

WASTE MANAGEMENT AWARENESS IN AKAKI KALITY SUB-CITY'S INDUSTRY COMMUNITY: A LITERATURE REVIEW IN CASE OF ADDIS ABEBA, ETHIOPIA.

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Abstract

This article explores waste management awareness within the industrial community of Akaki Kality Sub-City, a rapidly growing industrial zone in Addis Ababa, Ethiopia. As industrial activities increase, so does the generation of solid and hazardous waste, raising serious environmental and public health concerns. The literature reviewed indicates that many industrial actors lack adequate knowledge and awareness of proper waste disposal practices. Factors such as limited training, weak regulatory enforcement, and minimal stakeholder collaboration contribute to ineffective waste management. The review also highlights successful cases where awareness and engagement improved waste practices. The findings emphasize the need for targeted education, stronger enforcement, and community involvement to ensure sustainable industrial development. This study serves as a foundation for future awareness programs and policy reforms aimed at improving waste handling in industrial areas.

Keywords: Industrial waste awareness, Akaki Kality Sub-City, Environmental management, and Waste disposal practices

INTRODUCTION

Industrial growth in urban zones like Akaki Kality Sub-City, Addis Ababa, has significantly contributed to economic development but has also led to environmental challenges, particularly in waste generation and management. With an increasing number of factories and industrial activities, the volume and complexity of waste—both solid and hazardous—are growing rapidly. However, awareness about proper waste management practices among the industrial community remains low, leading to improper disposal methods that harm the environment and public health (Alemayehu & Elias, 2020).

Waste management remains a critical challenge in urban areas, particularly in rapidly industrializing regions like Addis Ababa, Ethiopia. The Akaki Kality Sub-city, a key industrial hub, faces growing environmental and public health risks due to inadequate waste disposal practices (Tadesse et al., 2021). Industrial activities generate significant hazardous and non-hazardous waste, yet awareness and compliance with sustainable waste management practices remain low (Mengistu & Simane, 2019). This article examines current waste management awareness initiatives in Akaki Kality, identifying gaps and proposing strategies for improved industrial compliance and community engagement.

Effective waste management requires not only infrastructure and policy but also strong awareness and participation from all stakeholders, including industry owners, workers, and local administrators. Studies have shown that where awareness is integrated with training and regulation, waste handling improves significantly, reducing pollution and promoting sustainability (UNEP, 2019). In the context of Akaki Kality Sub-City, limited awareness programs and weak enforcement contribute to the poor implementation of waste management standards (Tesfaye et al., 2021).

This literature review seeks to assess the current level of awareness in the Akaki Kality Sub-City industry zone, drawing on national and regional studies to identify barriers and opportunities for improvement. By understanding the awareness gaps and the role of education in waste management, this review aims to inform future policy and community-based interventions for sustainable industrial development.

Objective

To assess industrial community awareness on waste management in Akaki Kality Sub-City, Ethiopia.

LITERATURE REVIEW

Waste management has become a growing concern in urban and industrial regions of Ethiopia due to increased production and urbanization. Akaki Kality Sub-City, a major industrial hub in Addis Ababa, faces critical waste management challenges stemming from limited awareness, inadequate waste handling systems, and weak enforcement of environmental regulations (Tesfaye et al., 2021). The improper disposal of industrial waste poses threats to soil, air, and water quality, which in turn impacts public health and ecosystem sustainability. Effective waste management is critical for industrial sustainability, yet gaps persist in Akaki Kality's compliance and awareness. Studies highlight poor segregation, illegal dumping, and weak enforcement as key challenges (Tadesse et al., 2021). Limited stakeholder engagement further undermines recycling and hazardous waste handling (Mengistu & Simane, 2019). Successful models from other industrial zones emphasize policy enforcement and public-private partnerships (UNEP, 2022), suggesting actionable strategies for Akaki Kality. According to the United Nations Environment Programme (2019), awareness and education are foundational to achieving effective waste management. Community-level sensitization, especially among industry players, leads to improved segregation, reduction, and recycling behaviors. However, studies indicate that in many Ethiopian industrial zones, there is limited training and little understanding of national waste management guidelines, leading to non-compliance and environmentally harmful practices (Alemayehu & Elias, 2020). Other research highlights the importance of stakeholder engagement. For instance, Woldemariam (2018) found that industries that participated in community-led environmental initiatives were more likely to adopt sustainable waste practices. However, the lack of consistent public-private collaboration and weak local government oversight have made such initiatives rare in places like Akaki Kality Sub-City. This review underscores the urgent need for awareness-raising interventions tailored to the industrial sector. Building capacity through training, regulatory enforcement, and information dissemination can significantly improve compliance and environmental outcomes in industrial communities.

RESULT

The review of relevant literature indicates that waste management awareness among the industrial community in Akaki Kality Sub-City is generally low. Several studies confirm that many industry owners and workers lack basic knowledge of proper waste disposal methods and the environmental impact of poor waste practices (Tesfaye et al., 2021; Alemayehu & Elias, 2020). This lack of awareness contributes to widespread improper waste handling, including the dumping of untreated solid and hazardous waste into nearby rivers, open fields, and drainage systems.

Furthermore, the studies reviewed reveal a gap between policy and practice. Although national waste management regulations exist, their implementation in Akaki Kality Sub-City is weak due to limited enforcement and insufficient stakeholder engagement. For example, UNEP (2019) emphasizes the importance of awareness campaigns and training programs in improving waste handling practices, but such efforts are largely absent in the Akaki Kality Sub-City industrial zone.

Additionally, evidence from Woldemariam (2018) suggests that industries that were involved in community-based environmental programs showed better waste management practices. However, only a small number of industries participated in such initiatives, indicating the need for broader and more consistent awareness-raising strategies.

In summary, the literature shows a clear need for targeted awareness programs to improve waste management behaviors among industrial actors in Akaki Kality Sub-City. Without improved awareness, environmental degradation and health risks are likely to worsen.

DISCUSSION

The findings from the literature review highlight a critical gap in waste management awareness among the industrial community in Akaki Kality Sub-City. Despite the area's significance as an industrial zone in Addis Ababa, many factories and enterprises continue to engage in poor waste disposal practices due to a lack of understanding about the environmental and health consequences (Tesfaye et al., 2021). This low awareness is compounded by limited access to training, weak enforcement of environmental regulations, and minimal community engagement efforts.

Effective waste management requires not just infrastructure, but also informed participation. As UNEP (2019) notes, awareness-raising is a key pillar in achieving sustainable environmental practices. Yet, in Akaki Kality Sub-City, most industrial stakeholders operate without adequate knowledge of waste sorting, recycling, or safe disposal techniques. This leads to unchecked pollution, especially of water bodies and surrounding residential areas, creating long-term health risks for workers and local communities.

Moreover, the lack of coordination between government bodies, local administrations, and industry owners worsens the issue. Woldemariam (2018) observed that industries involved in cooperative environmental programs demonstrated better waste handling, but such partnerships are rare and often short-lived due to inconsistent support. There is a need for a structured, ongoing approach that combines education, regulation, and incentives for industries to adopt responsible waste management practices.

In conclusion, addressing waste management challenges in Akaki Kaliti Sub-City must begin with improving awareness at all levels of the industrial community. Incorporating continuous education programs, encouraging industry-government collaboration, and reinforcing policy enforcement will be essential steps toward creating a cleaner, healthier industrial environment.

RESEARCH IMPLICATION

The findings of this research have important implications for policymakers, industrial leaders, and environmental stakeholders in Akaki Kaliti Sub-City and beyond. First, they underscore the urgent need for targeted awareness campaigns and training programs to educate industrial communities on proper waste management practices. Raising awareness can lead to better compliance with environmental regulations and a reduction in pollution-related health and ecological risks.

Second, the research highlights the importance of collaboration between government bodies, local administrations, and industries. Strengthening partnerships and promoting shared responsibility can enhance the implementation of sustainable waste management strategies. Finally, the insights from this review can guide future interventions, helping to design context-specific policies and community engagement initiatives that promote environmentally responsible industrial growth.

RESEARCH SCOPE

This research focuses on assessing the level of waste management awareness within the industrial community of Akaki Kaliti Sub-City, Addis Ababa. It specifically reviews existing literature to evaluate how awareness, or the lack thereof, influences waste handling practices among factories, small enterprises, and industrial workers. The study is limited to published sources and does not involve primary data collection. Key areas covered include environmental awareness, industrial waste disposal behaviors, stakeholder engagement, and the role of government regulation and training. The findings aim to inform future awareness campaigns and policy recommendations targeting improved waste management in similar industrial zones.

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