

## Stakeholder Participation on Urban Solid Waste Management in Central Uganda.

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### ABSTRACT

The study was to examine the influence of stakeholder participation on performance of urban solid waste management in Uganda. Specifically, to establish the influence of stakeholder participation in planning on urban solid waste management; to examine the influence of stakeholder participation in implementation on urban solid waste management and to determine the influence of stakeholder participation in monitoring and evaluation on urban solid waste and management in central Uganda. The study adopted Interpretivist paradigm that views the world subjectively, case study research design that are characterized by studying elements of social phenomena. The study used purposive sampling to select reviews in the study that helped to gather detailed information about the waste management. Then, data was analysed using document analysis that involves skimming (superficial examination), reading (thorough examination), and interpretation. The study found out that Urban Authorities have the obligation of managing solid waste in their areas of jurisdiction through enacting bye-laws, collecting transporting and disposing waste, develop recycling programs and market for recycled materials and manage dump sites and sensitize the community. The study also found out that 80% of the household are not served by Kampala city council collection facility due to bad roads and absence of vehicle pass ways. Transportation of garbage from the point of disposal in urban areas involves methods which range from waste delivery trucks and hand driven carts of different types and sizes. The study concluded that stakeholders are involved in planning meetings only whereas staff are involved in planning meetings, work plan development, budgeting and decision making. The above conclusions implies that once stakeholders don't fully participate or involve in all the planning activities, the project is likely not to achieve its set objectives and goal within the project scope, cost, time frame and deliver the desired quality of service. The research also concluded that clients and their leaders participate in monitoring project activities; clients are represented during performance review meetings; clients participate in evaluation meetings whereas most of the clients are not represented during developing policies. It was recommended that governments can document and analyse the activities of community based organizations and small enterprises to understand the social, environmental and economic contributions that they make. This information can also help decision-makers to appreciate how important these organisations are to both the urban economy and to service provision.

**Key words:** Waste management, monitoring and evaluation, planning, implementation

### I. INTRODUCTION

Recent developments in public health program management have been greatly anchored in community centered beneficiary driven approaches to implementation, monitoring, review and evaluation. Solid waste management ranks high on the agenda of urbanization as a key public health intervention in most developing countries. As noted by the UN, United Nations Sustainable Development Cooperation Framework, Uganda 2021-2025, Uganda has committedly been working towards achievement of environmentally friendly sustainable practices aimed at achieving access to safe and clean water (United Nations Uganda, 2020). The involvement is considered paramount because it promotes ownership of the intervention among local community hence reducing implementation resistance and bottlenecks that may arise, more so meaningful involvement of stakeholders has built capacity of beneficiaries in monitoring solid waste interventions and giving feedback that is considered vital in improvement and performance. Despite the inclusive interventions carried out, the level of stakeholder participation has remained low and wanting notes (Mukama et al., 2016). Therefore, the study sought to investigate the influence of stakeholder participation on urban solid waste management in central Uganda.

### 1.1 Background of the study

Urban areas across the globe are facing an ever-increasing growth in population whose reciprocal effect entails increasing quantities of diverse waste generated owing to the varied consumption patterns and lifestyles (Guerrero, Maas &Hogland, 2013). Since the industrialization drive begun in Europe with an aim of accelerating economic growth, the amounts of waste produced increased in the urban setting which includes toxic and hazardous wastes (Spoann et al., 2019). With the increasing realization of the negative antecedents associated with urban waste management notwithstanding its effect on the environment, different authors have highlighted the need for fervent stakeholder participation in the various urban waste management interventions (Adipah& Kwame, 2019). Over time, waste management has been a major public concern and a priority for socio-economic and human development even in ancient societies (Abdulredha et al., 2020). The process majorly involved collection, transportation and disposal of waste materials. The term waste includes items generated by human activity which is no longer considered useful either in solid, liquid, gaseous and radioactive form such as household rubbish, plastics, sewage sludge, wastes from manufacturing activities, packaging items, garden waste, old metallic and electronic equipment among others (Edan Ono &Sarkinzango, 2015). Today, over 2.1 billion tonnes of solid waste is generated globally with about 33% of it that is not conservatively managed in an environmentally safe manner (Romano, Marciano &Fiorelli, 2021). The increasing urbanization in the current dispensation has increased the volumes of waste generated thus posing a great public health challenge which calls for stakeholder participation (Tsai et al., 2021).

Globally, solid waste management is concern in the governance of urban centres of most developing countries. This is because the increase in waste generation does not tally with collection. It is estimated that about 468, 289 and 231 million metric tons of waste are generated annually from East Asia and the Pacific, Latin America and the Caribbean and Sub-Saharan Africa respectively (Wilson &Velis, 2015).

In developing countries, Ulhasanah and Goto (2018) argue that residents in developing countries, especially the urban poor, are more seriously affected by unsustainably managed waste due to the lack of adequate urban services. Simatele and Etambakonga (2015) argue that, in low-income countries, more than 90% of waste is often disposed of in unregulated dumps or open burning landfills. These practices have serious consequences for health, safety, and the environment. It is no exaggeration to argue that proper waste management is essential for building sustainable and livable cities, but it remains a challenge for many cities in developing countries. In Africa, South Africa is one of the major contributors of waste generation globally (Nyika et al., 2020). In 2012, South Africa generated an estimated 108 million tonnes of waste; 59 million tonnes were classified as general waste. According to Debrah, Teye and Dinis (2022) improper waste disposal costs Ghana USD 290 million annually, equivalent to 1.6% of the country's gross domestic product (GDP) and USD 3 billion in Nigeria, representing 1.3% of GDP yearly. According to the same report, Zambia, Liberia, Madagascar and Kenya spend USD 195 million, 17.5 million, 103 million and 324 million, respectively, annually on indiscriminate waste disposal, representing a range of 0.9% to 2% of each country's GDP.

Many cities in sub-Saharan Africa face severe environmental deterioration and health implications because of poor municipal waste management systems (Simatele&Etambakonga 2015). Indiscriminate dumping has become a common method of waste disposal in many cities of Sub-Saharan Africa (Simatele&Etambakonga 2015). Tascione and Raggi (2011) argue that this situation owes much to a lack of effective and efficient waste management policies and institutional infrastructure. Increasingly, however, indiscriminate dumping is accompanied by a trend towards the dumping of waste in unofficially designated locations where it is processed in a number of ways, including sorting, storage and collection by a variety of factors including local authorities and solid waste scavengers (Simatele&Etambakonga, 2015). In some cases, community containers have been placed on a seemingly arbitrary basis in order to discourage dumping and promote a more organized form of waste disposal. The volume of waste by SSA countries increased by 55 million tons from 2012 to resulting in a population size of approximately 1.31 billion in 2019, while in 2025, the SSA waste is expected to increase to 244 billion tons, with an anticipated population size of about 1.50 billion (Ayeleru et al., 2020).

In Uganda, there has been rapid but often unauthorized growth of urban centers that have outpaced the planning capacity of government institutions to adequate housing, water supplies, roads, sewers and collection of waste (Sekitto, 2019). Tukahirwa and Lukooya (2015) revealed that the uncontrolled disposal by way of burning and dumping which adds hydrologic and atmospheric pollution loads as well as clogs waterways affirms the inadequate stakeholder participation involved in urban waste management in Kampala. While KCCA initiates stakeholder participation with private actors and NGOs in planning, implementing, monitoring and evaluating waste management interventions, inherent activities such as recycling stand a test to respond to the timely fashion in which the interventions hold up to address the waste management problem in Kampala (Lawhon et al., 2022). With a wider scope to cover, KCCA amidst all challenges operates in partnership with NGOs and private players to ensure sound urban waste management although targets remain unachieved (Nakyagaba et al., 2021).

Cities across the globe are currently generating 2.1 tonnes of waste annually. This figure is expected to grow subsequently especially in developing countries due to the increasing urbanization (Mir, Cheema, & Singh, 2021). It should be noted that most of the urban waste in urbanizing society of Kampala Metropolitan Area resulting from a great deal of resources such as food, energy, raw materials, and water are generating huge quantities of waste products. As a core of urban environmental problems, urban waste management in Kampala has called for attention from various stakeholders including government, private partners and the civil society (Kinobe et al., 2015). Kampala Metropolitan Area is characterized by poor waste disposal practices notwithstanding the various waste management interventions by KCCA and other partners. In partnership with stakeholders including the National Water and Sewerage Corporation, Ministry of Water & Environment, Non-governmental organizations like GIZ, KCCA orchestrated the implementation of the Weyonje Sanitation Challenge of 2021 which gathered synergies from different stakeholders in terms of planning, implementing, monitoring and evaluating the various innovations and interventions involved in urban waste management (Ssemugabo et al., 2020).

In pursuit of the Sustainable Development Goal, 11 pertaining to ensuring sustainable waste services, KCCA, AMREF and other partners made strides to promote recycling activities for some solid waste such as plastics (Nanyonjo, Kabaria&Mberu, 2020). Prior to the SDGs, Uganda fell short to achieve the 7<sup>th</sup> Millennium Development Goal which underscored its commitment to uphold stakeholder participation involving all concerned parties to ensure timely implementation of urban waste management interventions that cover a wider scope even beyond Kampala Metropolitan Area (Mukama et al., 2016). While the government is the main provider of sanitation and solid waste management services in Kampala and other parts of Uganda, stakeholder participation has been necessitated in order to achieve the national and international targets sustainably. With the anecdotal evidence on the merits of stakeholder participation in other spheres of development, little systematic knowledge exists regarding how the same influences urban waste management in Kampala (Gumisiriza&Kugonza, 2020). It was from this backdrop that the study sought to examine the influence of stakeholder participation on performance of urban solid waste management in Uganda.

## 1.2 Problem statement

Solid waste management (SWM) has been recognized as a critical infrastructure globally, that is as essential as freshwater, power, and telecommunication that should be provided in all urban centers (Gana, Babanyara&Abdulkadir, 2022). Most cities contend with problems associated with waste, especially environmental pollution in its various forms (air, water, land, and soil). Although it is well understood that stakeholders involvement in solid waste processing (SWP) is essential for a sustainable waste management system because it encompasses the full waste management chain from generation, collection and to final disposal, the scope of their involvement is not clear (Peng et al., 2020). Poor waste management practices remain a big challenge in Central Uganda where the large population of the congested city suburb with an increasing industrialization index is responsible for the slum development. Strides has been put in place such as implementation of interventions such as Weyonje Sanitation Challenge of 2021 and the SMW PPP Project were deemed insufficient for not having fully addressed the waste management problem in the city (KCCA Strategic Plan, 2020/21—2024/25). Despite the interventions, the amount of solid waste generated had skyrocketed to over 200 tons per day which is a very significant increase (Nahamya, 2019). It was also revealed that over 30% of the over 200 tons of waste generated in Central Uganda per day remains uncollected, unprocessed, or dumped in inappropriate places (Kushaba, 2022). It was from this backdrop that the study established the influence of stakeholder participation and waste management in central Uganda.

## 1.3 General objective

The main objective of the study was to examine the influence of stakeholder participation on performance of urban solid waste management in Uganda

## 1.4 Specific Objective

- i. To establish the influence of stakeholder participation in planning on urban solid waste management in central Uganda
- ii. To examine the influence of stakeholder participation in implementation on urban solid waste management in central Uganda
- iii. To determine the influence of stakeholder participation in monitoring and evaluation on urban solid waste and management in central Uganda

## 1.5 Research Questions

- iv. What is the influence of stakeholder participation in planning on urban solid waste management in central Uganda?

- v. What is the influence of stakeholder participation in implementation on urban solid waste management in central Uganda?
- vi. What is the influence of stakeholder participation in monitoring and evaluation on urban solid waste and management in central Uganda?

### **1.6 Justification of the study**

Poor solid waste management is associated with several public health challenges arising from poor sanitation and hygiene such as disease outbreak and pollution which characterize most heavily populated urban areas (Komakech, 2014). Therefore, this study is important to KCCA government agencies, private partners and the community in understanding the contribution of various stakeholders in addressing the problem of poor waste management (Ssemugabo, et al., 2020). The results from this study shall be beneficial to policy makers (Ministry of Environment, NEMA, Ministry of health), government and local partners such as Amref Health Africa and private waste management companies by providing key insights on how various stakeholders can be meaningfully involved in implementation, monitoring and evaluation of waste management interventions and the possible challenges hindering participation.

### **1.7 Significance of the study**

The study findings will considerably guide KCCA and AMREF on drawing the most appropriate coverage of urban waste management projects which will be well planned, implemented, monitored and evaluated in accordance with the defined scope. Managers at KCCA are anticipated to expedite the merits of stakeholder participation to appreciate its relevancy in urban waste management in consideration of enhancing timely implementation of interventions.

This study will significantly contribute to the body of knowledge in regards to stakeholder participation and urban waste management. It will provide empirical evidence on how both variables relate thus responding to current intellectual debate on correlational effect between them. The recommendations and conclusion drawn from this study may be a good point of reference for secondary literature.

The study will be of help policy makers such as KCCA who might gain deeper insight into the relevance of stakeholder participation in realm of urban waste management in central and the country at large. From the study findings, policy makers will get informed about the various means of stirring stakeholder participation which would be helpful if incorporated in other settings to ensure timely implementation of urban waste management interventions within the specified scope to achieve set targets.

### **1.8 Methodology**

The study adopted Interpretivist paradigm that views the world subjectively (Guba & Lincoln, 2005; Fouche et al., 2017). The paradigm argues that the researcher and participants construct knowledge and the social world is not understood from one standpoint since reality is socially constructed (Fouche et al., 2017). The research then used case study research design that are characterized by studying elements of social phenomena through comprehensive description and analysis of a single situation or case for example a detailed study of an individual, group, episode, event, or any other unit of social life organization (Hunt & O'Leary, 2017). The study used purposive sampling to select reviews in the study that helped to gather detailed information about the waste management (Amin, 2005, Creswell, 2003, Creswell, 2014). The study used secondary sources such as textbooks, edited works, books and articles that interpret or review research works, histories, biographies, reviews of law and legislation (Kothari, 2003; Kothari, 2004; Creswell, 2014; Amin, 2005). The data was then analysed using document analysis that involves skimming (superficial examination), reading (thorough examination), and interpretation. Document analysis a process of evaluating documents in such a way that empirical knowledge is produced and understanding is developed. The methodical search for relevant documents over several months proved fruitful. I reviewed approximately 31 documents, placed them in context, and coded them for analysis (Bowen, 2003).

### **1.9 Scope of the study**

The study focused on determining the influence of stakeholder participation on performance of urban solid waste management in Uganda. Specifically, to establish the influence of stakeholder participation in planning on urban solid waste management; to examine the influence of stakeholder participation in implementation on urban solid waste management; to determine the influence of stakeholder participation in monitoring and evaluation on urban solid waste and management in central Uganda. The study considered the period from 2015 to 2023 because most of urban towns are having challenges of waste management. The study was conducted Uganda which is located in eastern Africa, west of Kenya, south of South Sudan, east of the Democratic Republic of the Congo, and north of Rwanda and Tanzania while much of its border is lakeshore.



### 1.10 Theoretical framework

The study was guided by the Stakeholder theory developed by a team headed by Edward Freeman in 1984. The Stakeholder Theory considers the stakeholder ecosystem as consisting of anyone, involved in and affected by the operations of the organization such as employees, communities, political groups, customers, environmentalists near the company's plants, vendors, governmental agencies and more (Dmytriiev, Freeman & Hörisch, 2021). The theory posits that organizations work within interconnected relationships involving customers, employees, suppliers, government, investors, and the wide community among others who have a stake or interest in what the organization does (Kwagala, 2016). The theory assumes that an organization's real success lies in satisfying the needs of all its stakeholders not only those who profit directly from the organization (Freeman, Dmytriiev & Phillips, 2021). The theory also assumes that a firm should create value for all stakeholders not just shareholders (Hörisch, Freeman & Schaltegger, 2014).

In accordance with Maiyaki, Marzuki and Mustafa (2018), the theory underscores the need for stakeholder participation in the planning, implementing, monitoring and evaluating urban waste management interventions. Therefore, the key strength of the stakeholder theory in the study is the ability to highlight the contribution of partnerships, collaborations and stakeholder engagements in obtaining feedback necessary for organizational success as expedited by the waste water management in Central Uganda (Freeman, Phillips & Sisodia, 2020). The theory has great potential to assist in identifying the stakeholders, classifying the stakeholders as internal and external, primary and secondary towards projects, the theory is viewed to be weak in using the grouping approach and multiple inclusion which occurs when some individuals belong to more than one stakeholder group at the same time (Fassin, 2008). This could occur due to occupying simultaneous roles either within sub-groups or cutting across them. As such, individuals could have varying influence on the project at the different stages and this can have an effect on project implementation (Meridith, 2009). According to Beck and Storopoli (2021), stakeholder theory cannot fully satisfy the interests and needs of all stakeholders involved in the planning, implementation, monitoring and evaluation of urban waste management interventions.

## II. LITERATURE REVIEW

### 2.1 Introduction

Chapter two focuses on reviewing existing literature in line with the study theme to identify gaps that motivated the researcher to carry out an investigation. The literature discussed is a reflection of the study objectives. In this section, stakeholder participation and urban solid waste in Uganda is a major concern to all modern organizations especially in this century. The literature was obtained from secondary sources including published and unpublished sources such as dissertations, research reports, textbooks, handbooks, periodical journals, strategic plans and magazines.

### 2.2 Stakeholder participation in planning in urban waste management interventions

The World Health Organization (WHO) recognizes the need for stakeholder participation in planning for development and livelihood projects which helps in keeping a focus on creating value for the beneficiaries (Thyberg & Tonjes, 2015).

Spoann et al. (2018) recognize the funnel shaped approach of stakeholder participation involving international partners, government agencies, local government, citizens, and the civil society could be of high merit in soliciting ideas on the best practices in urban waste management interventions. Planning and implementation problems are often cited to explain the differences between objectives and achievements in Urban Waste Management interventions in Sub-Saharan Africa (Muheirwe, Kombe & Kihila, 2022). Much as local governments' programs were planned and their respective annual budgets submitted to the central government before the beginning of the new year in Uganda evidence on the ground still showed poor services characterized by shoddy works, non-visible evidence of untimely delivery of waste management interventions (Moyo, 2007). Kirama and Mayo (2016) revealed that the waste hierarchy draws from efforts of stakeholder participation although interests of stakeholders might differ. In the hierarchy, planning is quite critical in the 3R's i.e. Reduce, Reuse, and Recycle of waste material in a timely fashion but this remains a subject for further debate in the case of Kasasiro Zaabu Project.

The transformation from the Millennium Development Goals (Agenda 21) to Sustainable Development Goals having been premised on stakeholder participation in planning and setting goals for development, urban waste management was set to be prioritized with concerted efforts to expedite ideas and sound opinions from different individuals and organizations (Prada, 2020). Assertions by Soltani et al. (2015) revealed the need for stakeholder participation in terms of planning to lay sound strategies that shape a decision support framework to facilitate timely execution of waste management interventions especially in rapidly urbanizing settings notwithstanding the power of stakeholder participation in facilitating consultation and resource allocation. In India for example, Prajapati et al. (2021) highlighted the need to involve various stakeholders affected by or benefiting from waste management intervention in planning for better outcomes. With the low rankings by the

World Bank in terms of sanitation and clean drinking water, the desire to ensure fervent stakeholder participation in Uganda was highlighted to improve WASH outcomes although this remain unachieved especially in the urban setting (Bako, Barakagira & Nabukonde, 2021).

While urban waste management remains KCCA's mandate, its interaction with other stakeholder's remains highly desired. In Weyonje Sanitation Challenge of 2021, KCCA's solicitation of ideas from various stakeholders in the public sector, private sector, and the third sector gathered synergies to ensure smooth delivery of waste management interventions within the metropolitan area (Kimbugwe et al., 2022). KCCA's concentration on planning putting emphasis on assessing the needs at division level took shape through consultations made and plans on resource allocation to cover the growing scope of urban waste management in the city (Lawhon et al., 2022). However, in drawing action plans for waste management, stakeholder participation remains a critical issue to uphold in a bid to identify opportunities for the private sector and for community-based and non-governmental organizations to participate in needs assessment and resource allocation processes (Nakyagaba et al., 2021). The KCCA Strategic Plan (2020—2025) underscores stakeholder participation in planning acknowledging the NGOs and CBOs in urban service delivery in line with Uganda's legal framework for waste management.

### **2.3 Stakeholder participation in the implementation of urban waste management**

Kizito et al. (2021) revealed that GIZ waste management programs apply participatory approaches which informal means of implementation such as local meetings, posters, music and drama to sensitize communities about the dangers of poor waste management in the urban setting. Mostly the international NGOs with local branches that are engaged in waste management and recycling in Uganda in the recent years have carried out capacity building involving partnerships with other implementing partners gathering synergies in terms of data collection, supervision and executing the tasks (Wilson et al., 2015). For instance, some NGOs in Kampala acquired training in briquette making as well as making construction materials from waste from NGOs/CBOs in Uganda. Recycling activities have been prominent in East African cities with activities ranging from composting, to plastic, paper, glass and scrap recycling which have taken a participatory approach of implementation in pursuit of common targets (Aryampav et al., 2019). While the amount of plastic waste collected for recycling appears small compared to the total amount of plastic waste, it contributes greatly to the 2% of plastic waste that is collected for recycling in Kampala as mentioned above (Nakyagaba et al., 2021). In an account by Oduro-Appiah et al. (2017), the Accra Metropolitan Assembly (AMA) launched a fact-finding mission to develop a baseline methodology and the Wasteaware benchmark indicators that involved multiple players to benchmark urban waste management in Ghanaian cities. In the implementation of the National Environment (Waste Management) Regulations of 2020, KCCA licensed some private contractors including through not limited to; Asante Waste Management Kampala, KAD Agency, De-Waste Waste Management, Homeklin and NabugaboUpdeal Ventures among others to manage waste within the city in a bid to enrich SDG 11 according to the Third National Development Plan of Uganda (Sekitto, 2019). Research by the World Health Organization involving collecting data from local citizens, waste management private firms, and NGOs to determine the various best practices and standards that could promote good hygiene and sanitation whereby it was stressed that implementation should uphold stakeholder participation (Chen, Geng& Fujita, 2010). While working in collaboration with the Ministry of Health, the WHO together with WALIMU (CBO) trained health workers and district surveillance teams including village health teams in participatory approaches of waste management project implementation (Bagire et al., 2021).

The researcher acknowledges that while stakeholder participation in implementing waste management interventions has been paramount in different contexts, the scenario under KasasiroZaabu Project remains unknown. Owing to the varied authors' views on stakeholder participation in the implementation of urban waste management interventions, their findings represent other settings which were obtained using different methodologies. This thus entails the need to determining stakeholder participation has been applied in data collection, supervision, and tax execution of waste management interventions in central Uganda.

### **2.4 Monitoring and evaluation in urban waste management in Uganda**

The UN-Habitat acknowledges the need for participatory approaches in urban waste management across the globe (Habitat, 2013). The KCCA Strategic Plan (2020/21—2024/25) commits to pursue participatory approaches in executing the M&E function involving all key stakeholders including the citizens of Uganda to nurture the face of urban waste management aiming at enhancing the beauty of Kampala City. GIZ, AMREF, and other organizations involved in urban waste management have prioritized undertaking joint ventures in monitoring and evaluating their interventions to avoid duplication of efforts although the outcomes of such projects suggest continued support for the phenomenon (KCCA Strategic Plan (2014/115—2018/19). However, Christensen et al. (2014) stated that despite the desire to engage a great deal of stakeholders in municipal waste management in Kasese District, understanding how the waste management interventions are

working could only be appreciated by the key stakeholders with keen interest in them. Sangole et al. (2014) note that participatory M&E activities in waste management interventions facilitated shared decision making and feedback. KCCA partners make joint reports on waste management drawing from their contributions towards achieving the national development goals as well as the SDGs.

Cities and municipalities have been in charge of providing Solid Waste Management services in developing countries with limited assessments made especially due resources constraint notwithstanding the intrinsic worth of M&E (Sandhu, Burton & Dedekorkut-Howes, 2017). KCCA and its partners working in a consolidated framework to deliver timely waste management interventions to city dwellers adopted participatory approaches of M&E including the transect walk through the intervention areas. For example, Kampala's first Solid Waste Management Public-Private Partnership (PPP) Project dubbed "SMW PPP Project" was a participatory framework involving both public entities and private firms that took steps to execute M&E involving all the key stakeholders (KCCA Strategic Plan, 2014/15—2018/19). With the rampant recycling activities in Kampala suburbs, Kawempe Division inclusive, sustainable interventions could expedite participatory M&E approaches involving key stakeholders such as GIZ and AMREF who have been long-term partners for KCCA. As per Tukahirwa and Lukooya (2015), inadequate stakeholder participation in M&E could limit synergies in bettering waste management interventions thus exacerbate health and environmental outcomes. The role of KCCA, MWE, NEMA, NGOs, and the private sectors are underscored in executing the M&E function to improve urban waste management interventions hence the need for an in-depth study (KCCA Strategic Plan, 2020/21—2024/25).

Monitoring and evaluating waste management interventions involves a wide range of stakeholders who perform various functions to help maintain a clean, safe and pleasant physical environment (Yeboah-Assiamah, Asamoah & Kyeremeh, 2017). Effective waste monitoring is, however, a growing challenge to all urban settings across the globe, especially in developing countries. Solid waste management should be everybody's responsibility to monitor in the community if disease spread is to be minimized (NEMA). Attempts to improve solid waste management and recycling in Uganda have focused on the technical aspects such as the procurement of waste collection vehicles, the privatizing of waste collection services and the maintenance of the landfill while partly ignoring their monitoring and evaluation (Bagire et al., 2021). In spite of these interventions, the problem of monitoring and evaluation of the poor disposal of solid waste still persists in Kawempe village. This has also resulted into, infant mortality, and stagnant growth in children and family income constraints due to loss of time for work, comorbidities and high expenditure on health, and increased health care sector expenditure. The factors behind this poor solid waste management and recycling are yet unknown. The researcher acknowledges the requirement for stakeholder participation in monitoring and evaluating urban waste management interventions as seen in other contexts. However, the study findings contributed by scholars were obtained using varied methodologies and they targeted different settings which were not representative of the current case study.

### 3 Research findings

The National Environment Management Policy, 1994: The policy lays out the foundation for Uganda's environmental, legal and regulation framework. Its overall goal is sustainable social and economic development, which maintains or enhances environmental quality and resource productivity on a long-term basis. The policy pronounces itself on the need to have an environmental assessment undertaken for projects that may have potential adverse impacts on the socio-cultural, physical, and biological environment.

The study found out that In Uganda, according to the Local Government Act Cap (243), Urban Authorities have the obligation of managing solid waste in their areas of jurisdiction through enacting bye-laws, collecting transporting and disposing waste, develop recycling programs and market for recycled materials and manage dump sites and sensitize the community. In most developing countries these services are either contracted out or the municipality does it single handedly established the type of approach used in managing their waste.

The National Water Policy, 1999: This policy aims to manage and develop the water resources of Uganda in an integrated and sustainable manner. The water policy requires an integration of the water and hydrological cycle concerns in all development programmes. The policy further emphasizes the need for participatory planning at the lowest possible level and specifically mentions the requirement for districts to set priorities, by-laws and annual development plans within policies and guidelines set by national level ministries. The National Land Use Policy, 2011: The aim of the policy is to: "achieve sustainable and equitable socio economic development through optimal land management and utilization".

Climate Change Policy, 2015 The goal of the policy is to ensure a harmonised and coordinated approach towards a climate-resilient and lowcarbon development path for sustainable development in Uganda.

The overarching objective of the policy is to ensure that all stakeholders address climate change impacts and their causes through appropriate measures while promoting sustainable development and a green economy. The Energy Policy for Uganda, 2002: Outlines the objectives of the energy sector in Uganda which include among others, the need to manage energy related environmental impacts.

The Renewable Energy Policy, 2007: Requires Agencies to ensure that rural electricity production conforms to acceptable environmental standards. As part of the policy objectives, the policy aims at mainstreaming poverty eradication, equitable distribution, social services and gender issues in renewable energy strategies.

Local Government Act Cap 243 and Article 176 (2) b of the Constitution of the Republic of Uganda have mandated local and urban authorities under the decentralization policy to ensure participation and democratic control in decision making while planning for their communities and to exemplify this principal the ministry of local government (MoLG) has recognized the beauty of community participation by developing several guidelines which include the Harmonized Participatory Planning Guide for parishes/wards, April 2004, the Harmonized Participatory Planning Guide for Lower Governments (June, 2004) as well as the District and Urban Council Development Planning Guidelines (2006). The objective of all this is to enable Local Governments and Urban Authorities involve people in the way they are governed such as identification of problems, challenges, settings priorities, planning and budgeting, procurement, implementation and monitoring of projects and programs in their areas of jurisdiction. Planning in Uganda is supposed to be bottom-up and all stakeholders are supposed to play a big role for it to succeed.

NEMA (2005) reports that almost 80% of the household are not served by Kampala city council collection facility due to bad roads and absence of vehicle pass ways. Transportation of garbage from the point of disposal in urban areas involves methods which range from waste delivery trucks and hand driven carts of different types and sizes (Amal 2010). Other than the problem of waste transportation being aggravated by inaccessibility others include high costs of maintenance of the equipment and high fuel costs thus contributing to the inefficiency in Solid waste management hence assessing the appropriateness of waste management transportation in order to have Waste Management.

#### 4 Conclusion

The study concluded that stakeholders are involved in planning meetings only whereas staff are involved in planning meetings, work plan development, budgeting and decision making. The above conclusions implies that once stakeholders don't fully participate or involve in all the planning activities, the project is likely not to achieve its set objectives and goal within the project scope, cost, time frame and deliver the desired quality of service.

The research also concluded that clients and their leaders participate in monitoring project activities; clients are represented during performance review meetings; clients participate in evaluation meetings whereas most of the clients are not represented during developing policies.

#### 5 Recommendations

Governments that want to be perceived as progressive and modern are increasingly favouring larger-scale, capital-intensive, technological approaches to waste management, particularly through traditional public-private partnerships with large multinational firms. Such solutions involve high capital costs, can be difficult to maintain and are not always well-suited to developing contexts where formal waste collection systems are limited and much of the waste is organic. Instead, national governments should empower and support municipal governments to take a more strategic approach, taking the opportunity to address the socio-economic and environmental issues commonly associated with poor waste management. A key component of this should be to stimulate and support the work of community-based and small-scale enterprises. Reforming waste regulations to favour composting and the reuse and resale of resources could be a more affordable option for authorities with limited budgets. Simultaneously, these reforms would help to secure the livelihoods of some of the most vulnerable urban residents in the country.

Governments can document and analyse the activities of community based organisations and small enterprises to understand the social, environmental and economic contributions that they make. This information can also help decision-makers to appreciate how important these organisations are to both the urban economy and to service provision. A better understanding of these organisations would enable governments to better plan for integrated management approaches which do not rely on huge upfront capital investments and can help them to achieve core development priorities such as better livelihoods and public health. Such data can be co-produced by the people working informally in the waste sector, which can also assist in starting to build the mutual understanding and relationships that underpin effective partnerships.

Governments can directly support small organisations by providing capacity building, equipment, infrastructure and land. For example, government agencies might provide hygienic equipment such as gloves or



aprons, as well as safe spaces where pickers can sort through waste. Governments can also review policies to ensure that they are not disadvantaging smaller or more informal organisations. The formal recognition that comes with such efforts also serves to make community-based organisations and small enterprises more attractive for prospective investors and consumers.

Mukisa (2009) determined that the majority proportion of the public in Kira Town Council exhibited concern and an amount of sensitivity about solid waste though sorting of solid waste is less adopted. The study also found that there are challenges of limited resources to manage the solid waste and illegal dumping in Kira Town Council. Overall, the study found that the level of public participation in solid waste management at present in Kira Town Council is low and that the best way to start dealing with the problem is for the Town Council authorities to show the people that they are worth by involving them in the initial planning process (Mukisa, 2009).

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