

# International Journal of **Public Policy and Administration**

(IJPPA)

**Effects of Policy Environment on Solid Waste Management in Urban  
Centres in Eastern Uganda**



**CARI  
Journals**

## Effects of Policy Environment on Solid Waste Management in Urban Centres in Eastern Uganda

 <sup>1\*</sup>Benard Eumu, <sup>2</sup>Dr Edaku Charles, <sup>3</sup>Prof Faustino L. Orach Meza

<sup>1\*</sup>Post Graduate Student: School of Public Administration and Management

Nkumba University

<https://orcid.org/0009-0008-1120-200X>

<sup>2</sup>Senior Lecturer School of Public Administration and Management

Nkumba University

<sup>3</sup>Professor School of Public Administration and Management

Nkumba University

*Accepted: 8<sup>th</sup> Sep, 2024, Received in Revised Form: 19<sup>th</sup> Sep, 2024, Published: 29<sup>th</sup> Sep, 2024*

### Abstract

**Purpose:** This paper explores the policy environments in urban centres in Eastern Uganda and the extent to which they have affected Solid waste management.

**Methodology:** A correlational survey design was used to analyze primary data from 273 employees of urban centres, using, descriptive statistics, Pearson correlation and regression analysis.

**Findings:** Policy environment positively predicted effective Solid waste management ( $\beta = .21$ ,  $p < .05$ ). Though legal, political, cultural and media limitations decreased effectiveness of Solid Waste Management.

**Unique Contribution to Theory, Policy, and Practice:** Urban authorities should implement more responsive governance that promotes effectiveness, responsiveness and participation of residents and in all SWM operations. Urban councils need to innovate strategies to allow a high degree of organized representation, accessibility and openness for all categories of stakeholders. They also need to develop a variety of initiatives to allow all stakeholders in the communities to actively contribute to SWM ideas for the common good of their areas.

**Keywords:** *Policy Environment, Solid Waste, Management Policy, Policy Performance*



## 1. INTRODUCTION

A supportive policy environment is recognized the world over as a pillar for communities having safe and clean environments. Experts (Şeren,2019; Serge Kubanza & Simatele, 2020) from developed countries affirm that the effectiveness of National Environmental Management Policies on solid waste management (SWM) are largely affected by the policy situation. Analysts in Europe and Asia have also alluded to people -centric National Environmental Management Policies (NEMPs) as attracting better environmental management practices from the community (Alemayehu,2017). In Africa, countries have been trying various policies that enhance SWM since the 1970s, after urbanization and population growth hit major cities (Şeren, 2019). The majority of African countries have adopted and adapted SWM policies that can translate to greater and better environmental protection especially in urban areas, but still face challenges in implementation (Kabera, et al.,2019).

Uganda has had SWM strategies since the 1930s (Kinobe et al.,2015). In 1994, the country made the National Environment Management Policy (NEMP)[1994], to concretise her resolve for ensuring better that Solid waste management through the country. The National Environment Management Authority (NEMA) (2014) was later instituted ensure that Solid waste is handled in a way that does not harm the national environment. All urban centres in the country are obligated to implement this law (Lwasa, 2017). After realising that a number of urban authorities were not implementing the NEMP, another policy, referred to as the National Urban Solid Waste Management (NUSWM) Policy was released in 2017 to provide specific guidelines for the management of urban solid waste (Lwasa & Owens, 2018). The effective implementation of all these National Environment Management Policy instruments would result into better SWM, leading to a safe and clean environment in urban centres in Uganda (Lwasa, 2017).

Despite having an articulate policy framework, Urban centres in Uganda and more especially eastern Uganda still persistent challenges SWM (Tenywa et al., 2017). Harmful SWM practices, in the urban centers in the Eastern region continue to prevail (Kabera, et al.,2019). The centres have poor SW storage, collection, transportation, treatment and disposal that pose danger to the health and wellbeing of residents.

### 1.1 Statement of the Problem

Uganda has guidance from several international SWM policies for which it is a signatory on best practices to have safe and clean environments (World Bank, 2019). Besides, the country has national and specific urban centre policies such as the National Environment Act (1995), National Environment Waste Management Regulations (1999) and the National Urban Solid Waste Management (2017) to ensure sustainable SWM in urban centres of Uganda and support Uganda's overall strategy for achieving a safe and clean environment. However, Solid waste is decomposing in recreational grounds, gazetted areas and homes of resident posing serious health and environmental degradation risks (Liyala, 2017). If this situation is unabated, the health and

livelihoods of people in urban centres would significantly be compromised due to failure by the authorities to responsibly manage the environment for the benefit of the people. This scenario created a need to examine the linkage between Policy environment and SWM in urban centres in Eastern Uganda.

### **1.2 Purpose**

This paper examines the contribution of the Policy environment in urban centre in Eastern Uganda on the SWM. The objectives that guided the paper are to; 1) analyse the policy environment; 2) assess SWM effectiveness and 3) determine the effect of policy environment on SWM.

## **LITERATURE REVIEW**

### *Theoretical Frame Work*

This paper is based on the Neoliberal Good Governance theory (NGGT) by Olssen and Peters (2005). Though inherently a public governance and management theory, it shows the role of authorities in creating a policy environment in which all stakeholders freely participate and promote policy performance. According to NGGT when SWM policy implementation in urban centres places emphasis on service delivery rather than only on productivity and efficiency, stakeholders, especially the community own the policy and strive to support and implement it (Şeren, 2019). Hence, in the view of Peters (2012), Urban centres adopting a customer orientation and come up with innovations that meet the needs of the community, would subsequently lead to efficiency and effectiveness in SWM.

### *Conceptual review*

The key variables of this study were Policy environment and SWM Performance. Policy environment according to Kabera, et al. (2019), comprises of all aspects surrounding policy formulation and implementation. Mamady (2016), adds that Policy environment includes all guidelines and recommended practices at international, National, sub- national and organizational levels that promote the implementation of a policy. In this paper policy environment involves the extent to which responsible groups are willing to identify, address and remove barriers to effective implementation. This involves Central and Urban authorities being able to stimulate and raise funding and monitor the progress of SWM policies.

The effectiveness of urban centers' execution of the policies has been found to profoundly affect the outcomes of the solid waste management policy (Munzhedzi, 2019). The international Solid waste Association (2015) gave key indicators of SWM policy performance. On the other hand, Kabera et al. (2019), included resources, out puts, service standards, cost effectiveness and customer contentment as key aspects related to solid waste management policy performance. After analyzing several policy performance indicators from various part of the world, UNEP (2016), came to a conclusion that, acceptability, appropriateness, adoption, and sustainability are some of the outcome characteristics that should be considered when evaluating how effectively a specific

implementation is actually working. Relatedly, Serge Kubanza and Simatele (2020) in their research on enabling solid waste management policy implementation done in South Africa, reported that assessment should be perceived opinion of stakeholders concerning how efficient and effective the organizations were at implementing the permitted policies. This paper perceived SWM performance as a SWM laws and guidelines promoting equality, quality, access, availability, appropriateness, and satisfaction of stakeholders.

### *Empirical review*

The policy environment is a critical element in the implementation of SWM policy. It affects the decisions, actions and efficacy of those involved in implementation (Şeren, 2019). Maserumule (2019), conducted a study in the municipality of Msunduzi on the impact of culture and socio-economic factors on SWM policy performance. It was revealed that social economic position and culture affected solid waste disposal methods utilized by households. Second, he discovered that failing to comply with municipal solid waste management laws and policies indicates a lack of proper monitoring and management procedures, which prevents an environmentally sound service delivery from being sustained and sufficient.

Rich socioeconomic groups are more likely to think they can stop the environmental catastrophe or take action to stop it because they think they can have a bigger impact on the issue of solid waste management (Serge Kubanza & Simatele, 2020). The study demonstrated that the national municipal solid waste policies can be implemented in a manner that is inconsistent with local government practices and procedures, endangering the equality and sustainability of municipal solid waste removal. Supervision and management systems which are meant to ensure environmental sustainability are flawed and do not adequately address the issue of municipal solid waste legislation being implemented in contravention of national solid waste management policy (Saghir & Santoro, 2018). Residents don't appear to be as supportive of the council's solid waste management policy as they should be (Satterthwaite, 2020). Many researchers assert that because jobs and housing are their main priorities, people from lower socioeconomic levels are less likely to be aware of environmental issues (Luitel & Khanal., 2019). Turning to the more reactive side of the problem, there is frequently a lack of sense of ownership, which can be explained by the accumulation of large amounts of trash in both public and private spaces, including business establishments, parks, highways, and recreational facilities (Abdrabo, 2008).

The above position is in agreement with the one held by Serge Kubanza and Simatele (2020), where emphasis is made on lack of enforcement of sanitation regulation, poor funding for urban sanitation departments are contributing factors towards poor policy environment. In the study done by Saghir and Santoro (2018), on solid waste characterization in three municipalities of Dar-es-salam it was found that the solid waste production and composition is very much reliant on population and socio economic status of the people, In the same study it was revealed that solid waste make up show various characteristics for various socio economic statuses and this indicate

that the peoples socio economic status (frequently calculated by the amalgamation of education, earnings and employment) is a determining factor for solid waste production rates and composition.

Debate on effective SMW continues to cite institutional capacities to handle solid waste management, the availability of financial resources to fund policy activities, choices of technology and public apathy main impediment to appropriate solid waste management in developing countries (Nsimbe, et al.,2018). Tummer and Bekkers (2019), concur with Nsimbe, et al. (2018), on financial resources, social norms and attitude, infrastructure, expertise, lack of new systems for solid waste management being causes of ineffective solid waste management systems. The solution to effective SWM policy performance is to change human conduct, which is what caused the problem in the first place (Serge Kubanza & Simatele, 2020). Munzhedzi (2019), agrees to this thinking that, it's not only attitudes of the public about waste that affects the whole solid waste management system but also inadequate public awareness too.

The above position is shared by Satterthwaite (2020), in their study done in Lesotho. They found that the majority of the population participated in recycling buybacks and anti-littering operations, noting that this was due to the lack of social pressure to stop littering, the lack of practical penalties of regular enforcement, and inadequate knowledge of the environmental effects of littering are. In addition, people think that if they deviate from societal norms, people will view them as outsiders and degrade them. They have internalized society conventions, which explain this. Hence to have a good policy environment that supports SWM, emphasis has to be placed on raising community awareness of citizens and participation.

Developing a sustainable waste management culture and promoting environmental responsibility among community members are crucial. A study carried out in Nepal by Maskey and Singh, (2017), showed that to be able to surmount the solid waste crisis, the “conscience of the individuals needs to be raised through environmental awareness and concern, inculcation of sustainable consumption practices and education on waste management.” Environmental understanding and knowledge on environmental protection. Another study by Mamady (2016), done In Garisa Municipality in Guinea revealed that inadequate staffing, lack of education, poor provisions, lack of proper facilities and lack of residence support are amongst the reasons leading to poor solid waste management in Urban centres. Effective solid waste management policy implementation is inter-connected with the availability of opportunities for effective implementation. The interplay of competing interests, strategies and power positions can influence effectiveness of implementation. However, this paper examined the legal, political, economic, cultural, demographic, and ecological implications on policy environments in which SWM policies operate and how they have affected policy performance in Eastern Uganda urban centres.

## **METHODOLOGY**

A correlational design was used because of the need to measure and analyse the magnitude and direction of relationships among the study variables (Creswell & Creswell, 2018). Thus, descriptive and inferential statistics were used to identify the relationships among Policy environment and policy performance. The study population included employees of two cities, one municipality and 3 town councils were selected. The cities were Mbale and Soroti, Iganga municipality and Kaliro, Sironko and Ngora town councils. The respondents were 273 and comprised of Accounting officers, Town Clerks, Planners, Physical Planners, Municipal Physical Planners, Natural Resources Officers, Health Educators, Health Inspectors, Health Inspector Assistants, Law Enforcement Officers, Environment Police Officers, Councillors. They were selected randomly and 65% were male while 35 % were female. In connection to work tenure, the majority (67.2%) had worked in local government for more than 8 years so had a good knowledge of the work environment in this area. The status of SWM Policy environment and performance was also established using descriptive statistics, means and standard deviations. The association among the variables was analysed using Pearson correlation and regression analysis.

## **RESULTS AND DISCUSSION**

### **Results**

#### **Status of Policy environment and SWM**

The status of Policy environment and SWM was examined using descriptive statistics. The legal, political and decision-making aspects of SWM policy environment were explored first as indicated in table 1.

**Table 1***Status of legal, political and decision-making aspects of policy environment*

	<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Law and SWM	Lengthy court processes	83	27.1
	Corruption	109	35.6
	Lack of Enough Funds	44	14.4
	Political Interference	34	11.1
	Poor Attitude of Public Servants	8	2.6
	Weak Environmental Laws	28	9.2
	Politics and SWM	Poor example by leaders	102
Weak enforcement of policies and laws		70	22.6
Low Advocacy		54	17.4
Low awareness		75	24.2
Do not provide enough Incentives		9	2.9
Decision making and SWM		Votes	165
	Money	70	22.5
	Social class	22	7.1
	The laws and policy	50	16.1
	International Pressure/Influence	4	1.3

Findings in table 1 revealed that prosecution of violators/polluters of environment, securing judgments and court orders was weak. This was mainly due to corruption (35.6%), lengthy court processes (27.1%) and Lack of enough funds (14.4%) and political interference (11.1%). This means that with such challenges above, it is hard for the administrative bodies in charge of SWM to succeed. In connection to political support, it was revealed that leaders and politics shaped the way the public behaved towards SWM. They did not lead by example (32.9%), support awareness programs (24.2%) or enforce policies and laws (22.6%). In summary, the study findings indicate that at least there is some sort of lessons learnt by the public from political leaders and politics in the way to deal with SWM. The majority of respondents (53.1%) said that votes influenced the decisions leaders make towards SWM. This was followed by money with 22.5%. Therefore, votes and money play a big role in the politicians' ability to make decisions on SWM.

The Differences in Policy environment and SWM was also examined across Municipalities and Town Councils. The findings are summarised in table 2.



**Table 2:***Differences in Policy environment and SWM Across Municipalities and Town Councils*

Variable	Total (M, SD)	Municipalities (M, SD)	Town Councils (M, SD)	T-test
Policy environment	18.6 (2.34)	19.52(4.37)	17.6(3.58)	$t=1.58; p <.05$
SWM	20.92(6.43)	21.78(6.60)	20.5.14(6.28)	$t=.79; p =.43$

Key M= mean, SD= standard deviation, Key;  $p <.01^{**}$ ,  $p <.05^{*}$ ,  $p <.001^{***}$ , ns = not significant

The results in table 2 show that the mean policy environment was 18.6 ( $SD=2.34$ ). Municipalities had a higher score than Town councils and the difference was significant  $t(324) = 1.58; p <.05$ . Hence, Municipalities have a better policy environment in SWM than Town councils.

The effect of the policy environment on SWM in urban centres in Eastern Uganda was assessed using Regression analysis and pearson correlation and the findings are summarized in table 3 and 4.

**Table 3***Correlation matrix of Policy environment and SWM*

Variables	Statistics	1	2
1-SWM	Correlation	1	
	P-value		
2- Policy environment	Correlation	.21**	1
	P-value	.001	

Key;  $p <.01^{**}$ ,  $p <.05^{*}$

Simple linear regression was used to test whether Policy environment predicted policy performance; the findings are summarized in Table 4.

**Table 4***Regression of SWM on Policy environment*

Variables	Standardized Coefficients	Significance
	Beta	P
Policy Environment	.21	.012**
R <sup>2</sup> = 0.044		
Adjusted R <sup>2</sup> = 0.041		
F = .066, p = .798*		

Key; p&lt;.01\*\*, p&lt;.05\*

- a. *Dependent Variable: SWM*
- b. *Predictor: policy environment*

The results in Table 5 shows that policy environment ( $\beta = .21$ ,  $p = 0.012 < 0.05$ ) had a small, but significant and positive contribution on SWM. This means that favourable legal, political and socio-cultural conditions in the community lead to better achievement of SWM goals, objectives and practices.

## Discussion

It was revealed that the policy environment in urban centres was not very support to effective SWM practices. This was attributed to political interference, obsolete laws which do not deter the culprits, and poor attitudes of the public and those in authorities to enforce the laws. *Most of the solid waste management laws were obsolete and not a good deterrent. The Poor attitude of the judiciary toward waste management law enforcement led to constant breeches by businesses and the community. Political interference negatively affected proper policy implementation and the environmental laws were not accessible, there was rampant corruption that affects their application and the lengthy court processes were not reasonable.* It was also revealed that there was lack of enough funds to facilitate development and implementation of laws on SWM. The findings agreed with Luitel and Khanal (2019), that with such challenges above, it is hard for the administrative bodies in charge of SWM to succeed. Political interest overrides public interests. The political leaders and politics did not lead by example hence failing to shape the way the public behaves and their attitudes towards solid waste management policy implementation. The decisions of political leaders were influenced by votes and money. According to Maserumule (2019), the socio-

economic situation of a community or an individual or even a country determines the methods used for solid waste disposal. The economically poor people are more likely to throw the solid waste into the streets as indicated by (Kumar et al.,2017). This is why the use of polythene bags was also high among the poor, yet they are disposed of badly. The economically stable were more likely and willing to pay for garbage collection. This means that the rich can afford to pay for someone to be collecting their wastes.

The media is in prison, they are not free to set the agenda, media houses are being monitored by the government, its government that sets agenda for media houses. Most media houses are owned by the business and political leaders who are motivated by the profits, their priority is on where money comes to the business. The air time given to government from every station is instead used for politics not issues that affect them. The media is distressed and the quality of the media personality is low. The media is like a lame duck. Concurring with Munzhedzi (2019), while the SWM laws would be effective in enhancing implementation by the community, the municipal governing agencies did not promote collaborative and collective with stakeholders regarding environmental management. The findings revealed that the policy environment in the urban centres was not very conducive to SWM policy implementation. The environmental laws were not easily accessible by key stakeholders; there was corruption among enforcing officers, and the court processes were so long and very limited funds for making the laws work. Given that Nsimbe, et al. (2018), show that political leaders and politics shapes the way the public behaves and their attitudes towards solid waste management policy implementation, in the case of urban centres in Eastern Uganda, this example did not shine through in the awareness programs and enforcement of policies.

### **Conclusion**

The current SWM laws are not fully working because of the poor monitoring by municipality and poor attitudes and lack of affordable alternatives by the community. The municipality uses a top-down approach in law enforcements which has left out the majority of community members such as the LCs. Most of the members do not know the SWM laws since they feel they did not take part in planning and even monitoring. Full knowledge of the dangers of SW to the environment, and empowerment of LCs with the knowledge of the law will lead to better compliance and offer a lasting and problem fixing solution to SWM.

The urban councils were not inclined to implementing the SWM practices. The decisions of political leaders on SWM were influenced by votes and money. Therefore, there was no good coordination among stakeholders resulting into lack of harmony. This led to untimely and ineffective implementation of the SWM plans. There was lack of unity of purpose and action, reducing coalition to support SWM. When urban councils allow organised representation, accessibility and openness for stakeholders, they feel empowered and subsequently get actively involved in suggesting practical policy implementation practices and will also own the policies,

which will soften enforcement and lead to higher compliance. The urban councils should ensure effective policy monitoring by the community members through regular community meetings.

## **Recommendations**

### **Inclusive policy implementation**

Urban councils should develop a variety of initiatives to allow all stakeholders in the communities to actively contribute to SWM ideas for the common good of their areas.

In the case of significant or controversial changes, the public should be made to feel involved in the waste management planning process. This often requires a balance between the need for action and the need for public engagement.

The interference of local political leaders in the implementation of solid waste management policies by politicians has steadily delayed the achievement of waste management goals and objectives. It is therefore important to limit interference with coordination and funding by policymakers in the area of waste management.

### **Creation of one department responsible for SWM**

Because so many institutions are involved in the formulation and implementation of solid waste management policy in eastern Uganda, there is an excessive amount of institutional fragmentation. Thus, all the institutions/organization involved in the implementation of Solid Waste Management policies and laws should be under one department so as to have clear distinct roles to avoid conflicts/confusion over their operations.

The central government should promote positive social and economic consequences by setting up a framework that enables municipalities to systematically include community-based groups and small companies into formal solid waste management programs.

An important central government policy approach entails changing national waste management and procurement laws to promote locally-led projects rather than technical fixes, as well as providing funding, land, and other forms of assistance to small businesses. As a result of this strategy, the urban poor will have more secure means of subsistence, more homes will be able to access waste collection services, and eventually, urban areas and city people will be healthier. The new national policy would urge local governments to work closely with neighborhood associations and small enterprises and to provide support that would raise the organizations' efficacy and the pay of its staff. These partnerships, in turn, give the municipality the opportunity to increase waste management services to a far larger segment of the urban population without significantly increasing incomes and help some of the most vulnerable people in society have more secure livelihoods.

## **Limitations**



Although this work has contributed to theory and practice, it does have significant shortcomings that need to be acknowledged. First, cross-sectional data were used in the study because the questionnaire and interviews were only conducted once, it is important to be cautious when drawing conclusions about causality as they may not be definitive. Future studies might use longitudinal study designs to look into these aspects. Second, the data's self-report nature raises the possibility of self-report bias. Common technique bias could not be totally eliminated. Future studies may therefore investigate other or more objective methods of measuring the variables employed in this study.

### **Suggestions for further research**

This study only focused on house hold waste generation and management practices.

Future research work may include a study of Solid waste generation and management practices of commercial establishments, schools and industries.

The role of the informal sector in solid waste management policy formulation and implementation should also be studied, given the fact that the new SWM for urban centres gives an active role to private SWM initiatives and actors.

Negative attitudes, cultural beliefs and socio-economic situation of the communities were discovered to be a significant factor in SWM policy implementation. Given the importance of culture in developing countries, future research should consider this aspect as an intervening variable

### **Conflict of Interest**

The authors declare no conflict of interest.

### **Acknowledgment**

We would like to thank all stakeholders in the six urban centres of Eastern Uganda who participated in this study for their contributions.

### **References:**

- Abdrabo, M.A.(2008). Assessment of economic viability of solid waste service provision in small settlements in developing countries: case study Rosetta, Egypt. *Waste Manage.* 28, 2503–2511.
- Adama, O. (2007). *Governing from Above, Solid Waste Management in Nigeria's New Capital City of Abuja*. Stockholm: Acta Universitatis Stockholmiensis (AUS): *Almqvist & Wiksell International*.8, 622.
- Creswell, J. W., & Creswell, D. (2018). *Research Design: Qualitative, Quantitative and Mixed*

Methods Approaches (Fifth Edition). SAGE Publications Ltd.

Curtis, K. (2008). *Conducting Market Research Using Primary Data*. United States of America: Western Centre for Risk Management Education.

International Solid Waste Association (2015). *Global Waste Management Outlook*. Nairobi: UNEP.

Kabera, T., Wilson, D. C., & Nishimwe, H. (2019). Benchmarking performance of solid waste management and recycling systems in East Africa: Comparing Kigali Rwanda with other major cities. *Waste Management & Research*, 37(1), 58–72.

Kinobe, J. R., C. B. Niwagaba, G. Gebresenbet, A. J. Komakech & B. Vinneras (2015). Mapping out the solid waste generation and collection models: The case of Kampala City. *Journal of the Air and Waste Management Association*, 65(2), 197–205.

Liyala, C.M. (2011). *Modernising Solid Waste Management at Municipal Level: Institutional arrangements in urban centres of East Africa*. PhD Thesis. *Environmental Policy Series*. Wageningen University. The Netherlands.

Luitel, K., & Khanal, G. (2019). Study of Scrap Waste in Kathmandu Valley. *Kathmandu University Journal of Science, Engineering and Technology*, 6(1), 116-122. <https://doi.org/10.3126/kuset.v6i1.3319>.

Lwasa, S. and K. Owens (2018). *Kampala: Rebuilding Public Sector Legitimacy with a New Approach to Sanitation Services*. World Resources Report Case Study. Washington DC: World Resources Institute.

Lwasa, S. (2017). Options for reduction of greenhouse gas emissions in the low-emitting city and metropolitan region of Kampala. *Carbon Management*, 8(3), 263–276.

Mamady, K. (2016). Factors influencing attitude, safety behavior, and knowledge regarding household waste management in Guinea: a cross-sectional study. *Journal of Environmental and Public Health*, vol. 2016, Article ID 9305768.

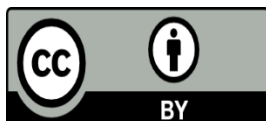
Maskey, B. & Singh, M. (2017). Households' willingness to pay for improved waste collection service in gorkha municipality of Nepal. *Environments*, vol. 4, no. 4, p. 77.

Maserumule, (2019) A critical understanding of good governance and leadership concepts written in the context of the New Partnership for Africa's Development (NEPAD) and the challenges to contextual discourse on Africa's development paradigms1.

Kumar, S. R., Smith, G. & Fowler. (2017). Challenges and opportunities associated with waste management in India. *Royal Society Open Science*, vol. 4, no. 3.

Nsimbe, H., Mendoza, S.T. Wafula, P. & Ndejjo, R. (2018). Factors associated with composting of solid waste at household level in Masaka municipality, Central Uganda. *Journal of Environmental and Public Health*, vol. 2018, Article ID 1284234

- Olssen, M., & Peters, M.A. (2005). Neoliberalism, higher education and the knowledge economy: from the free market to knowledge capitalism. *Journal of Education policy*, 20(3) 313-345.
- Peters, M.A. (2012). Neo liberalism, education and crisis of Western Capitalism. *Policy Futures in Education*, 10(2), 134 - 141.
- Rai, M. R. K., Nepal, M. S., Khadayat. & Bhardwaj, B. (2019). Improving municipal solid waste collection services in developing countries: a case of bharatpur metropolitan city, Nepal. *Sustainability*, vol. 11, no. 11, p. 3010.
- Saghir, J. & Santoro, J. (2018). *Urbanization in Sub-Saharan Africa Meeting Challenges by Bridging Stakeholders*. Center for Strategic and International Studies.
- Satterthwaite, D (2020). The impact of urban development on risk in sub-Saharan Africa's cities with a focus on small and intermediate urban centres. *International Journal of Disaster Risk Reduction* Vol. 26, pp.16-23.
- Serge Kubanza, N. & Simatele, M.D. (2020). Sustainable solid waste management in developing countries: a study of institutional strengthening for solid waste management in Johannesburg, South Africa. *Journal of Environmental Planning and Management*, 63(2), pp.175-188.
- Şeren, G.Y. (2019). Solid Waste Management in the Context of Public Policies and Private Sector Participation: Thoughts on the Need of a Comprehensive Approach. In *Ethical and Sustainable Supply Chain Management in a Global Context* (pp. 229-247). *IGI Global*.
- The National Environment (Waste Management) Regulations, 2020. Statutory Instruments (2020).No. 49.
- The National Environment Management Policy (1994). Kampala Uganda: Uganda Government
- National Environment Act CAP 153 (1995). Kampala Uganda: Uganda Government.
- Tukahirwa, J.T., Mol, A.P.J. & Oosterveer, P. (2010). Civil society participation in urban Sanitation and solid waste management in Uganda. *Local Environment* 15 (1): 1 – 14.
- Tummers & Bekkers, (2019) Explaining the Willingness of Public Professionals to Implement Public Policies
- UNEP (2016). *Guidelines for Framework Legislation for Integrated Waste Management*. UNEP Publications, Nairobi.
- World Bank. (2017). *From regulators to enablers: The role of city governments in economic development of Greater Kampala*. Washington DC: World Bank.



©2024 by the Authors. This Article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>)