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Community Perspectives and Institutional Dynamics in Water and Sanitation Access in Havana Informal Settlement Windhoek

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ABSTRACT

This study examines challenges faced by the City of Windhoek Municipality in delivering water and sanitation services to Havana informal settlement residents. It emphasizes the importance of safe sanitation facilities and joint responsibility of the Municipality and Government. Despite recognition of this responsibility, the Municipality encounters obstacles in service delivery to Havana. Using a quantitative approach, data was gathered from 35 adults aged 20 to 50 via survey questionnaires, revealing impediments to service delivery including inadequate monitoring mechanisms and operational inefficiencies. The study suggests a community-based advocacy program to raise health awareness among residents and addresses challenges such as vandalism, theft, rural-urban migration, and outdated policies affecting service delivery. It also highlights issues like insufficient household income, political interference, and a lack of qualified personnel hindering effective service delivery. In conclusion, the study underscores the Municipality's insufficient funds to address water and sanitation challenges in Havana, proposing measures like additional flushing toilets, capacity-building, employing skilled personnel, public-private partnerships, and pre-paid meters to mitigate issues and improve service delivery.

Keywords: Informal settlement, Sanitation, Adequate Sanitation, Household, Urbanisation, Policy, Municipality

INTRODUCTION

Rural-urban migration is characterized by increasing demand for better housing, water, and proper sanitation, which is a major social developmental role of a municipality to ensure adequate provision of these basic services to the communities. The local government authorities, particularly those of the Windhoek City Council (WCC), have been struggling to provide essential services to the informal settlement communities (City of Windhoek, 2008). Since the attainment of Namibia's independence in 1990, Windhoek’s urban population has doubled, and with this came a significant demand for urban land and better living standards.

Rapid urbanization has seen a large number of rural populations becoming urban residents in Windhoek which has brought a sharp increase in consumer and investment demand and generated a huge need for infrastructure, public services, and housing. Notwithstanding the benefit of economic development, urbanisation has strained most of the infrastructures due to the influx of migrants, thereby affecting adequate service delivery and proper sanitation. This has resulted in urban settlements increasingly taking the form of slums (Annecke, 2010). Moreover, the fact that the rate of housing, water, and sanitation provision is outstripped by the influx of new migrants into Windhoek has created a state of homelessness, forcing many of the new arrivals to live in informal settlements such as Havana that do not have adequate water supply and proper sanitation. The population density and the geographical area of jurisdiction of Windhoek and many other major cities in Africa and the rest of the developing world have increased significantly, such that informal settlements have become a sore reality of urban life.

Various organizational and community challenges contribute to the service delivery problem, prominent among which is the payment for services which negatively impacts the City of Windhoek's ability to provide those

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services. Communities receiving poor services are reluctant to pay for the services and this has a negative impact on the income of local government. In addition, communities vandalize public property to voice their dissatisfaction with poor or non-existent local authority services. Other challenges such as staff morale impact the efficiency and effectiveness of the service delivery. Although the City of Windhoek is legislatively required to deliver basic services to the community, it experiences challenges in giving effect to the legislative mandate. This study's objective is to understand what these challenges are and make recommendations on how to respond to give effect to their mandate of sustainable basic service delivery.

Provision of Safe Water and Sanitation Supply

Empirical Review

The empirical review focuses on recent literature that examines the benefits and challenges of investing in sanitation services and water supply. It highlights the importance of these investments in improving living conditions, promoting rural development, and addressing issues related to pollution, water quality, and waste management. According to the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) in 2012, investing in sanitation leads to reduced morbidity and mortality, increased life expectancy, cost savings in healthcare, improved worker productivity, enhanced learning outcomes for school children, and economic benefits such as irrigation water for crops and reduced water treatment costs.

Thompson (2006) emphasizes the need for a collaborative approach to delivering water and sanitation services to low-income communities. Success in this endeavour hinges on the ability of practitioners to innovate and tailor solutions to local circumstances, involving various stakeholders including cities, communities, governments, private sectors, and external support agencies. Zulu (2011) highlights the rapid pace of rural-urban migration in Africa, leading to significant urbanization challenges. The projected urban population growth poses a considerable issue in providing adequate sanitation services to informal settlements in cities. Addressing this challenge requires interventions from stakeholders to find medium and long-term solutions, considering the persistent struggle of water and sanitation service providers to keep up with urban population growth.

LEGISLATIVE REVIEW

The legislative review delves into policies and legislation related to sanitation and water supply. It emphasizes that basic sanitation involves providing hygienic toilets, effective waste removal and disposal, and proper effluent disposal. This focus on sanitary conditions is fundamental for reasons of human dignity (MRLHRD 2008).

The Joint Monitoring Programme (JMP) of Water and Sanitation by WHO and UNICEF is a significant framework for assessing progress in this field. According to WHO (2006), achieving the Millennium Development Goal (MDG) sanitation target necessitates a doubling of efforts over the past 15 years. Meeting the SDG drinking water targets requires a one-third increase in efforts, translating to improved sanitation for an additional 45 thousand people daily and safe drinking water for an extra 300 thousand people daily between 2005 and 2015. This achievement requires a comprehensive approach encompassing policymaking, resource mobilization, planning, design, construction, operation, and maintenance. The focus should particularly be on underserved populations to prevent infrastructure from deteriorating due to inadequate institutional arrangements, insufficient cost recovery, and poor management practices.

Safe drinking Water and sanitation policy reviews and legislative management

The City of Windhoek municipality is faced with policy review challenges due to a lack of time and expertise. The government works in collaboration with the City of Windhoek officials, but the challenge is that the officials do not have adequate time to address all the issues and provide a comprehensive report.

UNPFA (2007:54) states that a new urban development policy that engages with urban governance, community participation, and decentralization is required. This would involve reviewing all policies that relate to health and

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housing, to determine whether they address the needs of all urban residents and are promoting equity. Importantly, their effective implementation must be monitored, and action taken by the local government to address the challenges. The national government is addressing the challenges that poor urban migrant groups experience in their ability to claim their rights to health care and housing. Winderfelt (2006) echoed similar solutions by stating that it is essential that action is taken to improve the environmental conditions of urban informal settlements that negatively affect the health outcomes of those residing there.

In addition, the current infrastructure is old, and it is unable to sustain the current demands of residents. The municipality has to direct its efforts towards basic service delivery and infrastructure planning. Mwanyekange (2014) states that inward migration places pressure on limited resources to deliver services. Similarly, Thompson (2006) posits that the government needs to implement a decentralised sustainable economic and infrastructure development framework that relieves pressure from main cities to lower income inequalities; and reduce urban migration.

Water and Sanitation Reform Services as an Institutional Challenge

After Namibia's independence from colonial rule in 1990, there was a strong need to abolish the previous administration as it was ill-suited to achieve the transformational agenda of the newly elected democratic government. Part of the policy transformation agenda was to introduce the integrated water resources management policy to address and answer the water challenges prevailing in Namibia (Heyns, 2005).

Blacket (2001) states that the development of a new national water policy includes the preparations of legislation, changes to organizational development, regulations, and management activities of the water sector within the different Local Authorities. It is important to note that institutional reforms cannot succeed if there are no skills and human capacity within an administration. Although new policies, legislations, and organizations are easier to articulate, it is relatively hard for a developing country such as Namibia to advance human capacity that can handgrip reforms when there is a lack of funding involved which in turn creates a backlog between capacity building and resource developments.

Bless and Higson-Smith (2007) stipulate that amongst the challenges facing any Namibia water policy component concerning international water courses is a need to familiarise actual and potential stakeholders at all levels of society. This should particularly take into consideration the rights and responsibilities of Namibia at the community level in the context of shard waters. To reach the necessary compromises between human requirements, economic priorities, commercial interests and environmental integrity, patience, a good spirit, and well-informed negotiations are required. Infrastructural and human resource capacity are also needed to carry out these activities in an effective manner in the country (Cantle, 2010).

Water pollution is a great challenge facing the City of Windhoek because residents throw all kinds of harmful and unpleasant substances into the water. After all, it is considered an easy way of getting rid of refuse. It consequently takes a lot of effort and money to purify the water. Among other things, heavy industrial activities contribute to the pollution problem. Industrial waste, such as acid, heavy metals, and other toxic materials may flow into the water treatment plant. This affects the quality of the water and ecosystems. The extent of water pollution by the residents seems to indicate that the management systems followed by the local authority do not provide for the management of environmental impact as an integral part of their operations.

The Namibian Statistics Agency (2001) indicated that the formal urban settlement sanitation challenges are being reduced by the fact that more and more people are migrating to informal settlements assuming it is affordable to live there. The agency estimates that by 2030, 73 percent of the population projected at 2.8 million will be living in urban settlements and will require more facilities to cater for them.

Previous findings in achieving the Provision of Water and Sanitation

UNPFA (2007:54) states that a new urban development policy that engages with urban governance, community participation, and decentralization is required. This would involve reviewing all policies that relate to health and

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The local government is required to engage with actions that are beyond its mandate through an intersectoral approach that encompasses healthy urban governance and public health advocacy. The local government should mobilize actors within other spheres of government and civil society to take appropriate action. Importantly, this identifies the need to implement a 'social determinants of urban health' approach within all policy and programming initiatives (Wheaton, 2009).

The enabling environment should change so that investments in sanitation and hygiene promotion are consistently more effective. In many countries or regions, the sort of high-level changes that are required (in policies, financial instruments, organizational arrangements, and so on) may include legal and regulatory instruments. Even if this is not required, they have to be widely owned and accepted for such changes to be translated into reality. For this reason, such systematic changes may have to develop slowly. In the meantime, programmers may have to find pragmatic ways of making progress on the ground. Within each country's context, the key to a successful strategy lies in the capacity of practitioners working in municipalities to innovate and adapt solutions to address local constraints and opportunities (Sano, 2009).

METHODOLOGY

In the area of science and knowledge, there are several strands of thought, but positivism and phenomenological philosophy, or non-positivism, are the most common. The positivist concept is linked to quantitative research, which typically entails gathering data and turning it into numerical form so that statistical computations can be performed, and impartial conclusions may be obtained. Experimental surveys, case studies, and forecasting are options that support this mindset, according to Saunders, Lewis, and Thornhill (2012).

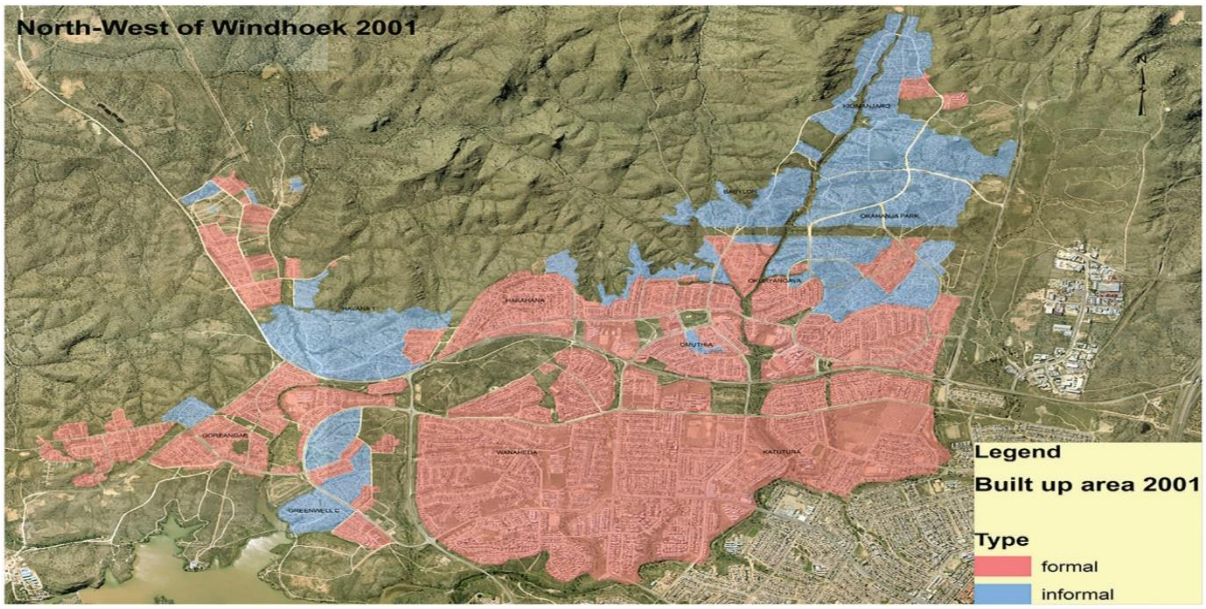
The quantitative and qualitative methods are the two fundamental research strategies. Each methodology has its own set of tools and approaches to conducting the research. The quantitative technique uses surveys and questionnaires to gather, arrange, and statistically analyse numerical data in a defined measurement and study the target concepts. Due to the availability of numerical values, this sort of research has the benefit of enabling a broader study that includes a larger number of individuals and improves the overview of the results, making it simpler to collect the data into a chart or graph. This kind of study may be carried out on a broad scale and offers more data in terms of value and statistics, while personal bias on the side of the researcher can be prevented by maintaining a safe distance from the participants but the fact that this kind of research is more expensive is one of its key drawbacks. The results are constrained since they only offer numerical descriptions rather than a thorough narrative and often give less in-depth explanations of how people perceive things (Bryman, Teevan, & Bell, 2009). However, the study employed the quantitative research method. With the use of a survey questionnaire, the study was conducted as a cross-sectional survey of the people living in Havana Informal Settlement. The City of Windhoek Havana Informal Settlement was used for this study.

Sampling procedures

The sample was drawn from the Havana Informal Settlement residents and the City of Windhoek officials. The study employed a survey questionnaire to extract data from 35 adults between the age range of 20 and 50 years old. The study population is defined as individuals in the universe who possess specific characteristics that are of interest to the researcher (De Vos, 2002). In this study, the population was made up of the residents of Havana Informal Settlement (Windhoek) using a systematic sampling technique on every third house. Furthermore, the informal settlement dwellers were important because they were affected by the lack of basic service delivery. The officials from the Windhoek municipality formed part of the stratified sample because they would be able to explain what the challenges were that prevented service delivery.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue I January 2025

Havana Informal Settlement



Source: Chitekwe-Biti (2018)

Windhoek, situated in the central region of Namibia known as Khomas, serves as both the capital and the largest city of the country. It holds a pivotal role as Namibia's economic nucleus and is witnessing a persistent population increase, largely attributed to migration from diverse regions within the nation (Namibia Population, 2020). The city functions as a significant social, economic, political, and cultural epicentre, housing the headquarters of nearly all national enterprises, governmental bodies, and educational and cultural establishments within Namibia.

Havana, an informal settlement located in Katutura, a densely populated residential zone at the north-western urban periphery of Windhoek which presents a distinct demographic landscape.

The inhabitants of these informal settlements grapple with numerous challenges pertaining to human habitation, including inadequate infrastructure such as insufficient water supply and substandard drainage systems. Basic services like water and sanitation remain scarce for these communities. The City of Windhoek is currently grappling with the formidable task of providing sufficient potable water and proper sanitation services due to the prevailing issue of overcrowding. As the urban population burgeons, the demand for well-serviced land and housing also surges, resulting in the expansion of underdeveloped informal settlements. Adding to this complexity is the fact that these settlements are often distanced from employment opportunities, essential services, and crucial social and economic facilities, further exacerbating urban poverty levels. Chitekwe-Biti (2018) underscores the notable growth of both Windhoek and its informal settlements over recent years, intensifying the urgency to secure essential services and suitable housing for the residents (as depicted in Figure 1).

Furthermore, the reason for the Havana Informal Settlement was to gain an understanding of the community regarding the problem. According to the Shack Dwellers Federation (2019), Havana Informal Settlement has an estimated total number of 13,800 shacks accommodating about a population of 50,000 permanent residents.

DATA COLLECTION AND ANALYSIS

Data collection

The data for this study were collected using questionnaires, to gain information on the institutional challenges faced by the City of Windhoek in the provision of water and sanitation services. Kruger and Wellman (2008) state that questionnaires are data collection techniques in which the respondents respond to a number of items in writing. The questionnaire was designed in such a way that it helps both the City of Windhoek officials and the

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informal settlers to find solutions in providing sanitation for the informal settlements with the data collected from this questionnaire. The questionnaires were administered to the selected adult residents of the Havana Informal Settlement. The questionnaire consisted of two sections; 1 and 2. Section 1 collected information on the respondents' biographical data (gender, age, and how long the respondents had lived there). Section 2 focused on answering the research question posed. The questionnaire also consisted of a clause guaranteeing that the identity of the respondents would remain anonymous, and the information provided would strictly be kept confidential and would not be used for any other purpose apart from its intended purpose.

Given the COVID-19 pandemic, the data collection process used was the online facilities in the form of emails. Questionnaires were explained telephonically to the sampled group in the informal settlement and documented. Triangulation was used to ensure the reliability, validity, and objectivity of the study. The triangulation process involved information collected via questionnaires, documentary analysis, and observations. Ethical authorization was formally sought in accordance with the research ethical clearance protocol of the University of the Western Cape. The approval for this was granted under the reference number HS20/3/26.

Data Analysis

The KMO and Bartlett's test Statistical analysis below was used to examine the data collected.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.778
Bartlett's Test of Sphericity	Approx. Chi-Square	1437.321
	df	105
	Sig.	.000

Table 1. Shows a KMO value of 0.778 and Bartlett Chi-square 1437.321 implying that the sample used for the study was acceptable and sufficient for further data analysis.

FINDINGS

This section provides data presentation and analysis regarding the questionnaires distributed to the informal settlement residents.

Table 2: Access to clean water and proper sanitation

Do you have access to safe drinking water and proper sanitation?				
		Frequency	Percent	Valid Percent
Valid	yes	75	71.4	71.4
	No	30	28.6	28.6
	Total	105	100.0	100.0

The respondents were asked if they had access to safe drinking water and proper sanitation. Table 2 shows that 71.4% of the respondents indicated that they have access to safe water and proper sanitation because they are closer to the shared tap and do not have to walk long distances to fetch water while the remaining 28.6% of the respondents indicated that they do not have access to water because they live far from the shared tap. The data indicates that many of the respondents have access to water and sanitation facilities, but these facilities might not be at the appropriate places for every resident to have access to them. The risk to their safety to fetch water at night is high and residents feel that their access is limited. The taps are communal, and no one is taking

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue I January 2025

accountability for the safekeeping and maintenance of the taps. The area around the taps is unhealthy and poses a health risk to some of the respondents who do not have proper access to these facilities.

Table 3: Access to Waste Removal

Do you have access to waste removal?				
		Frequency	Percent	Valid Percent
Valid	yes	28	80.0	80.0
	No	7	20.0	20.0
	Total	35	100.0	100.0

Table 3 shows that 80% of the respondents have access to waste removal and the remaining 20% of the respondents do not have access. The data shows that most of the respondents do have access to waste bins situated at strategic locations within their vicinity, but the residents tend to litter and just throw waste around because the waste bin is a distance away and situated at some locations within the informal settlement. Since the City of Windhoek cannot provide wheelie/individual bins for the residents living in the area due to limited financial resources, the City of Windhoek has tried to provide waste bins, which are only situated in strategic locations.

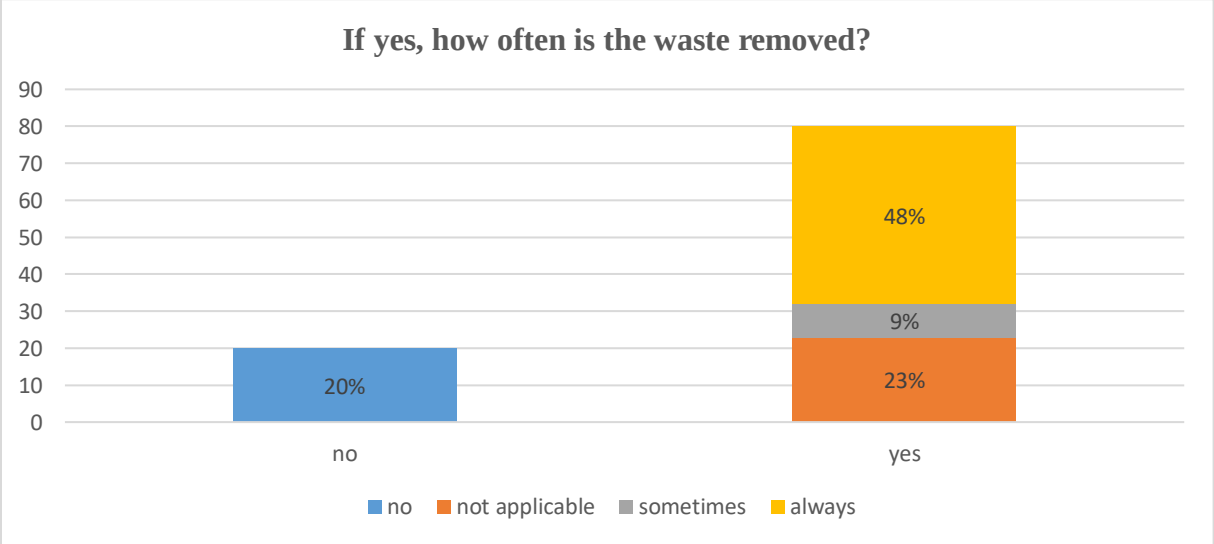


Figure 1: Removal of waste bin by the officials of Windhoek City Municipality

Figure 1 shows that apart from 20% of the respondents mentioning that they do not have access to waste collection, 80% agree that they have access to waste collection but at different parameters. Of the 80% of those who have access to waste collection 23% say that it is not applicable because they are not sure of what to say, 9% said sometimes because they feel the waste collection is not regular while 48% agree that waste collection is regular weekly. Although (60%) of respondents stating that waste collection is regular a large percentage (40%) of respondents though indicated that waste collection is absent.

Table 4: Access to toilet facility

Do you have access to toilet facility?				
		Frequency	Percent	Valid Percent
Valid	yes	32	91.4	91.4
	No	3	8.6	8.6
	Total	35	100.0	100.0

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue I January 2025

The respondents were asked if they had access to toilet facility within their settlement, from Table 4, 91.4% of the respondents indicated that they had access to a toilet facility and the remaining 8.6% indicated that they did not. Observations show that the residents have access to toilet facilities although most of the respondents reside far from the toilets and must walk long distances. The 8.6 % of respondents also indicated that they tend to use the bush. This is practically unhygienic and dangerous.

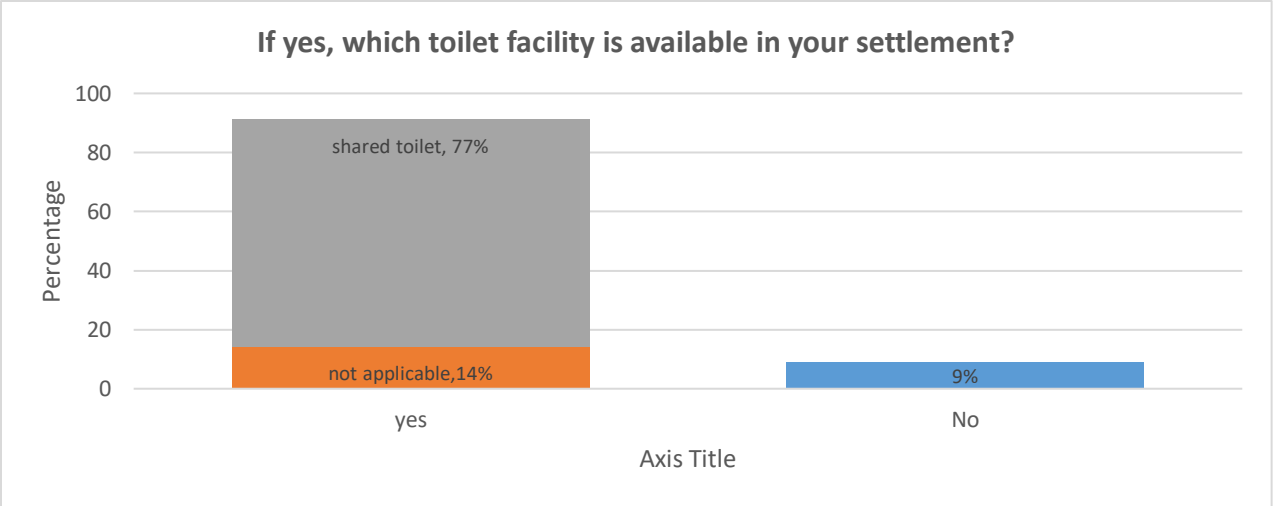


Figure 2: Type of Toilet facility available in Havana Settlement

Figure 2 supports Table 4 by breaking down those respondents who further answered about the nature of the toilet system available at Havana Informal Settlements. While 9% of the respondents said that they do not have access to toilet facilities, 14% indicated that the question was not applicable. This is because 14% of the respondents might be implying that they have been using the bush system which is a health hazard. Since 77% of the respondents said they have access to the shared toilets, it is notable that these are communal toilets located at different strategic places and shared by people living around the vicinity. Residents who are living far from the communal toilet end up using the bush or flying toilets to help themselves because the toilets are far away. Flying toilets is the use of plastic bags for open defecation, which are then thrown into ditches, on the roadside, or simply as far away as possible (Wheaton, 2009). Some of them burst open upon impact or clog drainage systems. If they land on fractured water pipes, a drop in water pressure can cause the contents to be sucked into the water system and causes sickness like diarrhoea, skin disorders, typhoid fever, and malaria.

Table 5: Water pipe-borne disease suffered by a member of the family.

Have you or anyone in your family suffered from any borne disease?				
		Frequency	Percent	Valid Percent
Valid	Yes	5	14.3	14.3
	No	30	85.7	85.7
	Total	35	100.0	100.0

The respondents were asked if they or anyone in their family has suffered from any borne disease, Table 5 shows that 85.7 % of the respondents indicated that none of their family members has suffered from any waterborne disease before while the remaining 14.3% indicated that their family members have suffered from water-borne disease. There is significant support from literature that points out that poor sanitation and inadequate water supply promote the spread of waterborne diseases. Many human widespread infections are spread through inadequate sanitation. Viruses, bacteria, protozoa, and worms may spread through direct contact, or indirectly via carriers and vectors. Cholera deaths are an indication of a poor health system and certainly poor sanitation (Evans, 2008). It shows that there is a tendency that waterborne disease can be caused by poor sanitation.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue I January 2025

Table 6: Removal of the waste bin by the officials of Windhoek City Municipality

How often do the officials of the City of Windhoek empty the waste bin?				
		Frequency	Percent	Valid Percent
Valid	Always	24	68.6	68.6
	Sometimes	9	25.7	25.7
	Not at all	2	5.7	5.7
	Total	35	100.0	100.0

Table 6 shows that 25.7% of the respondents agree that the officials of the City of Windhoek sometimes remove waste bins from Havana settlement while the remaining 68.6% indicated that waste bins are 'always' removed every week. The data indicate that the City of Windhoek officials are removing waste bins from Havana settlement although the regular removal is disputed by some.

When respondents were asked to give their Suggestions to improve these challenges Respondents indicated that the City of Windhoek should at least supply waste bins to each household or strategic mass community bins and build more toilets. This will invariably combat the sanitation problems that Havana residents face daily. Respondents further indicated that the City of Windhoek officials should visit the Havana Informal Settlement, calculate the number of households, and plan for proper sanitation like the building of modern flushing toilets, provision of waste bins, more water taps, and educating the Havana Informal Settlement residents on hygiene and sanitation.

Responses by City of Windhoek Employees

This section provides the data presentation and analysis regarding the interviews with the City of Windhoek employees. It is important to obtain views from the officials regarding the provision of water and sanitation to improve the reliability of the results.

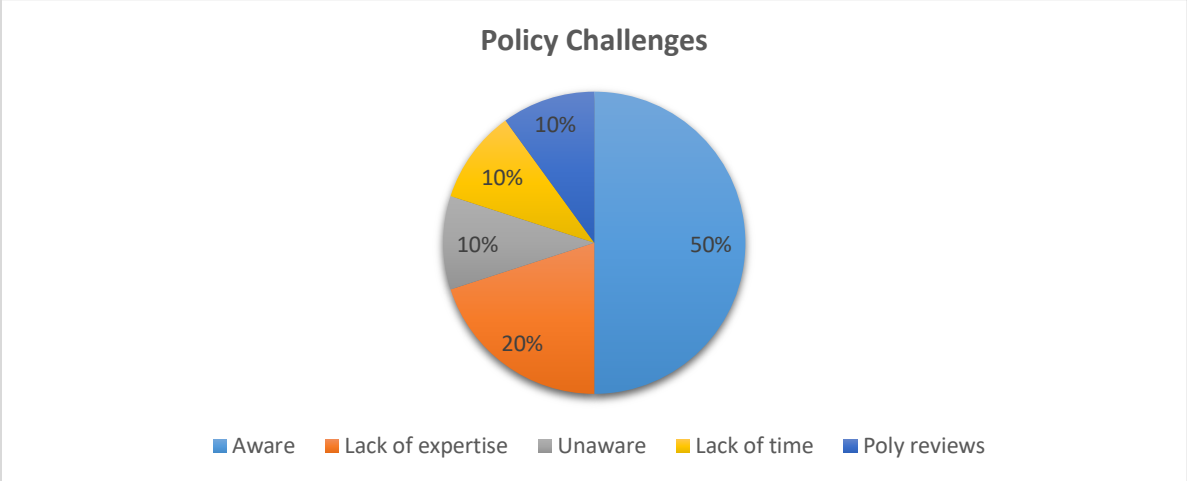


Figure 3: Policy challenges affecting water and sanitation service delivery.

Figure 3 shows that 50% of the respondents indicated that, indeed the City of Windhoek municipality is facing challenges when it comes to policy reviews. 10% of the respondents indicated that this is due to lack of time. 20% of the respondents indicated that this is due to a lack of expertise mostly. 10% of the respondents indicated that the City embarked upon a few policy reviews to ensure policy relevance and that quality service is delivered while the remaining 10% of the respondents seemed to be unaware of the current policies and the policy reviews which is a signal of either ignorance or that policy reviews is not transparently taking place.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue I January 2025

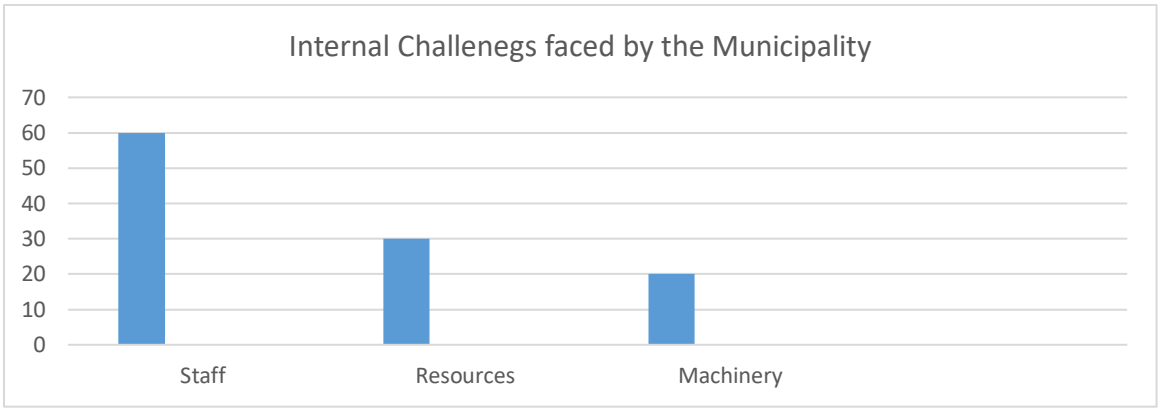


Figure 4: Internal problems hampering quality service delivery at the Municipality.

60% of the respondents indicated that the City of Windhoek lacked qualified personnel in most of the technological and engineering field that deals with service delivery. The result is that unskilled personnel are used who do not have the technical ability to deal with issues of sanitation. 30% of the respondents indicated that there is a lack of resources and capital while the remaining 20% indicated that machinery, and human power in the section of sanitation department are lacking.

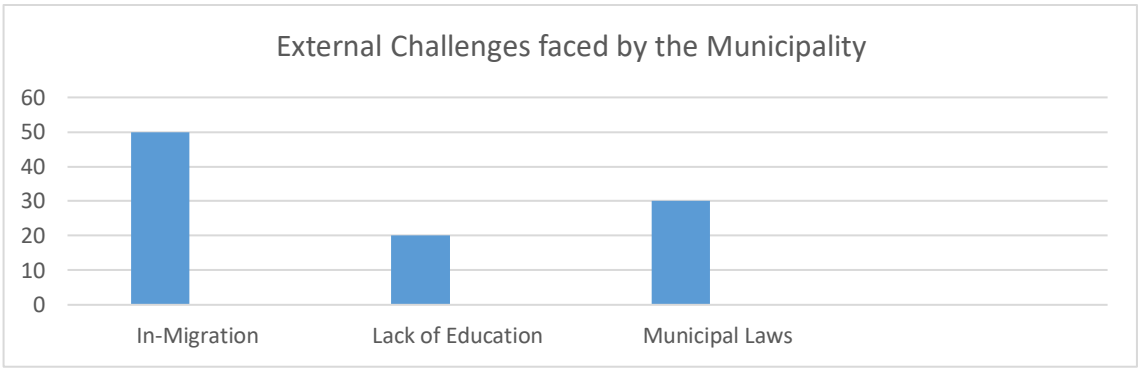
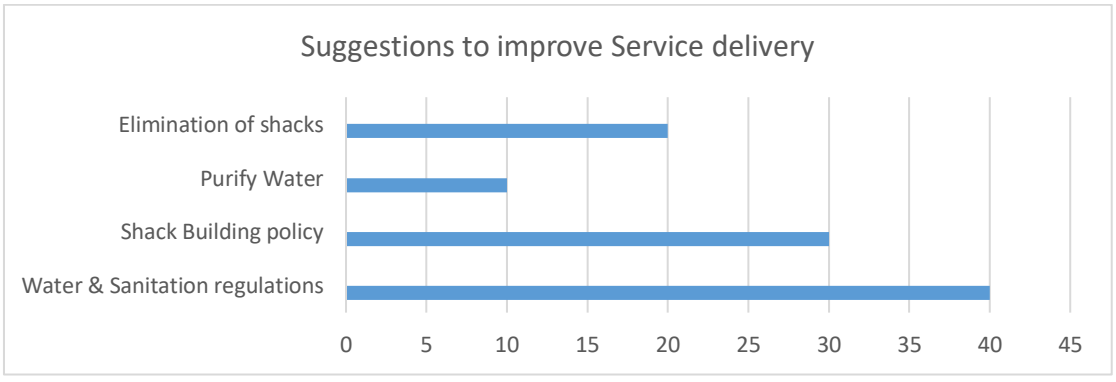


Figure 5: External problems hampering quality service delivery at the Municipality.

50% of the respondents indicated that Havana Informal Settlement is increasing at an alarming rate and the demand by far exceeds the pace of delivery. While 20% of the respondents indicated that lack of education contributes to the vandalism and unhygienic situation of Havana settlement because residents are not knowledgeable about the challenges faced by the City of Windhoek. While the City is trying to improve sanitation and cleanliness within the informal settlement, people tend to just throw rubbish on the road and around the settlement instead of throwing it in the waste bins. This will later contribute to the breeding of mosquitos, which leads to malaria, and other critical environmental hazards such as hepatitis E. 30% of the respondents have also indicated that the lack of enforcement of municipal by-laws is a major challenge and the lengthy planning process.

Figure 6: Suggestions for improving the service delivery of water and sanitation.



ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue I January 2025

The respondents made several suggestions on how to improve the service delivery. 40% of the respondents indicated that the government should periodically review the regulations on water, waste, and sanitation. 30% of the Respondents aired the same sentiments but touched on the requirements to review the policy on building shacks in informal settlements. 10% of the respondent stated that currently, the law on water is that people should not use rainwater for cooking, drinking, and other activities whilst the same respondent feels that the rainwater has no harm, it can be used for household activities if it is boiled. 20% of the Respondents said that regulations must be set up to determine whether to work from the premises of total elimination of shacks or just to reduce, make them safer and habitable. Suitable building materials for shacks as well as standards for shack construction taking health, safety, and security concerns should be considered.

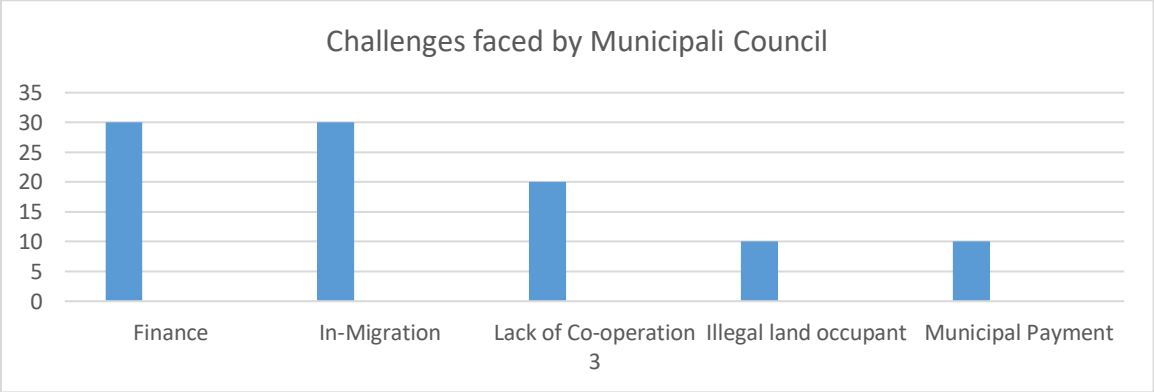


Figure 7: Challenges facing the municipality council in the provision of safe drinking water and sanitation services.

30% of the respondents stated that lack of financial resources and inconsistency when it comes to the national budget and stakeholder contributions adds to the lack of safe drinking water and proper sanitation within the informal settlements. Debt collection policies are further not executed effectively resulting in a weak revenue collection. 30% of the Respondents voiced that the number of informal settlements keeps increasing, making it difficult for the municipality to cope and provide the necessary services. 20 % of the respondents further stated that lack of cooperation from community members is a major challenge because the residents tend to vandalize infrastructure such as community toilets, pipes, and taps. 10% of respondents stressed that the residents of the informal settlement tend to occupy un-serviced land illegally making it difficult to provide water and electricity to those areas while the remaining 10% of the respondents indicated that informal settlement residents are not paying for their water rates leaving the municipality with no choice but to terminate their water supply.

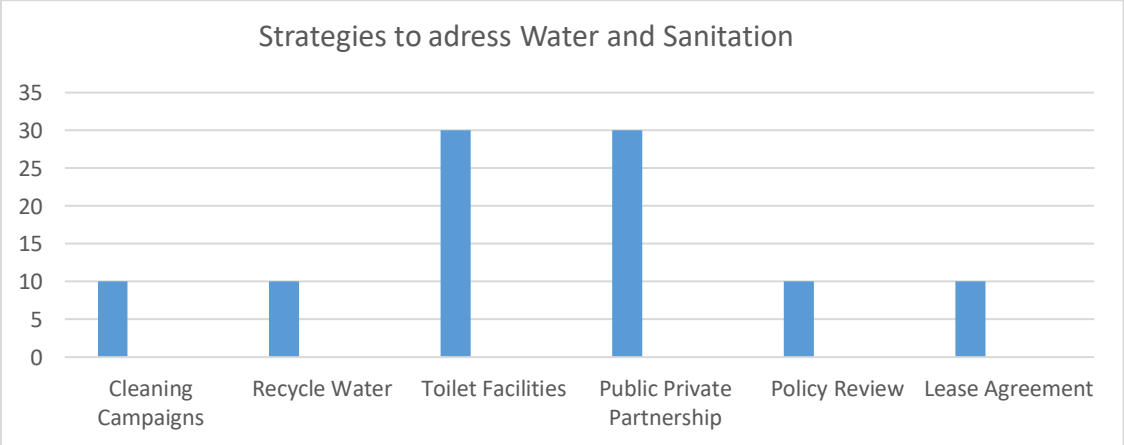


Figure 8: Strategies used to address water and sanitation problems.

10% of the respondents indicated that there are ongoing cleaning campaigns and settlers are regularly educated on how to handle facilities. 10% of the respondents stated that the municipality has plans to recycle the Gammams Wastewater Treatment Plant, which is responsible for treating domestic and some industrial wastewater. There are also plans in place with WINCOR which is a German private company working hand in

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hand with the municipality to purify water in informal settlements. 30% of the respondents expressed that the Municipality has received R 150 000-00 to build more toilets for informal settlements. At the moment 25 toilets have been completed, which the residents are currently not happy with. 30% of the respondents stressed that the municipality needs more public partnership agreements and a specialized advisory committee that can assist in addressing such problems. 10% of the respondents further mentioned that the municipality needs to formalize informal settlements and relocate the settlers to proper residential places. Policies need to be reviewed to tackle the problems at hand whereas the remaining 10% of the respondents stated that probably informal settlers should have a formal lease agreement in place for the area that they occupy.

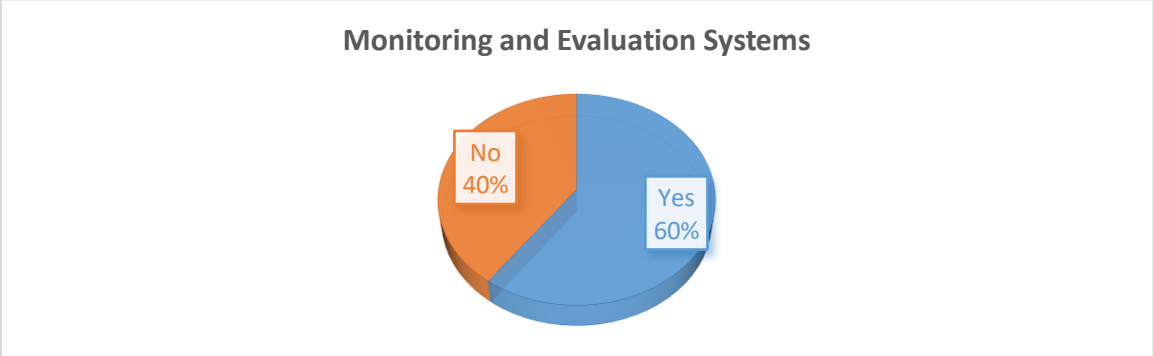

Figure 9: Monitoring and Evaluation Policy systems in place

60% of the Respondents stated that the City of Windhoek recruits the necessary individuals to monitor and evaluate policies and ensure that they are still effective and up to date while 40% of the Respondents further indicated that, they do not have any systems in place apart from the officials that are employed by the municipality, and usually results and observations are what is used by the councillors and community leaders to see if the current policies are effective.

DISCUSSIONS

The findings align with Gao et al *(*2007:21) regarding the benefits of effective and sustainable hygiene education programmes in informal settlements. If the community understands and adopts basic hygiene practices then it would result in a reduction of infant mortality and diarrheal diseases, improved environmental pollution, and conditions of living. This is further supported by Hardoy et al (2008) stating that hygiene education programmes are among the most effective ways of lowering healthcare costs, especially in high-density settlements where residents are at great risk of poor and sanitation-related diseases.

The findings indicated that debt collection policies are not implemented effectively resulting in a weak revenue collection. This supports the view of Mukwena and Drake (2010:321) that strict measures should be put in place to retrieve and recover debts owed to municipalities as most of the financing is intended to come from cross-subsidization through user tariffs. The findings indicate that the vandalism and theft of public infrastructure must be addressed as a matter of urgency. The findings support the view of Mukwena and Drake (2010:323) that in countries like South Africa, Kenya, and Nigeria, the theft of water taps is a major obstacle and is considered the quickest means to get cash. This derails effective water supply initiatives. It becomes expensive for the local municipality to constantly replace the taps that are simply stolen. To solve these problems, workshops should be held. These should be used to inform the public about taking responsibility for protecting public property.

The findings indicate that inward migration places pressure on limited resources to deliver services. The rural-urban migration is mostly for employment opportunities. The findings support the view expressed by Mwanyekange (2014), that the Government needs to implement a decentralized sustainable economic and infrastructure development framework that relieves pressure from main cities to lower income inequalities; and reduce rural-urban migration. Singh and Sukla (2005:372) state that keeping up with the rapid pace of urban population growth will remain a key challenge to water and sanitation services providers in urban areas. The City of Windhoek should have an operative policy monitoring and evaluation (M&E) structure in place that can effectively design, implement, and deliver public policies and services. This structure should be able to support

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strategic planning and policymaking by improving the links between policy interventions and their outcomes and impact.

The findings indicate that monitoring and evaluation are non-existent within the City of Windhoek. In this regard, the work of Gold, Muller, and Firtile (2010: 279) regarding the need for effective monitoring mechanisms by the municipality is of importance. The study showed that policies are not addressing the needs of society, this is mainly because policies are not reviewed regularly, resulting in policy not addressing the current societal needs.

The study reveals that the budgeting process and allocation of the City of Windhoek contributes to the poor service delivery record in the Havana Informal Settlement. The findings support the view of Singh and Sukla (2005:372) that the distribution of resources, including land for housing, civic services, and economic opportunities, has widened the gaps between the "planned city" and the "informal city." The results reveal that households in Havana face a lack of income to construct proper sanitation facilities and rely on government intervention for the provision of such amenities. A significant obstacle arises from political interference, which officials identify as a considerable source of frustration impeding effective service delivery.

The study indicates that the City of Windhoek confronts a shortage of adequately trained personnel specialized in service procurement and tendering systems, leading to the utilization of unskilled workers who lack the necessary technical expertise to handle sanitation-related issues.

Financial constraints hamper the city's ability to address the pressing challenges tied to ensuring safe drinking water and appropriate sanitation for informal settlements. This challenge stems from residents' non-payment of rates and taxes, highlighted in a report by the Namibian in July 2018, which detailed the writing off a debt exceeding R190 million. This debt was deemed unrecoverable and attributed to pensioners and vulnerable inhabitants. Additionally, private businesses, other Windhoek residents, and government ministries and departments owe the City of Windhoek hundreds of millions of rands, further exacerbating the situation. The findings demonstrate that a lack of cooperation from community members poses another significant hurdle. Residents tend to damage and steal essential infrastructure like community toilets, pipes, and taps, often selling them to contractors or scrapyards to quickly obtain cash. This disruptive behaviour undermines effective water supply initiatives and places a financial burden on the local municipality, which continuously needs to replace stolen taps.

RECOMMENDATIONS AND CONCLUSION

Both policymakers and practitioners must possess the capacity for innovative thinking and adaptable problem-solving in response to the specific limitations and possibilities present within local contexts. Regulatory frameworks should be established to determine whether a strategy of complete shack removal or a reduction approach is more appropriate, with the overarching goal of enhancing safety and habitability. The selection of appropriate building materials and the establishment of construction standards for shacks, guided by considerations of health, safety, and security, should be a priority. Exploring the potential of Public-Private Partnerships (PPP) could significantly contribute to governmental development efforts and bolster service delivery. To prevent pensioners and vulnerable account holders from accumulating debt, a proactive measure would involve the conversion of water and electricity meters to pre-paid meters. The widespread implementation of pre-paid meters among this demographic would mitigate the issue of outstanding debts. To reinforce effective debt management, robust debt collection policies should be enforced, while fostering a culture of prompt municipal payments can substantially enhance the municipality's revenue streams, ultimately fortifying its ability to provide essential services.

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