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THE IMPACT OF MUNICIPAL SERVICES ON QUALITY OF LIFE AMONG URBAN HOUSEHOLDS: PROBLEMS, PROSPECTS, AND POLICY CHALLENGES

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Abstract

Municipal services such as drinking water, sanitation, solid waste management, drainage, roads, street lighting and public health are determinants of urban household welfare. As Indian cities expand, the capacity of Urban Local Bodies (ULBs) to deliver these services reliably and equitably has become a policy concern. This paper examines the relationship between municipal service delivery and the quality of life of urban households, focusing on accessibility, affordability, reliability, quality and equity. Using a descriptive-analytical design based on secondary data from the Census of India, the National Statistical Office (NSO), the Ministry of Housing and Urban Affairs (MoHUA), the Reserve Bank of India (RBI) and the World Bank, it profiles the status of major services and their consequences. The evidence shows gains in headline access, including near-universal improved drinking water sources and rising waste-processing capacity, but persistent gaps in reliability, exclusive access, drainage and municipal finance. Inadequate services raise household expenditure, consume productive time, increase health risks and widen socio-economic inequalities, with low-income households bearing the heaviest burden. The paper concludes that improving urban quality of life requires moving beyond infrastructure creation toward reliable, equitable, financially sustainable and citizen-oriented service delivery, supported by stronger ULBs, digital governance, participation and outcome-based monitoring.

Keywords: Municipal Services, Quality of Life, Urban Households, Urbanisation, Public Services, Sanitation, Water Supply, Solid Waste Management, Urban Infrastructure, Urban Local Bodies

1. Introduction

Urbanisation is among the most significant transformations shaping India's economy and society. The 2011 Census recorded 377 million urban residents, about 31.2% of the population (Office of the Registrar General & Census Commissioner, India, 2011), and the United Nations projects that India will add roughly 416 million urban dwellers by 2050 (United Nations Department of Economic and Social Affairs [UN DESA], 2018). As cities expand, households depend on municipal authorities for drinking water, sanitation, waste management, drainage, roads, street lighting and public health services.

Municipal services are not merely physical infrastructure; they carry economic consequences for households. Reliable water supply reduces the time and money spent securing water, efficient sanitation and waste management support healthier living environments, and good roads widen access to employment, education, healthcare and markets (Mohanty, 2014). Yet rapid population growth has strained existing systems, producing irregular water supply, uneven waste collection, poor drainage, congestion and unequal access to amenities (Kundu, 2011). The quality of municipal services is therefore an important determinant of urban household welfare and quality of life.

1.1 Statement of the Problem

Urban households contribute to the local economy through employment, consumption and taxation, yet access to municipal services is not equal. Low-income households find it harder to obtain reliable services and, when public provision fails, bear additional private costs for water, sanitation, healthcare, transport and waste disposal. The central question is: to what extent do the availability, accessibility, affordability, reliability and quality of municipal services influence the quality of life of urban households?

1.2 Objectives of the Study

1. To examine the nature and importance of municipal services in urban areas.
2. To assess the accessibility and quality of essential municipal services among urban households.

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3. To examine the relationship between service delivery and household quality of life.
4. To identify socio-economic differences in access to municipal services.
5. To examine the economic and social costs of inadequate services.
6. To identify the major challenges faced by Urban Local Bodies.
7. To suggest policy measures for improving service delivery and urban quality of life.

1.3 Research Questions

1. Which municipal services most influence the quality of life of urban households?
2. What factors determine household access to municipal services?
3. How do the quality and reliability of services affect household welfare?
4. What economic costs do inadequate services impose on households?
5. What institutional and financial challenges constrain service delivery?
6. Which policy measures can improve quality, accessibility and equity?

2. Literature Review

Urban quality of life has been studied across economics, planning and development studies. Sen (1999) and Nussbaum and Sen (1993) frame well-being in terms of capabilities rather than income alone, which supports treating water, sanitation and mobility as conditions for what households can do and be. In this view, municipal services are enablers of health, productivity and dignity, not simply physical inputs.

The World Bank has stressed that effective urban infrastructure underpins productivity and inclusion, and that South Asian cities face a widening gap between urban growth and service provision (Ellis & Roberts, 2016). The United Nations places urban services within Sustainable Development Goal 11, which calls for inclusive, safe, resilient and sustainable cities, and UN-Habitat (2016) links unequal access to services with deepening urban divides.

Indian studies document the same pressures. Kundu (2011) shows that urban growth has outpaced the expansion of basic services, particularly in smaller towns, while Chakrabarti (2001) traces the urban crisis to weak finance and governance. The High Powered Expert Committee (HPEC, 2011) estimated that about ₹39.2 trillion (at 2009–10 prices) would be needed over twenty years to close urban infrastructure gaps. Ahluwalia (2019) argues that limited powers, fragmented responsibilities and weak finances undermine delivery by ULBs despite the 74th Constitutional Amendment.

Evidence on household costs is consistent. Pattanayak et al. (2005) found that households in Kathmandu facing unreliable public water supply incurred substantial coping expenditure on storage, treatment and private purchase. Prüss-Ustün et al. (2019) estimate that inadequate water, sanitation and hygiene cause a large burden of diarrhoeal and other disease in low- and middle-income countries. Sorenson et al. (2011) show that water collection consumes time that falls mainly on women, and Kaza et al. (2018) document the health and environmental costs of poor waste management in rapidly urbanising countries.

Collectively, the literature suggests that municipal services have both direct and indirect effects on household welfare. Few studies, however, bring access, reliability, household cost and municipal finance together for Indian urban households; this paper attempts that integration.

3. Evolution of Urban Municipal Services

Municipal governance in India has evolved alongside urbanisation (Sivaramakrishnan et al., 2005). Table 1 summarises the major phases.

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Table 1

Evolution of Urban Municipal Services in India

Period	Major development
Pre-independence	Development of municipal institutions and basic civic administration
1950–1980	Expansion of basic urban infrastructure
1980–1990	Increasing focus on urban development and infrastructure
1992	74th Constitutional Amendment strengthened the role of Urban Local Bodies
2000s	Greater emphasis on infrastructure and service delivery, including JNNURM (2005)
2014 onward	Focus on sanitation, waste management, water supply and smart urban development, including SBM-U (2014), AMRUT and the Smart Cities Mission (2015)
Recent period	Emphasis on digital governance, sustainable cities and citizen-oriented service delivery, including SBM-U 2.0 (2021)

Note. Compiled by the author from Government of India (1992) and Ministry of Housing and Urban Affairs programme documents.

The Constitution (Seventy-fourth Amendment) Act, 1992 was the turning point. It gave constitutional recognition to Urban Local Bodies and, through the Twelfth Schedule, listed eighteen functions for them, including water supply, sanitation, solid waste management, roads, street lighting and public health (Government of India, 1992). In practice, many functions remain with state departments and parastatal agencies, which blurs accountability for service outcomes (Ahluwalia, 2019).

4. Methodology and Data Sources

The study follows a descriptive-analytical design based on secondary data. Sources include the Census of India, the Ministry of Housing and Urban Affairs (MoHUA), NITI Aayog, the Reserve Bank of India (RBI), the World Bank, the United Nations and the National Statistical Office (NSO). The principal datasets are the Census 2011 Houses, Household Amenities and Assets tables; the NSO's 76th round survey on drinking water, sanitation, hygiene and housing condition (July–December 2018); the RBI's Report on Municipal Finances (2022); and Swachh Bharat Mission–Urban (SBM-U) progress data reported by MoHUA.

Service performance is assessed along five dimensions: accessibility, affordability, reliability, quality and equity. Indicators are compiled into tables and interpreted against the literature. Because published tables rather than unit-level data are used, and definitions differ between sources, no inferential statistics are estimated and cross-source comparisons are indicative, not causal.

5. Status of Major Municipal Services

5.1 Census 2011 Baseline

The 2011 Census provides the most comprehensive household-level baseline (Table 2). Most urban households had water and latrines on their premises, but drainage was the weakest service: fewer than half were connected to closed drains and nearly one in five had no drainage outlet.

Table 2

Urban Household Amenities, India, Census 2011

Indicator	Urban households (%)
Drinking water source within premises	71.2
Latrine within premises	81.4
Closed drainage for wastewater	44.5
Open drainage for wastewater	37.3

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Indicator	Urban households (%)
No drainage connectivity	18.2
Electricity as main source of lighting	93

Note. Data from Office of the Registrar General & Census Commissioner, India (2011).

5.2 Water, Sanitation and Waste Collection, 2018

The NSO's 76th round (July–December 2018) shows how far urban access had advanced (Table 3). Improved water sources and latrines were nearly universal. Reliability and exclusivity were weaker: only 40.9% of households had piped water in the dwelling, 42.5% shared their principal water source, and about 72% met the combined standard of an improved source, sufficient supply and location within the premises. About one in four households (25.9%) reported no municipal garbage collection arrangement.

Table 3

Selected Urban Household Indicators, NSS 76th Round (2018)

Indicator	Urban households (%)
Improved principal source of drinking water	97.5
Piped water into dwelling as principal source	40.9
Exclusive access to principal source	57.5
Sufficient drinking water throughout the year	90.9
Principal water source within premises	80.7
Improved, sufficient and within premises	72.0
Access to a latrine	96.2
Exclusive access to a bathroom	75.0
Drainage system reported	92.0
Municipal garbage collection arrangement	74.1

Note. Data from National Statistical Office (NSO, 2019). Definitions differ from the Census, so the two tables are not strictly comparable.

5.3 Solid Waste Management

Solid waste shows the most visible improvement. Under Swachh Bharat Mission–Urban (SBM-U), the share of urban waste processed rose from 16% in 2014 to about 80% in the latest figures shared by MoHUA in Parliament (IAMRenew, 2025). Even so, roughly 32,900 tonnes of waste per day remain unprocessed (Table 4). Processing capacity, moreover, says little about segregation at source, the reliability of collection or neighbourhood cleanliness, which households experience directly (Kaza et al., 2018).

Table 4

Urban Solid Waste Processing under SBM-U

Indicator	Value
Waste processed, 2014 (% of waste generated)	16.0
Waste processed, latest reported (% of waste generated)	80.2
Municipal solid waste generated (tonnes per day)	166,096
Waste processed (tonnes per day)	133,164
Waste not processed (tonnes per day)	32,932

Note. Data from IAMRenew (2025), citing MoHUA figures presented in the Rajya Sabha. The unprocessed quantity is calculated by the author.

6. Quality of Life and Economic Impact

Quality of life is multidimensional. For urban households it spans health and well-being, income and economic security, housing, access to water and sanitation, environmental quality, safety, mobility, access to education and healthcare, time

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availability and overall satisfaction. Municipal service quality should therefore be judged by reliability, affordability, accessibility and user satisfaction, not by infrastructure availability alone. Table 5 summarises how adequate and inadequate delivery map onto household outcomes.

Table 5

Municipal Services and Urban Household Quality of Life

Service	When delivery is adequate	When delivery is inadequate
Water supply	Reliable access	Irregular or insufficient supply
Sanitation	Better hygiene	Greater health risks
Waste management	Clean surroundings	Waste accumulation
Drainage	Reduced waterlogging	Frequent flooding and waterlogging
Roads	Better mobility	Higher travel difficulty
Street lighting	Improved accessibility and safety	Reduced night-time mobility
Public health	Better environmental conditions	Increased health risks
Household expenditure	Lower spending on private alternatives	Higher private expenditure

Note. Conceptual summary compiled by the author from the literature reviewed.

Municipal services affect urban economies through five channels. First, *household expenditure*: when public supply is unreliable, households buy private water, storage and treatment, as coping-cost studies show (Pattanayak et al., 2005). Second, *health*: poor sanitation, drainage and waste management increase exposure to disease and raise medical spending (Prüss-Ustün et al., 2019). Third, *productivity*: time spent collecting water, managing waste or travelling on poor roads is productive time lost. Fourth, *property values*: infrastructure quality shapes the attractiveness and value of residential areas. Fifth, *employment and business activity*: good infrastructure lowers transport costs, improves connectivity and supports enterprise (Mohanty, 2014).

7. Socio-Economic Inequality and Time Use

Municipal services are not distributed equally. Access varies with household income, housing type, residential location, informal settlement, education, occupation, gender and household size. The 2011 Census counted about 65 million people in slums, roughly 17% of the urban population (Office of the Registrar General & Census Commissioner, India, 2011), and the NSO's 2018 survey found that 42.5% of urban households shared their principal drinking water source and 25% lacked exclusive bathroom access (NSO, 2019). Low-income households are the most vulnerable when services fail because they have the fewest resources to buy private alternatives, so the same service failure costs them a far larger share of income (Bhan, 2016).

Services also shape how households use time. Inadequate water supply lengthens the time needed to obtain water, poor transport infrastructure lengthens commuting, and inefficient waste collection forces households to manage waste themselves. These burdens fall disproportionately on women (Sorenson et al., 2011). The mechanism can be summarised as: better municipal services → time saving → greater productive time → improved household welfare.

8. Problems and Prospects of Municipal Services

8.1 Major Problems

Seven problems recur. *Rapid urbanisation* adds demand faster than infrastructure grows, and the HPEC (2011) estimate of ₹39.2 trillion in investment needs shows the scale of the gap. *Unequal access* leaves informal settlements and low-income wards behind. *Financial constraints* are severe: the RBI (2022) reports that municipal finances have stagnated at about 1% of GDP, against 7.4% in Brazil and 6% in South Africa (Table 6), and only nine municipal corporations raised about ₹3,840 crore through bonds in 2017–21. *Poor maintenance* causes existing assets to deteriorate. *Waste and drainage* failures cause pollution, flooding and waterlogging. *Water scarcity* is intensifying, with NITI Aayog (2018) warning of high to extreme

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water stress across much of India. Finally, *institutional limits* and *weak citizen participation* reduce technical capacity and accountability (Ahluwalia, 2019).

Table 6

Municipal Revenue as a Share of GDP, Selected Countries

Country	Municipal revenue (% of GDP)
India	About 1.0
South Africa	6.0
Brazil	7.4

Note. Data from the Reserve Bank of India (RBI, 2022). India's figure is approximate.

8.2 Prospects

Five developments offer scope for improvement (Table 7). Digital platforms let citizens pay bills, register complaints, track requests and access information. Smart infrastructure can improve water management, waste collection and traffic control. Participation helps authorities identify local service failures. Sustainable development, including water conservation, recycling, renewable energy, green spaces and public transport, reduces long-run pressure on services. Stronger municipal revenue systems give ULBs the capacity to maintain and expand assets.

Table 7

Principal Problems and Corresponding Prospects

Problem	Prospect
Financial constraints	Improved municipal finance and revenue systems
Institutional limitations	Digital municipal governance
Poor maintenance and infrastructure gaps	Smart infrastructure
Limited citizen participation	Participatory planning and service monitoring
Water scarcity, waste and drainage pressures	Sustainable urban development

Note. Compiled by the author.

9. Limitations of the Study

- The availability and quality of municipal-level data vary across cities.
- Quality of life is multidimensional and cannot be captured by a single indicator.
- Household perceptions of service quality may differ from objectively measured quality.
- Differences in definitions and measurement methods limit comparisons across sources and cities.
- A primary household survey would provide stronger evidence on the link between municipal services and quality of life.

10. Policy Recommendations

1. **Improve basic infrastructure.** Prioritise reliable water supply, sanitation, drainage, roads and waste management, with attention to hours of supply and piped connections rather than source type alone.
2. **Ensure equitable delivery.** Direct planning and investment towards low-income and underserved communities, including informal settlements.
3. **Strengthen Urban Local Bodies.** Provide adequate financial, administrative and technical capacity, and devolve the functions listed in the Twelfth Schedule in practice (Ahluwalia, 2019).
4. **Improve solid waste management.** Emphasise segregation at source, reliable collection, recycling, treatment and scientific disposal.
5. **Promote digital governance.** Use complaint-management and service-monitoring systems to improve transparency and accountability.
6. **Encourage citizen participation.** Create mechanisms for residents to take part in planning and to evaluate services.

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7. **Develop quality-of-life indicators.** Measure household satisfaction and service outcomes regularly, rather than tracking infrastructure expenditure alone.
8. **Strengthen sustainable urban planning.** Build climate resilience, water conservation, environmental protection and sustainable transport into infrastructure planning (UN-Habitat, 2016).

11. Conclusion

Municipal services are an important determinant of the socio-economic well-being of urban households. Reliable water, sanitation, waste management, drainage, roads, street lighting and public health services directly shape living conditions and indirectly influence expenditure, time use, health, productivity and economic opportunity.

The evidence reviewed shows real progress: improved drinking water sources and latrines are nearly universal, and the share of urban waste processed has risen from 16% in 2014 to about 80%. Progress on reliability, exclusivity and drainage is weaker, and municipal finances remain small relative to responsibilities. Where services fall short, households face additional costs, health risks, lost time and lower satisfaction, and these effects are heaviest for economically vulnerable households.

Improving urban quality of life therefore requires a shift from expanding infrastructure to delivering services that are reliable, equitable, affordable, accountable and citizen-oriented. Stronger Urban Local Bodies, better municipal finance, digital technologies, citizen participation and sustainable planning can together raise the quality of life of urban households. Future research should use primary household surveys to test these relationships directly.

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