

Revitalizing India's Urban Landscape

This editorial is based on "India's urban infrastructure financing, needs and reality" which was published in The Hindu on 25/11/2024. The article brings into picture the growing challenge of accommodating India's urban population, projected to reach 800 million by 2050, with a need for ₹70 lakh crore in infrastructure investment. It highlights the barriers of limited government spending, stagnant municipal finances, and declining public-private partnerships, urging structural reforms and collaborative governance for sustainable urban development.

For Prelims: 74th Constitutional Amendment Act, Urban Local Bodies, Environment Protection Act, 1986, Solid Waste Management Rules, 2016, National Disaster Management Authority, RERA (Real Estate Regulation and Development Act, 2016, National Urban Transport Policy, National Clean Air Programme, Urban waste management, Urban heat islands, Swachh Bharat Mission-Urban, Pradhan Mantri Awas Yojana-Urban, Aspirational District Programme, Deen Dayal Antyodaya Yojana - National Urban Livelihood Mission

For Mains: Key Issues Impacting the Development of India's Urban Landscape, Measures that can be Adopted to Enhance India's Urban Landscape

India's urban population is set to double to 800 million in three decades, necessitating ₹70 lakh crore in infrastructure investment by 2036. However, limited government spending, stagnant municipal finances, and declining public-private partnerships hinder progress. Addressing this crisis requires structural reforms, robust project pipelines, digital infrastructure adoption, and collaborative governance. Strategic interventions over the next decade are critical to transforming India's urban landscape into a sustainable and inclusive ecosystem.

What are the Regulatory Frameworks Governing the Urban Landscape in India?

- Constitutional Framework: 74th Constitutional Amendment Act (1992) provides the foundation for urban governance by defining the role of <u>Urban Local Bodies</u> (ULBs) like municipalities and municipal corporations.
 - It calls for the devolution of functions like urban planning, water supply, sanitation, and public health to ULBs.
 - Municipal corporations are the primary regulators for urban areas, responsible for local services, waste management, taxation, and public amenities.
 - They derive their powers from state **Municipal Acts**.
- Urban Planning and Development Authorities: Urban planning is carried out by Urban Development Authorities (e.g., Delhi Development Authority) and state town planning departments.
 - These bodies prepare Master Plans and Development Plans to regulate land use, infrastructure development, and zoning laws.

- For instance, **Delhi's Master Plan 2041** focuses on mixed land use and sustainable urban development.
- **Environmental Regulations:** Urban environmental governance is guided by laws such as:
 - **Environment Protection Act, 1986:** Regulates pollution and sets environmental standards for industries and urban activities.
 - Solid Waste Management Rules, 2016: Specifies guidelines for waste segregation, disposal, and recycling.
 - Air Act, 1981 & Water Act, 1974: Regulate air and water quality in urban areas.
- Land and Housing Regulation: Land use and development are governed by State Land Revenue Acts, Urban Land (Ceiling and Regulation) Act, and local zoning laws.
 - The <u>RERA (Real Estate Regulation and Development Act, 2016</u> has introduced transparency and accountability in real estate transactions, ensuring timely completion of projects.
- Urban Transport Regulation: Urban mobility is regulated through central and state laws such as the Motor Vehicles Act, 1988.
 - National policies like the <u>National Urban Transport Policy</u> (NUTP) promote public transportation and sustainable mobility solutions.
- Disaster Management in Urban Areas: Urban disaster preparedness is regulated under the Disaster Management Act, 2005, with agencies like the <u>National Disaster Management</u> <u>Authority (NDMA)</u> playing a pivotal role.

What are the Key Issues Impacting the Development of India's Urban Landscape?

- Urban Infrastructure Deficit: Indian cities suffer from crumbling infrastructure, unable to keep pace with rapid urbanization and population growth.
 - A report by the Ministry of Statistics and Programme Implementation reveals that as many as 431 infrastructure development projects, each with investments of ₹150 crore or more, suffered a cost overrun of ₹4.82 lakh crore, as of December 2023.
 - Overburdened roads, bridges, and transport systems are prone to failures, causing disruptions and fatalities.
 - Recent incidents, such as the canopy collapse at Delhi Airport (July 2024), highlight the dire need for infrastructure resilience.
- Air Pollution: India's urban areas face severe air pollution caused by vehicular emissions, industrial activities, construction dust, and stubble burning.
 - 39 of the world's 100 most polluted cities are from India. Cities like Delhi frequently record AQI levels in the hazardous category, impacting public health and economic productivity.
 - In November 2024, Delhi's schools were shut for days due to unbearable pollution levels.
 Initiatives like the <u>National Clean Air Programme</u> (NCAP) show promise but need rigorous implementation.
- Water Scarcity and Management Issues: Urban areas in India grapple with acute water scarcity due to over-extraction, contamination, and climate change.
 - **Bengaluru 2024 and Chennai's 2019 water crisis** remains a stark reminder of the impending urban water disaster.
 - Urban utilities are inefficient, with significant water losses during distribution and inadequate rainwater harvesting.
- Housing and Slum Proliferation: A surge in <u>rural-to-urban migration</u> has resulted in a widening housing gap, pushing many into informal settlements or slums.
 - These areas lack basic amenities like sanitation, clean water, and electricity, perpetuating cycles of poverty and disease.
 - Over a third of India's slum population lives in its 46 million-plus cities. Of the metros, Mumbai has the highest proportion of slum-dwelling households (41.3% of its population).
- Traffic Congestion and Public Transport Deficiency: With increasing private vehicle ownership and inadequate public transportation, urban traffic congestion is worsening.
 - Bengaluru and Pune in India ranked among the world's top 10 worst traffic-hit cities.
 - Peak travel times in cities like **Bengaluru** can extend over hours, leading to productivity losses and higher fuel consumption.

- Waste Management Crisis: <u>Urban waste management</u> systems struggle to cope with rising solid waste generation, with improper disposal practices creating environmental hazards.
 - According to a report by The Energy and Resources Institute (TERI), India generates over 62 million tons (MT) of waste in a year.
 - Only 43 MT of total waste generated gets collected, with 12 MT being treated before disposal, and the remaining 31 MT simply discarded in wasteyards.
 - Mega-landfills like Delhi's Ghazipur continue to expand, emitting toxic gases and polluting water bodies.
- Economic Disparities and Urban Poverty: Urban areas face widening economic inequality, with rising costs of living and inadequate job creation for low-income groups.
 - The **urban informal sector,** employing a significant workforce, often lacks social security or stable wages.
 - Inflation, **particularly in food prices,** has hit urban households hard, reducing disposable income and spending power.
 - According to CMIE, urban unemployment stood at 8.7% in 2024.
- Climate Change Vulnerability: More than 85% of districts in India are exposed to extreme climate events such as floods, droughts and cyclones,
 - Urban planning often overlooks resilience measures, as seen in the Chennai and Mumbai floods, which are exacerbated by unplanned growth and encroachment on natural drainage systems.
 - Rising temperatures and <u>urban heat islands</u> worsen living conditions, especially for the poor.
 - India experienced <u>extreme weather</u> on 93% of days in the first nine months of 2024, causing 3,238 deaths and over 3.2 million hectares of crops.
- Governance and Policy Implementation Gaps: Urban governance in India suffers from fragmented authority, overlapping jurisdictions, and poor coordination among agencies.
 - Municipal bodies often lack financial autonomy, hindering the implementation of crucial development projects.
 - Despite ambitious programs like <u>Smart Cities Mission</u>, progress has been slow due to bureaucratic delays and limited capacity.
 - Also, urban India drives nearly 60% of the country's economic output, yet municipal corporations struggle financially, with property tax revenues at a mere 0.12% of GDP.
- Urban Sprawl and Loss of Green Cover: Unregulated urban expansion has led to encroachment on forests, wetlands, and agricultural land, reducing green cover and biodiversity.
 - This unchecked growth increases carbon emissions and creates urban heat islands, worsening climate impacts.
 - For instance, Bengaluru's urbanised area has expanded by a staggering 1055% since 1973 consequently, there has been an 88% reduction in vegetation.
- Urban Crime and Safety Concerns: Rising urban crime rates, including theft, cybercrime, and gender-based violence, threaten the safety of city residents.
 - A lack of adequate policing, poor urban design, and weak legal enforcement contribute to this trend.
 - A 2023 NCRB report stated that Delhi accounted for 29.04% of the 48755 crimes against women reported in 19 major cities across the country.
- Cultural Dilution and Urban Identity Loss: Rapid urbanization often leads to the loss of cultural heritage, traditional architecture, and local identity.
 - Gentrification displaces indigenous communities, while generic urban designs fail to reflect local ethos.
 - Cities like Varanasi and Jaipur face challenges in balancing modernization with heritage preservation.
 - For example, **Folk arts like Kalbelia and Ghoomar from Rajasthan** are gradually fading as practitioners migrate to urban areas.

What are Major Government Initiatives Related to Urban Development?

Smart Cities

- AMRUT Mission
- Swachh Bharat Mission-Urban
- Pradhan Mantri Awas Yojana-Urban
- Aspirational District Programme
- Deen Dayal Antyodaya Yojana National Urban Livelihood Mission (DAY-NULM)

What Measures can be Adopted to Enhance India's Urban Landscape?

- Strengthening Urban Governance and Decentralization: Urban local bodies (ULBs) must be empowered through financial autonomy and capacity building to execute urban development plans effectively.
 - The **74th Constitutional Amendment** needs full implementation to empower ULBs.
 - Recent funding for municipal bodies under the 15th Finance Commission can act as a catalyst.
- Modernizing Urban Infrastructure: Comprehensive infrastructure audits and upgrades are essential to ensure safety and efficiency.
 - Public-Private Partnerships (PPPs) can attract investments for transport, utilities, and housing. For instance, the Delhi-Mumbai Industrial Corridor (DMIC) showcases successful PPP models in urban development.
 - Emphasis on smart city infrastructure, such as automated traffic management systems, can optimize urban operations.
 - Urban Infrastructure Development Fund (UIDF) under the 2023-24 Budget provides a dedicated mechanism for funding city-level improvements.
- Promoting Affordable Housing and Slum Rehabilitation: Expanding affordable housing schemes like Pradhan Mantri Awas Yojana (PMAY) with private sector collaboration can bridge the housing gap.
 - Inclusive zoning policies and incentives for developers to construct affordable units are vital.
 - Slum rehabilitation programs should adopt in-situ redevelopment models, like Mumbai's Dharavi project, ensuring minimal displacement.
- Investing in Sustainable Urban Mobility: Cities must expand metro systems, suburban rail networks, and public bus services to reduce dependency on private vehicles.
 - Integrating last-mile connectivity with electric vehicles and bicycle-sharing programs can enhance accessibility.
 - Bengaluru's new metro expansion and Delhi's electric bus fleet demonstrate the potential for impactful change.
 - **Smart traffic management systems**, coupled with congestion charges, can address traffic bottlenecks.
- Advancing Solid and E-Waste Management: Decentralized waste segregation systems at the ward level must be implemented to improve recycling rates and reduce landfill dependency.
 - Advanced technologies, such as waste-to-energy plants and material recovery facilities, can manage rising waste volumes.
 - Extended Producer Responsibility (EPR) laws must be enforced to curb e-waste generation by ensuring companies take back discarded electronics.
 - Bengaluru's success in decentralized composting serves as a replicable model.
- **Climate-Resilient Urban Planning:** Urban planning must integrate climate adaptation strategies to mitigate risks of floods, heatwaves, and rising sea levels.
 - Restoring natural drainage systems and wetlands, as seen in Chennai's restoration projects, can reduce urban flooding.
 - Green roofs, vertical gardens, and urban forests can combat heat islands and improve air quality. Renewable energy adoption, such as rooftop solar installations, must be incentivized.
- Ensuring Urban Water Security: Cities need comprehensive water management policies focusing on rainwater harvesting, wastewater recycling, and aquifer recharge.
 - Chennai's rainwater harvesting mandate has proven effective and can be scaled nationwide.

- Smart water meters and IoT-based monitoring systems can prevent wastage and enhance efficiency.
- Promoting decentralized wastewater treatment plants (DEWATS) can ensure effective reuse.
- **Promoting Digital Inclusion:** Expanding internet connectivity through initiatives like **BharatNet** in urban slums can bridge the digital divide.
 - Digital literacy programs targeting low-income groups can **enhance access to egovernance, telemedicine, and online education.**
 - Cities must adopt smart city solutions, such as integrated command centers, to streamline urban operations.
- **Revitalizing Cultural and Heritage Assets:** Urban development must prioritize the conservation of historical and cultural landmarks.
 - Adaptive reuse of heritage structures, as seen in Rajasthan's palace hotels, can balance preservation with economic utility.
 - Urban planning should mandate the integration of traditional architecture and cultural elements. UNESCO's guidelines for heritage management can provide actionable frameworks.
- Encouraging Participatory Urban Planning: Citizen participation in urban governance can improve transparency and accountability.
 - Digital platforms for grievance redressal, such as MyGov, must be scaled for urban-specific issues.
 - Participatory budgeting allows residents to decide on local developmental priorities.
 Case studies from cities like Pune show how citizen engagement improves urban planning outcomes.
- rgy sources by expanding rooftop solar installations and wind energy projects.
 - Smart grids with energy storage systems can enhance efficiency and reduce power outages. Incentives for energy-efficient buildings, such as tax rebates, can encourage sustainable construction practices.
- Cities like Cochin, which operates India's first fully solar-powered airport, demonstrate the fMainstreaming Renewable Energy in Cities: Urban centers must transition to cleaner eneeasibility of large-scale renewable energy adoption.
- Strengthening Urban Disaster Preparedness: Cities must establish dedicated disaster response units equipped to handle urban-specific risks like floods, earthquakes, and industrial accidents.
 - Early warning systems, combined with real-time data from IoT sensors, can mitigate disaster impacts.
 - Lessons from Mumbai's flood response can guide urban disaster preparedness strategies.

Drishti Mains Question:

Critically analyze the challenges and opportunities in regulating India's urban landscape, with a focus on urban planning, governance, and sustainable development. How can these issues be addressed to promote inclusive and resilient urban growth?

UPSC Civil Services Examination Previous Year's Question (PYQs)

Prelims

- Q. As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct? (2019)
- (a) Waste generators have to segregate waste into five categories.
- (b) The Rules are applicable to notified urban local bodies, notified towns and all industrial townships only
- (c) The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.

(d) It is mandatory on the part of the waste generator that the waste generated in one district cannot be moved to another district.

Ans: (c)

Mains

Q. The frequency of urban floods due to high intensity rainfall isincreasing overthe years. Discussing the reasons for urban floods, highlight the mechanisms for preparedness to reduce the risk during such events. (2016)

Q. Do government's schemes for up-lifting vulnerable and backward communities by protecting required social resources for them, lead to their exclusion in establishing businesses in urban economies? (2014)

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