

UNIVERSITY OF NAIROBI

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FACULTY OF THE BUILT ENVIRONMENT AND DESIGN

**THE SUSTAINABILITY OF PARTICIPATORY SLUM UPGRADING: A CASE
STUDY OF THE KAMBI MOTO SETTLEMENT UPGRADING PROGRAMME IN
HURUMA, NAIROBI CITY COUNTY**

BY

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**A RESEARCH REPORT SUBMITTED IN PARTIAL FULFILLMENT FOR THE
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DECLARATION

This research report is my original work and has not been submitted for the award of a degree or any other award in any university or any other institution of higher learning.

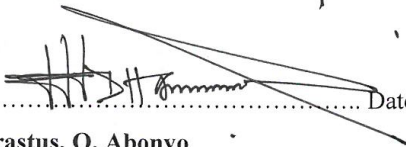

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LIST OF ABBREVIATIONS

CBOs – Community-Based organizations

GOK – Government of Kenya

ICT – Information communication technology

KENSUP – Kenya Slum Upgrading Program

KISIP – Kenya Informal Settlement Improvement Programme

LMIC – Low- and Middle-income countries

MDGs – Millenium Development Goals

NGOs – Non-governmental organizations

SDG – Sustainable development goals

UN – The United Nations

UN-HABITAT – UN commission for human settlement

ABSTRACT

Addressing the challenge of inadequate housing in low-income urban populations requires upgrading the existing slums and stemming the growth of new slums, which can be enabled through the implementation of suitable policy and institutional frameworks that allow for active participation by all stakeholders in the planning and implementation of slum upgrading programs. Over the past two decades, there has been a shift toward participatory slum upgrading where residents are progressively involved in the decision-making process of slum upgrading as partners. While strategies dealing with slum upgrading are based on sustainability, community participation, empowerment, inclusion and capacity building, the impact of the participatory approach to slum upgrading has not been felt.

Despite this widely touted potential, there has been a curious lack of upscaling of these initiatives and the subsequent replication in other similar informal settlements, raising questions of its effectiveness and sustainability. It was against this background that this study was devised to examine the structure of the participatory slum upgrading approach to determine how it can best be adapted to enhance its sustained effectiveness in low-income housing delivery in Kenya. This study focused on the structure of the Kambi Moto Settlement Upgrading in Huruma, Nairobi City County.

The study objectives were: to examine the key elements of the participatory approach to slum upgrading; to evaluate the methodology for application of participatory slum upgrading in the Kambi Moto settlement upgrading program; to establish the key success factors of the Kambi Moto settlement upgrading program and establish an objective approach of assessing success of participation, and to propose an operational framework for the implementation of participatory slum upgrading to enhance its sustainability in informal settlement upgrading and housing provision.

The study found that residents were empowered to meaningfully and fully participate at each level during the implementation process. The discussions concluded that for the participatory approach to slum upgrading to be sustainable, the resulting human settlements must be designed, built and managed holistically, properly integrated into the existing social, cultural and economic fabric of the local neighbourhoods, and properly run and maintained. The study appreciates the importance of capacity building to enhance meaningful contribution by the beneficiaries. To enhance its sustainability, however, it is imperative to go beyond just participation and aim for the empowerment of the community beyond the project's objectives to ensure continuity.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The urban population has increased from an estimated 20 per cent of the total population in 2002 to 33 per cent in 2020. (Sanyal & Mukhija, 2016; Yazdani, 2014). With projections indicating an average urbanization rate of 3.15 per cent over the coming years, approximately half of the world population is projected to reside in cities by 2060. The rapid increase in urban population occasioned by rural-urban migration continues to put pressure on housing facilities in urban settlements which accommodate approximately one-third of the population. This has resulted in overcrowding, unplanned settlements and the proliferation of slum and squatter settlements specifically for low-income groups (Shihembetsa, 2021).

Payne (2015) described a slum as a heavily populated area characterized by substandard housing and squalid living conditions. The United Nations classifies a slum as, “an unplanned and underserved neighbourhood typically settled by squatters without legal recognition or rights; resulting from poor or absent urban policies and dysfunctional land and housing markets. They are often located in high-risk, barely habitable sites, deprived of basic urban services and characterized by widespread poverty and large agglomerations of dilapidated housing” (UNHABITAT, 2015). Socio-economic issues such as delinquency, violence, high levels of formal unemployment, and vilification of these settlements and their inhabitants are common (Amis & Rakodi, 2015).

In slums, formal housing supply is often inadequate to meet the demand created by rapid urbanization and natural population growth; with other limiting factors such as poverty, irregular incomes, unemployment, and a lack of viable housing finance mechanisms further locking the vast majority of slum dwellers in low-income countries from access to formal housing (Aldrich & Sandhu, 2015; Acioly, 2007). Slums house about 50% of the urban population and reflect the inability of the market to meet the demand for housing by low-income groups, and offer temporary housing solutions to the prevailing urban housing problems. Contrary to popular belief, the proliferation of slum and squatter settlements is a market response to the demand for housing amongst low-income households rather than a sign

of market failure. Their existence demonstrates that the private informal sector is able to devise housing solutions for even the lowest income groups (Otieno, 2014).

Units	1990	1995	2000	2005	2007	2009	2014
%	54.87	54.84	54.8	54.77	54.75	54.74	56
Number (Thousands)	2343.38	2859.4	3399.87	4068.9	4395.67	4761.94	6426.56

Table 1: Proportion of the urban population living in slums over the years.

Source: <https://kenya.opendataforafrica.org/KESDG2016/sustainable-development-goals-of-kenya> (based on original data from <http://unstats.un.org/>)

There have been several interventions to solve the slum challenges in Low and middle-income countries over the past six decades. Addressing the challenge of inadequate housing in low-income urban populations requires upgrading the existing slums and curtailing the growth of new slums (Pain & Sturge, 2015). This can be achieved through the implementation of appropriate policy and institutional frameworks that allow for active participation by all stakeholders in the planning and execution of slum upgrading programs (Kramer, 2006; Krebs, 2018).

There has been a series of international conferences aimed at championing improved living conditions in slums. The United Nations General Assembly recognized the International Year of Shelter for the Homeless in 1987. In 1996, the UN-HABITAT held the 11th conference in Istanbul to re-evaluate the deteriorating living conditions. This was followed by the formation of *Cities without Slums* by the UN-HABITAT and the World Bank in 1999 to impress the governments on the importance of upgrading their informal settlements and integrating them into their development plans (The World Bank & UN-HABITAT, 1999). The United Nations Millennium Development Goals were adopted in 2000, with Goal seven target 11 formulated to champion progress of informal settlement improvement (UN, 2000). This later transitioned into SDG-11, sustainable cities and communities.

Globally, many governments have undertaken large-scale housing projects aimed at providing appropriate low-income housing, often following oppressive interventions like demolitions and forced evictions that caused disruptions in the lives of the urban poor. With a few exceptions,

government-led housing construction in many countries especially in LMICs have largely been unsuccessful in addressing the challenging housing problem in informal settlements as project-based approaches to upgrading have proven unsatisfactory to meet the scale of the urban housing and development challenges. However, a fundamental transformation took place in the late 1960s when self-help housing started being perceived as the solution rather than the problem of urban housing. Turner (1977) contended that social organizations and self-builders produced better housing than governments did because self-built housing matched occupants' needs, capacities and priorities.

The focus shifted towards the use of *in-situ* upgrading from the mid-1980s to rehabilitate existing informal settlements. This went beyond the focus on housing to include the upgrading of public spaces in the slums through enhancements to basic communal infrastructure. Over the past two decades, there has been a shift toward participatory slum upgrading which ensures that the residents play a primary decision-making role in slum upgrading initiatives. According to UN-Habitat (2015), community participation preserves the residents' sense of belonging, promotes civic responsibility and enhances community ownership over upgrading processes and outputs and ensures that the local people receive what they want. Archer & Dodman (2017) advocated for a participatory approach that would support local populations to deal with and recover from crises in a manner that would enable them to have full access to basic amenities and safe secure shelter while they reconstruct their homes and/or fit in their new communities. Moreover, participatory upgrading approaches are increasingly recommended as they allow for cohesive, multi-sectoral planning and interventions (Bagherzadeh & Jöehrs, 2015), as has been consistently demonstrated in its implementation in cities with satisfactory results. This helps to reinforce urban communities' resilience and capacities in the face of conflict and underdevelopment.

There is relatively limited literature on participatory approaches to urban slum upgrading despite the increasing recognition that community participation is the ideal approach for many developing countries. Most literature on participatory slum upgrading is focused on Latin American cases where slum upgrading projects have been framed around strengthening local governance and ownership (Botes & Rensburg, 2020; Leckie, 2015; Leckie & Huggins, 2011). For instance, conciliation programmes in the *favelas* of Rio de Janeiro improved security through strengthened state control and the integration of the *favelas* into the formal city

(Saborio, 2013). Similarly, social urbanism approaches in Medellín sought to tackle inequality and segregation by encouraging improved opportunities for public participation in the development of the city (Montoya, 2014). In Kabul, Afghanistan, a noteworthy change was the integration of community contributions towards upgrading where communities opted to raise the funds for improving the sanitation, drainage and street lighting, and in return, for the project to provide public spaces and greenery (Turkstra & Popal, 2019).

The harmonization of participatory settlement upgrading approaches into national programmes is a noteworthy shift in policy that represented a radical change toward acknowledging the prevalence of urban informal settlements, the potential for cities and validity of in-situ upgrading, and the applicability of citizen empowerment through local representative community structures to facilitate their participation in such projects. In Mumbai India, the government established a slum demolition policy which saw the clearance of the urban poor settlements (Sharmila, 2013). In the same way, between 1964 and 1985, the state government in Sao Paulo, Brazil, developed a relocation policy targeting the residents of a squatter settlement located in a big public housing estate (Beall, Goodfellow & Rodgers, 2019).

In African countries where the problem of slum mushrooming is endemic, public participation has been criticized for varied, and often for good reasons. Well-meaning participatory efforts have been undermined by being ad-hoc, with a lack of continuation, leading to the lethargy of those involved in what feels like never-ending problem identification sessions. Additionally, participation has been criticized for emphasizing the existing social inequalities, including gender bias and elite capture of resources (UN-Habitat, 2018). In Uganda, slum upgrading policies have been undermined by the inadequate and insecure land tenure occasioned by uncoordinated administration, poor solid waste management, and drainage challenges rising from the location of most slums in hazardous areas such as flood plains and proximity to waste yards and industrial areas (Lwasa, 2002). In Tanzania, the provision of the national constitution that permits citizens' ownership of land in various forms has hindered proper land use planning, mapping and surveying (Dawah & Maghembe, 2011).

In Kenya, slum dwellers experience many fundamental challenges such as social, political and economic 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. For example, with the help of the World Bank and UN-HABITAT, the government established the Kenya Slum Upgrading Project (KENSUP) and the Kenya Informal Slum Improvement Programme (KISIP) to improve the living conditions in major urban areas across the country (Muragruri, 2012). The central functions of these initiatives are to improve the livelihoods and housing conditions of the people, community empowerment, and the provision of physical and social infrastructure. These initiatives are supported by the constitution of Kenya which assures every citizen a right to accessible and adequate housing and reasonable standards of sanitation, accompanied by different policies which seek to improve the livelihood of residents of informal settlements. For instance, the 2017 Kenya National Housing Policy sought to achieve this by targeting key contributing areas of alleviation of poverty, public housing, rural and urban housing, and vulnerable groups by encouraging integrated, participatory approaches to slum upgrading. The policy strongly advocates for integrated, participatory approaches to slum upgrading and recognizes the fact that housing programs are much more effective in meeting their objectives when they take into account the different roles and needs of the targeted population. The draft National Slum Upgrading and Prevention Policy of 2014 addressed pertinent issues of social exclusions, infrastructure delivery, security of tenure and widespread participation in the sustainable urbanization process. To be able to fully integrate the socio-economic and cultural aspects of the communities in urban informal settlement upgrading initiatives, the residents must take centre stage (Otieno, 2009).

Kambi Moto settlement in Huruma, Nairobi is one of the settlement schemes whose upgrading has been anchored on community participation. The Kambi Moto Settlement upgrading project began in 1999 after the agreement between Huruma residents and the non-profit Pamoja Trust. The settlement was initially razed in 1999, which caused the residents to name it “Kambi Moto,” meaning “camps of fire” in Swahili. The upgrading process followed a Memorandum of Understanding that was signed between the community, Nairobi City Council and Pamoja Trust in 2003, declaring Huruma a special planning area (Bowler & Desrocher, 2005). Kambi Moto is one of the five informal village settlements located in Huruma. The completion of Kambi Moto resulted in a noticeable transformation in the quality of life of the residents whose previous housing had been constructed of mud, and corrugated iron, with no formal cooking or toilet facilities. The upgraded units were connected to electricity and water services and were built incrementally with an initial ground floor design that allowed for further vertical

construction over time. The design was aimed at maximizing natural lighting and ventilation while providing comfortable privacy. The settlement stands out as a unique case of successful slum upgrading in Kenya, due to the *in-situ* upgrading process being led by the residents of Kambi Moto. Kambi Moto is still a work in progress, with a majority of the houses fully completed while some are still at the starter unit level. The trunk sewer and drainage infrastructure are well built, with the water supply in good condition and connection to electricity safely compared to their pre-upgrading deplorable conditions. The common courtyard spaces are clean, and the residents often meet there to chat about various issues. Kambi Moto is proof that community-led initiatives can improve life and bring the most benefits to the community, its relatively small scale notwithstanding.

1.2 Problem statement

Sustainable solutions to human settlement problems in slums require a joint effort rooted in the concepts of partnership and involvement by all stakeholders. This change can be achieved through broad-based partnerships that promote community empowerment, capacity building and effective resource mobilization (Fernanda & Villarosa, 2012). Whereas strategies dealing with slum upgrading are filled with ideas based on community participation, inclusion, sustainability, empowerment and capacity building, the impact of the participatory approach to slum upgrading has not been felt.

In most African countries, the problem of slum mushrooming is endemic despite the initiatives put in place to control informal settlements. Public participation has been criticised on a range of grounds and often for valid reasons. Well-meaning participatory efforts have been undermined by a lack of follow-up, leading to the exhaustion of those involved in what can seem like endless problem identification sessions, and their apparent reinforcement of existing social dynamics, unequal power relations, gender inequalities and elite capture of resources (UN-Habitat, 2018).

Active participation, especially at settlement levels, fosters a sense of ownership and, therefore sustainability of slum and informal settlement upgrading programmes. Due to the stereotypical misinformation, the contribution of the residents of slums in Kenya has been neglected despite the major contribution they offer in solving the housing problems in slums. Several policies have been implemented without due consideration of the underlying participation of the

residents. As a result, the beneficiaries have reportedly felt that the programmes have disrupted their day-to-day activities without providing improved/adequate housing with connection to proper sanitation and drainage, access to energy and clean water supply. Previous studies into the provision of low-income housing in Kenya's informal urban areas have reported outright failures and inefficiency of the various housing schemes in meeting their set objectives. Otieno (2009) observes that ineffective public participation coupled with rival interests could be the major contributors to the shortcomings and challenges faced in slum upgrading programmes in Nairobi's informal settlements.

Although the UNHABITAT (2015) contends that participatory slum upgrading is the best approach for developing countries, it has only been implemented on a limited scale (Muraguri, 2011). Where participatory slum upgrading has been adopted, it has only been implemented on a small or demonstrational scale; and in most cases the upgrading initiatives have reported success unlike in conventional upgrading settings, alluding to its potential for success. Despite this widely touted potential, there has been a curious lack of upscaling of these initiatives and the subsequent replication in other similar informal settlements, raising questions of its effectiveness and suitability/legitimacy. This begets a need to study the approach to identify the aspects that make it seem attractive on paper but untenable in practice. It is against this background that this study was devised to examine the structure of the participatory slum upgrading approach to determine how it can best be adapted to ensure its sustained effectiveness in low-income housing delivery in Kenya. This study focused on the structure of the Kambi Moto Settlement Upgrading in Huruma, Nairobi City County to examine the sustainability of participatory slum upgrading approaches.

1.3 Research Questions

To address the problem statement above, the main research question this paper sought to answer was:

'How could participatory slum upgrading be adapted in informal settlement upgrading programmes to enhance its sustainability in housing upgrading and delivery?'

This was further broken down into the following specific questions: -

1. What are the key elements of the participatory approach to slum upgrading?
2. What methodology was adapted in the participatory approach applied in the Kambi Moto settlement upgrading program?

3. What are the key success factors in the Kambi Moto settlement upgrading program?
4. How can the implementation process of participatory slum upgrading be enhanced to achieve sustainability in informal settlement housing upgrading and delivery?

1.4 General aim of the study

The main aim of this study was to propose a suitable implementation framework for the participatory approach to slum upgrading that could be adapted to enhance its sustainability in informal settlement housing upgrading and delivery.

This was further broken down into the following specific objectives:

1. To examine the key elements of the participatory approach to slum upgrading.
2. To evaluate the methodology for application of participatory slum upgrading in the Kambi Moto settlement upgrading program.
3. To establish the key success factors of the Kambi Moto settlement upgrading program and establish an objective approach of assessing success of participation.
4. To propose and validate an operation model for the implementation of participatory slum upgrading to enhance its sustainability in informal settlement upgrading and housing provision.

1.5 Justification of the study

Slums form a vital part of the urban landscape as they have historically provided consistent affordable housing solutions to the urban poor. Improvement of urban informal settlements has been identified as a key step in bettering the livelihoods of the urban low-income residents, preserving the environment, ensuring equity in urban areas and alleviating poverty. There have been many initiatives to this effect with varying levels of success and challenges. The participatory approach has been advanced as best suited to improve the outcomes of slum upgrading programs. A clear participation framework for all stakeholders including the vulnerable groups in all stages of slum upgrading and prevention processes is a commonly recognized recommendation in the Draft National Slum Upgrading Policy, alongside strengthening the capacity of urban community groups to guarantee that they can meaningfully contribute to upgrading processes.

Public participation is an important precondition for the establishment of sustainable communities, building ownership and allowing for unique, precisely adapted projects which suit the needs of the subject settlement dwellers. It is also vital in gauging the responses of

slum dwellers towards a participatory approach in housing developments, road construction, the establishment of health facilities, street lighting and solid waste management among others and how best to involve them in the upgrading programs to avoid conflicts and opposition from the local people.

This study has come at the right moment when the constitution urges public participation in the affairs of the public. While participation is enshrined in the constitution, Acts of Parliament and supplementary regulations, there are no clearly spelt out mechanisms of how it can be managed in community development initiatives. The conclusions from this study will contribute valuable information in guiding the policy and legal framework in the facilitation of effective participation in slum upgrading projects, outlining the roles of the stakeholders and proposing possible solutions to challenges that often plague participatory slum upgrading programmes. The government will benefit from the findings of this study as they will outline the key elements of the participatory approach to slum upgrading and how they can be adapted to enhance the success and sustainability of slum housing initiatives. The findings will also be significant to the management of the Kambi Moto settlement as it will enable them to appreciate the role of the residents in only the upgrading of the housing, but its continued sustainability.

This study will significantly contribute to the pool of existing literature regarding urban planning and development; the outcomes of this study will be relevant in forming a basis for further research, and the findings will support literary citations as well as develop topics for further research by future researchers and scholars who may choose to study related topics in slum upgrading programs. The author hopes that the findings and information produced in this study can contribute to the discussions relating to slum upgrading on a higher scale and propose recommendations for adoption in future slum upgrading programs in Nairobi and other cities in Kenya and beyond.

1.6 Scope of the study

This study was confined to the Kambi Moto Settlement located in Huruma, Nairobi City County where participatory slum upgrading had been implemented. Specifically, it focused on the key elements of the participatory approach to slum upgrading, the specific methodology implemented in the Kambi Moto project including the policy and legal frameworks, the

infrastructural elements, the main stakeholders and their roles in the project as well as the success factors and the challenges that arose during the process.

The study was guided by John FC Turner's Theory, the stakeholder theory, the right to the city and the Community Action Plan Model to examine the participatory approach to slums upgrading. The study also borrowed from Arnstein and Choguill's "A ladder of participation/ Ladder of community participation" respectively to evaluate the participatory approach adopted in Kambi Moto. The study adopted the descriptive survey design and utilized primary data and secondary data. The target population was households in the Kambi Moto Settlement, representatives of Pamoja Trust and KISIP. Primary data was collected using questionnaires and interview guides and analyzed using both descriptive and inferential statistics with the aid of the Statistical Packages for Social Sciences (SPSS).

1.7 Delimitation of the Study

There are many approaches to slum upgrading. This study was limited to examining the participatory approach to slum upgrading; with a special focus on the sustainability of the approach. The study was conducted within the scope outlined above and focused on proposing a suitable implementation model for the participatory approach to slum upgrading that could be adapted to enhance its sustainability in the provision and improvement of informal housing.

1.8 Assumptions of the Study

This study assumed that greater respondent participation would eliminate issues of non-cooperation and resistance during data collection. The researcher further assumed that a significant proportion of the households and individuals involved in all phases of the project were still residents in the settlement and would be forthcoming with relevant information that is accurate and reliable; there would be voluntary participation by the selected respondents; and that they would be literate enough to provide answers for the research questions.

1.9 Definition of concepts

The study makes use of several terms and phrases which need to be operationalized.

1.9.1 Operational definition of terms:

- i. **Slum:** A slum is defined as, “a heavily populated area characterized by substandard housing and squalid living conditions, typically settled by squatters without legal recognition or rights; resulting from poor or absent urban policies and dysfunctional land and housing markets; they are often located in high-risk, barely habitable sites, deprived of basic urban services and characterized by widespread poverty and large agglomerations of dilapidated housing”. This will be the definition adopted in this study.
- ii. **Upgrading:** refers to the uplifting of levels or living standards and/or environmental conditions in specific neighbourhoods by infrastructural development, socio-economic empowerment and public awareness.
- iii. **Slum Upgrading:** This is defined by Cities Alliance as “an integrated approach that aims to turn around the downward trends in an area, ranging from legal (land tenure), physical (infrastructure), social and/or economic to provide basic services, regularize properties and bring secure land tenure to residents”. In this study, it refers to the **in-situ** physical, social, economic, organizational and environmental improvements undertaken cooperatively and locally among citizens of informal settlements, community groups, businesses and government agencies in local slum areas to create a dynamic community with a strong sense of ownership, entitlement and inward investment in the area.
- iv. **Participation:** Njoka (2002) defined participation as “the process through which people, especially the disadvantaged, influence resource allocation, formulation and implementation of policies and programs that directly affect them. It also implies the way people are involved at different levels and degrees of intensity in the identification, timing, planning, design, implementation, evaluation and post-implementation stages of development projects”. This study adopted this definition.

- v. **Community participation:** This is defined as “a voluntary and democratic involvement of beneficiaries of a project in contributing to the execution of the project, sharing the benefits derived therefrom and making decisions concerning setting goals, formulating the project and preparing and implementing the plans”.
- In this study, community participation is defined as the means by which the underprivileged, especially in informal settlements, can induce significant social reforms that enable them to improve their socio-economic status, and also influence political decisions on matters that affect them. Community participation is used interchangeably with public participation in this paper.
- vi. **Participatory slum upgrading:** It is a methodological approach that aims to address urban development imbalances represented by slum dwellers’ living by engaging and putting all key urban stakeholders at the centre of the process to improve slums’ living standards; and is considered more likely to promote the necessary partnerships, governance arrangements, institutional structures and financing options which result in inclusive planning and sustainable outcomes. In this study, participatory slum upgrading refers to settlement improvement initiatives that put the beneficiaries at the forefront of the operations through holistic partnership approaches involving the people, government agencies and community-based /non-governmental organizations.
- vii. **Upgrading Programmes:** These are interventions carried out to improve the standard of living of the slum dwellers by enabling them to achieve a better quality, healthy and secure living environment. This is the definition adopted in this research paper.
- viii. **Sustainability:** Sustainability is defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs (UNHCS). In the context of this study, sustainability will be construed that the processes set in motion by an urban development initiative continue indefinitely after the initial external inputs have been withdrawn and that they are replicable in similar circumstances elsewhere. It will entail the environmental, socio-economic and governance elements of the urban housing development initiatives.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the review of literature on the participatory approach to slum upgrading. The review focuses on the elements of the participatory approach to slum upgrading, theoretical frameworks that will guide the study and operationalization of the approach. The chapter also provides an empirical review of literature, a summary of the literature as well as the research gaps identified and the conceptual framework.

2.1 Theoretical Review

This section details the theories that underpin this study. The study was guided by John Turner's Theory, the stakeholder theory, the Community Action Plan Model and the right to the city.

2.1.1 John Turner's Theory

This theory advocates for the bottom-up approach to development by focusing on the compassionate views of the communities, the antagonistic stance of bureaucratic procedures and a favourable view of the humanistic participatory management as opposed to the systematic and intimidating administration (Korten, 1986).

Turner posited that the demolition of slums was a source of empowerment rather than a solution. For instance, if the government could do away with the existing slums' unsanitary environmental conditions and inadequate supply of essential services, the public would need not care about substandard dwellings. Turner also observed that as the environment improved, most of the slum residents automatically gradually improved their houses and living conditions. Informal settlements often show great organizational skills and hence could be relied upon for the maintenance of infrastructure. He further reiterated that the best housing was those provided and managed by the residents of the slums rather than those provided and managed by the central government. The upgrading programs devised by the local groups worked better since people understand their needs and situation best and therefore should have the freedom to build (Turner, 1972). In this case, community participation is an important precondition for

successful slum upgrading, with the state as well as the built environment professionals acting as enablers of the implementation process. This theory has been supported by the attempt to engage the residents in decisions concerning their living environment.

2.1.2 Stakeholder Theory by Edward Freeman

This theory maintains that the success of a project is determined not only by the cost, time and quality but also by the effective management and approval of all the concerned stakeholders. Freeman (1984) defines stakeholders as those individuals or groups who have a material claim or interest in a project and its activities.

The theory emphasizes the fact that the creation and execution of each project are the results of several stakeholders' activities. Of utmost importance in this theory is that a project's success is reliant on how well the relationships between the key interested parties are managed by the project's leading organization in a manner that ensures the realization of the project objectives (Freeman, 1984). Most projects consist of parties with differing interests, incentives and motives. This theory has been selected to guide the study due to its emphasis on the need to harmonize the perspectives of all the parties involved.

2.1.3 Community Action Plan Model

This model was advanced by Hamdi and Goethert in 1997 and it posits that members of communities and other groups should become involved in the initiation, planning and design, execution and maintenance of the development projects in their communities.

Desai (2015) explained that community participation is a channel through which local people can take part in the decision-making processes on issues that affect their lives. It serves as a framework through which the affected residents deliberate on issues that affect them most. Grassroots development proves some aspects of community participation. The involvement of the local community is especially crucial in the designing phase since it helps foster a sense of ownership which largely determines the success of the project. Hamdi and Goethert (1997) contend that participation can be done indirectly, consultatively, through shared control or full control.

There is a need to ensure participation by the affected groups to promote the sustainability of the project, backed by new definitions of the role of the public in new forms of development. The planning team could undertake direct observation by looking, listening and communicating

through suitable channels to ensure that the concerns of the community are wholly and practically taken into consideration. For community participation to be effective, the parties must possess some skills, knowledge and technical know-how. Rakodi and Schlyter (1981) suggested that active participation should be a long-term process to facilitate the achievement of measurable results so that its value can be fully acknowledged. This model, therefore, provides a clear direction on how community participation can be applied in development projects and slum upgrading programs.

2.1.4 The Right to The City

This theory was advanced by Henri Lefebvre. He envisioned a city whose urban spaces are managed by the users for their benefit beyond the control and patronisation of capitalism and the government. He posited that each urban space must be viewed as a product of historic interactions between its society and the surrounding environment, resulting in either perceived space which results from the daily interactions; conceived space which is produced by knowledge and ideologies; and lived space which arises from the intangible degree of people's attachment to a place.

He advanced that the city belonged to those who inhabit it and actively use its space in the events of their day-to-day lives. He envisions the city's inhabitants apportioning space in the city to suit their needs and make it their own. Pucell (2014) observed that the goal of the right to the city is to encourage urban policies that promote justice, sustainability and inclusion in cities. The theory calls for real and active participation by citizens rather than the usual ideological/superficial participation that has been repeatedly witnessed. Lefebvre argued that "the end of increasingly conflicted urbanism is highly dependent on the proactive participation of an aware society creating a diverse urban space", known as a 'differential space'.

In this regard, public participation is at the core of the right to the city; they imply each other, and one is necessary for the existence of the other. As people engage in real and active participation, they become aware of their ability to manage and control the production of urban space, take control of their living conditions and make the city their own again. The urban space is determined by the inhabitants' capacity and ability to appropriate it to suit their needs, holding use value above the market exchange value. The right to the city has been criticized as being too radical and utopian to be of use. It can however be borrowed as a guideline for creating inclusive and functional urban spaces where the needs of the inhabitants are taken into account rather than seeing them as mere production centres.

2.2 Empirical Review

2.2.1 Participatory Approach to Slum and Informal Settlement Upgrading

Housing is one of the basic human rights enshrined in various international human rights treaties and instruments. In addition to being a right, linkages of housing to the other key sectors of the economy contribute greatly to the socio-economic development of the country (Gilbert & Gugler, 1992). The provision of adequate and affordable housing is thus a key concern for the government. However, the rapid growth of the urban population has led to the increased demand for affordable housing in informal settlements (Mitulla, 2019). The ever-increasing housing demand and subsequent deficit in urban areas have prompted the mushrooming of slums in major towns. Urban informality often results in temporary poorly constructed housing structures, insecure tenure and overcrowding (Fernandes, 2017). Urban managers must thus find ways to not only ensure the provision of additional affordable housing but also to maintain and improve existing ones to cater for the demand and ensure the urban population is adequately housed.

Since the 1970s, community/public participation have been practised as a means to improve the achievement of the objectives of slum upgrading projects. The participatory approach recognizes the need for communities and local governments to create working partnerships and jointly take responsibility for the improvement and maintenance of community-level infrastructure (Harris, 1998). Community-driven development aims to create a sense of coherence on a neighbourhood basis through corporate civic action and a sense of belonging. Spontaneous participation allows for voluntary, self-directed action on the part of the people and promotes local investment. Previous efforts to combat the housing situation of the urban poor have mostly been spearheaded as policies at international forums, with little happening on the ground. These efforts range from the UN Agenda 21 of 1992, Habitat agenda of 1996, Cities Alliance of 1999, the MDGs of the 2000s, SD Goal-11 of making cities and human settlements inclusive, safe, resilient and sustainable; and the latest New Urban Agenda.

Globally, studies have scrutinized the role of community participation and partnerships in the upgrading of housing projects in slums. These studies show that involving external development agencies enable the local communities to work together as a unified unit towards improving their shelter (UN-HABITAT, 2019). In Indonesia and Pakistan, studies show that

the involvement of community members in project design and preparation is critical to ensuring the future sustainability of slum upgrading interventions. In developing countries, the participatory approach to slum upgrading is based on the understanding that community-driven development approaches are only feasible within relevant institutional frameworks that provides for local government reformation (Wangaruro, 2020).

While upgrading is a reactionary measure to the proliferation of slums and squatter settlements, it can be executed in a manner that ensures its effects are sustained long after the initial inputs are withdrawn. Reid (2017) carried out a cross-sectional survey of housing projects in Soweto to determine the sustainability of slum upgrading in South Africa. The study posited that public participation was a significant determining factor in the sustainability of slum upgrading programs. The sustainability of slum upgrading could not be realized if stakeholders of the informal settlements were not involved from the planning phase.

In Nigeria, Akpoghiran (2016) studied the sustainability of slum upgrading in Abuja. The study adopted a case study design and used primary data from guided interviews which targeted the project management personnel within the slum housing project. Content analysis was used to qualitatively analyse data collected from interviews, which revealed that enhancing stakeholder participation was important in sustainable slum upgrading programs.

Though Kenya's country housing policy and constitutional rights emphasize the citizen's right to adequate housing, the difficulty in realization of adequate housing can be attributed to improper operationalization frameworks, land laws and housing policies (Mwaniki, 2015). For example, the housing policy of 2017 abolished the slum clearance policy and incorporated integrated approaches in scaling up housing provision which effectively shifted towards pro-poor methods of slum upgrading (GoK, 2017). Moreover, the Land Act, 2012, Urban areas and cities Act, 2015 and the Land use planning bill of 2015 provided for the participation of city residents in the management of urban areas and cities. The urban areas and cities Act, for instance, details governance principles, rights and guidelines for participation by residents in local development affairs by providing opportunities for harnessing innovative ideas through active participation in the urban development process (Shihembetsa, 2021).

As a result of these laws, the practical initiatives toward slum upgrading include the Kenya Slum Upgrading Programme, KENSUP and the Kenya Informal Settlements Improvement Project, KISIP. These initiatives identify participatory urban planning, management and governance as some of the main focus areas. Mukeku (2006) hypothesized that sustainable architecture and planning for the urban poor can be achieved through the scaling up and streamlining of small and incremental interventions as opposed to a large-scale and instantaneous intervention. When upgrading, it is imperative to preserve the ambience to ensure continuity and retain the identity of the place (M'ithai, 2012; Waruguru, 2020). Before KENSUP, the institutional framework for slum upgrading projects mostly relied on the corporation between the National Government, local authorities and the UN-HABITAT with support from the civil society and private sector, thus further entrenching the top-down approach predominantly employed in settlement upgrading and public housing projects.

M'ithai (2012) observed that participatory slum upgrading in Kenya was fairly uncommon and generally limited to small-scale or demonstration projects. Moreover, community participation is relatively slow to implement as it is dependent upon the cooperation, goodwill and resources of residents. Despite the existence of policies and laws on slum upgrading, Ochieng (2020) found that the influence of community participation has been low. In a study on public participation in slum upgrading programmes in Machakos County, Malu (2015) chronicled the issues that arose post-implementation due to lack of community participation and recommended efficient community representation through democratic electoral processes and institutional frameworks that allow the entire community to be represented. Mwaniki (2015) demonstrated the critical role of urban governance in addressing low-income housing and informality in Nairobi's housing in his study that concluded that proper governance systems backed by political goodwill could have a significant positive impact in creating transformations of the land and housing sectors in the country. It is apparent that the involvement of the target beneficiaries of projects at all levels is of critical importance since any form of resistance and/or misunderstanding almost guarantees the failure of the projects. This study examined the participatory approach implemented in Kambi Moto's upgrading and proposed a suitable implementation model for the participatory approach to slum upgrading that could be adapted to maximize citizen empowerment and enhance its sustainability in informal settlement housing upgrading and delivery.

2.2.2 Elements and Principles of the participatory approach to slum upgrading

The elements of the participatory slum upgrading approach are applied in predicting population growth, zoning, geographic mapping and analysis, identifying transportation patterns, analyzing recreational space, surveying the trunk infrastructure provision, recognizing the demand for and allocating social services, and analyzing the impact of land use.

Several studies have looked at the elements of participatory approaches to slum upgrading and its impact on the upgrading of informal settlements across the world. Levin (2019) adopted a descriptive survey design to study the impact of the participatory approach to slum upgrading in Vietnam. Using semi-structured questionnaires to collect data from a sample of 101 household heads in 11 purposively selected informal settlements, the study found that the participatory approach to slum upgrading resulted in short turnaround periods for the transformation of the settlement areas. Although these results are significant, the study was not carried out in Kenya.

Jussi (2016) carried out an *ex post facto* study to determine the elements of the participatory approach to slum upgrading in Venezuela. The study found that the participatory approach to slum upgrading enabled the informal settlement to remain beneficial over a long period. Bagherzadeh and Jöehrs (2015) investigated slum upgrading programs in Afghanistan. The study collected data over the period of five years from 2014 to 2018. The research findings revealed that failure to involve beneficiaries contributed to the low pace of slum upgrading in Afghanistan. This study provides insights into the role of beneficiary engagement through participatory slum upgrading. Although this study bears similarities to the present study, it was not based on one slum area, making it difficult to directly relate the findings to the present study thus the findings may not apply to the Kambi Moto upgrading program.

Ofunya (2019) examined the slum development strategies in urban areas in Kisumu City, Kenya. Based on a descriptive survey design, the study involved a sample of 78 beneficiaries selected from the Kondele housing upgrading program in Kisumu, with community participation as one of the dependent variables. The study revealed that direct community participation in slum upgrading enabled the residents to own the projects.

Karimi (2019) explored the elements of participatory approaches to slum upgrading in Nairobi, Kenya with reference to Mathare 4A slum upgrading project. The results revealed that most slum upgrading programs tend to focus on the existing demographic conditions; and that predicting population growth significantly contributed to the success of slum upgrading programs.

Kulundu (2017) examined the factors to consider in the participatory approaches to slum upgrading in Bungoma town. Data from a sample size of 56 household heads was collected using semi-structured questionnaires. The results showed that analyzing the impact of land use was a significant element of participatory slum upgrading and that it was a statistically significant predictor of the outcomes of slum upgrading programs. This study differs from the present study as it focuses on land use as an element of slum upgrading.

In a study of the factors that influence the sustainability of slum upgrading programmes in Kibera's Soweto East, Anyiso (2013) reported that the majority of the residents did not participate in identifying transportation patterns and future expansion of the settlement scheme.

This research sought to ascertain the specific elements of the participatory approach to slum upgrading that were applied at the Kambi Moto upgrading scheme. Public participation is an anchor to this study since the levels of participation have been shown to greatly impact the civic responsibilities, community ownership and outcomes of upgrading processes. Participation strengthens urban communities' capacities to meaningfully participate in development initiatives affecting them and is a vital tool through which they can champion for their needs, hence avoiding conflicts and working towards establishing communities that are sustainable over long periods of time.

2.2.3 Opportunities of Public Participation in slum upgrading

Community participation is one means of promoting inclusive governance, active citizenship and robust cities. It also creates a sense of ownership of the development projects and ensures efficient allocation of resources.

The opportunities for public participation have been scrutinized in previous studies. Nur, Topsakal & Dogan (2018) sought to establish opportunities for public participation in the upgrading of housing projects in Antalya city. The study adopted a cross-sectional survey

design with a sample size of 350 residents. The study established that participation provided an opportunity for project ownership by the beneficiaries. Although this study is significant and seemed to connect project participation and project ownership, it was undertaken out of Kenya and the findings may not apply to the local slum upgrading programmes.

Urbancová (2019) sought to investigate whether community participation in urban planning could promote the implementation of slum housing projects in the Czech Republic. Using a case study approach, the study collected data from a sample of 450 respondents working in the town housing upgrading projects. From the outcome, it was evident that when the community is involved in a project, they claim ownership over it and the decision-making process, which greatly contributes to a successful project outcome. Although this study has underscored the importance of community involvement, the proposed study differs from it in the unit of analysis and methodology.

Owino (2019) studied the innovative strategies adopted in the implementation of slum housing upgrading programs in Kenya. Guided by the resource-based theory, the study adopted a cross-sectional survey design and concluded that community participation allowed the project management to tap into the diverse interests of external support agencies. Naikuni (2015) studied the opportunities for public participation in the upgrading of slum housing projects in Kenya. The study focused on decision-making and applied stratified sampling to select 149 study participants from five hundred households in Korogocho slums. An analysis of the relationship between the various opportunities for public participation and the upgrading of Korogocho slums holding all other factors constant revealed a direct relationship between beneficiary involvement in decision-making and implementation of the housing projects.

2.2.4 Global best practices for participation in Slums Upgrading

The prevalent mushrooming of informal settlements has compelled political and urban planning authorities to recognize the settlements as integral parts of the urban form and intervene in them. This has seen their inclusion into the formal urban systems and enabled the provision of their inhabitants with appropriate urban infrastructure and services.

Nevertheless, the approaches that governments have previously employed to deal with this situation have not always yielded successful outcomes. The policies and approaches have always been influenced to a degree by the capacities of the political and planning institutions

which are dependent on the levels of governance, corruption, regulation, functional land markets and political will. It is for this reason that The UN-HABITAT (2003) has recommended the best practices in dealing with housing problems in slum areas; and recognizes that effective policies and programs ought to go beyond addressing only problems related to inadequate housing, infrastructure or services to integrate the underlying causes of urban poverty, and further and acknowledges the evolution of interventions to slums.

This evolution has seen many studies directed at assessing the best practices for slum upgrading. According to Lambkin (2017), the best practices for participation in slum upgrading are primarily provoked by structural policies which have a fundamental impact on improving human settlements. The practices reveal the importance of tackling the challenges that slums create in today's cities and the interventions needed to tackle human settlement in poor urban areas. While there is a strong political will supporting the use of principles of participatory planning and slum upgrading approaches, there is a greater need to develop a deeper understanding of the concept of best practices.

Preliminary studies show that the reinforcement of local democracies resulting from the changes in governance systems in many developing countries can help slum communities and their organizations to amplify their voice in providing solutions to their challenges and needs. As a result, intensifying attempts to incorporate public participatory systems into the slum upgrading programmes are today's best practices in dealing with the improvement of slums (UN Millennium Project, 2005). According to Betancur (2007), the best practices of slum upgrading utilise the participatory processes in holistic approaches to neighbourhood improvement, accounting for health, education, housing, livelihood and gender. In line with the Sustainable Development Goal of making cities and communities inclusive, safe, resilient and sustainable, the best practices recognize significant contributions which result in a palpable impact on the quality of life of the people as a result of effective collaboration between the public, private and civic sectors of society while also remaining socially, economically, culturally and environmentally sustainable.

Recent studies show that citizen participation in slum upgrading is significant in promoting the success of the slum upgrading projects. Pradeep & Shah (2015), while assessing the impact of participation in the slum housing projects in the Pradesh Region of India, empirically examined

best practices of slum upgrading using a dataset from 11 slums. It was evident that the successful upgrading of slum programs appeared to be a function of stakeholders' participation. Sundus and Naintara (2018) examined the best practices in slum upgrading based on a case study of Pakistani slum housing. The researchers selected best practices for participation as the independent variable and sustainability as the dependent variable. The findings showed that project sustainability depended on the adoption of best practices in slum upgrading in Pakistan. Huang (2019) carried out a study to determine the best practices for improving slum areas in Singapore. The study analyzed the impact of strengthening local democracies in upgrading slum housing. Paired-samples analyses were conducted on the selected slum housing programs. The results showed that there was a significant role in strengthening local governance in order to promote slum upgrading.

Oladejo (2018) investigated the best practices for participatory approaches to slum upgrading and their effect on the sustainability of slum housing programs in Enugu region of Nigeria. Relevant theoretical relating to the participatory approach to slum upgrading data were critically reviewed, compared and contrasted. The study relied on a sample size of 102 household heads in the selected slum upgrading program. Based on the results, the study established that sustainability was the key variable influencing the participatory approach to slum upgrading. This study was however not based on slum housing in Kenya and cannot be applied in the context of the Kambi Moto upgrading programme.

In Kenya, Karimi (2019) undertook a study to determine the role of government policies on slum upgrading programs in Nakuru County. The study targeted four slum housing programs in Nakuru West and East in Nakuru Town. The study found that effective government policies improved the level of stakeholder participation in slum upgrading, and were thus key in promoting participatory slum upgrading.

In a study of the factors that influence the sustainability of slum upgrading programmes in Kibera's Soweto East, Anyiso (2013) reported that a majority of the residents did not participate, an indication of poor communication of project activities and objectives while Komollo (2017) reported that resistance was experienced in the execution of Kibera's Soweto East Zone A Project, an indication that public participation was not implemented to the prescribed levels, which consequently hindered the achievement of the project's objectives as

ought to have been. While studying the challenges facing slum upgrading programmes in Manyatta, Kisumu, Kenya, Gikonyo (2015) noted that the method of participation adopted was greatly influenced by the overall conditions of the settlement and the unique social context in which action was being taken.

The foregoing confirms that participation is a primary characteristic in the analysis of best practices, and is a credible indication that community participation should be encouraged at all phases of the project cycle to strengthen the citizen voice thereby improving the accountability of policymakers which would then motivate them to better respond to the needs of the community. Backed by dedicated financial and human resources, an upgrading project needs to go beyond the provision of physical infrastructure to ensure tenure security and also be effective in the long term and have applicability even in organizations lacking successful reform in order to be the best per the global best practice standards.

2.3 Legal and Regulatory for Public Participation in Urban Development

Kenya is party to various multilateral treaties and international agreements, including Agenda 21, the global Sustainable Development Goals, and Habitat III's New Urban Agenda which are committed to ensuring the achievement of sustainable human settlements and aiding all key players in the public, private and community sectors to effectively execute their roles at all levels in human settlements and shelter developments.

The Sustainable Development Goal 11 for Sustainable cities and communities is aimed at making cities and human settlements inclusive, safe, resilient and sustainable. One of its major targets is to guarantee access for all to adequate, safe and affordable housing and basic services and upgrade slums by 2030 (UNHABITAT). It also targets enhanced inclusive and sustainable urbanization and greater capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

Kenya's Vision 2030 is adopted from the SDGs. Its social pillar envisions an adequately and decently housed nation in a sustainable environment, which shall be achieved through improved development of and access to affordable and adequate housing and enhanced access to adequate housing financing. The political pillar also reaffirms that the citizens have the right to participate – directly or indirectly – in all development policies; and makes it the duty of

public authorities to encourage individual and community participation in social activities and to influence decision-making.

The African Union Commission's 'Agenda 2063' is a shared plan for inclusive growth and sustainable development for Africa to be achieved by 2063. It projects that by 2063, over 60% of Africa's population will be urbanized, and envisions an Africa where every citizen has affordable and sustainable access to quality basic services. Africa's development will be people-driven, with all citizens actively contributing to decision-making in all aspects of development. It aspires to create a continent of shared affluence capable of financing and managing its growth and transformation with people-driven developments that rely on the potential of the African people, especially the youths and women, to be active decision-makers in all aspects of development.

The participation, inclusion and empowerment of citizens and all stakeholders in the conception, design, implementation, monitoring and evaluation, ergo citizen engagement and capacity building, is highlighted as a crucial requirement for the successful implementation of Africa's Development Agenda. For transformative leadership, it prioritizes participatory development and local governance by promoting policies for stakeholder participation in local governance and policies for decentralization and empowerment of local governments.

Following the Habitat III Conference in Quito, Ecuador in 2016 which birthed the New Urban Agenda, Kenya adopted a popular version of the New Urban Agenda. This envisages cities and human settlements that prioritize multi-stakeholder partnerships in the urban development process and promote inclusivity and equality, especially empowering women and girls, ensuring their full and effective participation. It also calls for capacity building to strengthen the skills and abilities of disadvantaged groups for shaping governance processes and ensuring their efficacious participation in urban development decision-making. Capacity building will also guarantee support for innovative approaches in financing urbanization and enhancing finance management capacities at all levels.

The framework for good urban governance through public participation is provided for by the normative and institutional parameters laid out by the central government, formally enshrined in the constitution, Acts of Parliament and supplementary regulations. These determine the levels of administrative, fiscal and political decentralization.

The power of citizens to influence the decisions of the government in Kenya is enshrined under Article 1 (1) of The Constitution of Kenya 2011, which provides that "...*all sovereign power*

belongs to the people of Kenya... ”, and the exercise of this sovereign power shall conform with a series of other responsibilities of both the government and the citizens which complement this power. Article 69 (1) of The Constitution further mandates the state to encourage public participation in the management, protection and conservation of the environment.

Article 174(c-d) gives the powers of self-governance to the people to derive direct benefit from meaningful public participation and recognizes the rights of communities to manage their own affairs and to further their development.

Article 176(2) of the Constitution further provides that every county government shall decentralize its functions and provision of its services to the extent that it is efficient and practicable to do so. This forms the basis for the several decentralized units of government below the county government, including the decentralized urban units, made up of urban areas and cities, both of whose governance is by the *Urban Areas and Cities Act, 2011*, which provides for, among other things, the mechanism for residents of cities and urban areas to participate in the governance process. There are also other units such as cities, municipalities and towns.

Clause 87 of the *County Governments Act* lays out the basic principles that serve as a basis for citizen participation at the county level; including the protection and promotion of the interests and rights of minorities, marginalized groups, and communities and their access to relevant information; as well as a reasonable balance in the roles and obligations of county governments and non-state actors in decision-making processes to promote shared responsibility and partnership, and to provide supplementary authority and oversight.

Section 91 of the same requires County Governments to facilitate the establishment of structures for citizen participation, including ICT-based platforms, avenues for the participation of people’s representatives and development project sites. Clause 116(2) provides that “...*A county shall deliver services while observing the principles of equity, efficiency, accessibility, transparency, non-discrimination, efficiency, accountability, sharing of data and information, and subsidiarity*”.

The *Urban Areas and Cities Act No. 13 of 2011* details the classification, governance and management of urban areas and cities; provides criteria for establishing urban areas, and outlines the principles of governance and participation of residents. Clause 11 of the Act details the governance and management principles; and institutionalizes the role of active participation

by residents in the administration of urban areas and city affairs. Clause 22 of the Urban Areas and Cities Act empowers residents of a city to make meaningful participation in the affairs of their area. It outlines the rights of residents in cities, municipalities and towns, and these include the right to;

- Deliberate and make proposals to the relevant bodies or institutions on service delivery, annual budgets, county policies and other matters of concern to citizens, a reflection of the aforementioned ways to exercise passive citizen power.
- Plan strategies to engage various levels of government on the issues of concern, and
- Monitor activities of elected and appointed officials of urban areas and cities, including city and municipal board members.¹

This clause further provides that a city or municipality shall invite representations and petitions from citizen fora on administration or management issues, and imposes a further obligation on the board to make recommendations on any issues raised at the citizen fora, and pass them to the city or municipal management for implementation.

The *Public Finance Management Act of 2012* is a law that was passed to secure the sound and sustainable management of the affairs of county governments, cities and municipalities, and other county public entities and to adequately cater for all the matters connected thereto. Section 207 of the Act provides stipulations that govern public participation in public finance management at the county level. It provides that the regulations under the act may provide for structures for participation, mechanisms, processes and procedures for the same, public meetings and hearings, notification and public comment procedures, receipt, processing and consideration of petitions and complaints lodged by members of the community and any other matter that enhances community participation among others.

¹ Urban areas and Cities Act, Clause 22

2.3.1 Institutional Frameworks for public participation in urban development

To aid the implementation of the above laws and regulations, and advance the application of public participation in urban development initiatives, several institutions have been established, key of which are highlighted below:

The UN-Habitat Participatory Slum Upgrading Program, (PSUP)

Founded in 2008, the UN-Habitat PSUP Secretariat is focused on the strategic participatory Slum Upgrading Program and sustainable urbanization. Its main areas of focus are on sustained involvement of local communities in the slum upgrading programmes, the lack of adequate and safe housing conditions, secure land tenure, infrastructure provision as well as issues of gender and human rights.

They work cooperatively with slum communities through partnerships with NGOs and the private sector to encourage national and local governments to mobilize resources towards addressing structural problems faced by slum dwellers, and pursue participation and initiative by the residents of these settlements.

The Kenya Slum Upgrading Program, (KENSUP)

The Kenya Slum Upgrading Program, KENSUP, was initiated in 2001 and established following a Memorandum of Understanding between the government of Kenya and UN-HABITAT to upgrade slums and informal settlements, and launched in 2004. It was a core poverty reduction strategy aimed at “...*improving the lives of people living and working in the slums and informal settlements in all urban areas of Kenya...*” (UN-HABITAT, 2007). The program strategy document identifies participatory urban planning, management and governance as one of its main focus areas; it also recognizes the participating slum communities as equal partners in the program.

The program was designed to cover all urban areas in Kenya, with the pilot project being the upgrading of Kibera’s Soweto East Village (UN-HABITAT, 2011). In addition to housing improvement, the project also sought to promote, facilitate and, where needed, provide security of tenure, income generation and physical and social infrastructure. The other objectives included operationalizing the principles of good urban governance and attracting private sector finance and encouraging external investment in slum upgrading.

The Kenya Informal Settlement Improvement Project, (KISIP)

Alongside KENSUP, the Kenya Informal Settlements Improvement Project, KISIP, was also implemented. This is a World Bank Funded Program that was launched in June 2011 to undertake tenure regularization and provision of social and physical infrastructure in informal settlements in all major towns in the country.

Presently, the institution is actively involved in the tenure regularization efforts of informal settlements Kenya. For instance, they are in the process of negotiating and processing titles for the beneficiaries of the upgraded Kambi Moto settlement, following extended consultations and participatory planning exercises with the community on tenure options that led to the Abbreviated Resettlement Action Plan of 2020, which committed to issuing the beneficiaries with sectional titles.

2.4 A ladder of participation

This study derives from Arnstein and Choguill's "A ladder of participation/ Ladder of community participation" respectively to evaluate the participatory approach adopted in Kambi Moto, and provide an objective approach to assess community participation. Both models are detailed below.

Arnstein's Ladder of Participation

This was advanced by Sherry Arnstein and first published in 1969. Arnstein viewed citizen participation as a strategy by which the 'have-nots' join in influencing, and inducing significant social reform which allows them to enjoy the benefits of the prosperous society; from policy setting to tax resources allocation, resulting in a redistribution of power.

To this effect, Arnstein proposed an eight-rung 'ladder', with each level corresponding to the extent of the citizen's power in determining the end product. The bottom rung of the ladder, comprising manipulation and therapy, were classified as *non-participation* since they do not allow for the public to participate in planning or conducting programs. The 'informing' and 'consulting' levels are classified as 'tokenism' since, whereas the citizens may be heard, they do not have the power to ensure that their opinions will be heard by the power holders. The

fifth step, placation is also a form of tokenism albeit on a higher level because it allows the citizens to advise, but retains the continued right to decide for power holders. Citizens begin to have some degree of influence at the placation level though tokenism is still apparent. The degree to which the citizens are placated depends mainly on the quality of technical assistance they have in articulating their priorities; and the extent to which the community has been organized to press for those priorities (Arnstein, 1969).

The higher levels, collectively classified under ‘citizen power’ come with increasing levels of decision-making clout. Citizens can enter into a ‘partnership’ that enables them to negotiate and engage in trade-offs with traditional power holders. At the top of the ladder, where the citizens obtain the majority of decision-making seats or full managerial power, is delegated power (7) and citizen control (8). Partnerships occur where power is redistributed through negotiation between citizens and the authorities, resulting in an agreement to share planning and decision-making responsibilities through set structures. Partnerships are most effective when there’s an organized power base in the community to which leaders are accountable. Delegated power gives citizens genuine specific powers to guarantee accountability of the program to them. The ladder simplifies the relationship between the citizens and power holders. It excludes the roadblocks on either side of the divide, with the citizen’s side including inadequacies of political, socio-economic, infrastructure and knowledgebase, and difficulties of organizing in representative and accountable citizens’ group in the face of futility, alienation and distrust.

Choguill’s Ladder of community participation for underdeveloped countries.

Citizen control as described in Arnstein’s model has been argued against on the grounds that it supports separatism, it’s more costly and less efficient, and it is incompatible with merit systems and professionalism. Choguill critiqued Arnstein’s model as producing confusing results within a development context, though adequate for analysis in developed countries with established democratic systems. It was on this basis that he provided a tentative reclassification of participation in underdeveloped countries based on the extent of external institutional involvement in terms of facilitating community mutual-help projects.

In his model, the main problems considered when analysing participation are, 'whether participation was practised at all, and how' (Marisa & Choguill, 1996). Here, community participation was not only a means to enable the people to get, through mutual-help initiatives and with outside help, the basic needs which otherwise would not be available to them, but also as an avenue to influence decisions about issues that affected them in the political arena. Choguill's ladder involves changes in terminology from Arnstein's to better adapt to the context of development. The ladder is arranged in levels comprising from the highest to lowest; empowerment, partnership, conciliation, dissimulation, diplomacy, informing, conspiracy and self-management. The eight steps are further broadly classified as either support, manipulation, rejection or neglect.

Support comprises the top three levels on the ladder. The highest rung on Choguill's model is empowerment, where community members are expected to initiate their own improvements, possibly with the assistance of outside organizations, demonstrating real control of their situation and influencing the process and outcomes of development. Partnership, on the other hand, occurs when community members and outside decision-makers and planners agree to share planning decision-making responsibilities about development projects involving community participation through such structures as joint policy boards and planning committees.

Conciliation is the third step and the final form of support where the government formulates solutions that are eventually ratified by the people. Conciliation has been criticized for being top-down and paternalistic, since a few representatives are appointed to advisory groups or decision-making bodies where they can be heard, but are also often forced to accept the decisions of the authoritative and persuasive elite in an almost manipulative fashion. Manipulation takes the form of dissimulation, diplomacy and informing. Dissimulation occurs when people are slotted into 'rubber stamp' advisory committees or boards to educate them or engineer their support. In diplomacy, the government, for a lack of interest, financial resources or incompetence, expects the community to make the necessary improvements by itself, usually with the assistance of an outside organization, e.g. NGOs. The government may then change its attitude, providing minimal amounts of aid, through public hearings, consultation, attitude surveys, , visits to the neighbourhoods and meeting with the dwellers, without any assurance

that support will be provided for the new project, or that the concerns and ideas of the people will be considered.

Information is the last level of manipulation which takes a top-down approach through a one-way flow of information from officials to the community about their rights, responsibilities and options, without allowance for feedback or negotiation in projects that have already been developed. In the seventh rung of the ladder is conspiracy, which is classified as 'rejection'. This is whereby the government seems to reject the very idea of helping the poor and thus, participation in formal decision-making is not permitted or even considered, for reasons that may be used to disguise underhanded motives or to benefit other groups. At the bottom of the ladder is self-management, which is a form of neglect by authorities. It occurs when governments do nothing to solve local problems which then prompts the community members themselves design and control the improvement projects to their neighbourhoods, though not always successfully. Generally, they work with the assistance of external NGOs or the support of independent financial institutions, which positively affect the outcomes of their efforts.

Contrary to empowerment, self-management infers circumstances that result from a lack of government reaction to the poor people's demands. The initiatives are largely bottom-up, either emanating from the community's need to improve their surroundings or from the fear of eviction, or from the NGOs. At the opposite ends of the ladder, empowerment and self-management determine that basic needs can be attained with or without government support. Either way, self-help is a fundamental element of community participation in underdeveloped countries.

In its broadest sense, community participation is perceived as an instrument of empowerment. The reimagination of the role of the government in the development process must include low-income communities in their policy definition processes to include the need to support people's initiatives; and offer them opportunities to ensure that their incomes will rise to levels that could at a minimum support their own efforts to reach socially acceptable living standards. The Two main objectives of the community organization should be: (1) to build for themselves the improvements to their community they need to live healthy and productive lives, and (2) to claim their rights in the political arena so that they can influence decisions. This results in more vital and permanent changes to the status quo.

An examination of effective community participation implies also an identification of the required external support that could facilitate the outcome of the community effort. The degree of participation varies from project to project, with most communities opting to provide funds and labour for the projects they undertake. Most successful projects are ones that infuse teamwork within the community with the support and resources of governments and/or NGOs. The Kambi Moto settlement upgrading project clearly demonstrated collaborative effort and community initiative in developing their neighbourhood, and perfectly embodied the aforementioned objectives. Community participation is therefore not just a means for people to influence political decisions about issues that affect them, but also a means to leverage outside help and mutual-help initiatives to access the basic needs that would otherwise be out of their reach. Further analysis reveals that success is not guaranteed just because a project incorporates community control.

Strong political will on behalf of the government has been identified as a precondition for successful community improvement. Governments can support, manipulate, reject or neglect the poor people's demands. The attitude of the government is critical in determining the potential results of the community efforts. Illustrations of self-management and empowerment, at extreme ends of the ladder demonstrate that basic needs can be realised with or without government support. In the case of supportive governments, initiatives result in either partnerships, conciliation or empowerment, depending on the willingness to support and confidence in the abilities of the community to contribute to their improvement and initiate activities by themselves. However, at any level of the ladder, people's willpower play a significant role in the process of improving their conditions. Genuine and sustainable community development can be achieved through ongoing programmes and long-term coalitions for the provision of lasting support to the communities being established.

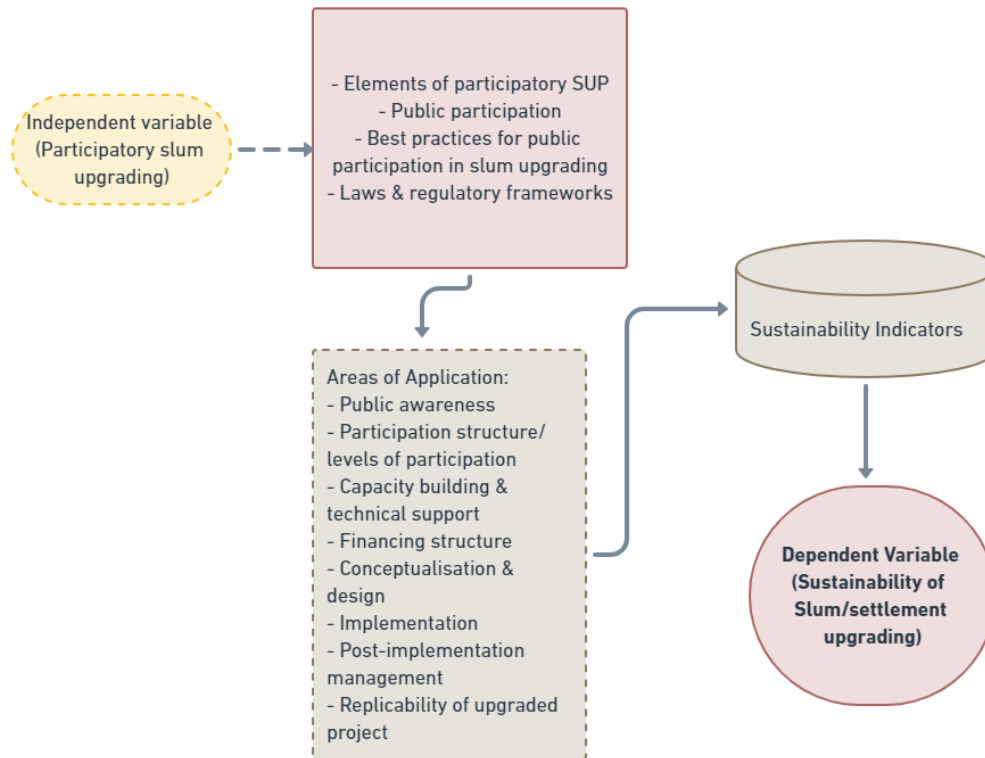
It is evident from the foregoing that genuine and sustainable community development is achievable through continuing programmes and long-term collaboration for the provision of lasting support being established in the community. The participatory approach implemented in Kambi Moto will be evaluated based on the rungs on these ladders to determine the levels of conformity and its overall sustainability.

2.5 Working Framework

This is used to show the relationship between the study dependent and independent variables. The independent variable of this study is the approach whose adaptation would impact the sustainability of slum upgrading programs: the participatory slum upgrading approach. It is core to slum upgrading and impacts directly on the outcomes as detailed in this chapter. To achieve the desired goal of sustainable human settlements, it is implemented in various areas of the upgrading process which are included in the body of the framework. The dependent variable is the sustainability of the upgrading slum/settlement.

The sustainability indicators in this study are adapted from the SDG indicators developed by the “Inter-Agency and Expert Group on SDG Indicators, (IAEG-SDGs)”, in 2016. The indicators are tied to SDG 11 of ‘making cities and human settlements inclusive, safe, resilient and sustainable’. They align with the elements of participatory slum upgrading highlighted herein, and include:

- The proportion of the urban population residing in slums, informal settlements or inadequate housing.
- The ratio of land consumption rate to the population growth rate.
- The proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically.
- The proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials.



Source: Research Author, 2022.

2.6 Summary of Literature Review and Research Gaps

Based on the reviewed literature it is clear that most previous studies have focused on wider aspects of the participatory approach to slum upgrading. The studies have brought out the role of citizen participation in the implementation of slum upgrading programs. Additionally, the literature has highlighted the importance of aligning the beneficiaries' needs to the program goals. There is a consensus that a participatory approach to slum upgrading is central in promoting the sustainability of upgrading programs in informal settlements. However, the reviewed empirical studies have identified various gaps.

Previous studies have heavily focused on the success factors of slum upgrading initiatives, the challenges faced and the limited research on the specific elements of the participatory approach to slum upgrading. An analysis of the previous studies in the Kenyan context by various researchers reveals a unanimous agreement that participatory slum upgrading has potential for great success if properly formulated and supported by effective, well-designed institutional frameworks. Most, if not all, reported that levels of participation were low where it was incorporated in the programmes; and in most instances, the residents lacked the requisite levels of knowledge on the programmes to be able to constructively contribute to the design and

implementation. Also apparent is the limited understanding of the correlation between the sustainability indicators and the outcomes of participatory slum upgrading initiatives in low-income housing provision and the best practices for public participation in slum upgrading programs in general.

The overall observation has been that most shelter development projects in Kenya have been non-participatory (Syagga, 2001). The success of slum upgrading partially depends on how the experts involve the locals and how combined decision-making process is vital when it comes to planning and execution of a development program (Komollo, 2017; Mwaura, 2005; UN HABITAT, 2003; & Gikonyo, 2015).

In 2004, Jane Weru published a paper on the role of Pamoja Trust and Muungano waWanavijiji in Kenya, documenting the process of engagement in the Kambi Moto upgrading project and the incremental construction process (Weru, 2004); while reporting on the architectural design elements of the Kambi Moto project, Mukeku (2006, 2020) hypothesized that sustainable architecture and planning for the urban poor could be achieved through the scaling up and streamlining of the small and incremental interventions as opposed to a large scale and instantaneous intervention. Dr Susan Kibue *et.al*, in their 2019 post-occupancy evaluation of Kambi Moto reported that the institutional framework for the management of the settlement that resulted from the extensive participation by the residents was central to its physical transformation, and reported higher rates of beneficiary satisfaction compared to the conventionally-implemented Kibera decanting site.

The challenge is to develop a flexible general framework which can be applicable according to the needs of different settlements/towns/countries while taking into account the broader urban governance principles of transparency, accountability, publicity, participation, and subsidiarity. This study focused on the structure of the participatory model that was adopted for the Kambi Moto settlement upgrading programme to determine its key elements and success factors, and to propose a suitable general implementation framework for the enhanced sustainability of participatory slum upgrading programs in housing delivery.

CHAPTER THREE

RESEARCH DESIGN AND METHODS

3.0 Introduction

Research is defined as “a systematic and organized effort to investigate a specific problem that needs a solution” (Sekaran. 1992); involving carefully executed activities that utilize various methodological paradigms to enable one to solve certain problems. This chapter outlines the research design and methods that were employed in undertaking this study. It discusses the research design, study area, target population, sample size and sampling procedure, types of data, sources of data, data collection procedures, ethical considerations and data analysis.

3.1 Research Design

The study adopted a descriptive research design utilising a field survey to get observations from the subjects in their natural setting with the aim of presenting an accurate manifestation of events and offer an opportunity to gain new insights into the study variables (Kothari, 2004). The descriptive design was adopted to explore the variables without seeking to identify the causes and effects, but to predict how one variable (sustainability of the upgraded settlement) changes in response to change in another variable (public participation in slum upgrading). As a result, the descriptive design enabled the researcher to establish how the sustainability of slum upgrading programs is affected by adopting a participatory approach in the upgrading process. The study was conducted in three phases; phase one involved understanding and investigating the research problem, phase two data collection, and finally analysis, data interpretation and conclusion. The researcher used primary data obtained from questionnaires, observations and interview schedules. Secondary sources such as library sources, the internet, publications and journals were also be used in the study.

3.2 Study Area

The study was carried out at Kambi Moto settlement in Huruma Ward, Mathare Constituency, Nairobi City County, Kenya. There is a wide variation in the standards of living in Nairobi, with approximately half the population estimated to reside in slums which cover just about 5% of the city area.

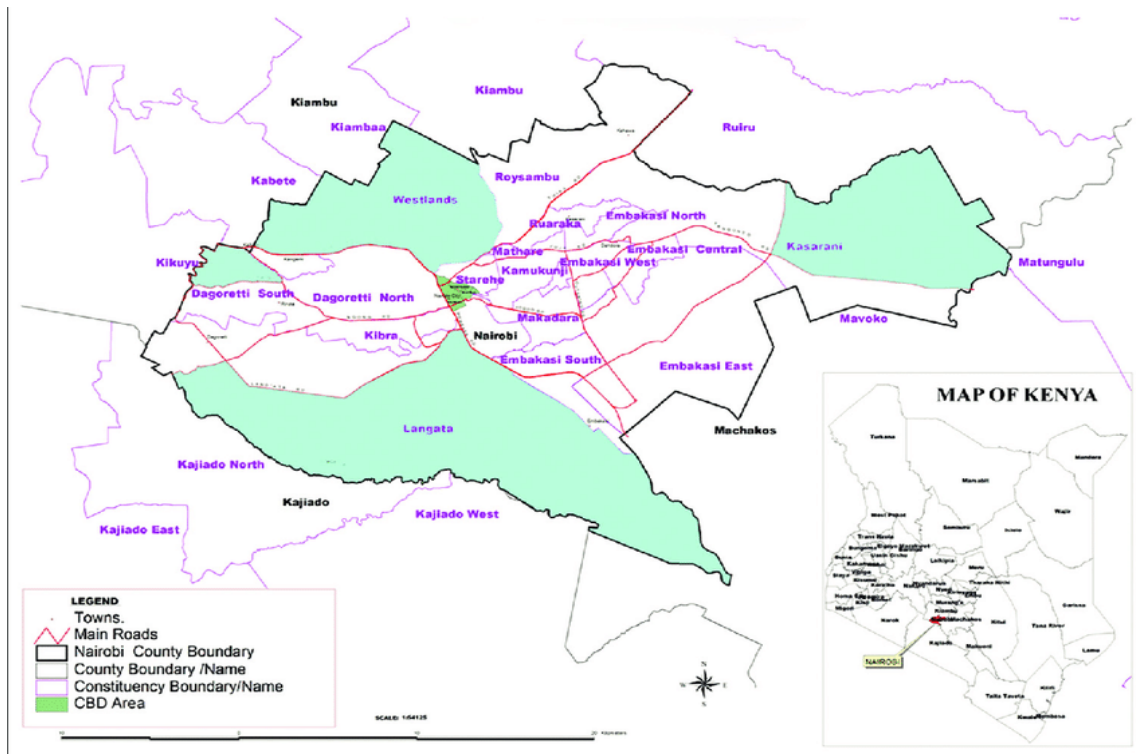


Figure 1.1: Location of Nairobi City County showing the administrative areas.

Source: <https://www.iebc.or.ke/uploads/resources/oep20PEuYn.pdf>

Huruma Ward is situated in the North-eastern part of Nairobi City County and covers an area of 0.7 square kilometres with a population of 75,498, comprising 52% male and 48% female, spread across 27,647 households with an average household size of 2.7 (KNBS, 2019). Kambi Moto is one of the five villages in the Huruma settlement area, namely, Kambi Moto, Mahira, Redeemed, Ghetto and Gitathuru, covering 3.82 Hectares.

The Kambi Moto settlement site is located on the Eastern side of Mathare valley and occupies 0.4 Hectare. It was initially designated as a car park space for the adjacent formally planned social housing estate; it underwent several user transformations before eventually becoming a slum settlement (Mukeyu, 2020). The upgrading process commenced in 1999 following an agreement between Huruma residents and Pamoja Trust. The settlement had a total of 1,241 residents in 275 households- 203 tenant households and 72 structure owners- and comprised of 65% female and 35% male (Mukeyu, 2006, 2020). The site has been selected because it is one of the settlements that have applied the Participatory approach to slum upgrading, albeit on a relatively small scale.

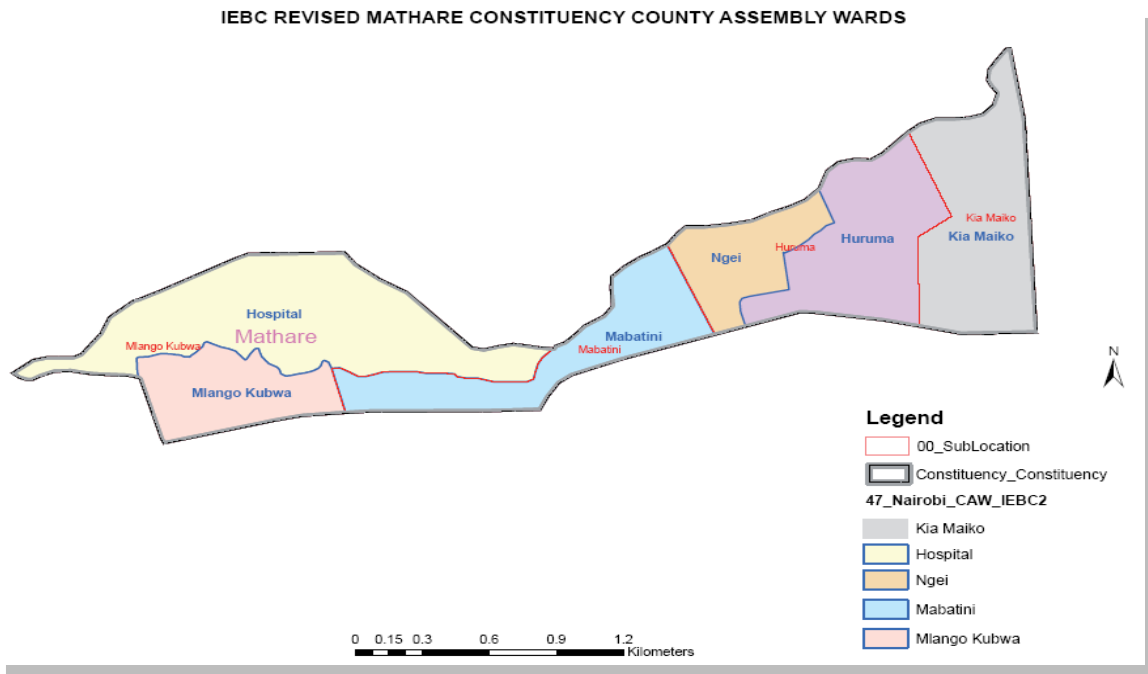


Figure 1.2: Location of Huruma Ward within Mathare Constituency

Source: <https://kenyacradle.com/wp-content/uploads/2011/06/Mathare-Contituency-Map.png>



Figure 1.3: Location of Kambi Moto within Huruma

Source: Google Earth, 2022

3.3. Target Population

A population is defined as a group of individuals, events or objects that form the main focus of a scientific enquiry (Mugenda & Mugenda, 2012). In this study, all residents/beneficiaries of the Kambi Moto settlement upgrading project constituted the target population of the study. The target population was the total number of people living in Kambi moto made up of owners of upgraded structures and tenants with an average of 2.7 persons per household. All the households formed the sampling frame in this study.

3.4. Sampling Procedure and Sample Size

It is not necessary to study all the units forming the population of the study, thus a representative subset, known as a sample, of the population is taken. This is achieved through either probabilistic or non-probabilistic sampling.

Sample size refers to the number of units to be selected from the universe to constitute a sample. An optimum sample size fulfils the requirements of efficiency, representativeness, reliability and flexibility (Kothari, 2004). Probabilistic sampling, specifically systematic random sampling was adopted for this study, giving each unit and possible sampling combination an equal probability of being picked.

Based on the historical data from the literature review, the sample size was determined based on 275 households, allowing a standard error of 3 per cent at a confidence level of 95 per cent and a non-response rate of 5 per cent. To obtain the required sample size, the following formula for deriving the sample size for a finite population was used:

$$n = \frac{z^2 p.q.N}{e^2 (N-1) + z^2 p.q} ; \text{ Where:}$$

N= Population size

n= Desired sample size

p= Proportion of population assumed to have the characteristics being measured

q= 1-p

e= Acceptable error

Z= Normal deviate at a given confidence level

Source: Kothari, 2004. (Pp. 179)

Since the estimated value should be within 5% of the true value, the study adopted a 95% confidence level. Therefore;

$$Z= 1.96$$

$$e= 0.03$$

$$p= 0.95 \text{ (95\%)}$$

$$q= 0.05$$

The calculation for the sample size follows that:

$$n = \frac{(1.96)^2(0.95). (0.05). (275)}{(0.03)^2 (275 - 1) + (1.96)^2 (0.95). (0.05)}$$

$$n = 117$$

Interval for distribution of questionnaires;

$$= 275/117$$

$$= 2.35$$

Systematic random sampling with a random start point was applied to select households within the Kambi Moto settlement. Using systematic random sampling, the housing units making up the sample size were drawn by selecting every second case in a list of the number of households in the area. The sample size also included the officials drawn from the local/CBO administration and Pamoja trust.

3.5 Data Sources and Collection Techniques

The data was obtained from both primary and secondary sources. Primary data was collected through a survey of the housing units using structured questionnaires, observation and oral interviews with key resource persons. The questionnaires were an ideal choice as it allowed the researcher to to obtain written responses to both closed-ended and open-ended questions from the respondents (Mugenda & Mugenda, 2012). Further, the contents of the questionnaires reflected the objectives of the study. The key areas in the questionnaire were demographics, participation opportunities, ongoing activities, financial plans, success factors and challenges and future plans for the settlement. The data obtained from the questionnaire was complemented by interviews with selected key informants.

Secondary data was collected from analysing the existing written resources on slum upgrading in general and specifically on the participatory approach to slum upgrading, a review of

secondary data from policy documents, research reports, literature reviews from libraries, internet sources, relevant reference publications, reports of previous studies, and key reports from government agencies such as the KENSUP.

3.6 Validity and Reliability of Research Instruments

3.6.1 Pilot Test

Pilot testing is a trial run of the research tools that one plans to use in carrying out research, in order to catch potential problems before they become costly mistakes, and provide an indication of the time required for actual field work and possible modifications of the research tools (Creswell, 2014). Pilot testing confirms whether the respondents have a common comprehension of the research instrument and guidelines provided alongside the questionnaire (Creswell, 2014). The subjects participating in the pilot study are usually excluded from the final study to avoid survey fatigue. Usually, 10% of the sample should constitute the pilot test. This principle was applied in this study where 10 households in Kambi Moto participated in the pilot study.

3.6.2 Validity and Reliability of the Research Instrument

Validity refers to how closely the results obtained from using a research instrument corresponds to real-world values of what it is intended to measure (Creswell, 2014).

Reliability on the other hand is the degree to which the research tool is capable of consistently producing the same results when administered repeatedly at different time periods. The reliability was confirmed by testing the instruments during the pilot study. Cronbach's alpha coefficient, which measures internal consistency was adopted. Cronbach alpha is expressed as a number between 0 and 1, with a reliability coefficient of more than 0.7 considered satisfactory to indicate the reliability of the questionnaire. The pilot survey helped in ascertaining the effectiveness and appropriateness of the tools in conducting this research.

3.7 Data Collection Procedures

The whole of the Kambi Moto Settlement constituted the universe of study. The questionnaires were distributed to the respondents and the key informants were interviewed after obtaining the research permission from the relevant authorities and the settlement's management. A letter

was obtained from the University of Nairobi to certify that consent has been granted for data collection. Research permits to allow for data collection were sought, after which the researcher visited the Kambi Moto settlement to obtain permission to access the respondents.

3.8 Data Analysis and Presentation

The data was categorized manually and common themes were highlighted. The completed questionnaires were edited before the coding process. Frequencies were run and tabulated for analysis of the responses. Multiple responses were also processed and integrated into the analysis. Descriptive statistics such as mean and standard deviation were used to analyse the data. Inferential statistics was used through SPSS to infer the sample results from the population, with correlation and regression analysis applied as descriptive tools. Data were presented using tables, bar graphs, pictures and pie charts. The relationships among study variables was determined using Pearson correlation and regression analysis. An analysis of Variance (ANOVA) was conducted to determine whether the data groups significantly varied across the identified variables.

3.9 Research Ethics

Research ethics refers to the codes of behaviour advocate for respect for the rights of the research participants (Mugenda & Mugenda, 2003). The researcher took utmost precaution to safeguard the privacy of the research participants. The respondents were duly informed about the purpose and objectives of the research; and further reassured that the information provided would be strictly utilized for the study only, and that the same would be handled with the utmost confidentiality. The names of the respondents, who were encouraged to willingly participate in the study, were not captured. on the research instruments. The researcher ensured that the work is original and where information was borrowed from other authors, an acknowledgement was properly done. The entire thesis was also subjected to a recognized anti-plagiarism test to confirm its originality.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents the analysis, interpretation and presentation of data that was collected from the residents of Kambi Moto and interview respondents in relation to the study objectives. The findings from the different respondents are analyzed simultaneously so as to draw valid conclusions on the practical application of the participatory approach to slum upgrading.

The researcher's objectives were to examine the key elements of the participatory approach to slum upgrading; to evaluate the methodology for application of participatory slum upgrading in the Kambi Moto settlement; to establish the key success factors of the Kambi Moto settlement upgrading program and establish an objective approach for assessing the success of participation; and, to propose and validate an operation model for the implementation of participatory slum upgrading to enhance its sustainability in informal settlement upgrading and housing provision. Analysis of the data was done through descriptive statistics, and the results were presented using tables, pie charts and bar graphs.

4.1 The Study Site: Background

The Kambi Moto settlement was established in 1975 as a market for vegetables and charcoal. It was initially designated as a car park space for the adjacent formally planned social housing estate; it underwent several user transformations before eventually becoming a slum settlement (Mukeku, 2020). The upgrading process commenced in 1999 following an agreement between Huruma residents and Pamoja Trust.

Following negotiations between settlement representatives, Pamoja Trust and local government officials, the parties reached an agreement to set aside the Kambi Moto site as a Special Planning Area and a subsequent change of use to residential in 2002 to facilitate the implementation. The agreement also allowed for building code adjustments, creating an avenue through which partnership was created. The binding Memorandum of Understanding (MoU) was signed on July 30 2003. It listed the main project stakeholders, their roles and responsibilities as well as the broad objectives of the project. Together with the other engagement documents, the MoU formed the terms and conditions for the collaboration of all

the parties - The Nairobi County Council, the residents of the five villages in Huruma (Muungano wa Wanavijiji), Pamoja Trust, the Intermediary Technology Development Group, ITDG, COOPI and Shelter Forum as the main stakeholders. The MoU explicitly laid out the role of each party; and detailed the roles and functions of the residents, being the main stakeholders, including the degrees of participation expected throughout the upgrading process.

The parties to the MoU, and their responsibilities were as follows:

i. The Nairobi City Council

The main focus of the agreement was on land tenure. The council committed to providing secure (communal) tenure to the beneficiaries that would allow owners to leverage equity for credit. Further, the council undertook to; protect the residents against arbitrary eviction and demolition, encourage investment and house improvement, allow for the provision of infrastructure, guard against gentrification, speculative land-holding and loss of land by the very poor, and ensure that subsidies for the urban poor benefit them.

The other responsibilities included; Recognizing and approval of the project in its entirety, including, where necessary, exemption from the prevailing standard development codes; facilitating the design and approval of part development plans, and the issuance of relevant title documents; Provision of trunk infrastructure services to the settlements, including road networks, sewerage systems, piped water and street lighting; and, identifying and availing spillover sites for relocation of those households that will not be accommodated in the planned in-situ development. They also coordinated the participation of the relevant council departments, participated fully in the upgrading activities, including meetings, inaugurations and any other ceremonies; and offered necessary support and maintenance for the services provided and a valuation of the land provided for upgrading.

ii. Residents of the five villages of Huruma (the beneficiaries)

As the main stakeholders and beneficiaries of the initiative, the residents of the vilages of Huruma, including both tenants and structure owners in Kambi Moto, Mahira, Redeemed, Ghetto, and Gitathuru villages, were required to create awareness of the programme and further participate fully in the entire process. They were required to: analyze the issues arising from the programme and participate in decision-making on practical matters such as housing design, provision of labour, and fund and resource mobilization; Identify and agree on the list of bona fide beneficiaries to be allocated land within the existing settlement and those, if any, to be

relocated to alternative sites; and nominate representatives from each settlement to work with the other parties; Provide community leadership and further ensure the dissemination of information to and from the residents, and participate in capacity-building and awareness-creating activities; contribute in the implementation and management of the entire programme, including the provision of security; ensure the residents provide leeway in support of the construction process, including demolition of existing shelters, temporary displacement and relocations, and, once allocated land, pay rates, levies and any other legal charges to the City Council.

iii. Pamoja Trust

Pamoja Trust was the main coordinator of activities and negotiations between the City Council, residents and other stakeholders. It was expected to perform the following roles; Set up and where necessary, facilitate meetings between the residents and any other stakeholders; assist in passing relevant information to and from the residents, and prepare, evaluate and review reports; facilitate the collection and analysis of any further information that may be required for the implementation of the project. They held workshops for the residents to reflect, evaluate and plan for future activities; and enable residents to acquire relevant knowledge and skills; assisted in the enhancement of community cohesion through meetings, informal discussions, public for and any other activities.

Pamoja Trust further played the role of the key mobiliser, assisting in resource mobilization for community development, technical support and housing finance; and, participate in identifying and hiring the services of relevant experts and consultants, and network with local and international partners to provide solutions to the challenges facing the programme through exposure visits and exchanges.

iv. Intermediate Technology Development Group, ITDG

They were required to offer technical expertise on appropriate housing and infrastructure technology, and support artisan training initiatives.

v. COOPI

They were tasked with providing financial and technical support in the provision of secondary and tertiary infrastructure.

vi. Shelter Forum

They were to assist in the monitoring and documentation of the process of upgrading, disseminate the lessons learnt from the programme to the outside world, and assist in policy formulation.

The parties agreed to joint efforts in fund and material resources mobilization for effective programme implementation and coordination; and committed to jointly monitoring the compliance with all obligations set out in project documents. Once every six months, the parties shall prepare bi-annual action plans to guide their operations, clearly indicating the expected results, activities to be undertaken, their timelines and parties responsible for their execution.

The parties held monthly representative evaluation meetings to monitor progress made in the programme, and once every six months, and prepared bi-annual action plans to guide their operations, clearly indicating the expected results, activities to be undertaken, their timelines and parties responsible for their execution.

This MoU was geared towards regularizing the five villages and opening up prospects for the residents to construct adequate housing, and obtain adequate tenure and adequate services. The broad objectives of the programme were; to improve the lives and living conditions of the residents of the informal settlements of Huruma; to enhance the residents' capacity to participate in the upgrading process and thereafter manage and maintain any improvements made; to improve the livelihoods of the residents through the development of skills and promotion of income-generating activities; to serve as a pilot project which could be replicated in other settlements through continuous learning, monitoring, evaluation and documentation of the program; and to ensure greater access to public services in the neighbourhood.

The original enumeration list had 510 beneficiaries who were to be housed in 270 upgraded units across Kambi Moto sites A and B. The project started formally in 2000, originally intended to cover a larger area marked as Kambi Moto site A and B respectively. The project was however only implemented in site A, with site B being acquired by the City Council for the construction of their offices and a community dispensary. The actual plan delivered 146 housing units in Site A, and was scheduled and executed in four phases as shown below:

Table 2: Kambi Moto Project Schedule

PHASE	START YEAR	END YEAR	NO. OF UNITS PRODUCED
I	2002	2003	34 (Including Redeemed church site)
II	2004	2006	28
III	2007	2010	24
IV	2011	2018	60

Data source: Field Survey (2022)

Phases I, II and III all began with the starter homes per original project designs and was funded by the members' savings and donor funds channelled through the Akiba Mashinani Trust. Phase III experienced delays due to the instability occasioned by the 2007/2008 post-election violence, which interrupted the community savings program and created uncertainty and insecurity.

Phase IV was majorly funded by the individual beneficiaries, save for a few units whose foundations were funded by Akiba Mashinani Trust, the organization created by Pamoja Trust, to provide capital management, oversee infrastructure development as well as evaluate investment opportunities for the community's savings. Most units in this final phase have deviated from the original designs, with modifications made to incorporate rental units on the upper floors (most have four storeys unlike the originally intended three-storeyed single-family dwellings with two bedrooms). The majority of the houses in the settlement are fully upgraded (ground+ 2 levels) while a few are still at the starter house level (ground floor with a toilet on the first floor).

The key factors that drove the success of the project at the early stages according to the beneficiaries were: the unity towards a common goal, community-mobilised funding (under the pesa zetu, uamuzi wetu slogan), conscious efforts taken to ensure tribal integration and eliminate discrimination, mobilisation and technical support from Pamoja Trust and the other CBOs involved, and the sense of ownership of the project that resulted from community participation.



Figure 4.1 Housing typologies in the settlement



Figure 4.2: Open/Clogged drains



Figure 4.3: Encroachment on the lanes



Figure 4.4: The community carwash



Figure 4.5: Gated court in the settlement

The model of participation applied in Kambi Moto can be broadly categorized into the following (stages)

1. Community mobilization through the Muungano wa Wanavijiji umbrella, with support from Pamoja Trust. This was set up as a means for the residents of informal settlements to mobilize and lobby the government against evictions, for secure tenure and demand for better living conditions from the environment.

2. Establishment of savings schemes by the community- this was used as a tool for organizing the community, social capacity building and provided the basis for a community-level governance structure. Kambi Moto's community savings scheme was started by five women in 2000 following exchanges within Muungano wa Wanavijiji

members, each saving KSh. 10 daily (Weru, 2004). By 2013, the membership had grown to 306, comprising 187 females and 169 males.

The study respondents attribute the early-stage success of the Kambi Moto upgrading to, among other factors, this community-mobilized funding, which was rolled out under the '*pesa zetu, uamuzi wetu*' slogan. This scheme was a key system of mobilizing and organizing the community based on the daily collection of money for savings. This was designed to conveniently accommodate daily savings for even the poorest members, thus ensuring inclusion and consensus building; establishing internal community governance structures, and also serving to reinforce the role women play in informal housing settlements (School of International & Public Affairs, SIPA, 2005).

Each member had a record book where they recorded their daily savings, which would be reconciled with the book used by collection officials to ensure they kept clear records for accountability. The community savings scheme was open to both tenants and structure owners, further ensuring all inhabitants of the settlement had a chance at home ownership.

3. Enumeration:

This is a community-level census which forms the first step in the regularization process. Pamoja Trust undertook the first enumeration in Huruma in 2000. The process was geared towards enhanced community transparency and cohesion, raising awareness among informal settlements of their land and housing rights, building consensus around issues, and mobilizing the community to advocate for their rights through their critical mass. Enumeration provided the means by which settlement-specific data was gathered to allow for local planning, the process by which consensus was built and the inclusion of all residents negotiated. Involving communities in surveys and verifications produce community-based groups which, in turn, remain the basis of sustainable involvement in large-scale projects.

4. Exchanges:

Community-to-community exchanges allowed for community organisations under the Slum/Shack Dwellers Initiative (SDI)/ Muungano umbrella to learn from each other; and could be local, inter-city or international. The exchanges provided platforms for the residents to share experiences, draw common lessons from their struggles and build

solidarity between savings groups. These foster strong community bonds, which then sustain the federation.

The idea of horizontal exchanges where residents of informal settlements learn from each other is based on the principle that the urban poor possess the knowledge to find the most suitable solutions for themselves, but lack the resources, tools and finances to facilitate learning from and within poor communities. If well-equipped and facilitated to learn from and within poor communities, they are capable of devising lasting solutions to their housing challenges.

5. Community Meetings:

These occurred regularly in the community (church) hall and were used to deliberate on issues such as beneficiaries' selection criteria, house modelling and community design to determine the most appropriate design from a need and cost perspective, and agreement on financing and loan conditions to be considered, and recently, tenure options available to the beneficiaries of the settlement. These community meetings also provided avenues through which representatives of the settlements, through Pamoja Trust, were able to negotiate for the land tenure, approval agreements and building code waivers with the representatives of the now-defunct Nairobi City Council.

6. Training workshops:

These were designed to equip the beneficiaries/inhabitants with skills various skills, spanning masonry, carpentry and joinery metal works, and also to produce materials for construction, e.g., the low-cost precast concrete slabs used in the construction and welding workshops for the doors, windows, lattice, and construction of beams and stairs. The skills gained from the workshops played a big role in keeping the construction costs down, hence contributing to the affordability of the participatory slum upgrading exercise.

Training workshops build on the existing informal capacity within the settlement to ensure the structures meet a certain criterion, and that the agreed-upon standards are upheld. They also equip the beneficiaries with transferrable skill that they can in turn

use to earn a living or teach to their peers/younger generations, a crucial skill especially where incremental construction is implemented.

7. Post-implementation management

The settlement had a committee in charge elected by the residents to manage the affairs of the settlement. This settlement executive committee (SEC) is still active to the present-day. The SEC, has a grievances and dispute resolution committee that acts to mediate any arising conflicts in the settlement.

4.2 Questionnaire response rate

Following the pilot study, the researcher determined that out of the expected 275 beneficiaries that had been targeted by the project, 146 units were executed. Following this finding, the sample size was adjusted to reflect the population as below:

$$n = \frac{(1.96)^2(0.95). (0.05). (146)}{(0.03)^2 (146 - 1) + (1.96)^2 (0.95). (0.05)}$$

$$n = 85$$

Interval for distribution of questionnaires;

$$= 146/85$$

$$= 1.7$$

The study targeted a total of 85 households in the settlement. The population was assigned random numbers then systematically sampled so that every second household was picked as a respondent. This helped in ensuring adequate representation of the population and eliminating bias.

The field study received responses from eighty (80) respondents. The response from the various strata of respondents was more than the required 50% (Mugenda & Mugenda, 2003). The overall response rate achieved from the questionnaires issued in the field survey was 94.0%.

4.3 Demographic Information

The researcher queried the gender, age groups of the respondents in order to understand the background of the participants.

4.3.1 Gender of respondents

The study looked into the gender of the residents/respondents of the Kambi Moto settlement in order to establish whether gender was a key factor in the success of the upgrading exercise. Out of the 80 respondents, 78 revealed their gender. 57.7 percent were females and 42.3 percent were males.

Table 3: Gender of respondents

Gender	Frequency	Percentage
Female	45	57.7
Male	33	42.3
Total	78	100

This could be an indication that most households in the settlement are woman-led, Empowering women and girls to ensure their maximum and effective participation in community development initiatives is a key element in achieving sustainable housing provision, especially in informal settlements. Considering the time of the study, most male residents of the settlement could have been at work, a possible explanation of the outcome.

4.3.2 Age of respondents

The study sought to find out the age range of the respondents in the settlement. The age distribution is an indicator of population growth trends and is also a key factor influencing sustainability of community development projects. Empowerment of youths and representation across all age groups in a settlement is a key success factor in participatory settlement improvement initiative.

Table 4: Age of respondents

Age (Years)	Frequency (f)	(x)	(fx)	Percentage
18-29	7	24	168	10
30-39	16	35	560	22.9
40-49	21	45	945	30
Above 50	26	60	1560	37.1
Total	70		3233	100

$$\begin{aligned} \text{Mean} &= \frac{\sum fx}{\sum f} \\ &= 3233/70 \\ &= \mathbf{46.2} \end{aligned}$$

Most respondents (67.1%) were 40 years and above while the mean age of the respondents was 46.2. This could indicate that majority of the residents are older and have stayed in the settlement for long. This points at social stability, and is a potential indication for the sustainability of the settlement. The mean age of the grouped data is 46.2, which corresponds with the findings that the majority of the respondents were aged 40 and above.

4.4 Housing typology

The respondents were queried on the type of house they occupy. Kambi Moto has three main house typologies, namely, starter unit, upgraded stater units and upgraded (rental) units. The Kambi Moto settlement upgrading project adopted an incremental construction concept in its implementation. This provided the beneficiaries with starter units with the provision for incremental expansion of the settlement to meet population growth and future needs as their financial capabilities improved. This was also a major contributor to the project's success.

The responses from this study revealed that 17.5 percent of the respondents live in starter units, 48.8 percent of the dwellers live in fully upgraded [single family unit], and 33.7 percent are fully upgraded [rental unit]. A good percent (66.3%) of the respondents owned the units they live in.

Table 5: What type of house do you live in?

Response	Frequency	Percentage (%)
Starter Unit	14	17.5
Fully upgraded [Single family Unit]	39	48.8
Fully upgraded [Rental unit]	27	33.7
Total	80	100

Further, 34% of the respondents revealed that they pay rent while 66% percent do not pay rent because they are the owners of their units. The renters revealed that the rates range from Ksh. 3,000.00 per month for a single self-contained unit to an average of Ksh. 12,000.00 for an entire fully upgraded unit.

This shows that most residents are home-owners, indicating that the houses are adequate to house their owners in the long term. The house typology, based on ground ownership rather than vertically layered ownership design, is also versatile, offering their owners the option of renting parts of their units for additional income, thereby meeting not only the environmental goal of sustainable community development but also the socio-economic aspect.

4.5 Participation by residents.

The study sought to establish the methodology of the participatory approach applied in Kambi Moto Settlement Upgrading project. To this end, the respondents were queried on their involvement in the original upgrading project, and the roles they played pre-, and during the actual upgrading, and their role post-implementation in the management of the settlement.

4.5.1 Beneficiaries of the original upgrading project

The respondents were queried on their involvement with the original upgrading project. The respondents who were beneficiaries in the original upgrading project were 38, making 48.7 percent of the sample population while 51.3 percent were not original beneficiaries in the project.

Table 6: Were you a beneficiary in the original upgrading project?

Response	Frequency	Percent (%)
Yes	38	48.7
No	40	51.3
Total	78	100

While some of the respondents were not direct beneficiaries in the original upgrading project, they revealed that they were dependents of the original owners. Most were living in houses allocated to their parents who were beneficiaries of the project. The remaining portion were renters, with two respondents revealing that they acquired their units through purchase from the original owners/beneficiaries.

A cross-tabulation of the findings comparing the type of houses the respondents live in and the beneficiaries of the original upgrading project reveals that a high number of the residents of the fully upgraded [single family unit], 63.2 percent, were beneficiaries of the original upgrading project followed by the residents who live in the starter units with 23.7 percent, and finally 13.2 percent of those who live in rental units. Assuming linearity and normality of the variables, there is a positive, strong correlation of $.532^2$ between the above two variables (type of house lived in and beneficiary of the original upgrading project). This shows that the original beneficiaries have continually improved their houses from the initial starter units into fully upgraded ones in order to attain adequate housing that meets their ever-changing needs.

The number of original beneficiaries who live in upgraded settlements long after the project is completed is one of the indicators of successful settlement upgrading used in post-implementation evaluation of slum upgrading projects. A high number of beneficiaries occupying the upgraded settlement long after the original upgrading is completed is an indication of the success of the project in providing improved housing and better living conditions for the beneficiaries. The high number of original beneficiaries/owners alludes to their satisfaction with the houses and the sustainability of the upgraded settlement. We can conclude that the community involvement in the upgrading ensured that the houses are adequate to meet the needs of the beneficiaries over time, and their satisfaction with the end product.

² Pearson's correlation coefficient, significant at the 0.01 level (2-tailed)

4.5.2 Participation in The Kambi Moto Settlement Upgrading Project

The study revealed that 53.8 percent of the respondents participated in the original upgrading project while 46.2 percent did not participate.

Table 7: Were you a participant in the original upgrading project?

Response	Frequency	Percentage (%)
Yes	42	53.8
No	36	46.2
Total	78	100

Stages of the upgrading process were categorized into conceptualization, implementation and management.

20.3 percent of the total sample population was involved in conceptualization stage, 24.1 percent were involved in the implementation stage, 7.6 percent were involved in the management stage, 7.6 percent took part in all of the three stages of the upgrading process. 40.5 percent of the total sample population were not involved in any of the stages of the upgrading process. Cumulatively, 60% of the respondents took part in the upgrading process.

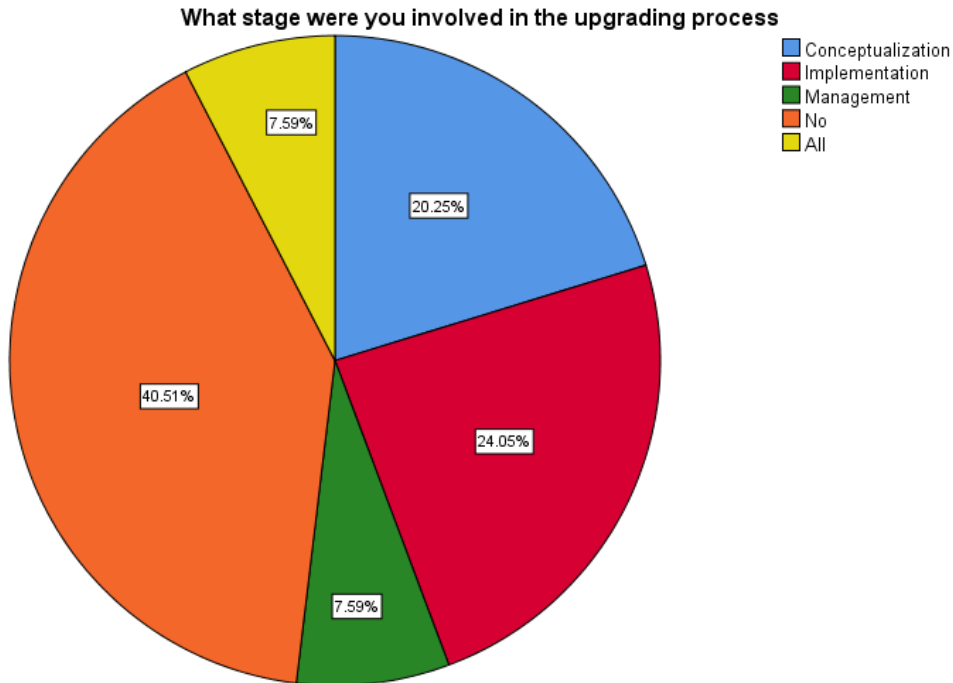


Figure 4.6: Involvement in the various stages of the upgrading process

The project was initiated and conceptualized with support from Pamoja Trust. 49.3 per cent of the respondents revealed they were involved in the initial community mobilization; specifically, 19.2 per cent took part in the community mobilization and capacity building while a further 24.7 per cent revealed their involvement in the fund mobilization process and Akiba Mashinani Grassroot support initiatives. Interviews with key respondents further revealed that women played a key role in the community organization and fund mobilization, modelling the process to mirror their ‘*chama*’ system of contribution and organization. This also promoted the crucial community buy-in in the process which contributed to the overall success of the project.

The community design process is a very crucial step in participatory settlement upgrading as it ensures that the final product is matched to the beneficiary needs. This is the main factor in the overall sustainability of the project as it guarantees the longevity of the project long after its implementation, and protects against gentrification and abandonment associated with poorly-adapted projects. 20.6 percent of the respondents were directly involved in the community design process which came up with the design of the starter units, while 29.7 percent were contributors in the initial AMT savings initiative.

The respondents who took part in peer training and skilling initiatives were 26.4 per cent while a cumulative 44 per cent provided skilled or unskilled labour during the construction of the housing units. 41 per cent of the respondents revealed being involved in the management of the settlement post-implementation.

As indicated in the literature review, the involvement of residents in all stages of the upgrading process and in the management of the settlement post-implementation is crucial in cultivating a sense of ownership of the project, and empowerment which are crucial aspects of a sustainable participatory slum upgrading project. The extensive participation throughout the process resulted in an empowered community that are not only equipped to incrementally improve their settlement over time, but are also in a position to influence decisions in the political arena about issues that affect them.

4.6 Social and Support Infrastructure

One of the broad objectives of the Kambi Moto upgrading project was to improve the lives and living conditions of the residents through the provision of sufficient infrastructure and services, including roads, drainage, water, sewerage and sanitation. In line with the researcher's interpretation of sustainability to mean that the processes set in place by an urban development initiative continue indefinitely after the initial external inputs have been withdrawn, the respondents were queried on the state of these services in the settlement as an indicator of the success of the project in meeting its objectives in the long run.

4.6.1 Accessibility and infrastructure

The units are well accessible to the unit owners and the tenants. Adequate supporting social infrastructure and services including access roads, water supply, electricity, solid waste management and drainage is available to 82.5 per cent of the residents while an overall 2.5 per cent of the respondents voiced their dissatisfaction with some aspects of the infrastructure available in the settlement.

4.6.2 Level of satisfaction with the services provided

Kambi moto residents have access to improved housing, electricity supply, water supply, solid waste management, drainage systems, sewer facilities, sanitation facilities and access roads.

The respondents were queried on their level of satisfaction with the infrastructure services available in the settlement. These were ranked on a scale as either satisfactory, average or poor. Below is an analysis of the level of satisfaction of each of the services.

Housing condition

Out of the sampled respondents, 48.7 per cent reported satisfaction with their housing conditions, 46.2 per cent suggested that housing conditions were average while 5.1 per cent think that the condition is poor. Some of the reasons given for poor housing conditions included; small houses which cannot handle large families, leaking roofs, incomplete houses/units and poor plastering. These were however noted to be subjective of the renters.

Electricity supply

92.4 per cent of residents rated electricity supply as good while 6.3 per cent rated it as average and 1.3 per cent as poor. The main complaints given by the residents who felt that electricity was poor and average were frequent blackouts and the high cost of electricity.

Solid waste management

Solid waste management is one of the main areas slum upgrading initiatives often seek to address. Good solid waste management practices are key to maintaining a livable environment. 59.0 per cent of the sample population suggested that solid waste management was good while 37.2 per cent suggested that it was average and 3.8 per cent suggested that it was poor. The reason given for poor solid waste management was the poorly disposed ones that clogged the drainage channels. Solid waste management in Kambi Moto is handled by a local youth group who, at a nominal fee, provides waste disposal bags and frequent garbage collection and disposal. This is a form of youth empowerment and engagement in the management of the settlement.

Water supply

Access to a clean and reliable water supply system is an essential factor in achieving sustainable slum upgrading. Adequate water supply ensures that communities can maintain high standards of living in a clean, sanitary environment. In this study, 66.7 per cent of the respondents rated water supply as good, 17.9 percent as average while 15.4 per cent rated the service as poor. The poor water supply was attributed to the frequent/weekly outages in supply.

Sewer and Sanitation facilities

Adequate sewer and sanitation facilities are an important element in the environmental sustainability of urban settlements. 73.5 per cent of the respondents reported satisfaction with this service, 17.7 per cent rated it as average while 8.8 per cent think that sewer and sanitation facilities are inadequately provided in the settlement. This is because of frequent clogging of the sewer lines in the settlement that the respondents attributed to the high population in the greater Huruma area which overloads the existing sewer line capacity.

Storm Water Drainage

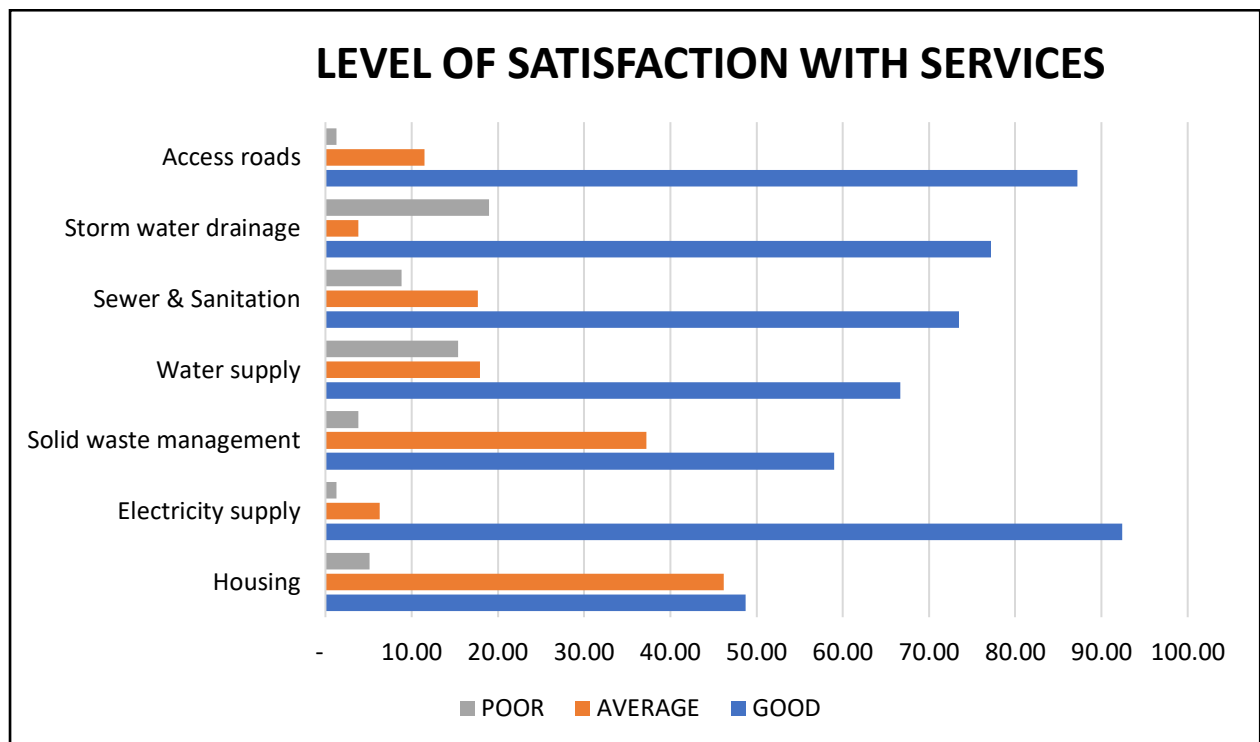
Stormwater drainage channels are provided throughout the settlement to ensure runoff is properly managed to avoid flooding in the area. 77.2 per cent of the respondents were content with the quality of stormwater drainage in the settlement. 3.8 per cent rated it as average while 19 per cent thought it was in a poor state, mainly because the drainage channels are left open and are clogged by uncollected solid waste.

Access roads

The majority of the residents (87.2%) reported the roads to be in good condition, 11.5 per cent reported average while 1.3 per cent reported poor access roads.

The access roads in the settlement, and around the greater Huruma area have recently been upgraded to tarmac, as a joint program by the Constituency governance and the Nairobi Metropolitan services, NMS, hence the high satisfaction rating.

Figure 4.7: Graph showing satisfaction ratings for services



Source: Field survey (2022)

4.7 Governance and Management of the settlement

The post-implementation management of upgraded settlements is important in ensuring that it remains functional and sustainable long after the initial upgrading activities have ceased. Proper management also guards against gentrification and loss of land by the beneficiaries, a common issue with poorly adapted upgrading programs.

The researcher sought to establish the management structures present in the settlement through questions that were categorized under housing maintenance, financing and community savings activities, and the governance and management systems present in the settlement. The findings are presented below.

4.7.1 Housing Maintenance

The researcher sought to establish the practices adopted in maintaining the upgraded houses in the Kambi Moto settlement. Maintenance goes hand in hand with the incremental improvement system used in the settlement. 80.8 per cent of the respondents reported that the houses are well maintained by the owners, 16.7 per cent reported that the houses were maintained by the landlords of the rental units while 2.5 per cent of the respondents suggested that the houses were not maintained at all.

The project sought to enhance the residents' capacity to not only participate in the original upgrading, but to also manage and maintain any improvements made thereafter. The maintenance standards in the settlement indicates that the beneficiaries were fully empowered to participate in the original project, and thereafter improve and manage the project in the long term as a commitment to maintaining their improved living conditions.

4.7.2 Benefits and challenges of housing ownership

The respondents were asked to list the benefits they draw from house ownership. The benefits they identified were as follows; The houses help the owners access loans from the communal savings kitty, and act as security for accessing funds; they are a source of additional income for the owners who rent part of their units; owners do not pay rent hence a source of savings; the ownership provides the beneficiaries with adequate shelter and a sense of security from evictions since the settlement is formally recognized by the authorities.

The main challenges identified were high utility costs, maintenance expenses, incomplete units (by renters), and limited space in the houses for large households.

4.7.3 Financing and community savings activities

The Kambi Moto project was funded by the members' savings and donor funds channelled through the Akiba Mashinani Trust. The study sought to find out whether the community savings model was still ongoing in the settlement. The respondents revealed that there were ongoing community saving activities in the settlement. 54.7 percent of the respondents were aware of the community savings activities; 14.9 percent were active members, 19.4 percent actively contributing, and 10.4 percent were both members and contributors.

Other financial systems that were available in the settlement include chamas, table banking and welfare. A good number of the residents own small enterprise businesses. In addition to these, there is a community car wash whose operations are overseen by the management council and serves as a source of an additional income for the beneficiaries/owners of the settlement.

4.7.4 Governance and Management of the settlement

The researcher sought to establish the management and governance structures present within the settlement, including presence of external NGOs/CBOs and their roles in the present

community. 61.3 percent of the respondents are aware of existing organizations/CBOs in the settlement. Some of the organizations listed were; KISIP, World bank, Hope Global, Dream Girl, Pamoja Trust, and Akiba Mashinani Trust. These perform different roles including; helping the residents with processing of the community title deed (KISIP and World Bank), women and girl empowerment, educational financial aid, waste collection, community mobilization and management, civic education and community policing.

The respondents were aware of the existence of a management committee though they were not clear on its exact structure. 20 percent suggested that a committee was in charge, 7.50 percent suggested that Mr. Nyerere was in charge of managing the settlement; 21.25 percent suggested that post-upgrading, the settlement was directly managed by the owners though a collective effort approach, and a further 3.75 percent alluded to a communal management system.

From interviews with key respondents, the researcher established that the settlement is managed by an elected Settlement Engagement Committee (SEC), with 15 members, and a sub-committee for grievance and dispute resolution comprising of 5 members, two who are also part of the SEC committee. The total settlement management has 18 members. Mr. Nyerere is the current chair of the management committee, which is why most of the residents are aware of his role in managing the settlement.

When asked to give proposals on the management of the settlement, most respondents suggested that youths be included in the management structure to ensure that the needs of the young and future generations of the settlement are adequately catered for. They alluded to the fact that the management committee was made up of the older generation and original beneficiaries of the settlement. This is a valid concern that corroborates the findings of this study that the mean age of the respondents was 46.2, indicating an older population. Women were however adequately represented in the management committee.

4.8 Emerging issues

Human settlements are dynamic and ever-evolving with the changes in society. The researcher sought to identify some of the emerging issues in the settlement. These were to touch on the quality of life in the settlement, security, tenure and management.

From the field study, the researcher noted that phase IV of the settlement has most of the rental units, and was seemingly segregated from the first three phases of the project. The main

concern for majority of the respondents was insecurity. The residents decried a rise in theft and insecurity in the Huruma area, alleging that the vice is perpetrated by youths from the surrounding settlements who take advantage of the poorly lit streets owing to faulty or non-existent street lighting in the settlement to commit crimes. This has necessitated a recent trend that is seeing the settlement introduce gates that delineate the settlement into courts.

The issue of poor solid waste management affects the drainage in the neighborhood since the solid waste clogs drainage channels. Sewer blockage is mainly an issue affecting the larger Huruma area, not only Kambi Moto; same with irregular water and electricity supply.

4.9 Conclusion

This chapter has presented the findings of the study on the participatory model implemented in the Kambi Moto settlement upgrading to determine the key success factors and to propose a suitable implementation model for the enhanced sustainability of participatory slum upgrading programs.

The analysis above reveals that all the elements of a sustainable participatory approach to slum upgrading and sustainability indicators identified in the literature review and illustrated in the working framework were present in the Kambi Moto settlement participatory framework.

The main aim of this study was to propose a suitable implementation framework for the participatory approach to slum upgrading that could be adapted to enhance its sustainability in informal settlement housing upgrading and delivery. The findings further revealed user feedback concerning the services and infrastructure available in the settlement, management structures, emerging issues and user recommendations that constitute valuable information for the implementation model that will come out of this research. Worth noting, however, is the fact that the need to involve women and empower the youth for successful and sustainable participatory community development was very apparent in the findings.

CHAPTER FIVE

RESEARCH FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

5.0 Introduction

This chapter contains a summary of the research findings, conclusions for the study and recommendations in view of those findings as relates to the research objectives.

The main question this research sought to answer was, ‘how could participatory slum upgrading be adopted in informal settlement upgrading programs to enhance its sustainability through improved uptake in housing upgrading and delivery. The purpose of this study was to propose an operation model for the implementation of the participatory slum upgrading to enhance its sustainability.

5.1 Summary of Findings

The main objective of the study was to propose a suitable implementation model for the participatory approach to slum upgrading that could be adapted to enhance its sustainability in informal settlement housing upgrading and delivery.

5.1.1 Examining the key elements of the participatory approach to slum upgrading

The first objective of the study were to examine the key elements of the participatory approach to slum upgrading. The findings revealed that a sustainable participatory approach has four main elements, namely; direct participation by the residents at every stage of the implementation process, external support for the participatory initiative by external organizations and government agencies; a population growth factor (the population living in the subject settlement and the projected growth trends); and the ratio of land consumption rate to population growth to be able to account for the future of settlement expansion. The study explicitly identified these elements in the study site.

5.1.2 Evaluating the participatory approach in the Kambi Moto settlement

The second objective was to evaluate the methodology for the application of participatory slum upgrading in the Kambi Moto settlement. The research revealed that 53.8 per cent of the respondents participated in the original upgrading project while 46.2 per cent did not participate. Participation was woven into every stage of the upgrading process, broadly categorized into conceptualization, implementation and management. The citizens were

involved in an active and iterative feedback loop throughout the entire process that allowed for continued incorporation of adjustments as required by the beneficiaries.

The residents were empowered to meaningfully and fully participate at each level during the implementation process, with capacity building initiatives and exchange programs that enabled them to gain skills required to deliberate on the housing typology debate, produce low-cost building materials and to provide labour for construction. Further, the participation structure recognized both tenants and structure owners in unequal measure. This avoided conflicts and harnessed both social and financial capital for the project success.

5.1.3 Establishing the key success factors of the Kambi Moto upgrading project

Any successful slum upgrading program meets two pre-conditions; strong political will on behalf of the government, and a strong buy-in on the part of the community. The latter is crucial in ensuring successful implementation of participatory slum upgrading. The key factors that drove the success of the project at the early stages according to the beneficiaries were: the recognition and participation of the structure owners alongside tenants, the unity towards a common goal of improving their living conditions, community-mobilised funding, conscious efforts taken to ensure tribal integration and eliminate discrimination, mobilisation and technical support from Pamoja Trust and the other CBOs involved, community design process and the sense of ownership and community buy-in of the project that resulted from community participation. The existence of a planned neighbourhood made it easy to integrate the upgrading into the existing infrastructure network. Further, the MoU outlined the project objectives and roles of each stakeholder, establishing an accountability system that pushed for the success of the project.

5.1.4 Model for implementation of a sustainable participatory slum upgrading

The findings reveal that a sustainable participatory approach embodies a high level of community awareness and empowerment to be able to contribute meaningfully throughout the process; a clear leadership structure with adequate representation of all the key stakeholders, a clarity of purpose and roles; and clearly defined methods of engagement and consultation. The model must also consider continuity of the project and changes it initiates long after the initial activities have been withdrawn/stopped.

5.2 Assessing the success of participation

This study proposed a model for assessing the success of participation based on the ladder of participation. In both Arnstein and Choguill's models, participation is considered successful when it results in citizen empowerment to effect change beyond community improvement, and contribute to governance issues affecting them.

Based on the preceding findings, sustainable and successful participation is achieved by ensuring citizen empowerment. Levels of citizen empowerment and successful participation can be gauged and assessed using the following criteria/rungs of the simplified ladder proposed below as they appeared in Kambi Moto.

Self-empowerment

This is at the lowest end of the ladder and is observed when the government fails to solve the problems of the local settlements. The community members themselves take the initiative to plan and improve their neighbourhoods, often with the help of outside non-governmental organizations. In Kambi Moto, this was evidenced by the community mobilization under Muungano Wanavijiji, when the inhabitants of informal settlements organized themselves to be able to protest against forced evictions and demolitions, and petition the government to look into their plight.

Self-empowerment is important in creating a strong sense of community ownership of their projects, and in ensuring that projects are well-adapted to meet the unique needs of the beneficiaries.

Conspiracy

This was expressed by the lack of government initiative to improve the settlements. The residents had no avenues for participation in decision-making on issues concerning them. There were no means for the people to participate in the planning process, hence the constant fear of evictions by city authorities. In Kambi Moto, the women of the settlement organized themselves into *chama* savings groups, initially with the aim to buy the land and improve the housing. The upgrading process was set in motion when the community, still lacking government support, was backed by Pamoja Trust in a bid to improve the settlement.

In the current legal and regulatory system however, community participation is provided for and backed by robust legislation, which compels government agencies to involve the public in making decisions, and supports the citizens' right to be heard and influence decisions on issues affecting them.

Informing

After the community got external support, they were in a position to be heard through representatives, though they still could not effect any real change. This power to be heard without guarantee that their opinions will be considered is low in the ranks of citizen empowerment. There is no room for feedback or negotiation.

The enumeration process provides an avenue for data collection to allow for local planning, and gives the settlement dwellers concrete data with which they can engage the authorities to discuss regularization options.

Consultation

During consultations, citizens are able to negotiate with government agencies and push for their concerns to be addressed. There is no guarantee that the project will be supported or that the ideas drawn from the community will be taken into account. In Kambi Moto, Pamoja Trust came in as a project facilitator and coordinator, and also advised the community on the project needs. They drummed support for the community-led initiative, leading consultations with government officials and other organizations on how they could come in to support the project, and organized exchange forums through which the community members could learn from other slum dwellers in other regions/countries. Through Pamoja Trust, the community had the technical assistance they needed to be able to express their needs, and organize themselves to press for those needs to be met. The channels for engagement and communication between the community and the facilitators are established at this point.

Partnership

Partnership occurs when all the stakeholders involved in a community participation initiative agree to share planning and responsibilities for decisions pertaining to the project, and within clearly stipulated accountability structures. Following extensive consultations via community meetings among key stakeholders, the community, supporting NGOs and the Nairobi City

Council government agreed to share planning and decision-making responsibilities that would facilitate the upgrading of the settlement. The particulars of this partnership were detailed in the MoU, including the relaxing of planning standards to allow for the implementation of the project.

Partnerships delegate real power to the citizens as they are put in a position to make decisions and contribute ideas to governing authorities with a guarantee that they will be heard, and their ideas actualized within stipulated structures. Further, it fosters the sense of ownership of decisions, which builds on the citizen-buy and sense of ownership needed for successful project implementation, and taps into the technical benefits of conventional building while also harnessing the richness of self-built approaches.

Empowerment

Communities are considered empowered when they are equipped to initiate improvements to their surroundings, with external support from NGOs, demonstrating control over the systems and influencing the outcomes of development. A community is considered truly empowered when the people can execute changes and manage their communities holistically long after the initial external support has been withdrawn. The locals are equipped with the technical know-how they need to initiate and manage long term developments, influence decisions, and are also in a position to transfer that knowledge to younger generations. Empowerment also touches on availing all necessary resources required to support the process; financial, institutional and infrastructure in addition to the professional/ personnel capacity.

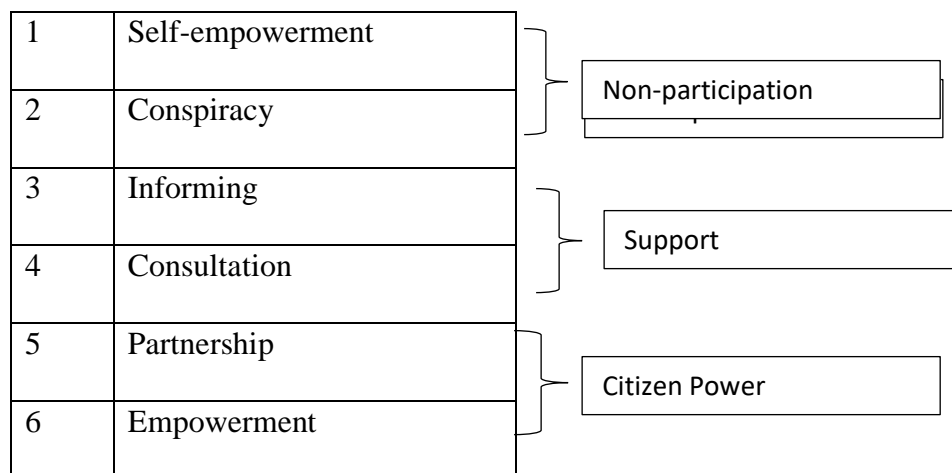
In Kambi Moto, empowerment was seen where the residents could organize themselves and effectively manage the funding, community design process and the actual construction. They were supported to develop these skills through learning seminars and exchange programs. The precast concrete production technology that was taught to the original beneficiaries of the project for instance, has been preserved and passed down to generations and is still currently in use for producing building materials for the incremental improvement of the settlement.

Such skills can be a crucial resource for benchmarking and knowledge transfer for similar settlement upgrading initiatives in other slum sites across the country. Since the project was designed to act as a pilot for participatory slum upgrading and example for best practice, the other members of the Muungano wa Wanavijiji umbrella could benefit from the experiences herein in designing their own participatory models suited for their settlements. The resulting

empowerment also ensured that the beneficiaries were equipped to manage the upgraded settlement post-implementation, and could engage with government officials regarding the titling process long after the construction was finalized.

5.2.1 model for the implementation of participatory slum upgrading to enhance its sustainability

The data analysis reveals the elements of an effective participatory slum upgrading approach and the key success factors. The study appreciates the importance of capacity building to enhance meaningful contribution by beneficiaries in order to attain effective participation. To enhance its sustainability however, it is imperative to go beyond just participation and aim for empowerment of the community beyond the project’s objectives to ensure continuity. The study has established six key steps for enhancing the sustainability of participatory slum upgrading, presented in the figure below. Sustainability is fully enhanced when participation is designed to follow these steps so as to attain full empowerment.



5.3 Conclusion

There are fallacies that participatory approaches to slum upgrading are time consuming and inefficient due to logistical challenges of managing the direct involvement of residents and streamlining the varied interests of all stakeholders. For instance, Jane Weru (2004) conceded that the work required to set up savings schemes was time consuming and cumbersome, involving developing a constitution, registration of the group with government agencies,

nominating officials, organizing daily collection walks, opening bank accounts and record keeping and maintenance. Most analysed cases in the literature review also contended that a combination of different funding sources, ranging from central government revenue, local government funding and substantial community contributions further stretched the project timelines. Moreover, the initial cost of setting up channels for community participation and building their capacity for meaningful engagement is time-consuming and costlier than in conventional building, but these can be recouped from the overall cost savings realized throughout the projects' life when improvements are successfully undertaken and the slum settlements are overhauled to liveable standards with adequate infrastructure and adequate housing.

The foregoing however reveals when properly designed and well managed, the cost margins tend to be minimal as community participation bridges the gaps that predictably exist between the user needs and conventional design, and enhances resonance between user needs and design solutions, producing better designed housing that utilize affordable construction techniques, are sustainable and economical in the long run (Mukeku, 2020). Where conventional slum upgrading is often goal-oriented with focused short, rigid timelines, participatory slum upgrading takes more time, allowing for the intervention to change with and adapt to the evolving needs of the community as they unfold.

The discussions from the literature review and analysis in the foregoing sections disclose that for the participatory approach to slum upgrading to be sustainable, the resulting human settlements must be designed, built and managed holistically, properly integrated into existing the socio-cultural and economic fabric of the local neighbourhood and wider urban area, and properly managed and maintained. Sustainability has three key elements; environmental, social and economic. Housing not only provides shelter; it also offers a sense of secure futures and builds up communities. The housing sector contributes to the nation's GDP and is a major investment by the owners. With the current debate on climate change and the push towards Net-zero, housing provision must be implemented with land-use dynamics, greenhouse gas emission, depletion of natural resources, energy and waste management in mind. These need to be woven into the solution designed for each slum settlement to ensure lasting change.

It is worth noting that slums are autonomous in nature, with each having different determining characteristics. This does not allow for a one-size-fits- all solution. Rather, recommendations like the ones in this research can only serve to lay the foundational framework for designing

such interventions, borrowing from the lessons and mishaps of the past attempts. As the slum dwellers' Initiative aptly observed in the slum inventory (2008), for there to be a change, interventions must appreciate each slum's unique characteristics and therefore negotiate a suit that fits.

5.4 Recommendations

In light of the study objectives and findings, to enhance sustainability of the participatory approach, the researcher proposes the following recommendations:

Establish a framework for implementing participatory slum upgrading

This should be geared towards achieving the highest levels possible for community empowerment. The framework should reflect all key levels in effective participation, with the level of participation attained in each project ultimately determined by the defining characteristics of the settlement in question. This should embody all the key levels: self-empowerment, conspiracy, informing, consultation, partnership, and ultimately, empowerment.

Capacity building

There should be concerted efforts towards ensuring there is adequate awareness surrounding participatory slum upgrading, especially at settlement levels. The Ministry of Housing, KISIP and KENSUP officials should work with NGOs involved in the slum settlements and CBOs to ensure that the residents are aware that they can play a crucial role in designing solutions for their settlements, provide technical know-how to back the participation, and that professionals are accessible at all levels of implementation to monitor the process. Capacity building also touches on availing all necessary resources required to support the process; financial, institutional and infrastructure in addition to the professional/ personnel capacity.

Project design to incorporate the elements of sustainable participatory slum upgrading

During the consultation and design, project officials should strive to ensure that the design caters for direct participation by the residents at every stage of the implementation process; it should encourage/champion external support for the participatory initiative by external organizations and government agencies; cater for population growth in addition to designing for the population living in the subject settlement at the material time; and also incorporate the land consumption rate to account for the future of settlement expansion.

Initiate institutional reforms in slum upgrading projects

This can also be achieved through government directives that every upcoming upgrading project be participatory. The level of participation can be determined depending on the defining characteristics of the upgrading settlement, though effort should be put toward achieving community empowerment.

5.5 Limitations of the Study

The researcher experienced some challenges during the execution of the study, though an effort was made to ensure the results remained reliable. Most of the challenges were dealt with, or alternatives for operation sought. These included;

a) Some respondents were not willing to fill the questionnaires. The researcher was compelled to explain the purpose for the data collection. There were also lots of missing responses in the management and governance section of the questionnaire. This was however offset by responses from the interview respondents.

b) The research was conducted under limiting conditions of time and resources

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APPENDICES

Appendix I: Introduction Letter



UNIVERSITY OF NAIROBI

Faculty of Built Environment and Design

DEPARTMENT OF ARCHITECTURE

E- mail: architecture@uonbi.ac.ke

P.O. BOX 30197,
Nairobi, Kenya
Telephone: 020-4913519
Telegrams: Varsity.

Our Ref: UON/FBEDArch/S/F

Date. 28th February, 2022

TO WHOM IT MAY CONCERN

RE: SELLINE ANYANGO ONYANGO REG. NO. W50/87315/2016

This is to confirm that the above named is a bona fide student pursuing Master of Urban Management degree in the Department of Architecture, University of Nairobi.

Ms. Onyango wishes to collect data for her project entitled '*The Sustainability of Participatory Slum Upgrading: A Case Study of Kambi Moto Settlement Upgrading in Huruma, Nairobi City County*'.

We are thus requesting you to give her some of your valuable time and respond positively to her enquiries, provision of drawings, maps, etc as may be required. This is for academic purposes only.

Any assistance accorded to her will be highly appreciated.

Yours sincerely,

 CHAIRMAN
DEPARTMENT OF ARCHITECTURE
UNIVERSITY OF NAIROBI

Arch. Musau Kimeu
CHAIRMAN,
DEPT. OF ARCHITECTURE

Appendix II: Questionnaire to the Residents

HOUSEHOLD QUESTIONNAIRE: PARTICIPATORY SLUM UPGRADING IN KAMBI MOTO, HURUMA.

The purpose of this questionnaire is to collect data that will be used to evaluate the Kambi Moto Participatory Upgrading Project. The information provided through this questionnaire will be used purely and exclusively for academic purposes and will be treated confidentially. Your cooperation and assistance are highly appreciated.

Section I: Population & Demography

- 1. (a) Age 18-29yrs [] 30-39yrs [] 40-49yrs [] Above 50yrs []
- (b) Gender Male Female
- (c) Education level.....
- (d) Household head.....
- (e) Household size.....
- (f) Number of rooms per family unit.
- (g) Years lived in Kambi Moto: Less than 5 years [] 5-10 years [] Over 10 years []

Section II: Housing

2. What type of house do you live in? (Tick appropriately with brief description)

- Starter unit
- Fully upgraded unit [single family unit]
- Fully upgraded (Rental unit)

3. Are you a beneficiary of the original upgrading project?

- Yes No

b. If No, how did you access your unit?

.....

c. Are the houses accessible? (Probe availability for rent by non-beneficiaries)

.....

4. (a) Do you pay rent?

Yes No

b. If (Yes), how much? If No, give reason(s) for the above answer?

.....
.....

5. Are there adequate supportive social infrastructure and services (water supply, electricity, solid waste management, drainage, access roads)?

.....
.....
.....

6. (a). Are the houses maintained?

Yes No

(b) If yes, how often and by who? (probe)

.....

Section III: Opportunities for public participation

7 a. Were you involved in the original upgrading project?

Yes No

At what stage were you involved in the upgrading process? (Tick one or more where applicable)

Conceptualization Implementation Management

b. What role(s) did you play in each of the stages of upgrading? (Tick where applicable)

ROLE	✓ (Tick appropriate)
Community mobilization	

Civic education/capacity building	
Fund mobilization/Akiba support	
Savings contribution	
Community housing design	
Training/peer learning	
Construction: - i. Skilled labour ii. Unskilled labour	(Indicate)
Post-implementation management	

8. Tick where appropriate the level of satisfaction of the services provide and give recommendations.

Service	Poor	Average	Good	Reason	Recommendations (Areas of Improvement)
Housing condition					
Electricity Supply					
Solid Waste Management					
Water supply					
Sewer facilities					
Sanitation facilities					
Storm Water Drainage					

Access roads					
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Section IV: Ownership

9 (a.) What benefits do you get from the current ownership status?

.....

(b) What challenges do you face on housing ownership?

.....

10. (a) Is there ongoing community savings activities?

Yes No

(b) If yes, are you a member/contributor?

.....

(c) What other financial support sources/systems are available for the settlement?

.....

 ...

Section V: Governance

11. (a) Are there any organizations/CBOs operating in Kambi Moto?

Yes No

(b) If yes, list them.....

.....

(c) What are the roles of the listed organizations/CBOs in Kambi Moto?

.....
.....

(d) Who is/are in charge of the management of the Kambi Moto Settlement? (Probe Appointed by?)

.....

(e) How is the settlement project managed post-upgrading?

.....
.....

(f). Give a proposal on how you want the housing project managed in the future?

.....
.....

(g). List any emerging issues arising in the settlement (E.g., security concerns, drainage, waste management)

.....
.....

12. Give proposals on any other changes you would recommend for any future upgrading?

.....
.....

Thank you for your participation

Interview Guide for Key Informants

1. What informed the choice of upgrading methodology applied in The Kambi Moto Upgrading project area?
 - i. What principles guided the participatory approach slum upgrading program at Kambi Moto?
 - ii. Who were the key stakeholders involved?
2. What practices were effective in the implementation of Kambi Moto slum upgrading program?
3. In your opinion, what would you consider the success factors in the Kambi Moto program?
4. Has the success achieved in Kambi moto influenced/encouraged the use of the participatory approach in other slum areas?
5. What were the key challenges faced in the implementation of the Kambi Moto Project?
6. Has there been any policy, legal and institutional changes to support Participatory Slum Upgrading since the completion of Kambi Moto project?
7. What steps are being taken to ensure public awareness of the participatory approach to slum upgrading?
 - i. What capacity-building strategies are in place?
 - ii. Any existing financing strategies and technical support to encourage community participation in housing improvement?
 - iii. Are there any efforts to mainstream and/or institutionalize participation in government engagements; and by the other actors?
8. From the lessons learned in Kambi Moto, how would you suggest future slum upgrading initiatives be designed to replicate/upscale the Kambi Moto methodology?