

SETTING THE PATH: CHALLENGES AND STRATEGIES FOR ENHANCING SANITATION IN DAVAO CITY

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ABSTRACT

This research paper discusses the challenges and strategies for enhancing sanitation in a rapidly expanding urban area with multi-faceted sanitation issues. Through a literature review and semi-structured interviews with key informants, this qualitative study found that the primary challenges are a lack of sanitary sewerage systems, weak enforcement of waste management policies, and high levels of open defecation. Despite the existence of multiple policies and plans to develop sanitation infrastructure, these three challenges have remained unaddressed, posing significant health and environmental risks. The study suggests that collaboration between community groups, policy-makers, and stakeholders is necessary to focus on investing in sanitation infrastructure, improving waste management, and changing the behavior of vulnerable urban populations. Addressing sanitation challenges is critical for developing a sustainable and healthier urban environment in Davao City.

Keywords: Sanitation, Sewerage System, Waste Management, Open Defecation

1. INTRODUCTION

Sanitation is a cornerstone of public health, yet its effective implementation remains a formidable challenge, especially in rapidly growing urban centers like Davao City. As the largest city in the Philippines in terms of land area and one of the fastest-growing urban centers in Southeast Asia, Davao City grapples with a myriad of sanitation-related issues. (Alama, 2024). The city faces multifaceted challenges that require concerted efforts and innovative solutions, from access to clean water and proper waste management to the prevalence of open defecation and inadequate sewerage systems. (WHO, 2024).

With a population exceeding 1.6 million residents and a burgeoning urban landscape, the demand for improved sanitation infrastructure and practices has never been more pressing. (Alama, 2024). The consequences of inadequate sanitation are far-reaching, impacting public health, the environment, the economy, and overall quality of life (WHO, 2024). Knowing what problems and challenges prevent sanitary conditions in Davao City from improving is essential. Such knowledge is needed to develop measures and policies that address these problems and difficulties and thus effectively mitigate them to create a healthier and more sustainable environment in the city. This paper addresses the critical issues and challenges Davao City faces as it tries to improve sanitary conditions and outlines possible solutions and recommendations to facilitate positive change.

2. OBJECTIVE OF THE STUDY

This study aimed to identify and analyze the critical problems and challenges hindering sanitation improvement in Davao City.

3. METHODOLOGY

This study reviewed literature, research papers, reports, and government publications about sanitation in Davao City. It also gathered information from the opinions of three professionals involved in addressing the issues and difficulties related to enhancing Davao City's sanitation.

This study's primary data collection method involves semi-structured interviews with key informants. Purposive sampling will select participants with relevant expertise and experience in sanitation-related initiatives, policymaking, public health, urban planning, and community development within Davao City (Sarah, P, et al., 2020). The interviews will be conducted face-to-face or virtually, depending on the preferences and availability of the participants.

As part of the research process, we will conduct documentary analysis, in addition to interviews, to gather further data from official documents, reports, policies, and academic literature related to sanitation issues in Davao City. These will better comprehend the historical, social, political, and economic factors that impact the city's sanitation landscape. This contextual information will enrich our research and help us comprehensively understand the issue.

Ethical considerations will be paramount throughout the research process. Informed consent will be obtained from all participants before their involvement in the study, ensuring voluntary participation and confidentiality of their responses.

The research will adhere to ethical guidelines for conducting research with human subjects, including principles of respect, beneficence, and justice (American Psychological Association. , 2017).

By employing a qualitative methodology, this research aims to comprehensively understand the problems and challenges hindering sanitation improvement efforts in Davao City, informing evidence-based interventions and policy recommendations for fostering positive change in the urban sanitation landscape.

4. RESULTS AND DISCUSSION

The thematic analysis of the participant's responses and the documentary overview revealed the problems and challenges to improving sanitation. The following are Inadequate Sewerage System, Weak Implementation of Waste Management, and Open Defecation.

4.1 Inadequate Sewerage System

Sewerage systems are crucial in carrying waste away through pipes and improving community health, particularly in densely populated urban areas (Jeff Conant and Pam Fadem, 2012). However, to mitigate health risks, sewage must undergo treatment to ensure water safety for return into waterways and reuse (WHO, 2024). Sewage treatment is costly; some people need treatment to dump their sewage. The spread of waste and all the germs, worms, and toxic chemicals it may contain causes health problems such as hepatitis, cholera, and typhoid in places where sewage is dumped. (Jeff Conant and Pam Fadem, 2012).

In Davao City, the deterioration of water quality in local water bodies has emerged as a significant concern. Sanitation emerges as a vital challenge for ensuring the health and well-being of citizens, a challenge exacerbated in urban areas where water demand is high and wastewater treatment infrastructure is limited. (JICA, 2023).

Developing sewerage is a priority area in the Davao City Infrastructure Development Plan and Capacity Building Project. (JICA, 2023).

4.2 Weak Implementation of Waste Management

Waste management is not merely eliminating waste to reach a greener future. We must adopt waste reduction and recycling practices on both individual and collective levels. Under Republic Act No. 9003, or the Ecological Solid Waste Management Act of 2000, barangays in Davao City are mandated to establish materials recovery facilities (MRFs) to receive, sort, process, and store compostable and recyclable materials (Republic Act No. 9003, 2001). These facilities are essential for reducing the volume of waste disposed of in the sanitary landfill in Barangay New Carmen, Tugbok District, which has exceeded its intended lifespan. However, despite this legal requirement, many barangays in Davao City still need to implement the solid waste management program fully (Colina, 2023). Both individual and collective efforts must address these challenges and transition toward a more sustainable waste management system.

4.3 Open Defecation

Open Defecation As defined by the Joint Monitoring Program (JMP) for Water Supply, Sanitation and Hygiene of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), open defecation is the practice whereby people go out into the fields, bushes, forests, open bodies of water, or other open spaces rather than use the toilet to defecate. These can pollute the environment and cause various health-related problems (WHO, 2024). Davao Region is almost a third of the national rate of open defecation. Approximately 65,081 people are practicing open defecation in 2015. The high number of informal settlers along coastlines and waterless areas without access to sanitation facilities is responsible for the increase in the figure.

The Department of Health (DOH) has issued an administrative order with guidelines for implementing the Philippine Approach to Sustainable Sanitation to achieve zero open defecation. However, despite having this policy, the lack of sanitation remains a public health problem (Alama, 2024). To achieve Zero Open Defecation (ZOD), all barangay captains of 182 barangays in Davao City should support the program, especially those along the coastline—ideally, one household and one toilet.

5. CONCLUSION

To conclude, the results of the thematic analysis and the documentary overview emphasize the numerous and intricate problems authorities face in their quest to improve sanitation in Davao City. The problems of a lack of sewerage system, ineffective promotion of waste management and recycling practices, and widespread open defecation signalize the need for urgent and organized measures to be taken. The deterioration of water quality in the bodies due to the lack of capacity of local sewage plants and the lack of sanitary norms and enforcement supports this argument.

The poor implementation of waste management practices calls for a culture of waste reduction and recycling at the individual and community levels. Although the law requires the creation of materials recovery facilities, effective

community participation and law enforcement are needed to lower waste production and reduce environmental damage. Furthermore, open defecation exposes residents to significant health risks and illustrates the importance of providing all citizens with access to sanitation facilities, especially those living in informal settlements. Zero Open Defecation will only be accomplished with solid cooperation between several actors, including local governments, community representatives, and people, to encourage the uptake of toilets and enhance sanitation facilities.

Considering these challenges, stakeholders in Davao City must prioritize sanitation enhancement as a fundamental aspect of sustainable urban development. By addressing the identified issues through strategic planning, policy implementation, and community engagement, Davao City can pave the way toward a healthier, more resilient, and sustainable future for all its residents.

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