Slum Residents' Influence on Involvement in the Sustainability of Upgraded Slum Facilities

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ABSTRACT

This study was set out to find out the influence of the slum residents' participation on sustainability of upgraded slum facilities at Korogocho and Soweto East Zone A in Kibera slum Nairobi. This is because effective post-implementation monitoring, evaluation, and maintenance, are essential for the sustainability of slum upgrading interventions. The study adopted a descriptive design approach to holistically assess the contributions of community participation in the sustainability of upgraded slums. Multistage and systematic random sampling was employed in sampling the households and respondents resulting in 400 participants. The study utilized an interview guide, questionnaires, focus group discussions, and an observation guide to collect data. The study established that education was a critical tool in enhancing quality upgrading of slum facilities because informed residents are empowered intellectually to support profitable community projects. It was concluded that slum residents had significant influence on sustaining the upgraded slum facilities. The study recommended that the communities living in informal settlements need to be empowered both economically and education wise.

Keywords: Education status, Influence, Slum, Sustainability, Participation, Upgrading

INTRODUCTION

Slum upgrading and adequate housing have an equalizing impact on the distribution of prosperity, thus helping urban environs to be inclusive and minimize urban poverty in the world (UN-Habitat, 2016). Community participation plays a key role in sustaining infrastructure in the slum upgrading program. World Bank (2021) studies have shown that effective post-implementation monitoring, evaluation, and maintenance, are essential for the sustainability of slum upgrading interventions. In Iraqi cities, community engagement and activating mechanisms of intrusion towards sustainable spatial development have been identified as strategies for creating and upgrading civilized places. In Indonesia, community participation is used as a means of improving and sustaining the quality of life of slum dwellers, and it is considered a key principle of successful slum upgrading (World Bank, 2021). The implementation of digital survey apps and collaborative mapping has also been found to enhance community participation and improve data accuracy in slum upgrading projects. However, challenges such as the need for awareness, education, and training of people to participate in upgrading, as well as issues of accountability and efficiency, need to be addressed to ensure effective community participation in maintaining infrastructure in the slum upgrading program.

Slum residents in Kenya experience many fundamental challenges. Among them include political, economic, and social segregation, marginalization, deprivation, insecurity, and inadequate resource allocation (Mwangi, 2019). However, the government has developed initiatives since the colonial period to address slum-related problems. In policy paper number two of 2016 the Kenyan government seeks to provide an integrated framework for slum upgrading & prevention to meet the standard of adequate housing and reasonable levels of sanitation (RoK, 2016). The government together with the World Bank and UN-HABITAT established the

Kenya Slum Upgrading Project (KENSUP) and the first Kenya Informal Slum Improvement Programme ($KISIP_1$) to improve the living conditions of people in informal settlements (Muraguri, 2011).

As the capital of Kenya and the core of business in Eastern Africa, Nairobi is facing rapid population growth accompanied by the expansion of large-scale informal settlements. According to Baskin (2020), Nairobi hosts 9.2% of the total Kenyan population, or approximately 4.4 million people, indeed, the country is urbanizing at a higher rate than Sub-Saharan Africa (SSA). Literature shows that in Nairobi, 60% of the population lives in informal settlements, which occupy only 10% of the total land in the City (Baskin, 2020). This explains the urgency in addressing the urbanization process through stakeholders to ensure it is well managed.

Accordingly, the UN (2018) targets of the 2030 Sustainable Development Goals agenda are linked to participatory slum upgrading and prevention. Participatory slum upgrading contributes to sustainable urban development through inclusive economic growth, increased peace and security, poverty reduction, and greater social cohesion that makes cities and human settlements inclusive, safe, resilient, and sustainable.

Kibera is one of the *largest slums in Africa* and the biggest in Kenya while Korogocho is among the biggest slums in Nairobi, that were part of the initial phases of slum upgrading in Kenya (RoK, 2019). Soweto East in Kibera slum has undergone an intensive slum upgrading process. This is a critical consideration because the users of the upgraded facilities must safeguard them against deterioration (Ipamba, 2019). Therefore, the study assessed the influence of slum residents' involvement in the sustainability of upgraded facilities at Korogocho and Kibera slums in Nairobi, Kenya.

Objectives

The study objectives were to:

1. Establish the influence of residents' participation on the sustainability of upgraded Korogocho and Soweto East in Kibera slums.
2. Find out the education status of the residents of upgraded Korogocho and Soweto East in Kibera slums.

LITERATURE REVIEW

Nevertheless, the model of public involvement in slum upgrading and sustainability has witnessed some negative criticism from scholars on its effectiveness based on certain circumstances. For example, Pimoljinda and Siriprasertchok (2017) argued that the use of mutual involvement in monitoring project activities could support locally built corruption and positively influence planned crime. Others established that incapacitating the cooperative action problem manifested in any community level participation could be very interesting in practice since it would be going against the natural law of user involvement in a project (Metobo, *et al*. 2021 and Banerjee, *et al* 2010). Indeed, efforts to improve situations in informal settlements in developing countries like Kenya have been facing challenges of involving communities despite the existing law on public participation. Findings by the UN-Habitat, Scruggs and Amnesty International confirm negative reports on community participation in Kibera. The studies disclosed that the residents were not aware of the election of the elected members of the Settlement Executive Committee (SEC) that represented their community in the slum-upgrading project. The Soweto residents expressed their views that they would have liked to be involved in the project so that they would own the project and decide what was good for them. However, they said they were disappointed for being ignored and left out despite their request to be involved in the project's upgrading and maintenance of slums' facilities (UN-HABITAT, 2016; Scruggs 2015 & Amnesty International, 2009).

Several Asian countries such as India, Malaysia and Pakistan among others have witnessed the huge participation of her communities in slum upgrading processes. The Asian governments played a critical role in ensuring adherence to the maintenance of standards and financial accountability while playing a facilitative role in project implementation and sustainability (UN-HABITAT, 2010). It was observed that the slum upgrading and sustainability practices were carried out with the awareness and full participation of the host communities *Ibidi.*

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In Latin America, communities have been involved in slum housing upgrading programmes in Venezuela, Caracas, Medellin, Bolivia and Rio de Janeiro, Brazil, Colombia, La Paz, (Galiani, *et al*, 2017). Evidence from varied states as adduced by Metobo *et al*, (2021) shows that slum residents' investment in upgrading slums translates directly and indirectly to accrued benefits in strengthening the security of tenure and formalizing their neighborhood. So slum dwellers could be willing to contribute in kind, labour, and materials in pursuit of the upgrading process and a sign of being involved. The studies explain that as a result of being involved in the project planning and implementation, communities were convinced to partake in the project through the provision of resources in any of the following dimensions: Charitable or paid labor for low-skilled activities such as site preparation for the construction, community clean-up, landscaping, making fittings and fixtures and beautification. Volunteering for community project activities such as attending training and meetings, mobilization and outreach and managing local labor arrangements was another facet. Rendering of free services for the project such as offering accommodation, storage of construction materials in a compound, availing venue for meetings and training and volunteering on other related community development projects was witnessed *(ibid*).

However, French, *et al*, (2019) established that availing personal services for community projects voluntarily should be done with a clear definition of roles and responsibilities without compromising the expected standards. For example, evidence has it that TECHO, a youth-led NGO in Latin American led community contribution in building homes to people living in slums. The initiative engaged volunteers of between four to eight people to put up a single-room house saving the beneficiary US $ 100, 10% of the total cost of the house. Pories, *et al*, (2019) observed that participants and the project implementing agency were cognizant of new innovations to protect comprehensive upgrading so as to assist in the development of affordable and permanent model human settlement. However these studies do not indicate the level of community involvement which this study seeks to unearth.

Education is a fundamental human right that is enshrined in the constitution of Kenya, 2010 and it plays a key role in uplifting the welfare of the people. Through education, slum dwellers can learn about teamwork, problem solving, and a sense of responsibility. Education equips a person with the knowledge and skills which are necessary to navigate the world of work (KNBS 2016). Investments in high-quality education and training could generate a skilled workforce that meets the needs of the changing labour market requirements, which in turn will increase people's income and improve economic development (NCPD, 2015). Therefore, education to the slum dwellers is important in empowering them for the prosperity and sustainability of the upgraded slums. Investment in quality education and appropriate skills training enables youth to participate more meaningfully in the economy and provide much-needed manpower. However, specialized skills are mainly acquired at institutions of higher learning (ibid).

Participatory Planning Theory by Paulo Freire and Kurt Lewin

The study adopted the participatory planning theory by Paulo Freire and Kurt Lewin in 1971 and eventually used by Patrick Geddes and Lewis Mumford in 1973 (Healy, 1996; Booher, 2003). The theory came into play to fill up an existing knowledge gap experienced by planning institutions in tackling dynamic changes in urban planning in western countries. The theory brought in more inclusive, stakeholder participation in a free democratic decision making practices. Participatory planning theory emphasizes the use of undistorted communication and the encouragement of interactive, inclusive and equal discussion situations that should be at the base of any planning process, specifically during slum upgrading.

RESEARCH METHODOLOGY

The study adopted a descriptive design approach to holistically assess the contributions of community participation in the sustainability of upgraded Korogocho and Soweto East Zone A in Kibera slums in Nairobi. The descriptive design enabled the study to explore how the independent variable (influence of residents' involvement) would change in response to the change in the dependent variable (sustainability of upgraded

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facilities). As a result, the descriptive design enabled the researcher to establish how the influence of residents' involvement affected sustainability of upgraded facilities within the target slums (Kothari, 2004).

Korogocho slum is located at 1° 13′ 0″ S, 36° 55′ 0″ E at an altitude of 1,604M above sea level in Kasarani division in the northern part of the City of Nairobi. Soweto East Zone A in Kibera slum lies on geographical coordinates (1.3122°S, 36.7914°E) at an altitude of 1745 M above sea level to the southwest of Nairobi city approximately 5 Km t o t h e central business district (Agayi & Serdaro, 2020). According to Kenya national demographic census of 2019, Korogocho and Soweto East in Kibera slum recorded 18,967 males and 17,933 females and 10,782 males and 9,984 females respectively (KNBS, 2019). The study utilized a multistage cluster sampling technique to sample households of the eight and twenty one villages. The study utilized systematic random sampling based on Taro Yamane's table of sample to arrive at 201 and 199 respondents from Korogocho and Soweto East in Kibera slums respectively. This constituted a sample size of 400 participants. The study utilized an interview guide, questionnaires, focus group discussions (FGD), and an observation guide in collecting data.

FINDINGS AND DISCUSSIONS

The following were the study field work results and discussions

The Education Level of respondents

The findings from questionnaire analysis of the participants of Korogocho and Soweto East Zone A in Kibera slums (KSEZAKS) in Nairobi presented mix range of education levels. These ranged from non-formal education to tertiary graduates. Figure 1 part A shows that majority of the Korogocho respondents 41% were secondary school leavers while 38% were primary school leavers. There were substantial numbers of tertiary graduates comprising of 11% and non-formal education participants constituted 10%.

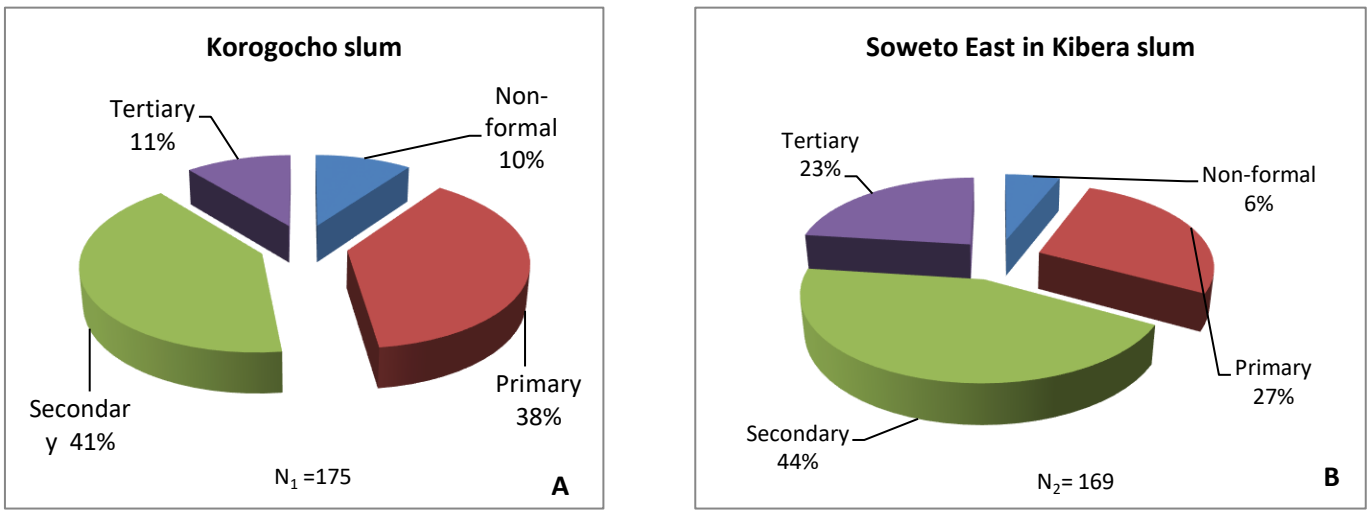

Figure 1: Education background of residents **Source**: Field data, 2023

The statistics in figure 1 part B show that 44% of the respondents from SEZAKS had attained secondary school education, 27% and 23% had attained primary and tertiary education respectively. Only 6 % of the participants belonged to non- formal education category compared to Korogocho slum's 10% respondents in his category. Comparatively, SEZAKS had double the number of participants who had attained tertiary education than Korogocho slum. This could be explained by the fact that SEZAKS had upgraded most of the basic facilities for human settlement such as houses, roads, sanitation, perimeter wall and water source. Thus, the study concluded that education was a critical tool in enhancing quality upgrading of slum facilities because informed residents are empowered intellectually to support profitable community project. Studies by KNBS (2016) reinforced these observations in that through education, slum dwellers can learn about teamwork, problem solving, and a sense of responsibility. Besides, education equips a person with the knowledge and skills which are necessary

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to navigate the world of work.

The influence of capacity building of slum residents on sustainability of upgraded facilities

Out of the 175 analyzed responses from Korogocho participants' majority 41% strongly agreed, 29% agreed, 13% disagreed and 4 % strongly disagreed that capacity building of residents' influences how they participate on sustaining the upgraded slum facilities as shown in figure 2.

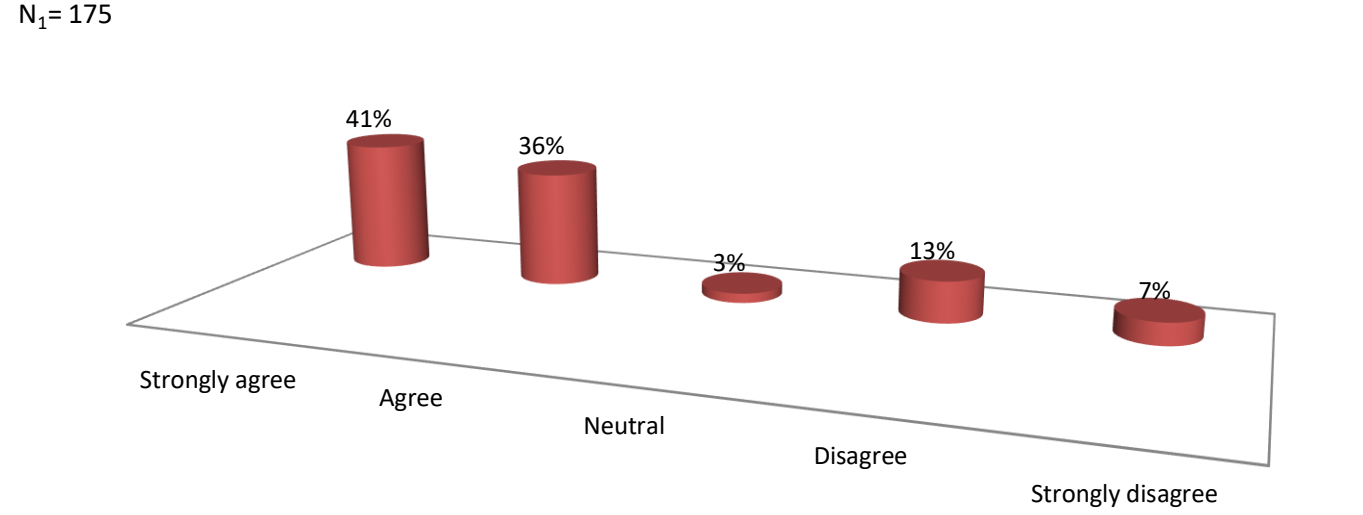

Figure 2: Influence of capacity building on Korogocho slum residents **Source**: field data 2023

However, some 3% of the respondents were undecided on this matter. So the study noted that capacity building of slum residents had the ability to influence the residents' opinions to own projects by strengthening their mindsets to source for local financiers like Nairobi City County governments. This view could further be explored in light of the prevailing circumstances in Kenya where the role of housing is placed under the county government by the Constitution of Kenya 2010. With a policy guideline by county government on means of involving residents to upgrade and sustain their settlement facilities, this could positively transform the housing issues among the poor households translating to acceptable human settlement.

The opinions of sampled residents' of Soweto East Zone A in Kibera slum on the influence of capacity building of residents on maintaining of upgraded facilities in the slum are presented in figure 3.

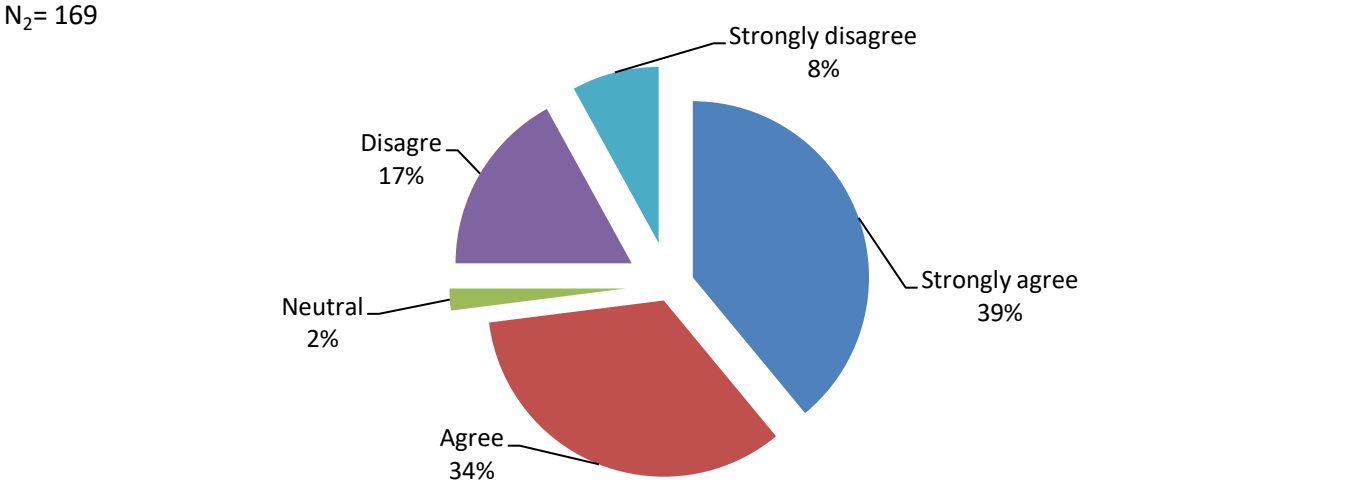

Figure 3: Influence of capacity building on Soweto East residents **Source**: Field data, 2023

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In figure 3, majority of the respondents 39% and 34% strongly agreed and agreed respectively that slum residents' capacity building on the importance of sustainability of upgraded facilities greatly influences the residents' opinion on sustainability of upgraded slum facilities. However, 17% and 8% of the respondents disagreed and strongly disagreed respectively that capacity building the residents on importance of sustaining upgraded slum facilities influences the participation by slum residents. These findings are supported by Osman, (2016) recommendations that local participants as beneficiaries of participatory development should be enlightened and trained on their expectations of participatory project development. The residents should be trained on relevant skills useful in sustaining their projects in future. Otherwise without capacity building this would have negative implications on project implementation and sustainability. This would result to deterioration of erected structures due to inadequate care in supporting and maintaining the structures. This would mean that with the collapse of the upgraded structures the residents would find themselves relapsing into slum situation again.

Slum residents' influence on collective decision making in improving upgraded facilities

Figure 4 presents the findings of Korogocho sampled participants opinions on the influence of collective decision on their involvement in sustaining upgraded slum facilities. The views show that majority 44% of the respondents strongly agreed that slum residents had a bigger say with respect to project sustainability of upgraded slum facilities. Some 37.8% agreed, 6.3% disagreed and 9% of the respondents strongly disagreed while 2% were undecided on this opinion.

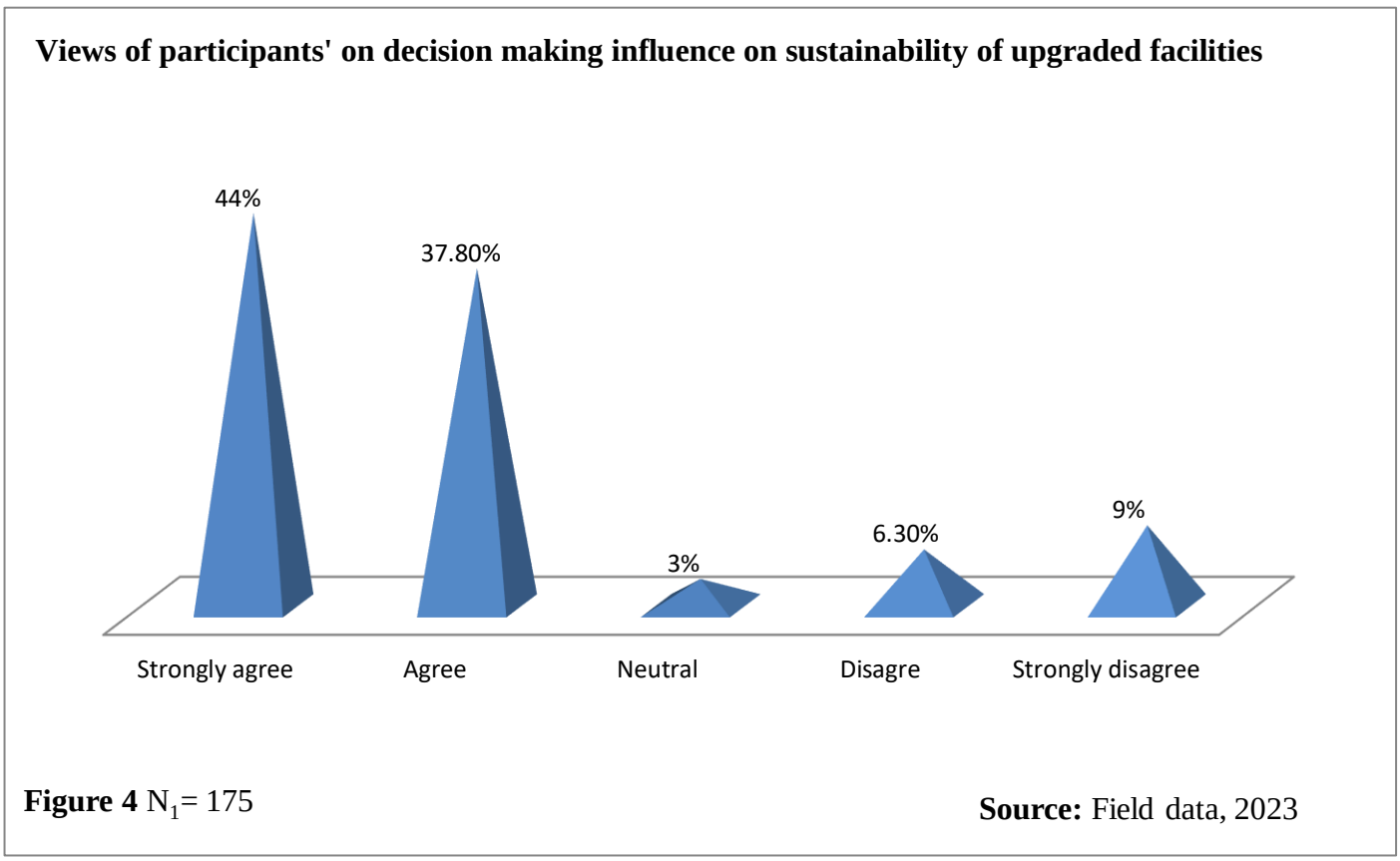

Figure 4 N_1= 175

Source: Field data, 2023

Therefore, in consideration of the views of the respondents, it's quite clearly that collective decision on the residents' involvement in sustaining upgraded slum facilities was a force driving the sustainability agenda. This is because when people share and own their ideas they are likely to work together to actualize them with vigor as opposed to when they are implementing other people's opinions. When resident's opinions are accepted for implementation, this action motivates the tenants to participate in the project knowing they are implementing their views.

The Soweto East Zone A residents' views on influence of collective decision making on their contributions in improving facilities of upgraded slum were analyzed and presented in figure 5.

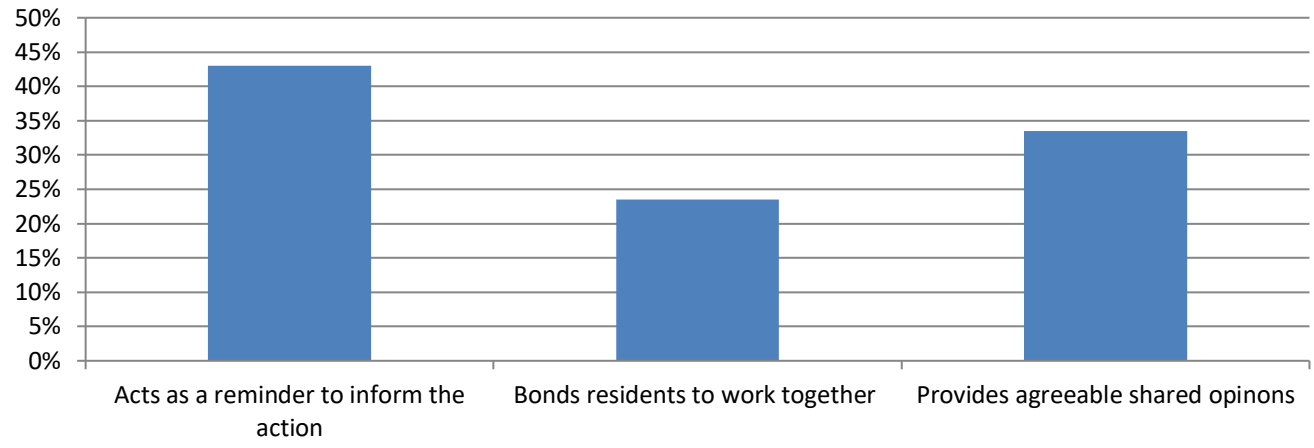

Figure 5 N_2= 169 **Source**: Field data

In figure 5, majority of the respondents 43% perceived that collective decision making among the slum residents acted to inform the collective action by members. Some 33.5% respondents concurred that collective action by community provides agreeable shared opinions on the way forward towards attaining sustainability of upgraded facilities. Similarly, 23.5 % agreed that collective decision making is important because it bonds the residents to work together to continuously maintain upgraded slum structures. Therefore, collective decision making was perceived by the members as the driving force and social adhesive behind efforts on sustainability of upgraded slums facilities by the residents. Hillman (2010) concurs with these observations on collective bargaining because community development is seen as a means of helping local residents to assess their resources more realistically, be aware of their needs, to organize themselves and their resources so as to satisfy their basic needs. In doing this, the community members acquire experiences, the attitude and cooperative skills for replicating the process on their own initiative. This could have bigger positive implications in their daily livelihood especially where shelter meet threshold for standards of human habitation.

Influence of goal setting on project sustainability through community participation

The process of goal setting in any project is perceived to underpin the success of a project by laying a strong foundation of the necessary and sufficient requirements to achieve the desired targets. Therefore, the Korogocho respondents' opinions on the need for goal setting as a key factor influencing their engagement in sustaining the upgraded slum facilities were presented in figure 6.

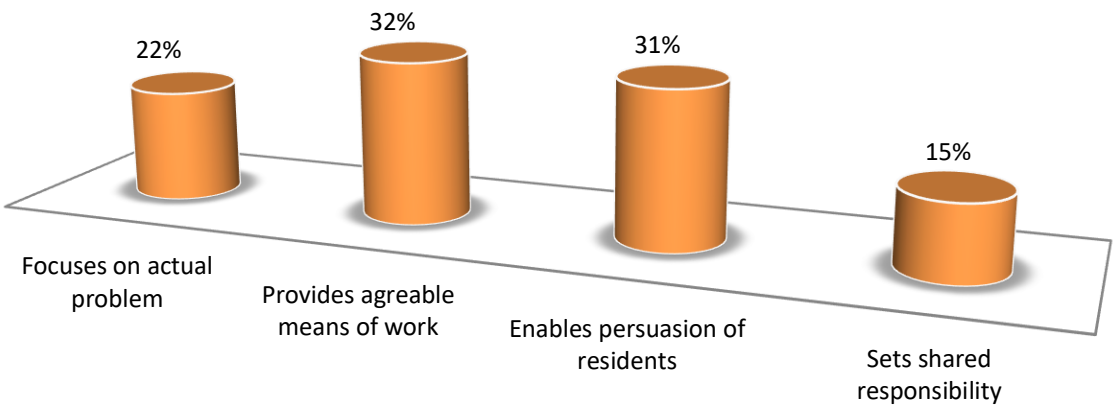

Figure 6 N= 175. **Source**: Field study, 2023

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From figure 6, majority of the participants 32% concurred that setting goals for sustainability of upgraded facilities influenced the residents on agreeable means of working. Some 31% of the respondents opined that goal setting persuades the residents to participate in sustainability activities. Some 22% of the slum respondents perceived that goal setting influences participants by way of focusing on the problem of sustainability. 15% of the respondents agreed that goal setting influences setting of shred responsibilities within the community. Accordingly, Asmus (2015) agreed that goal setting works as a boast to a collective group activity by injecting the power of synergy in the work place. This becomes a driving factor to slum residents to work and achieve the group targets by eliminating the pitfalls. So the respondents' collectively supported the idea that goal setting greatly influenced their participation in sustaining upgraded slum facilities. Goals setting would direct residents' energies and focus toward performing actions skillfully in maintaining the upgraded structures. This is because residents working toward achieving their goals lead to intrinsic motivation.

The Soweto East Zone A in Kibera slum sampled residents views on the influence of shared ideas on goal setting on sustainability of upgraded slum facilities were analyzed and presented in table 1.

Table 1: Influence of goal setting on Soweto East in Kibera slum residents' input in sustaining upgraded project

No	**Influencing on shared goal setting**	**Frequency**	**%**
1.	Point of synergy among slum residents	41	24.2
2.	Factor of residents' unity in development	48	28.4
3.	Respecting residents opinions	29	17.3
4.	Ownership of project's set targets	37	21.8
5.	Strength of the voice of slum residents	14	8.3
Total		169	100
N= 169		**Source**: field data, 2023	

Data in table 1 shows that 28.4% and 24.2% of the residents viewed that goal setting is a factor of residents' unity in development and a point of synergy among the slum residents respectively. Therefore it influenced residents' participation on sustaining the upgraded slum. The rest of the participants' 21.8% and 17.3% opined that project sustainability goal setting influenced residents' levels of participation since the idea supported ownership of project's set targets while respecting residents' opinions respectively. From these findings, it is clear that goal setting on sustainability of upgraded slum facilities had a significant influence on the participation by slum residents. These findings concur with observations by Cities-Alliance (2008) that established that GTZ supported slum upgrading units in each governorate by setting definitive goals for boasting living conditions in informal settlements. Such measures bonded well with local residents in preparing participatory strategic goal setting plans for each slum and set prioritizing feasible interventions.

Influence of slum upgrading policy on sustainability of upgraded Korogocho facilities

The Korogocho sampled participants' responses on the slum upgrading policy influence in supporting sustainability of upgrade structures were analyzed and presented in figure table 2.

Table 2: Residents' opinions on policy influence on sustaining upgraded facilities

	Residents opinions	**F**	**%**
1	Slum upgrading policy support sustainability of upgraded facilities	24	13.7
2	Not aware of slum policy supporting sustainability of upgraded facilities	43	24.8
3	Policy influence requires financial support by government	69	39.4
4	I'm ready to support slum sustainability policy	27	15.10
5	Sustainability of upgraded facilities is for common good of slum residents	12	7.0
	Total	**175**	**100**
	N= 175 **Source:** Field data, 2023		

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Observations from table 2 show that majority 39.4% of the participants opined that slum upgrading policy influence on slum residents could happen with financial support from the government. Some 24.8% and 15.1% perceived that they were not aware of existence of slum upgrading policy and that some were ready to support slum upgrading and sustainability policy respectively. The rest 13.7% and 7% observed that slum upgrading policy supports sustainability of upgraded facilities and that sustainability of upgraded facilities is for the common good of slum residents respectively. Therefore, it was clear that slum upgrading and sustainability policy had little influence on the residents' involvement in sustainability of upgraded slum facilities. So, the study established that policy makers should in future capture the key factor on human influence on sustainability of slum upgraded facilities. This would have some positive impact on slum residents' influence on their involvement in slums natters.

Similarly, Soweto East Zone A in Kibera slum sampled respondents views on ways in which slum upgrading policy influenced their participation on enhancing upgraded facilities were analyzed and presented in figure 7.

Respondents views on policy influence their participation on suatininability

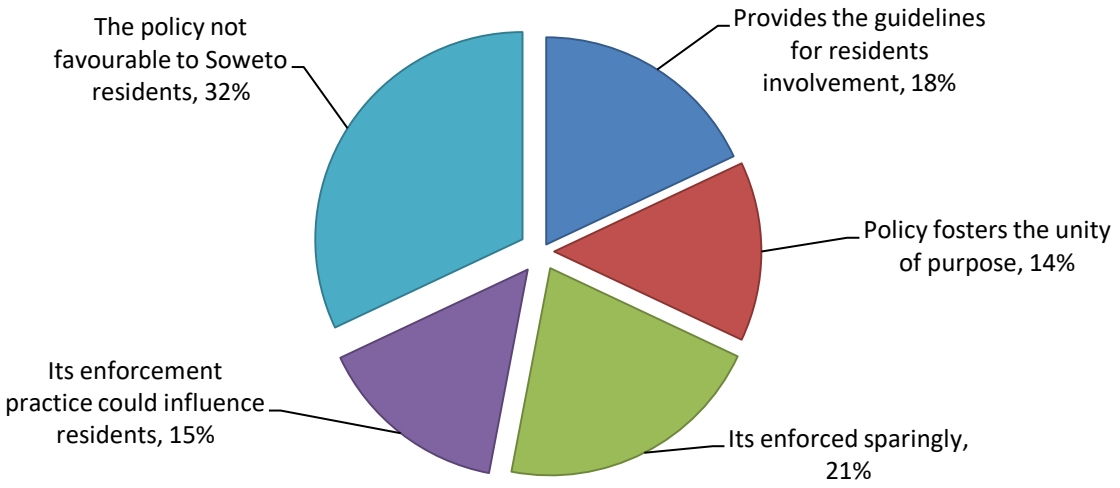

Figure 7. N_2= 169 **Source:** Field , data 2024

The presentations in figure 7 show that majority 32% of the participants' of Soweto East in Kibera slum opinioned that slum upgrading and sustainability policy did not favour the sustainability of upgraded facilities. This is could be linked to the fact that out of the 1500 residents in Soweto East earmarked for owning houses only 350 residents were allocated houses, meaning the rest continued staying in the decanting site adjacent to Langata Women Prisons. Some 21% and 18% of the respondents perceived the policy was being implemented sparingly and that the policy could provide the guidelines for sustainability of upgraded facilities respectively. The rest 15% and 14% opined that the policy enforcement practice could influence the residents positively and that it fosters the unity of purpose respectively in implementing sustainability of upgraded facilities. These findings indicated that the policy had insignificant influence on residents' participation in sustaining the upgraded facilities. This was attributed to the fact that little sensitization was created upon members by the policy implementers. These findings were supported by Syagga and Gitau (2001) who established that 88% of the residents did not have accessibility to low income housing because of the poor policy on slum upgrading and housing allocation to people in slums. This could be linked to the government's insufficiency to respond to the needs of slum residents and poor urban governance. This means that the government should respond through policy implications so as to raise the living standards of slums dwellers in response to better housing standards.

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Influence of informal social groups on slum residents' involvement on sustainability of upgraded facilities

The sampled Korogocho residents' views on informal social groups influence on their involvement in maintaining the upgraded facilities were presented in table 3.

Table 3: Korogocho residents opinions on influence of informal social groups

	Residents views	**F**	**%**
1	Slum residents have trust in their informal groups	42	23.7
2	Positively influence residents involvement on sustaining the upgraded facilities	50	28.8
3	Negatively influences slum residents position on sustaining of facilities	25	14.4
4	Does not have any influence on slum residents whatsoever	26	15.1
5	It motivates its members on undertaking activity for common good of a group	32	18
	Total	**175**	**100**
N= 175		**Source:** Field data, 2023	

Results in table 3 show that majority 28.8% of the respondents perceived that informal social groups could positively influence residents' involvement on sustaining the upgraded facilities and that 23.7% of slum residents trusted their informal groups respectively. Some 18% of the participants opined that informal social group motivates its members on undertaking activity for common good of a group and 15.1% said that informal social groups do not have any influence on slum residents. Some 14.4% of the respondents agreed that informal social groups negatively influence slum residents position on sustaining of upgraded facilities. This was supported during interview schedule by a respondent who pointed out that members were hesitant to caution one of their own; for example when they burnt rubbish on the tarmac yet they were conscious of the immediate negative outcome. Thus, informal social groups had significant influence on residents' participation on sustainability of upgraded facilities.

The Soweto East Zone A in Kibera slum respondents analyzed opinions on informal social groups influence on their involvement in maintaining the upgraded facilities are presented in table 4.

Table 4: Soweto residents views on influence of informal social groups

	Residents views	**F**	**%**
1	Negatively influences members of a group	44	25.8
2	Positively influences residents involvement on sustainability	60	35.7
3	Does not have any influence on slum residents	16	9.4
4	Slum residents belief in their informal groups	29	17.1
5	Its leaders can negotiate assistances to conduct sustainability	20	12
	Total	**169**	**100**
N= 169		**Source:** Field data, 2023	

Table 4 shows that 35.7% and 25.8% of the participants perceived that informal social groups influenced the residents' participation on supporting upgraded slums positively and negatively respectively. Besides, some 17.1%, and 12% of the participants viewed that informal social groups influenced the slum residents' involvement on slum sustainability through adhering and believing in group tenets and hoping their leaders would bring in donor assistance. The rest 9.4% perceived that informal social groups do not have any influence on slum residents. These findings showed that informal social groups had significant influence on residents' participation on sustainability of upgraded facilities. This was interpreted that the utilization of social groups' unity could be useful in mobilizing slum upgrading and sustainability in ensuring the residents attain threshold standards in human habitation.

Study findings by Cities-Alliance (2008) concur with these observations in that slum sustainability designated 'Upgrading for Growth in South Africa' incorporated a sustainable livelihoods approach. Its main elements

were strengthening social capital by promoting informal social groups such as village clubs and societies of women's and youth groups. It also included recreational, social and the engagement of community development workers to motivate and organize information gathering and community development initiatives. Thus, informal social groups have substantial influence on sustainability of upgraded slum facilities. Tapping this social momentum among slum residents would be fruitful in maintaining their upgraded facilitating.

CONCLUSION

The study concluded that slum residents had significant influence on sustaining the upgraded slum facilities. The capacity building factor of slum residents has the ability to influence the residents' opinions by strengthening their mindsets to own their project. The study perceived that slum informal social groups had a bigger say with respect to project sustainability and that slum residents had trust in their informal groups**.** It was evident that project goal setting on sustainability of upgraded slum facilities had a significant influence on the participation by slum residents. It was evident that slum upgrading and sustainability policy did not favour the sustainability of upgraded facilities. Therefore, the collective decision factor on the residents' involvement in sustaining upgraded slum facilities remains a strong force to drive the sustainability agenda.

RECOMMENDATION

The communities living in informal settlement need to be empowered both economically and education-wise. This is because Korogoch slum of eight villages is served by a single primary school while Soweto East has no institution of learning. Bringing the slum residents together to engage into productive economic activities would empower the residents to meet their basic needs. Therefore, the study recommends that at least a basic education institutions should initiated in slums to cater for children within a specified radius. The tenants should be encouraged to form a cooperative society to help them save funds for sustaining their facilities.

REFERENCES

1. Agayi, C. O. & Serdaro. Lu Sa., N. (2020). *An Evaluation of Urban Regeneration Efforts in Kibera, Kenya through Slum Upgrading.* IDA: International Design and Art Journal, 2(2), p.176-192.
2. Amnesty International (2009) Kenya: The unseen Majority: Nairobi's Two Million Slum-dwellers. London Uk, Amnesty International.
3. Asmus, A. et al. (2015). The impact of goal-setting on worker performance -Empirical evidence from a real-effort production experiment. *ScienceDirect*; Elsevier. www.sciencedirect.com
4. Banerjee, A.V., Banerji, R., Duflo, E., Glennerster, R. and Khemani, S. (2010). Pitfalls of participatory programs: Evidence from a randomized evaluation in education in In- dia. *The World Bank*.
5. Baskin, J. (2020). *Slum Upgrading in Times of Crisis: A City-Wide Approach*. Cities Alliance: Brussels, 2020, last accessed 25.11.21
6. Booher, G. D. (2003). Politicians, Bureaucrats, and the Consultant. A Critique of Urban Planning: Which Way Forward for Planning Theory. Earthscan Publishers. London
7. Cities-Alliance (2008) Slum Upgrading Up Close. Experience of Six Cities. Washington DC, Cities Alliances.
8. French, M., Popal, A., Rahimi, H., Popuri, S., & Turkstra, J. (2019). Institutionalizing participatory slum upgrading: A case study of urban co-production from Afghanistan, 2002– 2016. *Environment and Urbanization*, *31*(1), 209-230.
9. Galiani, S., Gertler, P.J., Undurraga, R., Cooper, R., Martínez, S. and Ross, A. (2017). Shelter from the storm: Upgrading housing infrastructure in Latin American slums. *Journal of urban economics*, *98*, pp.187-213.
10. Hillman A. 2010. Community Organization and Planning. New York: Macmillan. Igboeli,
11. M. O. 1992 "Self-help as a strategy for Rural Development: A critique", (Pp. 401- 413)
12. Ipamba, E. (2019) *An Assessment of Community Participation in Slum Upgrading: A Case Study of Korogocho Location*: unpublished MA Thesis, University of Nairobi, Kenya.
13. KNBS. (2019) Kenya Population and Housing Census Volume I: Population by County and Sub-

County; KNBS Publications: Nairobi, Kenya, 2019.
14. KNBS. (2016). *The Kenya Economic Survey, 2016.* KNBS, Nairobi; Government Printer. ISBN: 9966-767-54-1
15. Kothari, C. K. (2004). *Research Methodology methods and techniques,* New Delhi: New Age.
16. Metobo, E., Mwaeke, P., & Bor, E. (2021). Effects of Slum Upgrading on Security Management in Soweto Slums, Roysambu Sub-County In Nairobi, Kenya. *Advances in Social Sciences Research Journal,* 8 (1) 479-503.
17. Mwangi, W. (2019). Security of tenure in urban settlements in Kenya: Issues at play, Basin.
18. National Council for Population and Development (NCPD), (2015). National Adolescents and youth survey Nairobi, Government printer.
19. Chege, E.N. (2013). *Challenges of Slum Upgrading for Urban Informal Settlements; Case of Soweto East Village in Kibera Informal Settlements, City of Nairobi*. Published Research Project Report; Nairobi, University of Nairobi.
20. Osman M.A. (2016) Influence of community participation on sustainability of development projects by non-governmental organizations in Kenya. A case of Shofco organization in Mathare informal settlement. Published MA Thesis, University of Nairobi, Kenya.
21. Pimoljinda, T., Siriprasertchok, R. (2017). Failure of Public Participation for Sustainable Development: A Case Study of an NGO's Development Projects in Chonburi Province. Kasetsart Journal of Social Sciences, 38(3), p.331-336. https://doi.org/10.1016/j.kjss.2016.08.016
22. Pories, L. et al. (2019). Mobilizing Finance for WASH: Getting the Foundations Right" World Bank Working Paper. Available at: file:///C:/Users/4330s/Downloads/Getting_the_Foundation_Right_FINAL_ March_2019.pdf.
23. RoK (2019). *Participatory Slum Upgrading Programme (PSUP); Financed by the European Commission.* Nairobi, Government Printer.
24. RoK (2016) National Slum Upgrading And Prevention Policy Sessional paper number two (2), Nairobi Government Printer.
25. Scruggs, G. (2015). *Turning Kibera's Mud Huts into Apartment Towers* [Html]. Retrieved from http://citiscope.org/story/2015/turning-kiberas-mud-huts-apartment-towers Kenyan constitution, 2010).
26. Republic of Kenya (2019). *Participatory Slum Upgrading Programme (PSUP); Financed by the European Commission.* Nairobi, Government Printer.
27. ROK (2016) National Slum Upgrading And Prevention Policy Sessional paper number two (2), Nairobi Government Printer.
28. Scruggs, G. (2015). *Turning Kibera's Mud Huts into Apartment Towers* [Html]. Retrieved from http://citiscope.org/story/2015/turning-kiberas-mud-huts-apartment-towers Kenyan constitution, 2010).
29. Syagga. P. M. & Gitau (2001). Nairobi Situation Analysis: Consultative Report on Upgrading Initiative. Government of Kenya and UN-Habitat, Nairobi.
30. United Nations, (2018). The World's Cities in 2018—Data Booklet (ST/ESA/ SER.A/417).
31. UN-Habitat (2016). Fundaments of Urbanization. Evidence Base for Policy Making. Nairobi: UN-Habitat
32. UN-Habitat. (2010). Asia Pacific Ministers Conference on Housing & Urban Development. UN-Habitat, Solo, Indonesia.
33. World Bank. (2021). *Guidance note on Community participation in slum upgrading.* 1818 H Street NW, Washington DC 20433; Internet: www.worldbank.org