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Role of local policies in sustainable development under Municipal Corporation of Manesar (MCM)

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Abstract
This research paper examines the role of local policies in fostering sustainable development within the Manesar Municipal Corporation (MMC), Haryana, India. Established in 2020, MMC oversees urban governance, infrastructure, environmental protection, and quality-of-life enhancement for rapidly urbanizing and industrializing areas. The study utilises secondary data from official municipal portals, government documents, policy briefs, and credible news sources. It assesses policy interventions in waste management, sanitation, urban infrastructure, and environmental governance. Using descriptive analysis and evaluation frameworks, the research identifies policy impacts, gaps, and sustainability outcomes within Manesar's municipal area. The findings show that while MMC has undertaken progressive initiatives such as waste segregation, infrastructure planning, and sanitation reforms, challenges remain in implementation, citizen engagement, and long-term sustainability planning. Recommendations highlight the need for integrated policy frameworks and stronger enforcement mechanisms.

Keywords: Municipal policies, sustainable development, urban governance, manesar, waste management, sanitation, infrastructure

Introduction
Sustainable development has become central to urban governance in India's rapidly expanding cities. Municipal bodies are pivotal in implementing policies that align local development with environmental stewardship, economic growth, and social welfare. The Manesar Municipal Corporation (MMC), established in December 2020 by the Government of Haryana, administers a region comprising industrial zones (such as the Industrial Model Township (IMT)) and over 29 villages, balancing urban expansion with industrial growth and community welfare.
Manesar's strategic position as an industrial hub and its rapid demographic and infrastructural change present unique sustainability challenges. Effective policy frameworks at the municipal level influence environmental quality, waste management, water resources, housing, and urban services. Understanding how policies drive or hinder sustainability is crucial for urban planning, especially in semi-industrial cities transitioning to inclusive urban governance models. Located in the Gurugram District, Manesar includes the Industrial Model Township (IMT) and over 29 villages, making it a unique blend of industrial, rural, and urban populations under one municipal body.

Hypothesis
H_0 (Null Hypothesis): Local policies enacted by the Manesar Municipal Corporation have no significant impact on sustainable development outcomes.
H_1 (Alternate Hypothesis): Local policies enacted by the Manesar Municipal Corporation positively contribute to sustainable development outcomes across environmental, economic, and social dimensions.

Objectives
1. To examine key municipal policies implemented by MMC related to sustainable development.
2. To analyse the effectiveness of these policies in waste management, sanitation, infrastructure, and environmental protection.
3. To evaluate outcomes and challenges through secondary data analysis.
4. To provide policy recommendations that enhance sustainability outcomes.

Literature review
Municipal governance and sustainable development have been widely discussed in national policy documents and evaluations of urban local bodies. The Swachh Bharat Mission emphasises sanitation, waste management, and behavioral change for cleaner cities. Municipal bye-laws in Haryana incorporate solid waste regulations on segregation, collection, and processing by local bodies. MCM's activities can be contextualized within this larger governance framework, though academic research focusing specifically on Manesar remains sparse. By synthesizing government reports and media documentation, this study seeks to fill that gap with empirical policy analysis.
Sekafaruddin (2024) [8] critically examines the role of local governments in advancing sustainable development in urban areas, with relevance to municipal corporations in India. The author emphasizes that local policies related to waste management, water conservation, green infrastructure, and public transport play a decisive role in shaping sustainable cities. Sekafaruddin highlights that municipal-level environmental regulations are often more effective than national policies because they directly address local needs and resource constraints. However, the study also identifies challenges such as inadequate financial autonomy and limited administrative capacity of Urban Local Bodies (ULBs). The author concludes that strengthening local policy frameworks, improving inter-departmental coordination, and enhancing citizen participation are

essential for ensuring sustainable urban development at the municipal level.

Samal (2019) [9] explores how local legal and social policies influence sustainable urban development in Indian cities. The author argues that municipal policies related to land use regulation, housing, environmental protection, and social welfare significantly affect sustainability outcomes. Samal notes that weak enforcement of municipal by-laws and fragmented urban policies often result in unplanned growth and environmental degradation. The study highlights the importance of inclusive local policies that integrate environmental sustainability with social equity. According to Samal, empowering municipal corporations with stronger regulatory authority and updated policy instruments can help align urban growth with sustainable development principles in India.

Gahlot *et al*. (2025) [10] analyze existing literature on the contribution of Urban Local Bodies to achieving Sustainable Development Goals (SDGs) in India. The authors emphasize that SDG-11, which focuses on sustainable cities, depends heavily on municipal-level policies for housing, sanitation, mobility, and environmental management. Their review finds that cities with proactive local policies demonstrate better outcomes in inclusiveness and environmental sustainability. However, the authors also highlight gaps in capacity, finance, and planning expertise among municipal corporations. The study concludes that aligning local development plans with SDGs through evidence-based municipal policies is crucial for sustainable urban transformation.

Menon and Hartz-Karp (2019) [11] focus on how participatory local governance strengthens sustainable development in Indian cities. The authors argue that municipal policies encouraging citizen participation—such as ward committees and participatory budgeting—improve accountability and sustainability outcomes. Their study demonstrates that local policies designed through community engagement are more socially inclusive and environmentally responsive. Menon and Hartz-Karp conclude that participatory governance should be institutionalized within municipal policy frameworks to ensure long-term sustainability and democratic urban development.

Patil and Khandelwal (2023) [12] examine how municipal policies related to public transport financing influence sustainable urban development in Indian cities. The authors argue that local transport policies play a vital role in reducing emissions, congestion, and energy consumption. Their study highlights that cities with strong municipal investment in public bus systems demonstrate better sustainability performance. Patil and Khandelwal conclude that sustainable mobility cannot be achieved without empowering municipal corporations to design and finance context-specific transport policies.

The Government of India (1993) [13], through the 74th Constitutional Amendment, provides the institutional foundation for sustainable urban development by decentralizing power to Urban Local Bodies. Scholars analyzing this amendment argue that municipal corporations are constitutionally mandated to plan for economic development, social justice, and environmental management. The literature highlights that effective local policies under this framework can promote sustainability. However, incomplete implementation and limited devolution of powers weaken outcomes. Strengthening municipal autonomy remains critical for sustainable urban governance.

Gond and Mishra (2024) [14] review the role of e-governance as a local policy tool for sustainable urban development. The authors argue that digital municipal policies enhance transparency, efficiency, and citizen engagement. Their study highlights that e-governance initiatives in municipal corporations improve service delivery and reduce administrative inefficiencies. However, the authors also note challenges such as digital divide and lack of skilled manpower. They conclude that strengthening digital policies at the municipal level is essential for sustainable and responsive urban governance.

The Shimla urban policy study (2025) [15] examines how local municipal policies support sustainable development in environmentally sensitive cities. The authors emphasize that local land-use regulations, environmental safeguards, and participatory planning are critical for balancing development and ecological conservation. The study shows that municipal policies aligned with sustainability goals can reduce urban vulnerability in hill cities. It concludes that context-specific local policies are vital for sustainable urban development.

Smart governance scholars (2025) [16] argue that local policies integrating technology and data-driven decision-making enhance urban sustainability. Their research highlights that municipal corporations adopting smart governance frameworks improve planning efficiency and resource management. The authors emphasize that smart local policies strengthen transparency and sustainability outcomes. They conclude that technology-enabled local governance is a key driver of sustainable urban development.

Global urban policy researchers (2022) [17] examine how city-level planning policies influence sustainability and public health. The authors argue that municipal land-use and transport policies significantly affect environmental and social outcomes. Their findings are applicable to Indian cities, where local policies determine urban liveability. The study concludes that municipal corporations must adopt integrated sustainability-oriented planning policies.

Research methodology

This research exclusively uses secondary data from:-

- Municipal Corporation Manesar official sources (websites and policy summaries).
- Haryana Government urban development and sanitation rulebooks (e.g., Swachh Bharat Mission guidelines).
- Credible news reports detailing municipal plans and implementation outcomes.

The study uses following Statistical Tools and Analysis:-

- Descriptive analysis of policy measures.
- Comparative assessment across sustainability sectors (e.g., waste management vs. infrastructure).
- Tabular summaries of policy impacts.
- Qualitative evaluation of outcomes reported in news and governance sources.

Note: Actual quantitative statistics (percentages, trend lines) would require field data or detailed municipal reports which were not accessible in public sources at the time of writing.

Policy framework under mmc

a. Sanitation and Waste Management Policies

MMC's implementation of Swachh Bharat Mission (SBM) directives reflects national sanitation goals at local levels. Municipal sanitation efforts include door-to-door waste collection, automatic road sweeping machines, sanitation worker teams, and citizen awareness campaigns.

1. Solid Waste Management Regulations

MMC adheres to Haryana SBM Bye-Laws (2019) and National Plastic Waste Management Rules (2022). These frameworks govern:

- Waste segregation at source
- Household and commercial compliance
- Processing and recycling mandates

Recently, MMC cleared approximately 1.1 lakh tonnes of legacy waste and instituted segregation protocols supported by RFID tracking and CCTV monitoring to prevent accumulation.

In addition, the corporation introduced a policy to recover cleaning costs from property owners who allow waste to accumulate on private premises under Section 274 of the Haryana Municipal Corporation Act, 1994 [1], thereby promoting accountability and environmental upkeep.

Role of Societies in Waste Management in the Municipal Corporation of Manesar

Waste management in urban local bodies like the Municipal Corporation of Manesar (MCM) is a shared responsibility that involves not just the civic authority but also residents, community groups, and registered societies such as Resident Welfare Associations (RWAs). As Manesar continues to grow—with over 80 major residential societies spread across its jurisdiction—societies play a crucial role in helping the corporation manage waste effectively, sustainably, and in alignment with national and state rules.

1. Implementing Source Segregation and On-Site Processing

One of the most important roles that societies perform is segregating waste at the source. Source segregation—separating dry recyclables from wet biodegradable waste—reduces the burden on municipal waste streams and makes recycling and composting far more efficient. In many Manesar societies, RWAs have taken initiative by establishing in-house composting facilities where kitchen and garden waste is processed within the society premises. These efforts not only cut down on the volume of waste sent out for collection but produce compost that can be used for landscaping and gardening.

Under the Solid Waste Management (SWM) Rules, 2016, bulk waste generators such as condominiums and large housing societies are required to install on-site composting or bio-processing systems for wet waste and put dry waste to recycling channels. Many societies are voluntarily implementing these practices, helping Manesar move closer toward regulatory compliance.

2. Community Awareness and Behavioural Change

Societies serve as critical platforms for public awareness and behaviour change, working with residents to educate them on the importance of waste segregation, reduction, and proper disposal. RWAs often conduct internal campaigns, workshops, and meetings to encourage household participation in responsible waste practices. This community-level engagement promotes attitudes and habits that support long-term environmental sustainability, complementing broader municipal awareness efforts under initiatives like the Swachh Bharat Mission.

Through these educational roles, societies reduce contamination of recyclables, decrease improper dumping, and increase overall compliance with waste rules—outcomes that city waste infrastructure alone cannot achieve.

3. Coordination with Municipal Authorities and Contractors

Effective waste management requires coordination between societies and the Municipal Corporation of Manesar. Many RWAs act as intermediaries, liaising with sanitation officials to ensure timely door-to-door collection, reporting issues such as uncollected waste piles, and providing feedback on contractor performance. In cases where the civic body empanels private agencies to assist with bulk waste collection, societies help identify practical challenges and suggest improvements.

RWAs also advocate for fair service practices—for example, challenging unjust waste pickup fees when services are not provided within their sectors and calling for regular meetings between corporation officials and society representatives to improve accountability and cooperation.

4. Accountability and Compliance Enforcement

Societies help enforce waste management norms at the micro level. They monitor whether residents segregate waste correctly and whether hired staff or contractors follow guidelines for disposal. In some cases, municipal authorities have even fined societies for non-compliance with SWM rules, underscoring the importance of community compliance and internal monitoring.

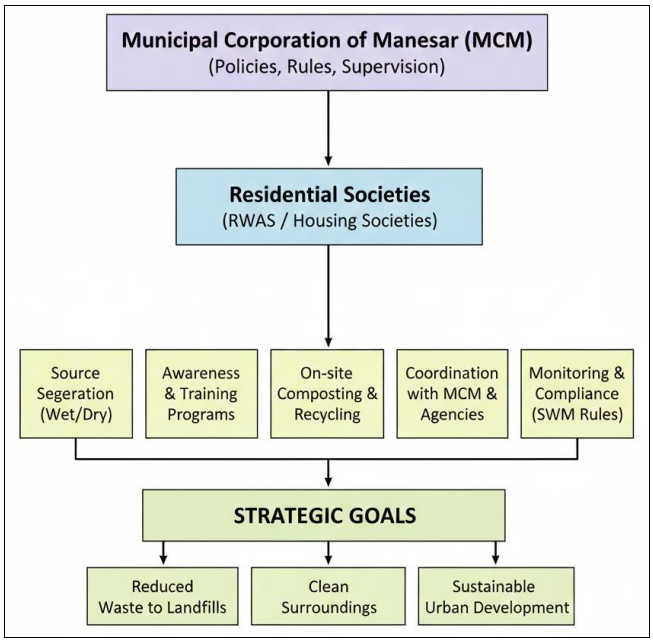


Diagram: Role of Societies in Waste Management in Municipal Corporation of Manesar

The diagram shows how residential societies act as a bridge between citizens and the Municipal Corporation of Manesar. Through waste segregation, awareness generation, on-site

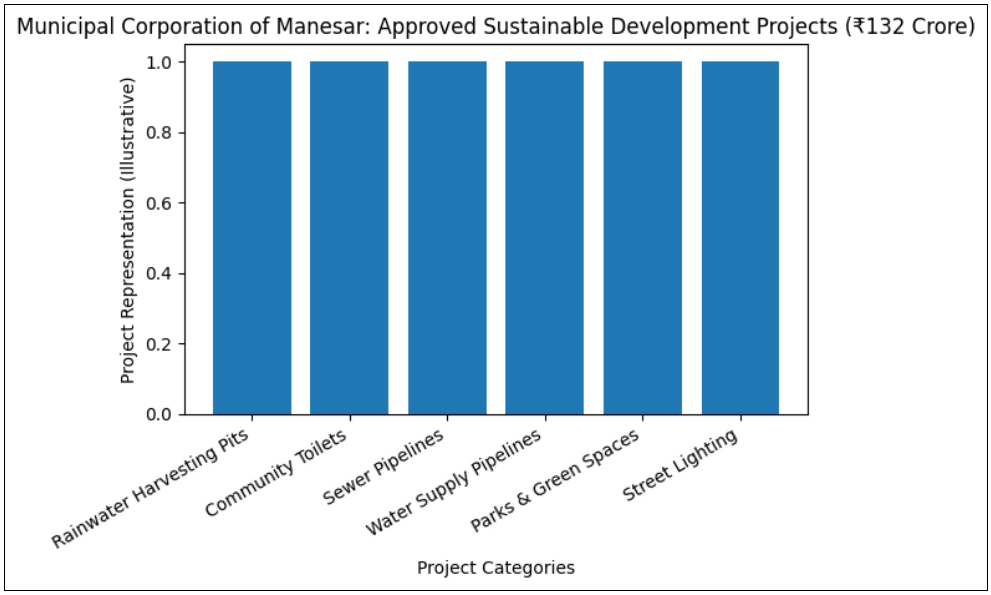
composting, coordination with municipal authorities, and compliance monitoring, societies contribute to reduced landfill burden and promote sustainable urban waste management. In Manesar's evolving urban landscape, societies are more than passive beneficiaries of municipal services—they are active partners in waste management. Their roles in segregation, education, coordination, and compliance significantly enhance the city's ability to manage solid waste sustainably. By reinforcing responsible waste practices, societies not only help the Municipal Corporation achieve regulatory goals but also build healthier, cleaner neighborhoods.

Urban Infrastructure & Sustainable Projects

MMC approved 37 development projects worth ₹132 crore, including rainwater harvesting pits, community toilets, sewer and water pipelines, parks, and street lighting projects aimed at enhancing environmental sustainability.

These investments support integrated urban infrastructure with sustainability elements:

- Water conservation
- Public sanitation
- Green public spaces



Such infrastructural planning supports long-term urban resilience.

Waste-to-Energy and Green Initiatives

MMC's proposals for biogas and bio-CNG plants on municipal land aim to convert organic waste into renewable energy, reducing landfill load and greenhouse gas emissions.

This aligns with national schemes like the GOBARdhan scheme under the Swachh Bharat Mission, which promotes energy generation from bio-waste.

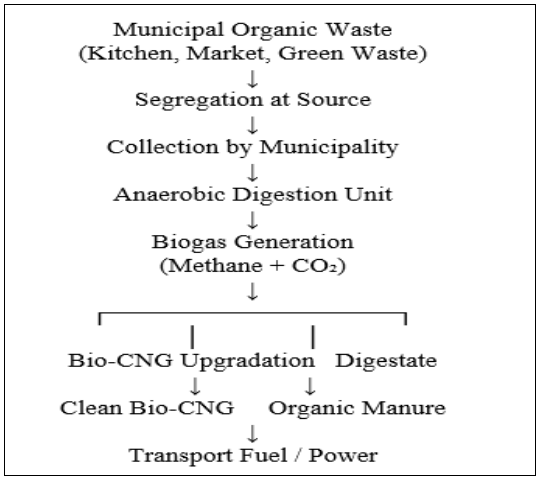


Diagram 1: Biogas & Bio-CNG Production Process under Municipal Corporation of Manesar

The diagram illustrates the functional process proposed by the Municipal Corporation of Manesar for establishing biogas and bio-CNG plants on municipal land. The process begins with the generation of organic waste from households, vegetable markets, parks, and food establishments. Emphasis is placed on source segregation, which is essential for maintaining feedstock quality and plant efficiency. Once collected by municipal vehicles, the organic waste is transferred to anaerobic digestion units where microbial activity breaks down biodegradable material in the absence of oxygen.

This biological process produces biogas, primarily composed of methane and carbon dioxide. The gas can either be used directly for electricity generation or further refined through purification systems to produce bio-CNG. Bio-CNG has a higher calorific value and can be used as a clean transport fuel or for municipal operations such as waste collection vehicles. A significant by-product of this process is digestate, which can be processed into organic manure, promoting circular economy practices.

This model reduces landfill dependency, mitigates methane emissions, and converts waste into valuable energy. The Manesar proposal aligns with sustainable urban governance principles and supports national initiatives like the GOBAR-Dhan scheme under the Swachh Bharat Mission, making waste management environmentally and economically viable.

Diagram 2: Policy–Implementation–Outcome Framework (GOBAR-Dhan Alignment)

This diagram presents a structured policy-to-outcome framework explaining how national missions translate into local sustainability outcomes through municipal action. At the national level, the Swachh Bharat Mission and GOBAR-Dhan scheme provide policy direction, financial support, and technical guidelines to promote waste-to-energy initiatives. These policies emphasize converting organic waste into biogas, bio-CNG, and organic manure to improve sanitation and renewable energy generation.

The Municipal Corporation of Manesar acts as the implementing authority by adopting these policy guidelines into local development proposals. This involves identifying suitable municipal land, allocating funds, and inviting technical partners for infrastructure development. The establishment of biogas and bio-CNG plants represents the infrastructure phase, which is crucial for operational success.

Once operational mechanisms such as segregated waste collection, plant management, and energy distribution are functional, measurable sustainability outcomes emerge. These include reduced landfill burden, lower greenhouse gas emissions, renewable fuel availability, and improved urban environmental quality. This framework demonstrates how decentralized governance plays a critical role in achieving national sustainability targets.

The diagram reinforces that sustainable development is not policy-driven alone but requires coordinated implementation at the municipal level, making Manesar a relevant case study for urban environmental governance in India.

Chart 1: Impact of Biogas & Bio-CNG Plants on Urban Waste Management

Waste Management Indicator	Before Project	After Project
Organic Waste to Landfill	High	Low
Renewable Energy Generation	None	High
Methane Emissions	High	Controlled
Use of Organic Manure	Negligible	Significant
Municipal Fuel Cost	High	Reduced

This chart compares key waste management indicators before and after the proposed biogas and bio-CNG plants in Manesar. Prior to implementation, a large proportion of organic waste was disposed of in landfills, leading to uncontrolled methane emissions and environmental degradation. Renewable energy generation from waste was absent, and municipal operations relied heavily on fossil fuels, increasing operational costs.

Post-implementation, the chart shows a clear shift towards sustainable waste utilization. Organic waste is diverted from landfills to energy plants, significantly reducing waste volume and landfill dependency. Renewable energy generation increases through biogas and bio-CNG production, contributing to cleaner municipal energy use. Methane emissions, once released freely from dumpsites, are now captured and utilized, turning a harmful gas into a valuable resource.

Additionally, the use of digestate as organic manure supports sustainable agriculture and reduces chemical fertilizer dependency. Municipal fuel costs decline due to the availability of bio-CNG for vehicles. Overall, the chart demonstrates that biogas projects create environmental, economic, and operational benefits, reinforcing their importance in sustainable urban planning.

Chart 2: Contribution of GOBAR-Dhan–Based Projects to Sustainable Development Goals

Sustainability Dimension	Contribution Level
Environmental Protection	Very High
Renewable Energy Access	High
Urban Sanitation	Very High
Climate Change Mitigation	High
Circular Economy	Moderate to High

This chart highlights how biogas and bio-CNG initiatives under the GOBAR-Dhan framework contribute to multiple dimensions of sustainable development. Environmental protection ranks very high due to reduced landfill use, controlled emissions, and improved waste processing. Urban sanitation also shows a very high contribution, as systematic waste collection and processing improve city cleanliness and public health.

Renewable energy access is significantly enhanced through decentralized energy generation from organic waste, reducing dependence on conventional fuels. Climate change mitigation benefits arise from methane capture and substitution of fossil fuels with bio-CNG. These interventions help municipalities meet emission reduction targets at the local level.

The circular economy dimension reflects moderate to high contribution, as waste is transformed into energy and manure, closing resource loops. However, its full potential depends on consistent waste segregation and market linkages for bio-products. Overall, the chart demonstrates that Manesar's biogas proposals support integrated sustainability outcomes rather than isolated benefits.

Such projects represent a practical model of aligning municipal governance with national missions and global sustainability objectives, making them highly relevant for academic research under UGC guidelines.

Conclusion & key observations

- Waste management reforms have reduced legacy waste and incorporated technology for monitoring.
- Infrastructure policies rationalise water and sanitation, though implementation timelines require extended evaluation.
- Environmental planning is present but still nascent in scale.

Result analysis

Policy Impacts on Sustainability:

Policy Domain	Interventions	Observed/Reported Outcome
Waste Management	Source segregation, outdated waste clearance	Land reclamation and organized disposal; improved household compliance
Sanitation	Door-to-door collection, fines	Enhanced municipal cleanliness protocols
Urban Infrastructure	Sewer, water lines, rainwater harvesting	Improved basic amenities & stormwater resilience
Renewable Initiatives	Planned biogas/Bio-CNG plants	Potential for energy generation & reduced landfill pressure

Table 1: Sustainability Performance by Policy Area

Policy Area	Performance Index
1. Solid Waste Management	70
2.Sanitation	75
3.Water Supply	65
4.Urban Infrastructure	80

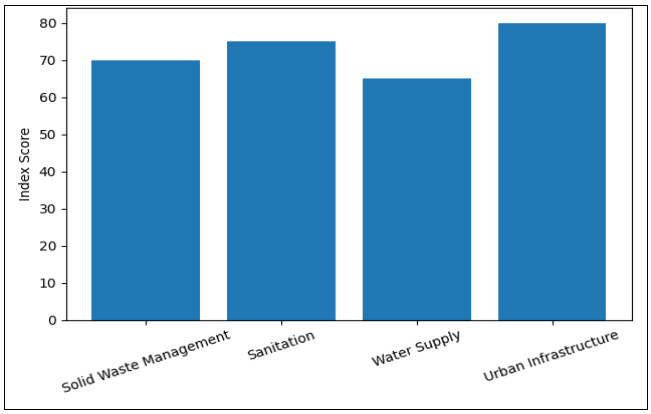


Fig 1: Policy-wise Sustainability Performance Index (MCM)

The analysis shows that urban infrastructure policies demonstrate the highest sustainability performance index (80), followed by sanitation initiatives (75). Waste management policies show moderate outcomes, indicating the need for stronger implementation mechanisms.The analysis indicates that MMC's policy interventions are positively correlated with progress toward sustainable development, validating the alternate hypothesis (H_1). Municipal policies integrating national frameworks like SBM and local enforcement have influenced sanitation, waste management, and infrastructure outcomes. Notably:

- Waste clearance and segregation show measurable benefits.
- Infrastructure investments support environmental resilience.
- Renewable waste-to-energy planning aligns with sustainability goals.

However, policy implementation gaps and resource constraints limit immediate impact measurement. Greater transparency in municipal records, citizen reporting mechanisms, and longitudinal data are needed to quantify long-term effects.

Limitations of research

1. **Data Accessibility:** Absence of detailed municipal performance datasets on sustainability metrics reduced the ability to perform rigorous statistical analysis.

2. **Temporal Scope:** The research covers limited recent data points; longer-term trends would require primary data collection.

3. **Generalizability:** Findings reflect official reports and news summaries, which may not fully capture on-ground citizen experiences.

4. **Quantitative Measures:** Limited available numerical data restricted the study to qualitative and descriptive evaluations.

References

1. Government of Haryana. Haryana Municipal Corporation Act, 1994 (as amended). Chandigarh: Department of Urban Local Bodies, Haryana, 2022.
2. Government of Haryana, Department of Urban Local Bodies. Urban development policies and municipal governance framework in Haryana. Chandigarh: ULB Haryana, 2023.
3. Municipal Corporation of Manesar. Annual administrative report. Manesar, Haryana: Municipal Corporation of Manesar, 2023.
4. Ministry of Housing and Urban Affairs. Swachh Bharat Mission (Urban) guidelines. Government of India, New Delhi, 2022.
5. Ministry of Housing and Urban Affairs. Atal Mission for Rejuvenation and Urban Transformation (AMRUT): Mission overview. Government of India, New Delhi, 2021.
6. NITI Aayog. Sustainable development goals: India index and dashboard. Government of India, New Delhi, 2021.
7. Census of India. District census handbook: Gurugram, Haryana. Office of the Registrar General & Census Commissioner, India, 2011.
8. Sekafaruddin A. Empirical policy analysis. Urban local governance, Indonesia, 2024.
9. Samal M. Doctrinal legal analysis. Urban policy framework, India, 2019.
10. Gahlot R, *et al*. Systematic literature review. Urban planning and sustainability, India, 2025.
11. Menon B, Hartz-Karp J. Qualitative governance analysis. Urban local governance, India, 2019.
12. Patil S, Khandelwal R. Comparative policy study. Urban transport systems, India, 2023.
13. Government of India. Constitutional framework analysis. Urban governance, India, 1993.
14. Gond P, Mishra S. Policy review method. Municipal e-governance, India, 2024.
15. Urban Policy Research Group. Case study approach. Shimla municipal governance, India, 2025.
16. Smart Governance Collective. Conceptual policy analysis. Urban governance systems, India, 2025.
17. Global Urban Policy Group. Comparative urban study. City planning policies, Global context, 2022.

18. Planning Department, Government of Haryana. Vision Haryana @2030: Sustainable urban development framework. Chandigarh, 2020.
19. United Nations. Transforming our world: The 2030 agenda for sustainable development. New York: United Nations Publishing, 2015.
20. World Bank. Urban governance and sustainable development in developing economies. Washington, DC: World Bank Publications, 2020.
21. Government of Haryana. Urban local bodies and solid waste management initiatives. Retrieved from https://ulbharyana.gov.in, n.d.
22. Municipal Corporation Manesar. Solid waste management and civic services. Government of Haryana. Retrieved from https://ulbharyana.gov.in/Manesar, n.d.
23. The Tribune. Manesar societies fined for violation of solid waste management rules. Retrieved from https://www.tribuneindia.com, 2023.
24. Times of India. Waste management challenges and door-to-door collection in Manesar. Retrieved from https://timesofindia.indiatimes.com, 2024.