

Exposing the Dangers of Improper Waste Management and Unhygienic Embankment that Cause Air and Plastic Pollution: A Case Study in Mohammadpur, Dhaka.

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Abstract

The urban community of Mohammadpur in Dhaka, Bangladesh, struggles with the alarming results of improper refuse management and the deplorable state of its embankment. This study emphasizes the findings of a comprehensive research study designed to reveal the dangers posed by these challenges and propose sustainable solutions. The study exposes the negative effects of improper waste disposal on public health and the environment and sheds light on the unsanitary conditions along the embankment through a rigorous evaluation. This research offers a road map for establishing a cleaner, healthier, and more sustainable Mohammadpur by incorporating innovative waste management strategies and proposing infrastructure improvements.

Introduction

Mohammadpur, a bustling urban neighborhood nestled in Dhaka City, Bangladesh, bears witness to the grave consequences of improper waste management and the deteriorating conditions of its embankment. The proliferation of urbanization and population density has led to escalating challenges in waste disposal, exacerbating the threats posed to public health and the environment. Moreover, the unhygienic conditions prevalent along the embankment further compound the issue, affecting the overall quality of life for residents. This research study endeavors to shed light on the perils arising from these interrelated challenges through a comprehensive assessment. By exploring the multifaceted impacts of improper waste management and embankment neglect, the study seeks to propose sustainable and innovative solutions that can pave the way for a cleaner, healthier, and more livable Mohammadpur.

Research Objectives

- **Broad Objectives**
The main objective of this study is to explore the improper waste management and unhygienic embankment conditions in Mohammadpur, Dhaka.
- **Specific Objectives**
 - I. To investigate the causes of improper waste management and an unsanitary embankment.
 - II. To analyze the impact of socioeconomic and public health conditions on the residents of that area
 - III. To suggest some policy recommendations to address these issue

Methodology

- Mixed Method Research
- Sampling-Purposive, Simple Random Sampling
- Area-Mohammadpur
- Quantitative(survey)-250 participants
- Qualitative(Focus Group Discussion)-8 groups

Limitations

- Limited sample size
- Subjective bias
- Time and Budget constraint

Ethical consideration

Ensuring informed consent and confidentiality of participants data

Conclusion

The study highlights the detrimental impact of improper waste management and unhygienic embankments on plastic and air pollution. Urgent action is needed to implement sustainable solutions through enhanced waste management, recycling, and strict regulations. Collaboration between stakeholders and community participation are vital for success, allowing Mohammadpur to set an example for cleaner, healthier cities that safeguard public health and the environment for future generations.

Policy Recommendation

- Encourage the adoption of "plastic-free" zones in markets and shopping areas to reduce plastic pollution
- Encourage the establishment of community-based recycling centers
- Impose fines for improper waste disposal
- Invest in waste collection systems and establish waste segregation points in residential areas to encourage proper waste disposal practices
- Develop green spaces and parks within Mohammadpur to promote recreational activities while reducing urban heat and air pollution
- Enhancing consciousness about proper waste management

Findings and Discussion

Quantitative

I. Reasons

- 68.2% respondent complained about irregularities of municipals waste collection and cleaning services
- 43.5 % slum dwellers dumped wastage into embankment

II. Impact

- 73.1% respondent have faced health related problem through polluted water and improper waste disposal system

Qualitative

- Unconscious about proper waste management
- Slum dwellers lives around canal/embankment and threw wastage on canal
- Improper sewerage system
- Polluted water of canal caused various disease like diarrheas, dengue, chronic obstructive pulmonary disease, cholera, dysentery
- Improper plastic disposal

