



**CHALLENGES CONFRONTING LOCAL
AUTHORITIES IN SOLID WASTE MANAGEMENT: THE CASE
OF DANGAMVURA RESIDENTIAL AREA, MUTARE, ZIMBABWE**

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Abstract:

Solid waste management has become one of the major challenges in both public circles and environmental health at the global level. The extent of the problems being faced as a result of improper solid waste management cannot be understated for example the illegal dumping and burning of municipal waste has become a common phenomenon in most Zimbabwean towns and cities. Studies regarding solid waste management have been widely researched by various scholars across the globe. In Zimbabwe, studies regarding solid waste management have been studied by scholars like Mlaudzi (2017) and Mutsvanga, et al. (2018) among others. Most of the studies focus on major urban centres and lack much information on residential areas. This study focuses on the challenges faced by local authorities in solid waste management in Dangamvura, Mutare. The main objectives of the study include: exploring the challenges being faced by the city of Mutare

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in solid waste management within the Dangamvura residential area, determining how these challenges are affecting the community and assessing the strategies and policies adopted by the city council to address these challenges. The researcher employed the mixed method of data collection and 60 participants took part in the research. The key informants were drawn from the city of Mutare. The main challenges which were being faced by the council in solid waste management in Dangamvura included poor community engagement, understaffing, urban sprawl, political interference, shortage of resources and natural hazards. These challenges affected the residents in a number of ways which included: disease outbreaks through water contamination, loss of natural beauty of the area and inconsistency in refuse collection. Various efforts were made to improve the state of service delivery in Dangamvura which included environmental education, law enforcement, motorizing cleansing, purchasing new refuse trucks and provisions of bins. The recommendations that have been provided include depoliticizing the issue among others that have been listed at the end of this study.

Keywords: solid waste management, challenges and prospects, Dangamvura, Mutare, Zimbabwe

1. Introduction

Solid waste management has become an issue of concern among scholars from both developed and developing countries due to the increase in the amount of waste being generated as a result of population increase. The subject has been studied from different dimensions with the aim being to achieve sustainable solid waste management. The School of Business and Economics (2019) gives a view on the economic impacts of solid waste after a natural disaster in Japan pointing out that solid waste management is very expensive. In the Netherlands, 40% of the municipal budget is being spent on environmental-related issues and with no doubt solid waste management taking also much of the budget and in response to this Bartelings (2018) conducted an investigation into how the country can reduce the generation of solid waste. Matteo and Sussanna (2019) also pointed out that in Italy, there is a problem with waste collection systems that need to be addressed. Also, Andy (2018) claims that open dumping of waste in Colorado, USA has led to dangerous greenhouse gases like methane which have a strong negative impact on climate change. In China, solid waste management is a problem and due to this Jingshan, (2020) conducted a study on how to solve the problems of solid waste management which are being driven by the increased population.

Salleyway, Hiroshan and Hulsman (2017) also studied the challenges of solid waste management in Mozambique. Due to overpopulation in Maputo solutions to curb the ineffective solid waste management in the area are hard to come by. Sambo, Muchindu, Nyambe and Nyamauchi (2020) analyse the problems associated with waste collection in Zambia in the light of sustainable solid waste management. Dlamini (2020) gives an overview of the roles of the informal sector in Johannesburg South Africa while

in Ghana, Deku (2020) also examines community participation and public awareness in the management of solid waste for the country. Muhamed (2019) studies the effectiveness of waste management policies of Malaysia for sustainable management purposes. In Zimbabwe, more researches have been carried out regarding municipal solid waste management. Chatira, Chidarikire and Tarisayi (2019) studies the challenges of solid waste management waste at a school in Masvingo. Musademba, Masiyanyika, Muzinda, Nhemachena and Jambwa (2019) point out that the implementation of reducing and recycling of biodegradable waste is expensive in the country. Waste collection systems for Harare city have been also analyzed by Muswere (2019). Solid waste if not properly handled can cause serious environmental and public health threats. This is supported by Chireshe (2020) in his study focusing on the environmental and health impacts of illegal dumping of municipal waste in the city of Masvingo. Border towns also face challenges on solid waste management. Mlaudzi (2017) also researches on the challenges faced by Beitbridge town council in solid waste Management. In the city of Mutare, Chirema (2017) clarifies on the advantages of community participation in Sakubva residential area. From the above background, it can be noted that municipal authorities face various challenges in the management of waste. No studies have been carried out in the city of Mutare regarding this issue. Hence this paper examines the situation in Dangamvura high density suburb.

2. Study Area

Mutare City is located in the eastern highlands of Zimbabwe near the border with Mozambique and is in Manicaland province at a latitude of 18 degrees 58"0 and longitude 32 degrees 40"0. Dangamvura is a district under Mutare urban. Its geographical location is 19 degrees 0"0" South, 32 degrees 35"0 East of Mutare City.

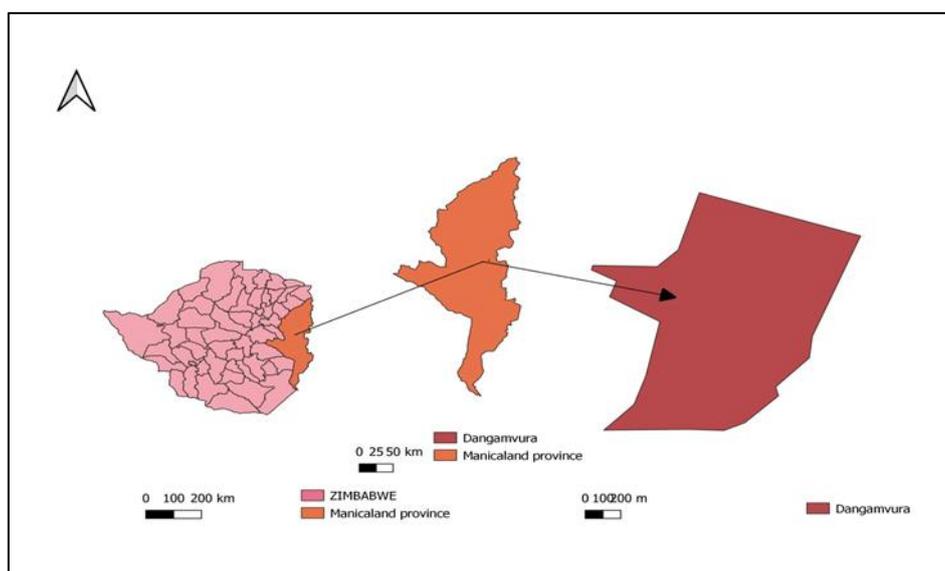


Figure 1: A Map Showing Dangamvura High-density Suburb in Mutare City

Dangamvura area is located at an area of 1014.75 meters above sea level. It has a humid sub-tropical, dry winter climate and the yearly district temperature is 20.04 degrees Celsius and is lower than Zimbabwe's average temperatures by -2.69%. Dangamvura receives about 137.2 millimeters of precipitation and has 121.58 rainy days annually. According to Zimstats (2022), Mutare City as a whole has a population of 224802. According to the African development bank group (2022), Dangamvura has a population of more than 120 000 people. The area is characterized by two slum areas which are Gimboki and Federation areas and these are located in Dangamvura's high-density suburb.

3. Research Methodology

This study employed the mixed methods research method which integrates quantitative and qualitative techniques. The marriage of the two methods gave a better understanding of the research problem. According to Creswell and Clark (2010), one data method cannot be sufficient to answer all research questions. In preparation for this study, the researchers embarked on literature survey in order to determine the state of solid waste disposal at global, regional and local levels. Thereafter a pilot study was conducted in order to familiarise the researchers with the main features of the study area. Then followed an exercise that included purposive sampling involving 60 participants from the study area. Questionnaires were employed to solicit information on the main issues under study. Interviews were also used to draw necessary information from key informants. The data which was collected was consolidated and analysed in order to give views that are expressed in this study.

4. Data Presentation, Analysis and Discussion

4.1 Demographic Information

In this study, the researchers used purposive sampling to select respondents in the research. They collected information from 60 respondents of which 25 were male and 45 were female. Some 39 of the respondents were married while 21 were single. The age groups which participated in the group were from 20-25, 25-30, 30-35 and 35 and above. The respondents had different education levels from primary, secondary and tertiary and they had 7, 19 and 34 respondents respectively as shown in the figure below.

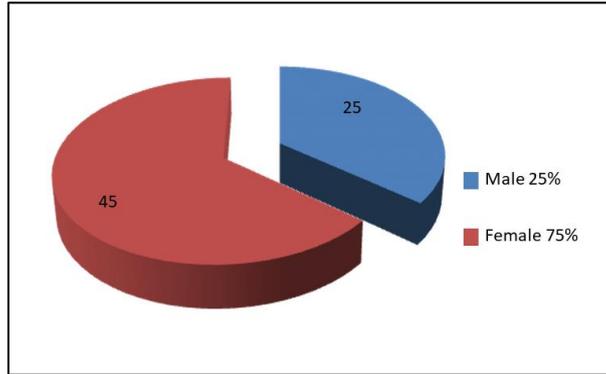


Figure 2: Distribution of Respondents According to Gender

4.2 Distribution of Respondents According to Gender

There was a high representation of women who participated in the research. Females constituted 75 % while 25% were males. Women are the most impacted by the effects of inefficient solid waste management hence there is a need for them to be fully involved in decision-making regarding solid waste management. They are the most producers of household waste and hence have the basic knowledge regarding the management of solid waste in the area.

Table 1: Distribution of Gender, Age and Education Level of Respondents

Gender					
Male			Female		
25			45		
Marital Status of Respondents					
Married			Single		
39			21		
Age of Respondents					
20-25		25-30		30-35	
20		18		15	
				35+	
				7	
Education Level					
Primary		Secondary		Tertiary	
7		19		34	
Distribution of Respondents by Employment Status					
Politicians	SNR management Mutare City Council	Junior Employees Mutare City Council	People from housing cooperatives	Vendors	Dangamvura residents
5	5	10	8	12	20

Source: Field work: 2022.

4.3 Distribution of Respondents According to Marital Status

Most (39) of the respondents were married while 21 were single. When expressed as a percentage, the married were 65% while the single were 35% of the participants. The highest presentation of married participants was a result of couples moving from other locations to occupy their new stands in Dangamvura.

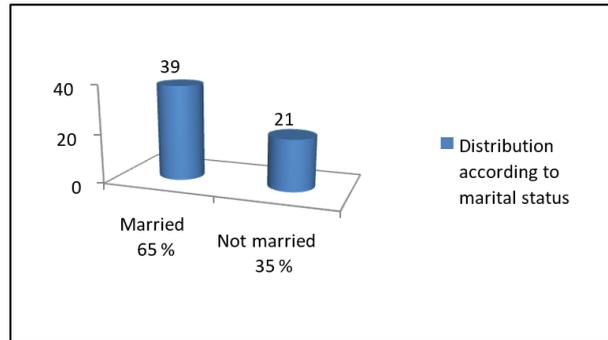


Figure 3: Distribution According to Marital Status

4.4 Distribution of Respondents According to Education Level

The highest number of educated people participated in the research. 11,7% were primary school graduates, at secondary level there were 31,5% and 57% had tertiary education. This highest representation of tertiary education was responsible for the collection of data from Mutare City council employees.

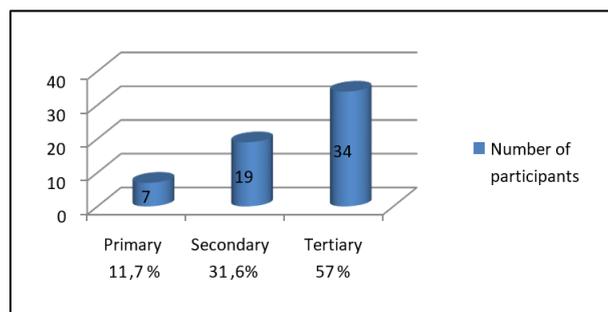


Figure 4: Distribution of Participants According to Educational Level

4.5 Organizational Structure of Mutare City Council

At the top of the organization is the town mayor who is elected into the office as the first among equals after a general election. The mayor is the chairperson of all council meetings. He/she is followed by the deputy mayor who represents the mayor in his absence. After the mayor, there are some councilors. The primary duty of councilors is to represent the needs and interests of their wards and the provision of social amenities like solid waste management. After the councilors there is a town clerk who is the chief executive officer (CEO) of the council and is mandated to provide an integrated development planning management and reporting and high-level coordination of municipal operations. Below the town clerk are the departmental heads of directors.

4.6 Organizational Structure of Waste Management in Mutare

Waste management falls under the Department of Health and in charge of it is the superintendent of waste management is being followed by the environmental health officer. The Cleaning superintendent reports to the environmental health officer on issues pertaining to the health and environmental upkeep of the city, as well as refuse collection databases. The two cleaning inspectors report directly to the cleaning superintendent on

work progress and issues of day-to-day activities of the transport divisions. The transport supervisor consolidates reports from the 5 heavy vehicle drivers and the 2 transport clerks and forwards them to cleaning inspectors. Street cleaners (20), toilet cleaners (10) and refuse removal operators (20) fall under the cleaning division and they report directly to the cleaning inspectors. The organogram is illustrated in the figure below and the clean face of the city is maintained through this hierarchy.

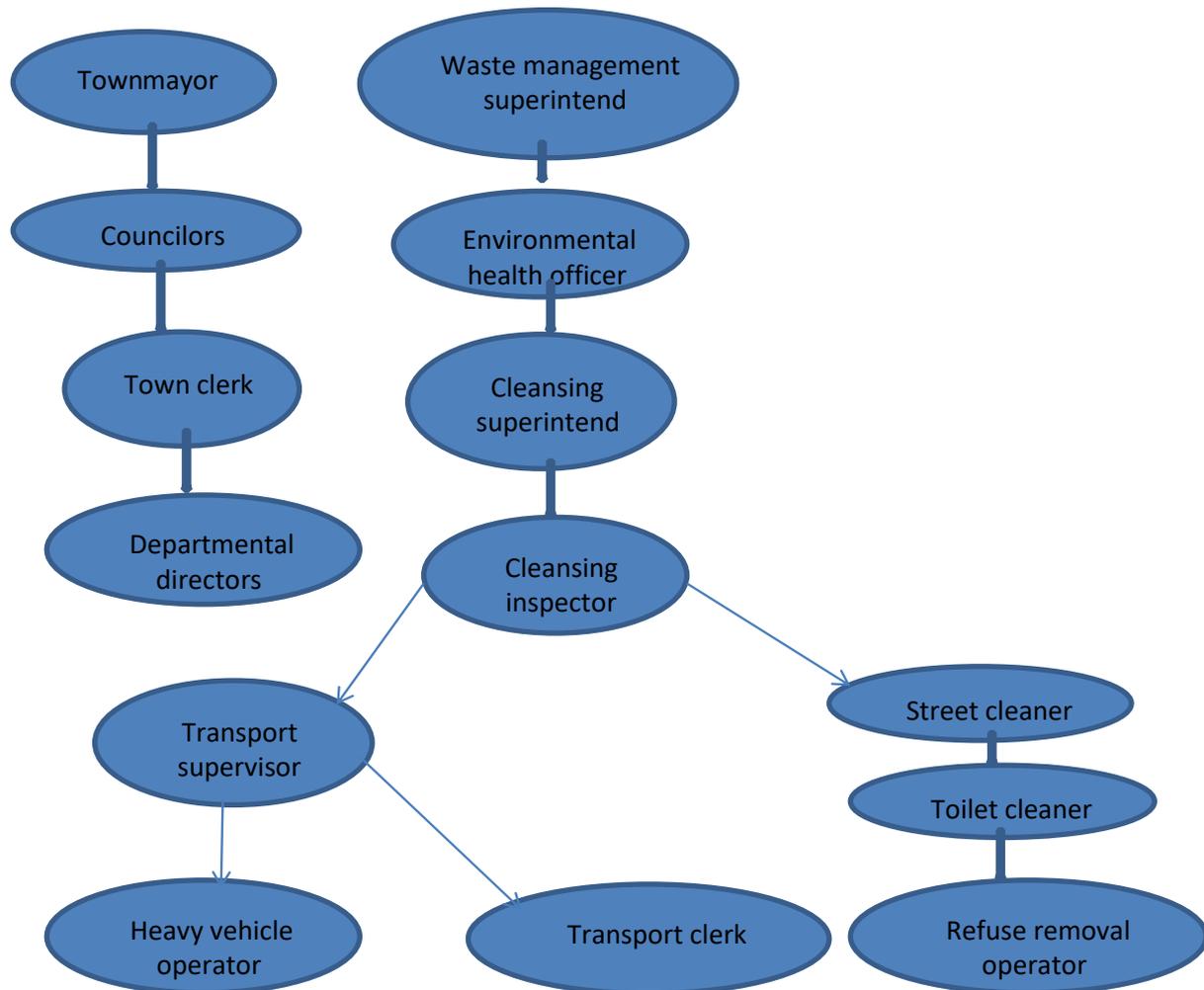


Figure 5: Mutare City Council’s Organogram

4.7 The Current Status of Mutare City Solid Waste Management Department

The department of solid waste management is under the environmental health of the city of Mutare. The cleanliness is below expected standard since the city is running with 3 to 4 vehicles instead of 12 required vehicles. Most vehicles are at the workshop awaiting repairs. Supervisory waste management vehicles have not yet been repaired hence cleansing inspectors are not adequately equipped for effective solid waste management. There are only 20 people who are formerly employed for solid waste management in the city of Mutare and the rest are working on a contract basis hence the council is understaffed. The Mayor of Mutare City and the majority of councilors are members of

the Citizen's Coalition for Change (CCC) Political party including those of Chikanga and Dangamvura constituencies. The town clerk who is the overall decision maker in the municipality is chosen by the ruling party which is the Zimbabwe African National Union Patriotic Front (ZANU-PF). As a result, there is disharmony between the opposition-led local authority and the ruling party and this has resulted in patchy fractional governance which is characterized by irregular refuse collection and in some areas no solid waste collection services are offered at all.

5. Challenges of Solid Waste Management in the Dangamvura Area

5.1 Poor Community Engagement

Poor coordination between the council and the community which is involved in solid waste management is a major challenge in the residential area. 84% of the respondents strongly agreed that poor community engagement is causing poor solid waste management in Dangamvura residential area. Mutare City council cleansing inspector in an in-depth interview had this to say:

"Most of the people do not have bins, especially in Area C, Area 15, Area 16 Area 3 P houses and are blaming the city council for not offering them bins and they resort to burning and dumping of their household waste."

A Dangamvura resident also remarked:

"We do not have knowledge about the refuse collection dates and we sometimes see the refuse truck passing by and we are forced to throw away the refuse or burn the waste."

From the above findings, poor community involvement is one of the factors contributing to poor solid waste management in Dangamvura. The community is not involved in setting aside days for waste collection in the area. They do not have knowledge about who should provide bins as stated in the Environmental Management Act 20:27. The respondents noted that community participation is very low in the area because the majority of residents think that it is the duty of the local authority to maintain a clean environment.

5.2 Under-staffing

Most of the respondents agreed that the refuse management department is understaffed. 70% of the respondents from the city council noted that they were working more hours than they were expected to. The laborers were so few that some worked for 2 shifts a day and thus they get exhausted and thus reduce work performance and which is affecting solid waste collection in Dangamvura. In an in-depth interview, the environmental health officer whose core result area is on waste management had this to say:

“Currently we have a challenge of our staff members who are currently moving out of the country and this is seriously affecting the solid waste management department because much work is being loaded on the few staff available and this is seriously reducing the work efficiency of our employees. Our workers are taking more sick leave and I am sure its work overload and during their absence waste rate collection will be at its lowest.”

The main cause of understaffing is the movement of critical staff out of the country for greener pastures and there is usually no immediate replacement of the staff due to other formalities and approvals that needed to be taken. This is reducing the daily coverage of waste collection and the people who are left with uncollected bins will opt for illegal dumping. The main cause of understaffing is the movement of critical staff out of the country for greener pastures and there is usually no immediate replacement of the staff due to other formalities and approvals that needed to be taken. This is reducing the daily coverage of waste collection and the people who are left with uncollected bins will opt for illegal dumping.



Figure 6: The Figure Below Shows Illegal Dumping in Area 15 Dangamvura

5.3 Urban Sprawl

Most of the respondents (about 78%) strongly agreed on urban sprawl is a key problem that causes ineffective solid waste management in Dangamvura. Due to the bad economic situation currently facing Zimbabwe most of the people are moving from the houses they used to rent in other residential areas like Chikanga, Hobhouse, Sakubva among others to occupy their stands in Dangamvura. Housing co-operatives are offering residential stands at cheaper prices and this has resulted in the population increase and expansion of residential areas thereby resulting in poor solid waste management in the area. The director of Mutare City housing department has this to say in an in-depth interview:

“Dangamvura residential area is expanding and this is evidenced by the encroachment of the area into Dora communal lands. There is no increase of service delivery in the area. The refuse trucks which used to collect waste before the expansion of the area have not been increased and are still collecting waste even when the area has expanded and the increase of the urban population and space is causing the council to fail to meet its daily target in solid waste collection.”

A Dangamvura resident has also this to say in an in-depth interview:

“Dangamvura is expanding, there used to be only area 3 but now we have Area 3 extension, Destiny, Mai Maria and Hillview. The city council is not offering its services in proportion to the available population. Waste is not collected on a regular basis in the area. That is why we are opting for burning and dumping the waste at roadsides.”

The above findings show that urban sprawl is causing inefficiency in solid waste management in Dangamvura community area. There is poor urban planning in the city since social amenities are not provided according to the available population. Inconsistency in solid waste collection is causing illegal dumping and burning of waste.

5.4 Political Interference

The majority of the research participants strongly agreed that political interference is a major hindrance to effective solid waste management in Dangamvura residential area. 90% of the respondents stated that political interference is a problem causing ineffective solid waste management. Partisan politics is causing ineffective solid waste management in residential areas. Peek (2009) defines partisan politics as preferential treatment shown to supporters of one’s personal party group or faction. 10% disagreed and stated that there is a need to introduce new policies and stiff measures to those who go against the law. A Dangamvura Ward Councilor has this to say in an in-depth interview:

“The minister has the power to cancel the decisions that have been made by the city council if he/she considers that the decisions are not in line with the public and national interests, however, it should be noted that local authorities are much closer to the people than to the central government hence local authorities will always act according to the people’s interests so there is no need for invalidating Mutare City council resolutions.”

A Federation community leader had also this to say in an interview:

“Federation housing scheme was a housing scheme that was developed by politicians and we have been promised that we are going to have our stands serviced and no significant efforts have been noticed. The city council does not offer refuse collection services in our area and this is leading us to believe this is a political issue of vote buying. Currently, there are illegal local dumpsites which people use to throw their rubbish and some are not biodegradable like cans and bottles and some are pampers which are a threat to our health.”

A housing co-operative for Mutare Cityhousing department has also this to say in an in-depth interview:

“Gimboki and Federation have not been handed over to city council hence the council cannot do any forms of service delivery there.”



Figure 7: Picture Showing an Illegal Dumpsite in Federation

From the responses given above, the political influence has been largely blamed for interfering with council operations. The 2 areas in Dangamvura are not registered with the city council as stated in the legal framework for housing hence the system is jeopardizing solid waste management plans for the city. Political interference is causing delays in the implementation of council resolutions. Examples of projects that have taken longer to complete are Gimboki and Federation housing schemes. Section 34 of the urban council's act 29:15 empowers the minister to withdraw any decisions that would have been made by the local authority in Zimbabwe and this is causing poor solid waste management because funds that are meant for solid waste management are being delayed for political reasons.

5.5 Shortage of Resources

There are also inadequate bins in most shopping centers in Dangamvura and this is evidenced by illegal dumping and spilling of waste outside bins. Mutare City council is owed more than \$74 million in unpaid rates in both residential and commercial stands which the city fathers are blaming for poor solid waste management in Dangamvura residential area. The city is running with 3 to 4 vehicles instead of the 12 required vehicles. Most vehicles are at the workshop awaiting repairs. Supervisory waste management vehicles have not yet been repaired hence cleansing inspectors are not motorized thereby hindering effective solid waste management in the area. Mutare City council clerk has this to say in an interview conducted:

“The residents are not paying their rates on time and this is jeopardizing service delivery in the city of Mutare. Currently the city is owed more than \$78 million unpaid rates from both commercial and residential areas which I think is causing ineffective solid waste management in Dangamvura residential area because the council lacks funds to support the activities of the department.”



Figure 8: Over Spilling Bins at Dangamvura Complex and Burning of Solid Waste at Mukwena Shopping Centre A and B Respectively

From the findings above, a shortage of resources is leading to poor solid waste management in Dangamvura. Delays in the payment of bills by residents are leading to a deficit in the council budget thus fewer funds are being allocated to the refuse management department thereby jeopardizing the refuse collection activities. Some areas can go for days with uncollected bins and people will resort to burning of waste and illegal dumping.

5.6 Natural Hazards

Some 60% of the respondents agreed that natural hazards such as floods cause ineffective solid waste management in the Dangamvura residential area. Destroyed infrastructure, and waste carried away by the floods end up as solid waste over all the area. However, 40% of the respondents disagreed on the natural hazards and they identified political interference. The city engineer said this in an interview:

“For the past three years, whenever it rains in Mutare, floods destroy infrastructure such as roads leading to the formation of potholes in the area thus resulting in more refuse truck breakdowns. Dangamvura had more potholes due to improperly constructed roads. Whenever there is a truck breakdown, it means there is a decrease in the rate of refuse collection and thus leading to improper solid waste management.”

The finding of the research proved that the occurrence of potholes in Dangamvura is affecting solid waste management by delaying waste collection and refuse truck breakdowns. People are then forced to practice illegal dumping and burning of solid waste.

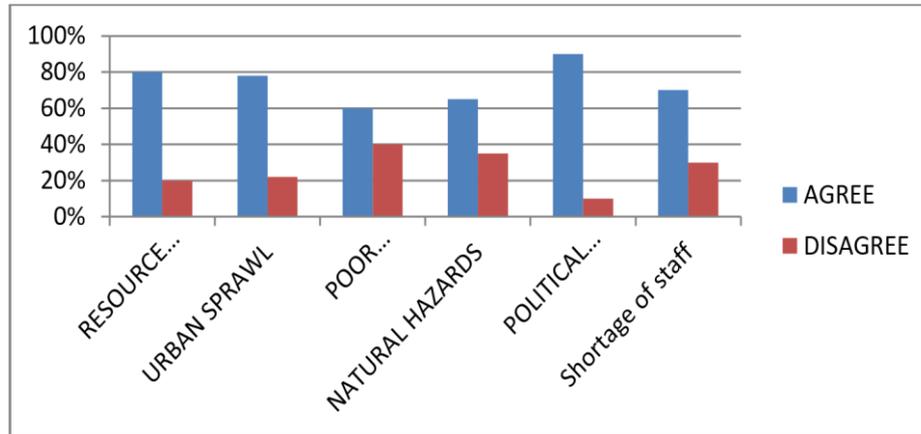


Figure 9: A Summary of Responses Given on the Challenges of Solid Waste Management in the City of Mutare

6. Challenges Due to Poor Service Delivery

6.1 Outbreak of Diseases

A typhoid case has been recorded at Dangamvura clinic and after tracing it was as a result of poor solid waste management in the area. The illegal dumping of solid waste including household waste is leading to fly breeding which when contaminated with food will lead to communicable diseases. Illegal dumpsites are also breeding sites for mosquitoes. 70% of the people agreed that ineffective solid waste management is a threat to public health. The burning of waste is becoming a threat to public health. The community health worker has this to say in an in-depth interview:

“Dumping of household waste on the roadside is becoming a serious health threat to our community. Recently we have encountered a typhoid case and after tracing the environmental health technicians found out that the case had been linked to poor solid waste management in the area.”

The finding of this research proves that improper solid waste management is serious to public health in Dangamvura residential area. This is evidenced by typhoid cases that have recently been identified in the area. This is supported by the findings of (Gani, 2020) who pointed out that in Africa; poor solid waste management is a serious threat to public health through indirect damage from air pollution and groundwater pollution. According to these findings, one can surely say poor solid waste management is a threat to public health in Dangamvura residential area.

6.2 Inconsistency in Refuse Collection

The majority of the participants agreed that there is no consistency in the collection of waste in Dangamvura and some areas are not receiving the service at all. 95% of the respondents agreed that there is inconsistency in waste collection in the area. This is mainly triggered by a shortage of manpower and resources. The lack of regularity in the

waste collection is leading to bad smells being felt in most parts of the area. From a focus group discussion conducted by the researcher, the residents raised the issue of inconsistency in the refuse collection by the city of Mutare. One of the residents said this in the discussion:

“The council had no fixed date for waste collection. Sometimes waste is collected twice a week and sometimes once a week and in other times not collected at all. This is causing poor solid waste management because people will be left with no option but to dump the waste illegally and others keep the waste for the next collection date thus resulting in odor smells.”

The researcher finds out that inconsistency in waste collection in Dangamvura is causing a serious problem in the area of Dangamvura. Bad smells are becoming common phenomena in the area as a result of unfixed dates for waste collection. This is also in line with the findings of (Nabegu, 2020) when he said that in Nigeria, inconsistency in solid waste collection causes a threat to health and most likely odor smells in the area hence one can clearly notice that the prevalence of odor smells is as a result of inconsistency in solid waste collection experienced in the area.

6.3 Loss of Natural Beauty of the Area

Almost all the participants agreed that the natural beauty of the residential area has deteriorated. 90% of the respondents agreed that the mushrooming of illegal dumpsites has led to the loss of natural beauty of the Dangamvura area. In a focus group discussion conducted by the researcher and Dangamvura pinpointed that illegal dumping has led to the deterioration in the beauty of the area. Plastics, tins, and household waste are common phenomena in most parts of the area. The researcher observed the following illegal dumpsite in field research in Area 3 Extension.



Figure 10: Illegal Dumpsite at Area 3 Extension

The findings were that the challenges which are facing the city council in refuse collection are leading to the loss of natural beauty in the area as evidenced by plastics, tins and many forms of solid waste that are being noticed in many parts of the area.

6.4 Environmental Education

The city environmental health promotions officers in conjunction with the local nongovernmental organization are partaking in environmental education in the form of awareness campaigns. 70% of the residents have received environmental education and 30% did not. The district Environmental Health Promotions Officer has this to say in an in-depth interview:

“The city in conjunction with CARE International and Mercy Corps had conducted several environmental education seminars with Dangamvura residents but the challenge is that people are not attending the seminars in numbers that’s jeopardizing solid waste management in the area.”

From the above findings, more people have received environmental education and this has made great significance in solid waste management in Dangamvura residential area but however, some people had not yet received environmental education. This means that environmental education is very helpful in alleviating the positive impacts posed by ineffective solid waste management.

6.5 Law Enforcement

55% of the respondents mentioned that the local authority come up with the adaptation of new policies which makes every resident keep an eye on each other thereby reducing the dumping of waste. The local authority also managed to increase law enforcement by providing daily monitoring officers in 50% of the most affected areas such as cleansing inspectorate, the Zimbabwe Republic Police and the Environmental Management Agencies and Resident Association. The city has introduced fines to those who have been caught in the act of illegal dumping. However, 45% disagreed as they mentioned that it was just theoretically applied on paper but not practiced. There is corruption which is hindering the effectiveness of the laws. A Dangamvura resident has this to say in an in-depth interview contacted:

“There is corruption within the city of Mutare and the environmental management agency. If one is caught trespassing the law, one can easily give a bribe to the law enforcer and thus reducing the effectiveness of the law therefore law result in less significant when addressing issue of solid waste in Mutare City especially in Dangamvura residential area.”

The involvement of external parties like the Zimbabwe Republic Police and the environmental management agencies in the enforcement of laws is aimed at reducing illegal dumping in Dangamvura however due to corruption this is not making significant changes and some people go to dump their waste during the night when no one could notice them. (Chenje, 2002) supported the above as he states that in Zimbabwe there are numerous laws that deal with solid waste, but the major problem is the application of these laws.

6.6 Clean-up Campaigns

The council has adopted the presidential clean-up campaigns so as to ensure a clean environment. Every first Friday of the week, council employees and residents partner together in the cleaning of the environment in areas of their jurisdiction. 88% of the respondents proved that since the implantation of this presidential clean-up campaigns, roadside heaps of solid waste has decreased. However, 12% of the respondents disagree asserting that the clean-up campaign plan is less effective because some of the residents did not bother taking part in the clean-up campaigns since they believed it is the duty of the local authority to keep up a clean environment, this shows that most of the residents lack knowledge on waste management thus poor citizenry involvement.



Figure 11: Clean-up Campaign in Dangamvura

From the above strategy, clean-up campaigns are making significance in the reduction of solid waste in Dangamvura but on the other hand, there is a need for total member involvement on issues relating to solid waste management. This is supported by the concept of integrated solid waste management which suggests all stakeholders have to take part in discussing of issues relating to solid waste management.

6.7 Purchasing of New Refuse Trucks and Motorizing Cleansing Inspectors

80% of the respondents argued that the city council had procured for more refuse trucks which would improve service delivery in Dangamvura and they are a-waiting to be handed over to the city Health department. These motorbikes have been purchased so that cleansing inspectors can move around easily inspecting the activities of solid waste management in the area. The city procurement officer said this in an in-depth interview:

“We have received 20 refuse trucks which will be soon handed over to the health department which I think will help to improve service delivery in Dangamvura especially refuse collection activities.”



Figure 12: Picture Showing a Refuse Truck on the Road in Dangamvura Area 3

The council's efforts for the purchasing of equipment that would help in refuse collection is an important step that has been taken by Mutare municipality. This has reduced inconsistency in the collection of waste in Dangamvura and waste is being collected on a regular basis. More bins have been purchased for sale to the people under the municipality of Mutare. These bins are being paid on a monthly basis and the money is attached to the monthly bill till you finish the amount. 60% of the respondents proved that they have accessed the bins and 40% of the respondents did not yet access the bins. Some respondents argued that they were not in the database of the council and hence did not benefit from the strategy. One of the Dangamvura residents has this to say in a focus group conducted:

“I once visited the city council to confirm on how I could get a bin and I was shocked to hear that I was not in their database and I could not get the bin. I was very frustrated with the actions of the Council.”

According to the views above, the provision of bins at cheaper prices so as to reduce improper solid waste handling is inefficient in Dangamvura because many of the people are not yet in the council database thus people will continue practicing illegal dumping.

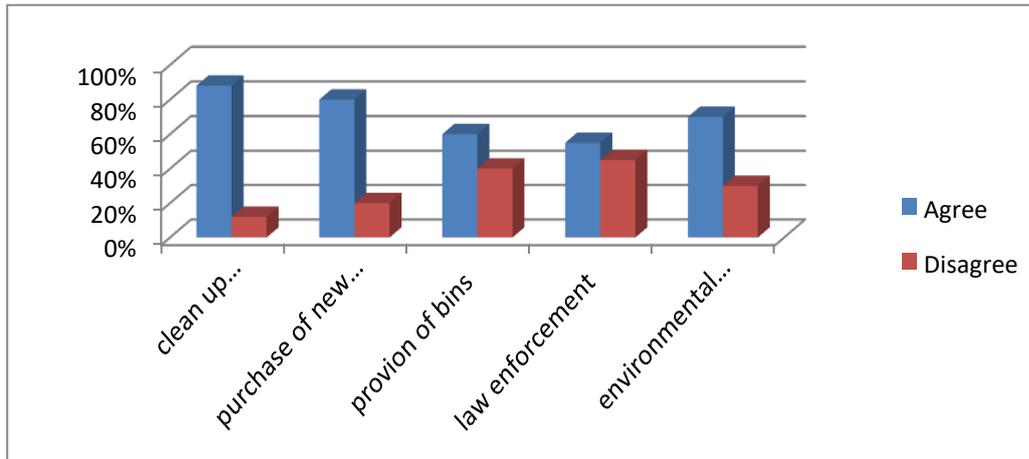


Figure 13: Residents' Views on What Should Be Done

6.8 People's Rate on the Service Delivery Offered by the City of Mutare

Many of the respondents from the research conducted argued that Mutare City council provides poor service delivery in Dangamvura especially in the area of solid waste management, 60% of the respondents argued that service delivery offered by Mutare City for solid waste management is poor. And some 10% argued that it is good and 30% argued that it is not so bad.

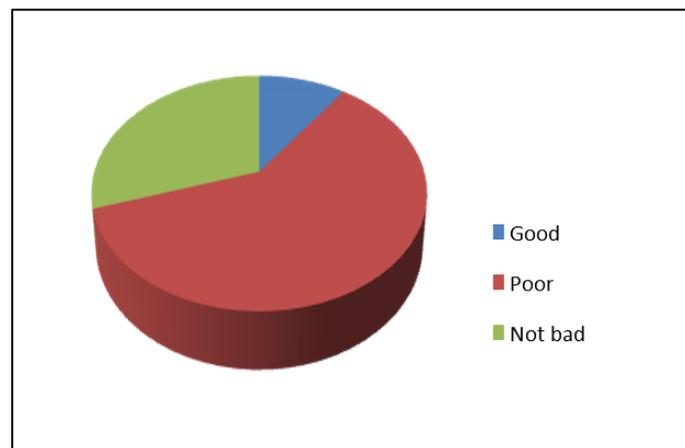


Figure 14: People's Views on Solid Waste Management As It Is Provided by Mutare City Council

The residents argued that Mutare City council has to improve the way it offers its solid waste management services. Though there are efforts that have been made, currently there is not much that can be pointed out as good towards solid waste management in Dangamvura residential area.

7. Conclusion and Recommendations

This study looks at the challenges faced by municipal authorities in solid waste management at Dangamvura in Mutare. The study identifies a shortage of resources,

urban sprawl, poor community engagement, political interference and understaffing as challenges being faced by the city of Mutare in trying to manage solid waste in this residential area. It has been shown that political interference and shortage of resources are the major challenges faced by the Mutare municipality in the management of solid waste in the area. These challenges are affecting people in a variety of ways namely, disease outbreaks, inconsistency in waste collection and loss of natural beauty. Inconsistency in refuse collection is the major challenge faced by Dangamvura community. The efforts that the council has tried to implement include environmental education, law enforcement, clean-up campaigns, purchasing new refuse trucks and motorizing the cleansing inspectors and provision. However, clean-up campaigns, purchasing of new refuse trucks and motorizing of cleansing inspectors are making considerable changes in the refuse collection system of Dangamvura residential area.

7.1 Recommendations

The council should include the community when it conducts seminars regarding service delivery so that they recognize the gaps that need to be filled as the people are the ones who are affected. This will help in managing waste and also increase community participation. The central Government has to increase the budget for solid waste management so that the locals can buy enough equipment and facilities for solid waste management practices. The central government should have faith in opposition (CCC) mayors and councilors and should not act in an unprofessional way. Politicization undermines the independence of local authorities. Developments should be equal and uniform hence there is no need for politicization. In this era of economic hardship, local authorities do not have to rely on intergovernmental transfers to back up their operations, rather they should formulate their own income-generating projects that will support their operations. The housing co-operatives must make sure that their stands are well serviced and handed over to the city council before the people start living in the areas.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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