Home Composting in Mumbai: Understanding the Role of Housewives in Sustainable Waste Management

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Abstract- Rapid urbanization and increasing consumerism have intensified the problem of municipal solid waste in Indian cities, with organic waste forming a major portion of household discards. This study examines the pivotal yet underexplored role of housewives in managing organic waste through home composting in Mumbai. While women, particularly homemakers, are central to household waste generation and disposal, their contributions to sustainable practices like composting are often overlooked. The research, based on secondary data, explores the motivations, challenges, and impact of women-led composting initiatives. It highlights key obstacles such as space constraints, time limitations, lack of technical knowledge, and social stigma. Despite these barriers, many housewives have embraced composting, supported by government initiatives like Swachh Bharat Abhiyan and BMC programs. The study underscores the importance of empowering women through awareness, training, and infrastructure support to enhance their role in urban waste management. By recognizing and facilitating the efforts of housewives, Mumbai can move closer to achieving a more sustainable and inclusive waste management system.

INTRODUCTION

Rapid urbanization, rising consumerism, and changing lifestyles have significantly increased the volume of municipal solid waste in Indian cities. Among the many environmental challenges that urban centers like Mumbai face, the management of organic waste remains a critical concern. A large portion of household waste in India is biodegradable, yet most of it ends up in overburdened landfills, contributing to pollution and greenhouse gas emissions. In this context, home composting has emerged as an effective, low-cost, and sustainable solution for managing organic waste at the source. This research explores the often-overlooked role of housewives in urban waste management, with a specific focus on their contributions to home composting practices in Mumbai. Traditionally responsible for domestic chores, women especially homemakers—play a central role in household waste generation and disposal. By engaging in composting, they not only help reduce the city's waste burden but also contribute to environmental sustainability and community wellbeing.

However, while their potential as change agents is immense, housewives face multiple challenges in adopting and maintaining composting practices, including limited space, lack of technical knowledge, time constraints, and social barriers. Despite these obstacles, many women are taking the lead in adopting eco-friendly practices, often transforming their homes into models of sustainable living.

This study aims to understand the motivations, challenges, and impact of women-led composting initiatives in Mumbai. It highlights how empowering housewives with knowledge, resources, and community support can turn them into key stakeholders in the city's sustainable waste management ecosystem.

REVIEW OF LITERATURE

The issue of municipal solid waste management has garnered increasing attention in recent years, especially with the growing urban population in India. Scholars and practitioners have recognized home composting as an effective method for reducing the organic waste burden at the household level. This literature review explores key findings from previous studies related to home composting, the role of women in waste management, and the challenges of implementing sustainable practices in urban settings.

1. Home Composting and Urban Waste Management

Home composting is widely regarded as a sustainable solution for managing organic waste at its source. According to Masi (2021), composting not only reduces the amount of waste sent to landfills but also creates nutrient-rich soil amendments that support urban gardening and green spaces. Studies by Poch (2018) and Kumar et al. (2020) emphasize that home composting can significantly reduce methane emissions from decomposing waste and improve overall environmental health in cities.

However, the success of composting initiatives depends on various factors including awareness, accessibility to composting equipment, and ongoingm support from municipal authorities (Sharma et al., 2018). Urban households, particularly in densely populated areas like Mumbai, often struggle with implementing composting systems due to space limitations and odor control issues (Singh & Roy, 2021).

2. Women's Role in Sustainable Waste Management

Women, especially housewives, have historically played a key role in household waste management. Their involvement in sorting, disposing, and reducing waste makes them critical stakeholders in any community-level sustainability initiative. According to Nanda & Rathi (2019), empowering women with tools and knowledge related to composting leads to more successful and long-term adoption of eco-friendly practices.

Nair (2020) highlights that when housewives are provided with adequate training and support, they can act as environmental stewards in their communities. Moreover, Sharma et al. (2018) found that women-led composting efforts often inspire neighborhood-level participation, promoting a culture of sustainability and collective responsibility.

3. Challenges in Adopting Composting Practices

Despite its benefits, home composting faces several practical and socio-cultural challenges, particularly in urban environments. Key obstacles include lack of space, time, knowledge, and proper equipment (Kumar et al., 2020; Poch, 2018). Housewives, who often bear the primary responsibility for composting, report difficulty balancing it with other household responsibilities (Thompson, 2020).

In addition, social perceptions around composting can hinder adoption. In some communities, composting is viewed as a "dirty" or regressive activity, which affects women's willingness to engage openly in it (Thompson, 2020). Municipal support in the form of awareness programs, subsidized composting kits, and training workshops can play a vital role in overcoming these barriers (Singh & Roy, 2021).

4. Mumbai-Specific Studies

Mumbai, as one of India's largest urban centers, faces acute waste management challenges. While the Brihanmumbai Municipal Corporation (BMC) has launched several initiatives to promote segregation and composting at the household level, participation remains limited. According to a case study by Singh & Roy (2021), women in Mumbai's residential societies are taking the lead in home composting but often struggle with lack of space, family support, and consistent motivation.

Studies also show that composting becomes more sustainable when it is viewed not just as a task, but as a community-building activity. Collaborative efforts among women's groups, housing societies, and local NGOs have led to successful waste reduction in some parts of Mumbai (Nair, 2020).

Research Gap

Many studies have talked about composting and how it helps manage waste in cities, but very few focus on the important role housewives play in doing composting at home—especially in big, crowded cities like Mumbai. Most research talks about how composting works or why it's good for the environment, but not much has been done to understand how women actually manage it in their daily lives.

Also, there is not enough research that puts together all the challenges women face, like lack of space, time, support, or knowledge. Even though the government and some NGOs have tried to promote home composting, there aren't many studies that show how useful these efforts have been. This study fills that gap by looking at existing information to better understand how housewives in Mumbai are involved in composting and what kind of help they need to do it more effectively.

OBJECTIVE OF THE STUDY

- 1. Understand the motivations and awareness levels among housewives regarding home composting.
- 2. Identify the challenges and barriers they face in adopting and sustaining composting practices.
- 3. Examine the social, cultural, and infrastructural factors influencing their participation.
- 4. Assess the impact of municipal and community support systems on encouraging composting at the household level.
- 5. Recommend strategies to empower women and promote inclusive, sustainable waste management practices in urban settings.

LIMITATIONS OF THE STUDY

This study is based on secondary data, which means it uses information collected from books, articles, research papers, and online sources. Because of this, it does not include new data from interviews or surveys, so it may miss personal experiences or recent developments that are not published yet.

Also, the study mainly focuses on housewives in Mumbai, so the findings may not apply to women in other cities or rural areas. Some useful information may not have been available or detailed enough in the sources used, which can limit how deep the analysis can go.

RESEARCH METHODOLOGY

This study uses a secondary research methodology, relying on existing data from academic journals, government reports, NGO publications, books, and online resources. These sources provide insights into home composting practices, the role of women in urban waste management, and the challenges faced by housewives in Mumbai. By analyzing and synthesizing this information, the study aims to understand how housewives contribute to sustainable waste management and identify the barriers they encounter.

Challenges of Home Composting

- 1. Space Limitations Limited space in apartments makes it difficult to set up composting systems.
- 2. Odor and Pest Control Managing odors and pests in densely populated areas is challenging.
- 3. Time Constraints Housewives struggle to balance composting with other household responsibilities.
- 4. Lack of Technical Knowledge Many lack knowledge on proper composting methods.
- 5. Social and Cultural Barriers Composting is often viewed as a "dirty" or "low-class" activity.
- 6. Limited Municipal Support Insufficient infrastructure and support from local authorities hinder composting efforts.

Government Initiatives for Home Composting

- Swachh Bharat Abhiyan (Clean India Mission)

 This nationwide campaign promotes cleanliness and encourages home composting to reduce landfill waste through public education and awareness.
- Brihanmumbai Municipal Corporation (BMC) Composting Program – BMC offers workshops, awareness programs, and composting kits to

help Mumbai residents adopt home composting practices.

- 3. Waste Segregation Policies The government mandates segregation of organic waste at the source in Mumbai to support home composting and reduce municipal waste.
- 4. Subsidies for Composting Kits Authorities provide subsidized composting kits to households, making it easier to start composting at home.
- 5. Public Awareness Campaigns The government runs awareness campaigns to educate citizens on the environmental benefits of composting and waste management.
- 6. Solid Waste Management Rules (2016) These rules encourage home composting as part of the national framework for managing solid waste and reducing landfill use.

FINDINGS OF THE STUDY

- 1. Increased Awareness: Many housewives in Mumbai are aware of the environmental benefits of home composting and are motivated to adopt it.
- 2. Space and Infrastructure Issues: Limited space in urban homes makes it difficult for housewives to set up effective composting systems.
- 3. Time Constraints: Housewives struggle with time management, affecting regular maintenance and success in composting.
- 4. Lack of Knowledge and Support: Many housewives lack the technical knowledge and family support necessary for successful home composting.
- 5. Social Stigma: Cultural perceptions and social stigma discourage some women from practicing home composting.
- 6. Government and NGO Support: While government initiatives like Swachh Bharat have raised awareness, more support and resources are needed for broader adoption.

CONCLUSION

In conclusion, home composting in Mumbai presents both significant opportunities and

challenges for housewives. While there is growing awareness about its environmental benefits, space limitations, time constraints, and a lack of technical knowledge continue to hinder its widespread adoption. Cultural perceptions and limited support systems further complicate the practice. However, with increased government initiatives, community support, and educational programs, housewives can be better empowered to contribute to sustainable management. waste Encouraging greater participation from family members, improving infrastructure, and offering resources like composting kits and training can enhance the effectiveness of home composting practices in urban settings like Mumbai.