBM-U): Focuses on universal sanitation coverage, elimination of open defecation, and improved solid waste management, particularly in informal and underserved areas.
- National Urban Livelihoods Mission (NULM): Targets livelihood enhancement, skill development, and financial inclusion of the urban poor, supporting the socio-economic Sustainability of slum redevelopment.

2. Research Design

2.1 Aim

The aim of the study is to develop a structured framework for improving urban basic services and guiding slum redevelopment in selected slum areas of Aligarh city.

2.2 Objectives

1. To review relevant literature, policies, and standards related to urban basic services and slum redevelopment.
2. To study existing service conditions in selected slums in comparison with national benchmarks.
3. To identify gaps between service provision and utilization.

2.3 Need of Study:

Existing data on service conditions in Aligarh's slums is limited or outdated. Rapid population growth and continued rural-urban migration necessitate updated assessments to support inclusive and sustainable planning. The study provides evidence-based inputs to assist planners and local authorities in improving service delivery and redevelopment outcomes.

2.4 Methodology

Fig- 1 Methodology

3. Literature Study

Urban studies highlight that the availability of basic services does not guarantee their effective utilization. Research emphasizes that service reliability; affordability, safety, and tenure security strongly influence usage patterns in slum areas. Studies on sanitation and water supply reveal persistent underutilization due to overcrowding, poor maintenance, and social factors, particularly affecting women and children. Case studies from Indian cities demonstrate that relocation-based redevelopment often disrupts livelihoods and social networks, whereas in-situ upgrading with municipal integration and community participation leads to improved service outcomes and long-term sustainability.

4. Case Study

4.1 Ahmedabad Slum Networking Project (SNP)

The Slum Networking Project (SNP) in Ahmedabad is a widely recognized example of in-situ slum upgrading focused on integrating informal settlements with formal municipal infrastructure. Initiated through collaboration between the Ahmedabad Municipal Corporation, NGOs, and community groups, the project aimed to provide basic services such as water supply, underground sewerage, stormwater drainage, paved roads, and street lighting without relocating residents.

A key feature of the project was strong community participation, where households contributed partially to infrastructure costs, fostering a sense of ownership and responsibility. The provision of secure tenure further encouraged residents to invest in housing improvements. As a result, the project achieved near-universal access to basic services, improved public health conditions, and enhanced social inclusion.

The SNP demonstrates that in-situ upgrading, when supported by institutional coordination and community involvement, can significantly improve service accessibility and utilization while maintaining existing social and livelihood networks.

4.2 Slum Redevelopment Projects in Chennai

Chennai has implemented large-scale slum redevelopment projects primarily based on relocation to peripheral housing sites. These projects aimed to improve housing quality and sanitation by providing multi-storey apartment units equipped with basic services such as water supply, toilets, and electricity.

However, several evaluations indicate that relocation has led to challenges related to livelihood disruption, increased commuting costs, and weakening of social networks. Although physical infrastructure was provided, utilization of services declined over time due to inadequate maintenance, unreliable water supply, and limited community engagement. Many relocated households reported difficulties in adapting to new environments, resulting in partial abandonment of housing units.

The Chennai experience highlights the limitations of relocation-based approaches and underscores the importance of proximity to employment, social networks,

and long-term service management in slum redevelopment.

5. Comparative Analysis

Table - 1 Comparative Analysis

Aspect	In-situ Upgrading Ahmedabad Slum Networking Project	Relocation based Redevelopment Chennai Resettlement
Strategy focus	Integrates existing slum settlements into the urban fabric through in-situ upgrading.	Focuses on peripheral resettlement and construction of new housing blocks away from original locations.
Treatment of residents	Residents remain on-site with minimal or no displacement, preserving spatial continuity.	Households are relocated from central or well-connected areas to peripheral resettlement colonies.
Services provided	Comprehensive package of water supply, sewerage, drainage, paved roads, and street lighting integrated with city networks.	Basic services such as water, sanitation, and electricity are provided initially but often suffer from weak maintenance over time.
Community role	Strong community participation through residents' associations and cost-sharing, fostering ownership and better maintenance.	Limited community involvement; projects are largely top-down, leading to weaker sense of ownership.
Tenure and investment	Enhanced tenure security encourages household-level investment in incremental housing improvements.	Tenure and future security often perceived as uncertain, discouraging long-term resident investment.
Livelihoods and commuting	Proximity to existing workplaces helps preserve livelihoods and keeps commuting costs manageable.	Displacement to the periphery disrupts livelihoods and increases commuting time and transport expenses.
Social networks	Social ties and local support networks are largely retained within upgraded settlements.	Social networks weaken due to relocation and fragmentation of earlier neighbourhood relations.
Long-term outcomes	Higher and more sustained service utilization, better living conditions, and integration into municipal systems.	Underutilization of some infrastructure, declining service quality, and persistent socio-economic stress.

6. Way Forward

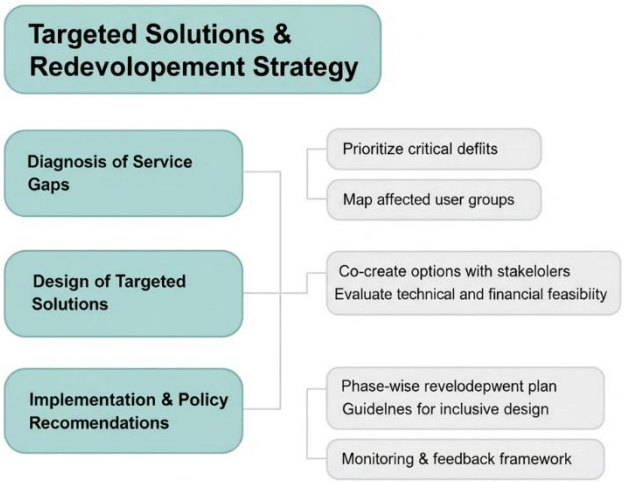

Fig- 2 Way Forward

7. Conclusion

This study examined the condition of urban basic services and slum redevelopment prospects in Aligarh city with reference to national standards and selected best practices. The findings indicate that gaps in service delivery are not limited to infrastructure shortages but are strongly influenced by tenure insecurity, weak institutional coordination, limited community participation, and inadequate maintenance mechanisms. In several cases, services are physically available but remain underutilized due to issues of reliability, affordability, and social acceptance.

Comparative assessment of slum redevelopment approaches demonstrates that in-situ upgrading integrated with municipal systems yields more sustainable outcomes than relocation-based redevelopment. Projects that preserve proximity to livelihoods and social networks show higher levels of service utilization, community ownership, and long-term viability. In contrast, relocation-focused interventions often result in social disruption and declining service performance over time.

For Aligarh city, the study underscores the need for a phased and integrated redevelopment strategy prioritizing water supply, sanitation, drainage, and housing improvements, supported by tenure security and active community engagement. Strengthening coordination between local authorities and aligning redevelopment initiatives with national missions can enhance service effectiveness and sustainability. The study contributes practical insights for planners and policymakers seeking inclusive and context-sensitive solutions for slum redevelopment in medium-sized Indian cities.

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BIOGRAPHIES

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