

INVESTIGATING THE OCCURRENCE OF SLUM GENTRIFICATION: A CASE STUDY OF KIBERA SLUM UPGRADING PROJECT, KENYA

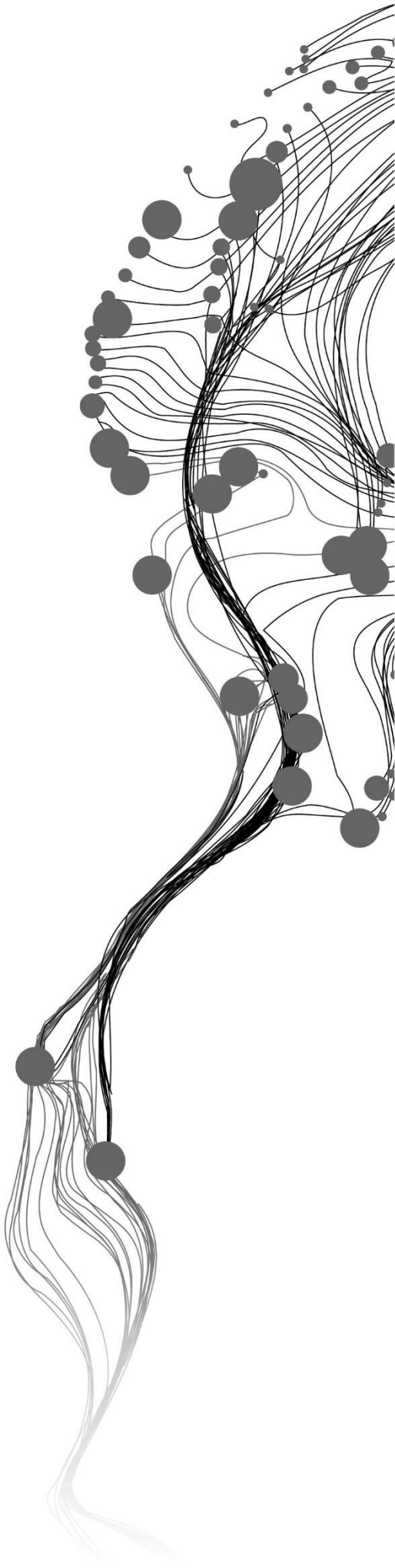
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ABSTRACT

Rapid urbanization rates have led to an increase in slum growth in major urban cities in the global south. This has led to a majority of the countries in the Global South to adopt various slum upgrading approaches. Some slum upgrading approaches can result in rent hikes and with no changes in employment opportunities and monthly income, low-income households sell or rent their housing units due to the unaffordability of the upgraded units. This results in their indirect displacement hence leading to slum gentrification. Studies have been conducted highlighting approaches that have led to slum gentrification occurring.

This study sought to investigate the occurrence of slum gentrification as a result of the slum upgrading project in Kibera Soweto East Zone A, Nairobi, Kenya. A case-study approach was followed using qualitative and quantitative methods to understand the slum upgrading approach used and the socio-economic changes experienced by the Kibera Soweto East Zone A residents. Interviews were conducted with experts involved in the slum upgrading programme and household surveys were carried out on the Kibera Soweto East Zone A residents residing at the upgraded units and the decanting site. While the primary data in form of household survey provided the socio-economic backgrounds of the residents and their eligibility status, secondary data such as the slum upgrading approach used backed up information supplied by experts while literature provided the indicators for slum gentrification. Identifying indicators of slum gentrification is crucial in ensuring that the slum upgrading projects benefit the primary beneficiaries of the projects and not newcomers.

The study compared the socio-economic status of both the residents at the decanting and upgraded site, service delivery and used the indicators identified to determine if slum gentrification has occurred. The study found out that the slum upgrading approach carried out by the Kenyan Government resulted in slum gentrification, first due to the down payment the residents had to make before they were allocated a unit and secondly due to the amount of mortgage they have to pay per month. This resulted in the Kibera Soweto East Zone A residents at both at the upgraded site and decanting site to rent out their units, hence being indirectly displaced. The study also found out that there have been changes in the socio-economic conditions of the Kibera Soweto East Zone A residents both at the upgraded site and decanting site. These changes were determined as contributors of slum gentrification.

Keywords: Kenya Slum Upgrading Project, Slum gentrification, Slum upgrading

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1. INTRODUCTION

1.1. Background

It is stated that one in eight people live in slum-like conditions in the world (UN-Habitat, 2018, p.4). Danso-Wiredu & Midheme (2017) state that slums play a role in providing low-cost housing to rural-urban immigrants. Grigorovich (2008) further mentions that slum dwellers contribute to the urban economy while UN-Habitat (2003) also emphasises the critical role that slums play in providing low-cost labour which allows the continued work of various parts of cities. With the increased rate of urbanisation in African countries, cities may not be able to accommodate the rising number of urban residents, therefore, causing most of the urban residents to reside in slums (Bah et al., 2018). 25 out of the 100 rapidly growing cities are found in Africa (UN-Habitat, 2014) with approximately 881 million slum dwellers living in developing countries (UN-Habitat, 2016, UN-Habitat, 2018).

UN-Habitat (2003, p.8) defines a slum as a 'heavily populated urban area characterised by substandard housing and squalor' which indicates the characteristics of a slum. UN-Habitat, (2003, p.12) defines a slum household as one that lacks the following: access to adequate water, access to improved sanitation, tenure security, durable housing and sufficient living space. Factors that are considered to be influencing the growth of slums are seen to be: choice of location, rural-urban migration, poor urban governance and poor policies (Mahabir et al., 2016).

To recognise slum dwellers as part of the urban community and provide them with proper habitable conditions, states and organisations have come up with upgrading measures for slums whether it is in situ or relocation (Danso-Wiredu & Midheme, 2017). Omwoma (2013) defines slum upgrading as the process through which informal areas are improved, formalised and incorporated into the city itself, through extending land, services and citizenship to slum dwellers. Slum upgrading push factors as described by Syagga (2012) include reduction of poverty, environmental considerations and tenure security. He goes on further to explain that comprehensive slum upgrading programs include redevelopment where infrastructure and tenure security is paramount. Tenure security allows former slum dwellers to invest further in their housing and at the same time improve access to utility services (Syagga, 2012, Lucci et al., 2015). Turley et al. (2013) describe slum upgrading as the process of improving the physical environment like water, sanitation, drainage, electricity, lighting, and waste collection. UN-Habitat (2003) define slum upgrading as the process by which basic social amenities are provided as well as infrastructure improvement, provision of sustainable socioeconomic activities and decent housing. Omwoma (2013), also states that slum upgrading achievements include adequate space, physical accessibility, adequate security, the security of tenure, adequate necessary infrastructure in terms of water supply, sanitation and waste management and proper lighting. Therefore, slum upgrading will be in line to achieving the UN's SDG target 11.1 of 'ensuring access for all to adequate, safe and affordable housing and basic services and upgrade slums.'

Turley et al. (2013) states that slum upgrading may have varying outcomes on health, quality of life and socio-economy with most of them being positive but this depends on the various slum upgrading interventions employed. Harari et al. (2017) however, point out that as much as slum upgrading may improve neighbourhood quality, it might eventually have a long term impact on land values or distort the development activity of the upgraded areas. Magalhães (2016) also points out that policies play a key role in ensuring proper slum upgrading approaches. She further emphasises that policies boosting housing market supply usually rely on inexpensive land and control of housing costs resulting in urban sprawl producing low quality housing while policies that focus on in-situ slum upgrading might result in slum growth without addressing land titling and planning due to an over focus on territory. Slum upgrading projects however, can lead to gentrification if not carried out properly.

The term gentrification first rears its head in the 1960s when it was coined by Glass (1964) in reference to the observable habits of the upper-middle-class households in London purchasing East End of London properties. Gentrification is termed as a gradual process of the change of a particular region from an impoverished state to an affluent state through upgrading leading to the displacement of low-income households (Nara & Torrens, 2005). Chong (2017) elaborates further by stating that “gentrification occurs when more affluent people move to or become interested in historically less affluent neighbourhoods.” Many arguments have been made in regards to whether gentrification brings more harm than good or vice versa. The new gentrification sites are now located in the Global South (Vidhate & Sharma, 2017). Causes of gentrification as stated by Vidhate & Sharma (2017) are: growth of the middle class/ capital movement, rent gap which is the disparity between potential ground rent and actual ground rent and increase in demand for locations in city centres which can occur as a result of the increased purchasing power of the middle class. They further goes on to highlight the impacts of gentrification are physical due to displacement of the poor and working class groups, socio-cultural impact which results in the formation of gated communities which can lead to bitterness and conflicts in a community, economic impact via increase in property value and decentralization of poverty. Atkinson (2004) breaks down the impacts as either positive or negative as shown in the table below:

Table 1: Positive and negative impacts of gentrification.

Positive	Negative
Stabilised declining areas	Rent increase leading to displacements
Increase in property values	Displacement and housing pressure on surrounding poor neighbourhoods
Reduction in vacancy rates	Psychological costs brought about by displacement
Increase in local tax revenue	Loss of affordable housing
Increased viability of further development	Increase in property price
Reduced urban sprawl	Homelessness
Increase in social mixing	Industrial/commercial displacement
Decrease in crime	Increased cost to local services
Rehabilitation of both state and non-state properties	Loss of social diversity
	Population loss in gentrified areas

Source: (Atkinson, 2004), revised.

Gulyani & Talukdar (2008) indicate that slum upgrading projects that provide legal housing to slum dwellers might end up being utilized by the well off in the society may lead to gentrification. Lees et al. (2015) further state that since the 1990s, slum gentrification as a feature of gentrification has become increasingly significant especially in the Global South due to policies that are aimed at making way for real-estate development for higher-income groups. Lees (2014) points out that slum gentrification can be termed as slum removal or moving in of a wealthier class of people in-situ. Ascensão (2018) further describes slum gentrification as a process whereby capital or material investment is made in slums through urban renewal causing an increased interest in such areas, therefore, resulting in the substitution in the population in said areas. Improving tenure security can also be seen as a contributor to slum gentrification whereby re-appropriation can be done by slum landlords hence evicting the intended beneficiaries and bringing in a new set of income earners able to sustain the rent hikes. Ascensão (2018) further states that formalising independent and informal economies which leads to the rise in living costs is seen as one of the drivers of gentrification. However, it should be noted that an increase in income of households does not necessarily imply that gentrification is occurring since this could be attributed to the economic growth of the households (Kennedy & Leonard, 2001). Kennedy & Leonard (2001) further highlight the drivers

of gentrification as job growth, dynamics in housing markets (constrained supply, affordability, high demand), preferences in urban living, direct and indirect public incentives and issues associated with quality of life.

The Kenya Slum Upgrading Project (KENSUP) carried out in Kibera in partnership with UN-Habitat is the most recent major project carried out in one of the largest slums in Africa. Its focus was on clearing and replacement of slum areas for the development of adequate housing infrastructure for the slum dwellers (Ettyang', 2011). KENSUP's project vision was to improve the livelihoods of the people living and working in the informal settlements. In addition to the enhancement of the dweller's socio-economic characteristics, the project was to achieve the promotion and facilitation of security of tenure, physical and social infrastructure development that will support income generation for the slum dwellers. To achieve their objective, a relocation and then resettlement was to be done. According to Fernandez & Calas (2011), only the people registered by the Physical Planning Department were the intended beneficiaries from the relocation phase of the project. They were allowed to occupy their temporary occupation for two and a half years, but there was hesitation due to the amount of rent that they had to pay at their temporary occupation, which was higher than what they paid at Kibera-Soweto East. Some of the residents, therefore, ended up renting out their apartments to middle-income earners at five times the subsidised rate and then moving back to the regions of the slum that have not been marked for rehabilitation (Higgins, 2013).

Most of the slum dwellers, however, are low-income earners and find the pricing for the units on a higher side, leaving the middle and high-income earners to benefit the most from the new dwellings since they can make the monthly contributions. Desgropes & Taupin (2011) give an overview of the socioeconomic status of Kibera residents. They state that the household size, albeit what is usually described in NGO statistics sites has an average household size of 3.2 persons, with the majority of the residents falling between the ages of 26-50 years. They further go ahead and indicate that the majority of the residents are informally employed with a regular income not guaranteed; however, the average income per person is said to be Ksh.2,260(€18.98). The inhabitants of Kibera mostly depend on the informal sector for employment and find it easy to commute to the CBD in search for jobs due to proximity to public transport and the CBD itself. The residents also have strong social ties that are mostly customer based.

1.2. Research Problem

Slum gentrification has been taking place globally, whether as an intended outcome of the slum upgrading project or as an unforeseen consequence of the slum upgrading project. Slum upgrading projects that cause an increase in land and housing prices, as well as change in housing and land policies, could be seen as the main contributors of slum gentrification. Improved housing, accessibility, security, adequate space and access to utilities will lead to the attraction of various income levels to the upgraded areas other than the intended beneficiaries.

The study aimed to answer the question: What factors contributing to slum gentrification as a result of the slum upgrading project in Kibera Soweto East Zone A, Nairobi, Kenya and what indicators can be used to identify it? Identifying the various factors that could contribute to slum gentrification of Kibera is vital in ensuring that low-income households are not pushed out of their homes but benefit from the project.

Investigating the possibility of slum gentrification occurrence is also crucial in providing recommendations that can be used in other slum upgrading projects and ensure that they are conducted better and therefore end up being successful since slum gentrification could be termed as a failure of a slum upgrading project by not adequately fulfilling its intended purpose.¹

¹ Based on the current exchange rate: Ksh.1=€0.0087

1.3. Research Objectives

The objective of the research is to investigate the possibility of the occurrence of gentrification as a result of slum upgrading in Kibera, Kenya.

Sub-Objectives and Research Questions

- 1. Analyse the process followed during the Kibera slum upgrading project**
 - a) How was the slum upgrading project undertaken?
 - b) Was the process followed during the slum upgrading project lead to the achievement of the objectives of the project?
- 2. Analyse the socio-economic condition of the beneficiaries**
 - a) Who are the intended beneficiaries of the slum upgrading project?
 - b) What is the current socio-economic status of the intended beneficiaries?
 - c) Has the socio-economic status of the intended beneficiaries changed after the slum upgrading project?
- 3. Investigate the occurrence of slum gentrification as a result of slum upgrading**
 - a) What are the factors leading to slum gentrification?
 - b) To what extent has slum gentrification occurred?
 - c) What measures can be put in place to prevent an occurrence of the same in the continuing phase of the slum upgrading project?

2. LITERATURE REVIEW

2.1. The process of slum upgrading in the Global South

Rapid urbanisation has led to the growth of slums caused by the inability of governments to provide services and formal housing to its people (Jaitman & Brakarz, 2013; Grigorovich, 2008). High land prices and high housing prices have led to the urban poor to live in slums which allows for the provision of basic housing but lacking in essential services, infrastructure, security, proper sanitation and employment advantages.

Slum upgrading is seen as an effective and proactive method to improve the lives of people living in slums in African cities (Bah et al., 2018). While addressing the challenges of slums, most approaches applied by governments are usually aimed at improving only the physical environment (Ahmed Saad, Anwar Fikry, & El-Sayed Hasan, 2019, Ahmed Saad et al., 2019).

Bah et al. (2018) state that the elements/components of a slum upgrading program include:

- a) The physical component which comprises of water provision, power lines, sanitation, street lights and public spaces.
- b) Tenure regularisation which includes registration, demarcation and documentation of inhabitants.
- c) Housing improvement
- d) Social facilities like schools, community centres and parks
- e) Development programs such as economic, health and educational developments.

There have been many strategies applied to address the slum growth that have however, resulted in more harm than good. Some of the approaches used by governments to address slums were eradication or elimination which usually resulted in human rights violations (Stenton, 2015, Danso-Wiredu & Midheme, 2017). Another approach used was site-service whereby former slum dwellers were provided with plots of land to build their houses in a progressive manner but this approach was criticised for leaving families in a worse condition than they were before (Jaitman & Brakarz, 2013). In-situ upgrading is another approach taken up by governments and it is termed as being socially and economically effective due to its capabilities of allowing the former slum dwellers to remain within their communities. This approach has been praised for leaving affected families in a better economic position and has led to the implementation of various programs such as land tenure arrangements, infrastructure provision, improved housing and services (Jaitman & Brakarz, 2013).

In table 2 below, Ahmed Saad et al. (2019) summarises and highlights the advantages and disadvantages of slum upgrading approaches applied by various governments in developing countries. As the name suggests evacuation by force involved the forceful eviction of families from slums without relocating them. Clearance and relocation involved moving the families to the outskirts of the city and clearing the site. Clearance and site development involved, the temporary relocation of people, clearance of the site and reconstruction of durable housing and rehousing of the same people who were temporary relocated. Upgrading in place was the process of improving infrastructure, services like water provision and electricity, proper sanitation and improved education quality in the slum areas.

Table 2: Types of slum upgrading processes.

	Evacuation by force	Clearance and Relocation	Clearance and site development	Upgrading in situ
Disadvantages	Displacement of families without replacement	– Inability to find jobs in the new location – Leads to migration back to the city	Time-consuming	Failure to follow through the steps does not achieve the desired outcome
Advantages	None	None	Suitable living environment	– Maintains social ties. – Provision of basic services.

Source: (Ahmed Saad et al., 2019), revised.

Slum upgrading programs considered as good practices/ approaches are described by Lucci et al., (2015). They describe four slum upgrading programs in Latin America and Asia. *Favela Bairro* in Rio de Janeiro and PRIMED in Medellin are slum upgrading programs that were carried out in Latin America. They are referred as good approaches since they deemed as integrated programs which focused on tackling multiple issues like land titling, urban services and community development as well as show an example of achievements that can be made when slum dwellers and the local government work together. The slum upgrading projects carried out in Asia were the *Baan Mankong* project in Thailand and Mumbai’s community toilets. These two were community based slum upgrading programs which goes to show that slum communities can be drivers of change. *Baan Mankong* focused on land tenure which is seen as a fundamental element in achieving necessary infrastructure and housing.

The Kenyan Government opted for the clearance and site development slum upgrading process which involved the temporary relocation, clearance of the slum site, reconstruction and rehousing of the original inhabitants. Ahmed Saad et al., (2019) states that the advantage of using the clearance and site development process is that it provides an environment suitable for living for the people. This is in line with Kibera Soweto East Zone A project whereby there is a massive difference between the living environments of the people before the slum upgrading project, at the decanting site and at the upgraded site. He goes on to state that the disadvantage of this process is that it is lengthy. The slum upgrading project in Kibera can be seen to have experienced both the advantage and disadvantage of this process. Stenton, (2015), states that the slum upgrading project in Kibera took long to be completed due to majorly court cases between the government and structure owners therefore leading to the residents losing hope in the project and assuming that it will not come to fruition.

2.2. Impact of slum upgrading on the social and economic life of former slum dwellers

Wanjiru (2016) states that slum upgrading does not just focus on the housing and infrastructure but also takes into consideration the social, economic and cultural aspects. Health, nutrition, education and the environment of a community strongly depends on housing and neighbourhood conditions which in turn determine access to economic opportunities (Bouillon, 2012). In order to assess the impact of the slum upgrading project, indicators like health, education, employment, tenure security are evaluated on a personal level. At the community level, indicators like poverty, inequality, economic development, crime rates etc are used to measure the impacts of slum upgrading projects (Field & Kremer, 2008). Service provision like water has been known to impact the livelihoods of former slum dwellers in a positive

manner due to the reduction in time spent in purchasing water for daily use. Ensuring tenure security leads to the economic wellbeing of families (Turley et al., 2013).

Ahmed Saad et al. (2019) highlight that some of the positive impacts that can be achieved via slum upgrading projects include: maintenance of social ties among inhabitants in the region improved living conditions, improved health status, tenure security, improved economic status due to infrastructure improvements like road and rail networks, increase in housing space and provision of job opportunities.

Lucci et al. (2015) give an example of the impacts of a slum upgrading project in *favela Bairro*, Brazil. They state that the former slum dwellers have had an increase in property values as compared to property values before the slum upgrading project is viewed as an impact of slum upgrading. Due to security of tenure, former slum dwellers are also able to invest in their homes. Connection to water via the city's water system has been carried out and there has been an improvement in sanitation as well. They further go on to state that the increased public spaces, new libraries and schools and economic support to the residents has significantly improved their quality of life. Private investment and trade has also increased in the area. There have been reductions in violence and insecurity.

2.3. Slum gentrification

There are various types of gentrification as highlighted by Vidhate & Sharma (2017). They include gentrification with reinvestment, gentrification by complete demolition in public/private land, vacant gentrification and forced gentrification. Slum gentrification happens to fall under the category of gentrification by complete demolition in public/ private property. This type of gentrification involves the demolition of areas lacking in basic human services, having high population resulting in physical and social environment decays. They further proceed to state that this type of gentrification results in the loss of affordable housing for low-income groups and displacement.

Slum gentrification is the process of capital investment in informal built environments through urban renewal projects resulting in the partial or total substitution of original inhabitants (Ascensão, 2018). Ascensão (2018) further states that slum gentrification encompasses social and cultural re-appreciation of slums usually through urban upgrading programs resulting in the appeal of the region by affluent groups leading to high rent prices and eventually displacement of low-income inhabitants and public or private urban renewal projects causing displacement of original inhabitants to the less valued locations in the periphery of cities. He identifies four main processes that result in slum gentrification:

- a) City visioning projects that aim at ensuring the city achieves a global status which is done by reinvesting in slum areas via spatial, economic and social restructuring.
- b) Investment in development of projects such as condominiums or luxury hotels catering to the wealthy in prime locations formerly occupied by a slum.
- c) Investment in public infrastructure as a result of mega events resulting in the displacement of slum dwellers.
- d) Housing policies that increase the rent gap between the affluent and the poor

The displacement of former slum residents due to slum gentrification can result in the build-up of even more slums due to the evicted residents looking for cheaper housing. It is also known to become harder for former slum dwellers who have been displaced from upgraded areas with subsidised housing to move back to the upgraded regions due to the already increased housing prices also referred to as exclusionary displacement (Lemanski, 2014). Due to slum gentrification, social ties are broken as a result of displacements caused by the influx of newcomers in an area. Residents have also encountered challenges in accessing their placed employment as a result of being displaced to the outskirts of the cities (Gaffney, 2016). Gaffney (2016) highlights further that privatization of public land by private developers limits the land use rights of the inhabitants excluding them from the land use rights that they are meant to be accorded.

2.4. Slum gentrification case studies

In order to get a better understanding of slum gentrification, a few case studies have been highlighted below.

2.4.1. Slum gentrification in Mumbai, India

For Indian cities, gentrification is experienced in the form of urban renewal processes (Vidhate & Sharma, 2017). One of the urban renewal projects carried out in Mumbai as stated by Vidhate & Sharma (2017) aimed at handling the challenges of slums, homelessness, urban poverty, crime and pollution. The process was conducted via public-private partnership rehousing of slum dwellers. It allowed the acquisition of land by developers as long as they rehouse the slum dwellers in the multi-story houses built on the land. Another slum gentrification process in Mumbai described by Vidhate & Sharma (2017) involved the slum areas surrounding the mill lands in Prabhadevi. Once the mills had closed, some of the low-income groups living in the four slums near the mills out-migrated in search of employment. The lands on which the mills stood was considered prime location due to its proximity to the airport, railway station and recreational facilities. This resulted in private development where once the mills stood. Physical, social and economic infrastructure change led to change in the urban fabric of the area and has led to the conversion of some of the slums surrounding the development to slum rehabilitation buildings. However, despite the change in the urban fabric in the area, the slum dwellers have not been affected by the high rents but still prefer to rent or sell their rooms for higher rent and shift to other parts of the area.

2.4.2. Slum gentrification in Seoul, South Korea

Ha (2015) talks about slum gentrification in Seoul, South Korea. She states that gentrification in Seoul was linked to housing and renewal policies that were more concerned with housing stock increases rather than housing welfare and community development. She describes how the urban renewal programmes carried out involved economy revitalisation and shanty elimination. This was done by clearance of the slums and relocating the slum households to the outskirts of Seoul. The slum urban renewal programme carried out by the Seoul government was referred to as the Joint Redevelopment Project, which was a partnership between homeowners and construction companies. The capital was provided by the construction companies with the government allowing high rise apartments to be constructed. Due to this, most of the low-income residents had to move out to look for cheaper housing. She states that the urban renewal project has had the following impacts: Housing stock increase in that there was an increase in housing provision, improvements in infrastructure and an increase in property values, gap increase in housing conditions between the rich and poor, social impact due to loss of community unification, shift from single-detached and multi-family dwellings to apartments and displacement of low-income households.

2.4.3. Slum gentrification in Rio de Janeiro, Brazil

Rio de Janeiro has experienced various urban restructuring strategies as stated by Lees et al. (2016). They point out that Rio de Janeiro has undergone three major *favela* displacements: the first one being displacement around the Olympic zone due to a plan to restructure the area, the second one occurred due to redevelopment around the old port area (Zona Portuária), the third displacement occurred in the Rocinha and Vidigal *favelas* that underwent pacification by the city police. Gaffney (2016) expounds that the slum gentrification process in Rio de Janeiro occurred due to changes in the urban land market, increase in rent gap and alteration in zoning laws causing an increase in land prices.

For the Zona Portuária *favela*, a public-private partnership was entered between the city and a construction firm. The aim was to transform the urban space through zoning law changes, cultural installations and transport network reorganization. However, the land where the *favela* occupies is to be owned privately which has led to displacements to pave the way for development (Gaffney, 2016). The pacification of *favelas* as a result of the city police moving to the *favelas* to eradicate street gangs has led to property prices rising with business developments established to cater to the affluent leading to major displacements (Lees et al., 2016). Lees et al. (2016) further expounds on the large public investments done in the city due to the

Olympic Games being held in the city. They state that the investments in rapid bus transit led to massive evictions which also led to an increase in land price in the region.

2.4.4. Slum gentrification in Lisbon, Portugal

Ascensão (2015) states that Lisbon's urban expansion was influenced by the rise of slum growth due to the slum dwellers inability to afford housing or ineligible for public housing with the settlements situated near jobs with administrative invisibility to allow for the illegal occupation of land. He further points out that the location of slums was on relatively well-located areas with proximity to jobs, proximity to middle-class areas and was amid agricultural land. He describes the process of slum upgrading, which in this case was referred to as the Special Rehousing Programme carried out by the government. It involved in situ rehousing either on the site or near the site. The rehousing programme was carried out in a three-stage operation. Clearance was done for half the dwellings and then relocation to temporary dwellings. The second stage involved the construction of medium-rise apartments and rehousing of the eligible population. The third stage involved clearance of the remaining area and then the construction of apartments for open market. The clearance and rehousing method was selected due to the increase in the value of the land on which the slums were located. He further states that the process involved area gentrification by means of clearance and earmarking the area for development of middle-class populations which led to the displacement of low-income population to distance sites or left them homeless. The neighbourhood further underwent a slow gentrification process by the replacement of middle-class residential buildings over two years. The land ownership also changed from being individually owned to being owned by construction companies with the intent to use the land for future development. A plan was later made that included a small hotel, social facilities and housing rehabilitation.

2.5. Indicators of slum gentrification

The studies discussed above have been able to identify slum gentrification occurring via various indicators such as rise in property prices, displacements and land acquisition by private developers. Mitchell et al. (2019) highlight that gentrification leads to increase in property value, decrease supply of affordable housing and displacement of low income households due to increase in cost of living.

Kennedy & Leonard (2001) state that in order to identify gentrification taking place then some of the following have to take place; involuntary displacement of lower income residents, changes in housing stock and finally neighbourhood character change. They further highlight the leading indicators of gentrification are high rate of renters, ease of access to job centres, increasing levels of metropolitan congestion, high architectural value and comparative low housing values. Some of the indicators pointed out by Kennedy & Leonard (2001) were adopted by Eldaidamony & Shetawy (2016) who further add that education level and changes in tradition or customs are also some of the indicators of gentrification.

Davidson & Lees (2005) state that indicators of gentrification include: reinvestment of capital, social upgrading of locale by high income groups, landscape change and direct or indirect displacement of low-income groups. Reinvestment of capital involves large-scale development in areas that initially had not experienced any large-scale developments. Social upgrading of locale by incoming high-income groups refers to the change in employment and income of people who are considered new comers to the area whereby there is a shift from inhabitants who are unskilled and have low education levels to inhabitants who are highly skilled and have high education levels. Landscape change is usually accompanied by capital reinvestment which results in change of the area from slum structures to high-rise planned housing. Direct and indirect displacement of low-income groups which involves the moving out of low-income groups who can no longer afford the cost of living in the refurbished region. Indirect displacement results from the moving in middle-income inhabitants into neighbourhoods that are undergoing gentrification.

Lemanski (2014) goes on to state that gentrification in an empirical context can be identified via: class differential, displacement and settlement upgrading. Class differential involves the purchase of property by wealthy owners; displacement involves the physical and social displacement of low income groups by high

income groups who end up driving the cost of properties, settlement upgrading consists of the change in physical characteristics of houses, new services and amenities.

The table 3 below summaries the indicators mentioned by various authors in the text.

Table 3: Indicators of gentrification

Main theme	Indicators	Measurement
Social structure	Changes in education level (Eldaidamony & Shetawy, 2016)	Percentage of people having university degrees, diplomas, elementary education and uneducated
	Neighbourhood character change (Kennedy & Leonard, 2001), (Vidhate & Sharma, 2017)	Assessment of the quality of life (social, economic, environmental and civic)
Income	Class differential (Lemanski, 2014)	Percentage of wealthy buyers buying state-subsidised houses.
	Social upgrading of the locale by incoming high-income groups (Davidson & Lees, 2005)	Comparative qualitative data analysis from census data between two years of the populations employment status.
Displacement	Displacement (Davidson & Lees, (2005), Lemanski, (2014), Kennedy & Leonard, (2001)	Comparative qualitative data analysis from census data between two years, involuntary displacement through rent hikes or property bills
Physical structure	Settlement upgrading (Lemanski, 2014)	Observation on physical characteristics of houses, services and amenities as well as housing prices and housing policies.
	Landscape change, reinvestment of capital (Davidson & Lees, 2005)	
	High architectural value, changes in the housing stock (Kennedy & Leonard, 2001, Ha (2015)	

2.6. Conceptual Framework

Slum upgrading projects, if unmitigated, can lead to slum gentrification. Slum gentrification occurs as a result of indirect or direct displacement of low income households due to the infrastructural improvements. In order for one to investigate the occurrence of slum gentrification, various indicators are to be used as highlighted in section 2.5, table 3. Indicators such as changing in housing stock refer to changes in housing prices which can also be viewed as rent hikes. Displacement of low-income households comes in the form of low-income households moving out of upgraded units due to high rent prices. These indicators will be applied in the Kenya Slum Upgrading Project process and determine if the process has led to slum gentrification of the area or not.

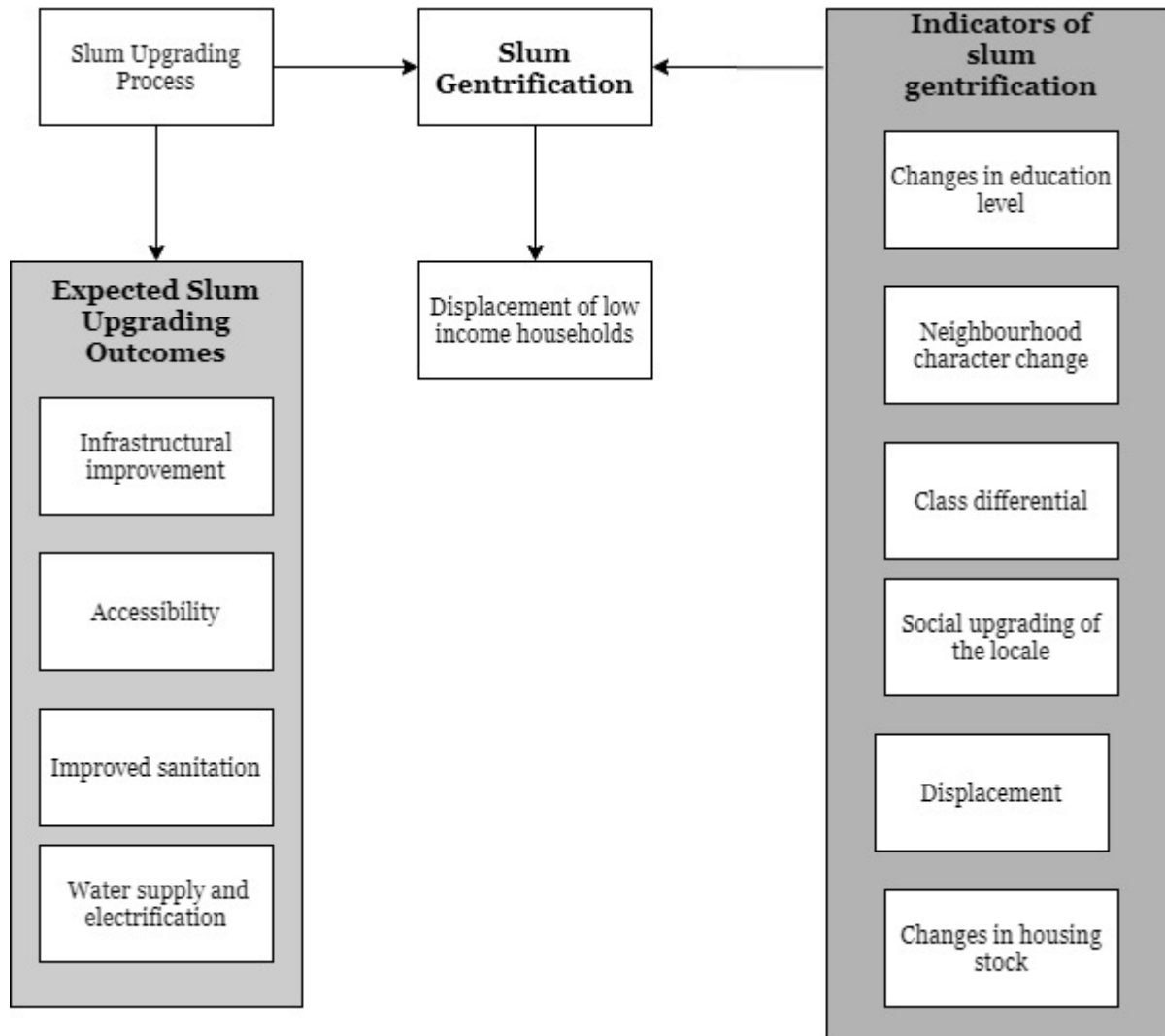


Figure 1: Conceptual Framework

3. METHODOLOGY

This chapter highlights the methods used in researching the main research objective of investigating the occurrence of slum gentrification as a result of slum upgrading.

3.1. Case Study Area

Kibera is the largest slum in Kenya and the second largest slum Africa. It is situated southwest of the Nairobi CBD and falls under the Langata sub-county and covers an area of 2.5 km². Kibera, formerly the area occupied by the Nubians now houses different ethnic groups/tribes with the majority being from the Luo community. The population of Kibera is said to be 185,777, with a male population of 94,199 and female population of 91,569 (KNBS, 2019). Kibera is divided into 12 villages namely as shown in figure 2: Kianda, Soweto West, Raila, Gatwekera, Kisumu Ndogo, Lindi, Laini Saba, Kandi Muru, Makina, Mashimoni and Soweto East. Kenya Slum Upgrading Project planned on carrying out the project in phases. Under the Kenya Slum Upgrading project that was initiated in 2004 and completed in 2016, Kibera Soweto East was divided into four zones(A, B, C and D) to allow the carrying out the project in phases and has an area of 21.3 ha. As per the enumeration done by the Ministry of Lands in 2004, the total population of Kibera Soweto East stood at 19,318 of which 16,899 were tenants and 2,419 were structure owners (as cited by KNCHR, (2015). This was the number for the people who were meant to benefit from the slum upgrading project.

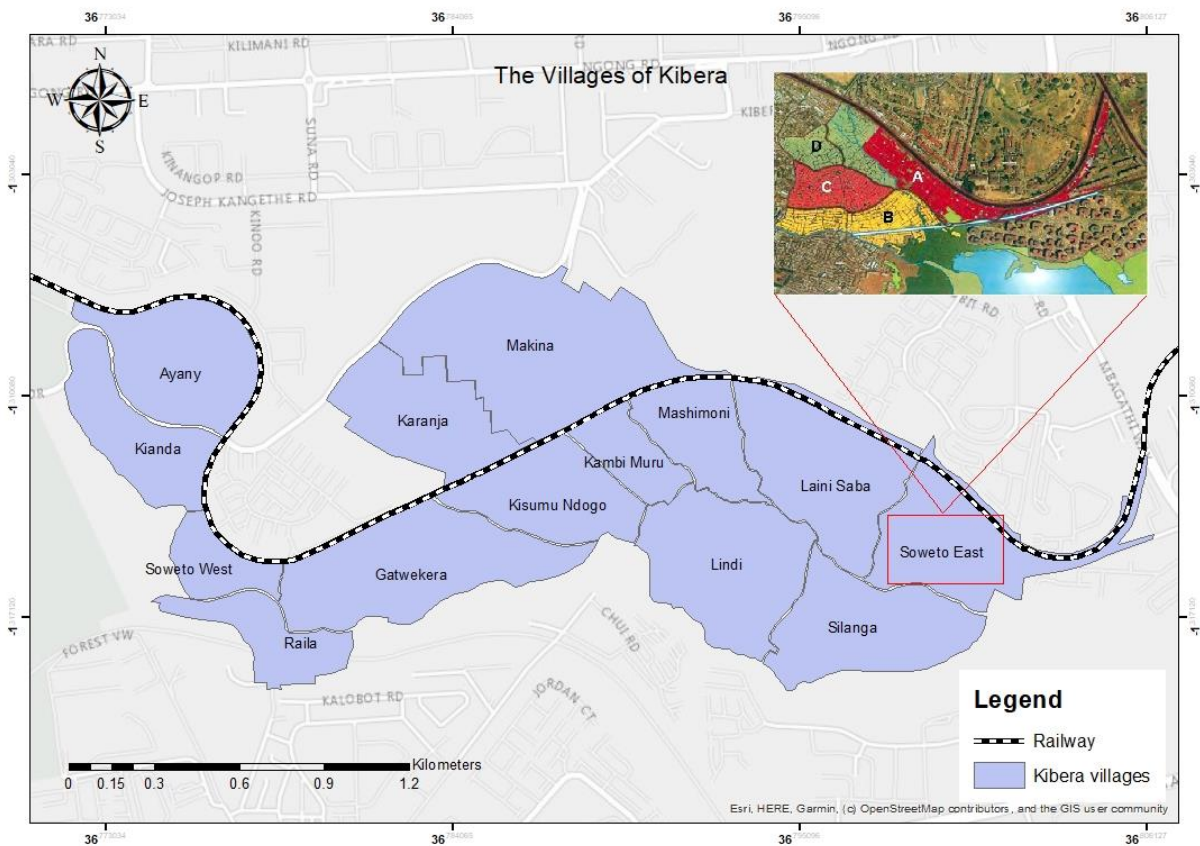


Figure 2: A map of Kibera and its villages. Inset: Kibera Soweto East Zones

3.1.1 Case Study Selection

The case study area was selected due to: 1. Kibera being one of the largest slums in Kenya and 2. It had recently completed the first phase of the Kibera slum upgrading project. The first phase targeted Kibera Soweto East Zone A. With its location being near the CBD and the government providing better housing at substandard prices it was important to investigate if the project benefitted the intended residents or displacements had occurred. The study looked at two residential sites that were part of the upgrading process. The upgraded site and the decanting site(temporary relocation site). The decanting site housed the residents of Kibera Soweto East Zone A after the enumeration exercise was conducted to allow the construction of 822 units at the upgraded site which were then allocated to the residents of Kibera Soweto East Zone A. According to Fernandez & Calas (2011) some residents at the decanting site decided to rent out their units due to the high rent.

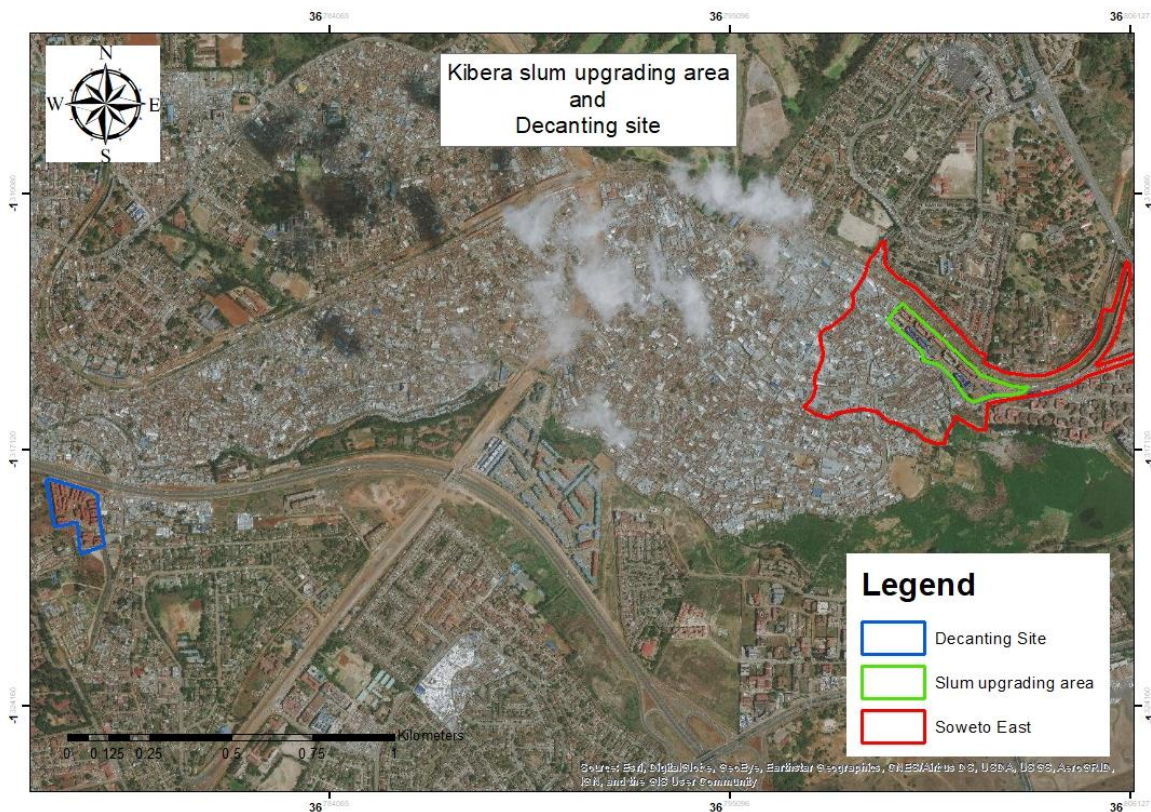


Figure 2: A map of the decanting site in relation to Kibera Soweto East

3.1.2 Overview of the Kibera slum upgrading project

The Kenya Slum Upgrading Project(KENSUP) was a collaborative initiative with UN-Habitat officially launched in 2004, with the aim to improve the slum dwellers lives through housing improvements, income generation, tenure security and infrastructure (UN-Habitat, 2008). According to Ogundele, (2014), the initiative was meant to follow the set goal 7, target 11 of the Millennium Development Goals with the following measurable outputs: “Access to improved water, access to improved sanitation facilities, sufficient living area, structural durability and security of tenure”. This joint initiative had set tasks for the various entities involved, that is, UN-Habitat mainly provided technical advice to the Kenyan Government while the Government of Kenya was responsible for the execution and management of the upgrading

project through resource supply, handling land and tenure issues and monitoring and evaluation (UN-Habitat, 2008).

The aim was for the slum upgrading process to take an *in situ* approach, that is, it was to ensure that structures are to be left in their original position, provide formal land rights to the former slum dwellers, provide infrastructural improvement with minimum disruption and gradual transformational support to durable housing (Stenton, 2015). This was a step away from housing interventions that were carried out via forceful evictions or slum clearance leading to the displacement of communities. The KENSUP programme was seen as unique due to the fact that it took the initiative of including the population affected by the slum upgrading project in the planning process. Public participation was used to engage the former slum dwellers, especially about the enumeration exercise before the start of the upgrading project and the balloting process conducted before allocation of the upgraded units. The means used to disseminate information was done via public *barazas*, radio talk shows, newspaper and media platforms. In order to prevent mass evictions, it was prudent to carry out the slum upgrading process in phases. Hence, the selection of one of the Kibera villages. Kibera Soweto East was selected due to the following reasons as stated by Ogundele, (2014):

- “1. Land Ownership: Land Ownership is clear, hence minimal complications regarding acquisition and compensation.
2. State of infrastructure and social facilities.
3. Community Cohesiveness/ organization: There exists well-organized community groupings providing good entry points for community mobilization and minimizing controversy.
4. Population size and Settlement: the size was ideal for a pilot project.
5. The ratio of structure owners to tenants: The existence of a large population of resident structure owners. It is hoped that this will encourage smooth negotiations as they stand to benefit from improved conditions.
6. Condition of housing structures and the presence of other interventions.”

After the site selection, an enumeration exercise of the whole village was conducted to gather information on demographics (Stenton, 2015). The village was then divided into four zones: A, B, C and D. Zone A was to undergo the first phase of the slum upgrading process. A temporary site also known as decanting site was constructed to house the residents of Kibera Soweto East Zone A while the slum upgrading process was being undertaken. The decanting site is located in Lang’ata (as shown in figure 2), which is in the southwest part of Kibera bordered by the Lang’ata estate and the Lang’ata women’s prison. This was done to allow the community to stick together as well as provide ease in information dissemination. Only Kibera Soweto East residents were allowed to occupy the units and each was given an identification card which is used for identification purposes. The residents are, however, meant to be relocated to the upgraded units after the slum upgrading process has been completed. Residents relocated to the decanting site were required to pay a standardized rent of Ksh.3000(€25.11)² which is inclusive of water and electricity.

The project however, experienced delays due to court injunctions brought about by structure owners being unhappy with project (Stenton, 2015). After a long wait, the upgraded units were finally completed and allocation of units done in 2016. 822 units were made available to the residents of Kibera Soweto East Zone A.

Research Design and Approach

The aim of the research was to investigate the occurrence of gentrification in Kibera as a result of the Kibera slum upgrading project. The study aims to investigate slum gentrification by looking at slum gentrification for Global South countries. The research looks into the slum gentrification at Kibera Soweto East Zone A, what drives the slum gentrification and how it can be mitigated. Therefore, a case

² Ksh.1= €0.0087

study approach is adopted for this study looking at the causal-effect of the drivers/indicators of gentrification. The scope of the research focused on the upgraded area of Kibera Soweto East Zone A and the decanting site where the residents were temporarily relocated, and some still remained. The study aimed to look at the level of displacement in the units meant to benefit the Kibera Soweto East Zone A residents.

The study took on a mixed-method approach by combining both qualitative and quantitative data collection and analysis methods. The primary data collection method employed was household surveys and semi-structured interviews used to collect socio-economic data of the respondents at both the decanting and upgraded site, while the semi-structured interviews backed up information from the literature review. Data collected using questionnaires were used for quantitative data analysis to show the socio-economic status of the respondents. Semi-structured interviews were conducted on officials who were working on the slum upgrading project in Kibera. The information collected was used to back-up data collected from the literature review. Secondary data collection involved reviewing relevant literature on the KENSUP programme and investigating slum gentrification. For this study, no spatial analysis was carried out. Indicators/drivers of gentrification were determined through literature review from relevant slum gentrification studies conducted by various authors.

3.2. Data Collection

This phase involves primary data collection from the selected case study area. The first task of the fieldwork was a reconnaissance of the study area which will enable connection with officials running the upgraded site and the decanting site. By establishing a connection, it was easier to conduct the household survey as well as be provided with aids who are familiar with the residents of both sites.

3.2.1. Sampling strategy

Interviews

Purposive sampling technique was applied in selecting the key informants. The sampling method was chosen due to its advantage to allow a researcher to select persons with knowledge of the research being conducted. The key informants were experts who were part of the Kibera Slum Upgrading Project and had experience on the project process as well as its outcome. Snowballing was applied to get information on the whereabouts of the residents who have moved out of the upgraded units or the decanting site.

Household survey

The household survey targeted three groups of residents in Kibera. The residents who had been relocated to the upgraded site, residents who were still at the decanting site and residents who had not transferred to the upgraded site or the decanting site. Simple random sampling technique was used for the household survey in both the upgraded site and the decanting site. Snowballing sampling technique to allow residents to give information on the location of other residents who might have moved away.

3.2.2. Key Informant Interviews

Key informant interviews were conducted with officials who had worked on the Kibera Slum Upgrading Project. The interviews were meant to gain insight into how the Kibera Slum Upgrading Project was conducted, if at all there were displacements from the upgraded site, reason as to why some Kibera residents had not been relocated to the upgraded site and their perception of the slum upgrading project and gentrification in Kibera.

Key informant interviews with officials who worked on the first phase of the Kibera Slum Upgrading Project were conducted on the 13th, 14th and 26th of February, 2020. The interview questions were divided into three sections as shown in Appendix 3.

Section one looked at the eligibility of a resident for the project, section two inquired on the situation at the decanting site and section three looked at the situation at the upgraded site. The interviews were held

at the offices of the key informants. An interview session lasted for at least thirty minutes. The interview sessions were recorded using a tape recorder. Short notes were also written down as the interview session went on. The notes were used as backup for any information that might not have been captured correctly during the interview session.

The recorded interviews were transcribed with the notes taken down factored in. This allowed the display of coherent information that could be used to back-up arguments and information collected from secondary data sources. Information from the interview sessions was also to be used to provide demographics data i.e. the number of people who are meant to benefit from the project and how many have not still benefitted and also provide the informant’s perception on gentrification occurring as a result of the slum upgrading project as well as the view of the informants on slum gentrification in Kibera Soweto East Zone A as well as to back-up information collected from relevant literature.

Table 4: Key informants

Code	Name	Position
E1	Peter Lang’at	Senior Housing Officer-Ministry of Housing Slum Upgrading Department
E2	David Musili	Secretary General-Kibera Rehousing Programme
E3	Mbusya Muli	Data Administrator-Ministry of Housing, Slum Upgrading Department

3.2.3. Household survey

The household surveys were designed for specific target groups i.e. the residents at the upgraded site (see Appendix 1) and the residents at the decanting site (see Appendix 2).

Unfortunately, even with the snowballing technique, residents who did not relocate to the upgraded site or decanting site were unable to be located. Therefore, the questionnaires were only administered to the residents living at the upgraded site and the decanting site. The household survey was administered by myself with me asking the respondents questions and filling out their responses. Each questionnaire took approximately 15 minutes per person. The questionnaires were best administered on weekdays during daytime hours. The responses are coded depending on the various variables contained in them and then fed into SPSS for analysis.

Household survey was conducted to get an overview of the residents inhabiting the upgraded site and the decanting site as well as get their perception on the slum upgrading project and determine if gentrification is indeed occurring in Kibera Soweto East Zone A. The questionnaires were both close-ended (where the respondent gave a yes or no answer) and open-ended that allowed the respondents to give more information when required. The questionnaire targeting the residents at the upgraded site (Appendix 1) was divided into three parts:

Table 5: Upgraded site questionnaire

	Main theme	Reason	Variables
Part 1	Eligibility of the resident for the slum upgrading project	It was important to determine whether there were residents who had moved into the upgraded or decanting site without being eligible	<ul style="list-style-type: none"> ➤ Number of years lived in the region. ➤ Eligibility status ➤ Reason for their ineligibility. ➤ Education level

		for the project. The education level was used to determine the literacy level of the population.	
Part 2	Location of residents who were not relocated to the upgraded site or the decanting site	This was asked to get an idea on where the residents who could be eligible relocated to and find the reason as to why they were not relocated to the upgraded site or the decanting site.	<ul style="list-style-type: none"> ➤ Knowledge on whether all residents were relocated to the decanting site. ➤ Knowledge on whether the respondent knows the whereabouts of the residents who were not relocated to the upgrading site. ➤ Knowledge on whether one knew of residents who were not relocated to the decanting site but were still allocated units at the upgraded site.
Part 3	Changes in economic status and perception on gentrification.	This part focused on the economic changes such as change in employment status, household monthly income and rent prices. The questions were asked to gain insight into how the lives of the respondents have changed and if the slum upgrading project was the reason for the changes	<ul style="list-style-type: none"> ➤ Economic status. ➤ Household monthly income. ➤ Accessibility to services. ➤ Rent prices. ➤ Perception on the occurrence of gentrification in the region

The questionnaires administered to the residents living at the decanting site (Appendix 2) was also divided into three parts.

	Main theme	Reason	Variables
Part 1	Eligibility of the resident for the slum upgrading project.	This section was meant to determine if the residents occupying the units at the decanting site were the original residents of Kibera Soweto East Zone A or new comers awaiting to benefit from the upgrading project.	<ul style="list-style-type: none"> ➤ Number of years one has lived in Kibera Soweto East and the decanting site. ➤ Eligibility status. ➤ Reason for not being relocated to the upgraded site. ➤ Education level
Part 2	Location of residents who were not relocated to the decanting site.	This section inquired on the location of residents who were not at the decanting site .	<ul style="list-style-type: none"> ➤ Knowledge of residents who were eligible but not relocated to the decanting site. ➤ Knowledge of residents who were not eligible but relocated to the decanting site. ➤ Location of residents who were not relocated to the decanting site.

Part 3	Changes in economic status and perception on gentrification	This section aimed at gathering information on whether the residents living at the decanting site had an improved life compared to how they were before being relocated. Perception on gentrification of the area was also inquired upon	<ul style="list-style-type: none"> ➤ Economic status. ➤ Household monthly income. ➤ Accessibility to services. ➤ Rent prices. ➤ Perception on the occurrence of gentrification in the region.
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3.2.4. Characteristics of the sample

The majority of the respondents fall between the age groups 15-19 at the upgraded site and the age group between 35-39 at the decanting site as shown in figure 3 below. This goes to show that majority of the residents are the youth with very few aging population at both sites.

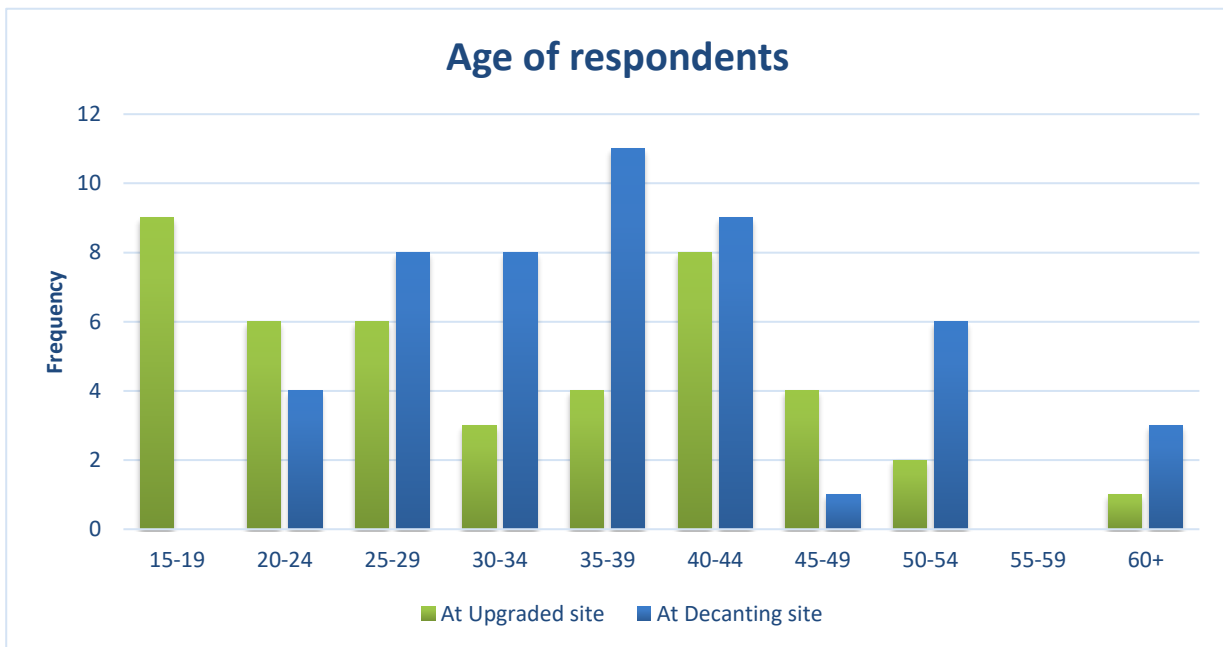


Figure 3: Age group of respondents

Majority of the respondents at both the upgraded site and decanting site were female. 29 female respondents at the upgraded site against 14 male respondents. 28 female respondents at the decanting site against 22 male respondents as shown in figure 4.



Figure 4: Gender of respondents

3.3. Data Analysis

This involved the processing and analysing of data collected during fieldwork. A total of 93 questionnaires were administered at both the upgraded and decanting site. The information filled out in the questionnaires, was coded, extracted in .xls format and exported to SPSS. Frequency distribution was used to analyse education level, employment status, changes in employment status, changes in household monthly income, changes in rent prices, service accessibility and perceptions of the slum upgrading project and occurrence of gentrification. This analysis was done to provide outputs that show how the slum upgrading project has affected the lives of the residents and if this will lead to either the residents selling/renting out their units or stay in their provided units. A Chi-square test was conducted to determine the changes experienced by the residents at the decanting site and the upgraded site as a result of the slum upgrading project and if there is any significant relationship.

4. RESULTS

This chapter focuses on the results and findings of the research based on the data collected during the fieldwork as well as literature review. The results and findings are reported with regards to the research objectives defined in section 1.3.

4.1. Analyse the Kenya Slum Upgrading Project process

The first objective of the study was to analyse the slum upgrading process undertaken in Kibera. This objective aimed at identifying the major process that was followed during the slum upgrading process; section 4.1.1, the beneficiaries of the slum upgrading project; section 4.1.2 and the outcome of the slum upgrading project; 4.1.3.

4.1.1. The slum upgrading process

This findings in this sub-section is based on the data collected from the interviews and relevant literature. The aim of the slum upgrading project in Kibera was to improve the livelihoods of the people living in slums through improved housing, provision of tenure and physical and social infrastructure as well as generation of income (UN-Habitat, 2007, Muraguri, 2011). As mentioned in section 3.1.2 the slum upgrading process was carried out in phases with Kibera Soweto East Zone A being the first region to undergo the process. The interviews carried out backed up information from literature that an enumeration exercise was first carried out to identify the Kibera Soweto East slum dwellers and issue them with identification cards. An enumeration exercise according to Smith, Morrow, & Ross (2015), is an exercise done to compile a registrar of individuals containing sufficient information about the individuals. It can also be referred to as a census.

The enumeration exercise carried out in the year 2004, collected information on both the tenants and structure owners which included names, next of kin, national identity numbers and members of the household (KNCHR, 2015). As stated by Expert2:

“Verification was done with the structure owner to confirm if the tenant living in the structure was indeed the right tenant. Identification cards were given to both the structure owner and tenants allowing both to be relocated to the decanting site and also ensure that they get units at Canaan estate”.

3,600 households were counted during the enumeration exercise (Expert3).

For the project to be carried out, temporary relocation was required which allowed the government to demolish the structures occupying the land where the upgraded units were to be constructed. The relocation of the former slum dwellers to the decanting site took place in the year 2009, after the residential blocks at the decanting site had been completed. 1,200 household were relocated to the decanting site. This resulted in the Government of Kenya and the Kibera Soweto East Zone A residents to enter into a memorandum of understanding stipulating that the residents can move to the decanting site or any other place, one can move into the upgraded units once they were finished as long as they had proof of identity, rent was required to be paid monthly and one can seek legal redress if needed (KNCHR, 2015). The literature is backed up by the responses given by Expert2 and Expert1 which state that:

“The relocation was optional. Some decided not to relocate to the decanting site and seek out cheaper accommodations to allow them to save the amount required to be allocated a housing unit”. (Expert 2)

The residents were also required to be part of a housing cooperative which was formed to help the residents in owning a house. The aim of the housing cooperative was to manage the houses developed during the slum upgrading programme, promote engagement in income generating activities, safeguard the interests of the residents and give residents a pathway when in need of legal action (KNCHR, 2015).

For one to be allocated a unit, they had to meet the following criteria as highlighted by KNCHR, (2015):

- a) Be a beneficiary of the project.

- b) Have an ID from the enumeration process.
- c) Be a member of the housing cooperative.
- d) Deposited 10% of the housing unit one is interested in.
- e) Have no rent arrears if one was living at the decanting site.
- f) Each household is issued with one housing unit.

However, due to court cases, the slum upgrading project took longer than usual. There was a halt in the construction at the upgraded site from the year 2009 to 2011. In 2012, construction of housing units at the upgraded site resumed. In the year 2016, the upgraded housing units were ready for occupation.

Rehousing of the residents of Kibera Soweto East Zone A after the slum upgrading project was complete, was conducted via a balloting system due to the limited number of housing units that were constructed (Expert1). The balloting process was to assist in determining which housing unit to allocate to a resident. In order for one to qualify for the balloting process as well, a certain amount should have been raised by the household head depending on the number of bedrooms the household required.

“Some of the residents disqualified from the balloting process because they had not saved the amount required” (Expert2).

The residents were to choose between the one bedroom, two bedroom and three bedroom housing units. If a resident had applied for the three bedroom unit but had not saved the required 10%, they were given an option of selecting a two bedroom unit. Three bedroom units were 144 and two bedroom units were 480 (KNCHR, 2015). Other than the down payment required to be paid, the residents are still required to pay monthly instalments for their units for a period of 25 years. Single room required a monthly instalment of Ksh.2000(€17.32), 1 bedroom required a monthly instalment of Ksh.3500(€30.30) and 2 bedrooms required an instalment of Ksh.4500(€38.96) (Expert3).

4.1.2. Beneficiaries of the slum upgrading project

The intended beneficiaries of the slum upgrading project were the dwellers of Kibera Soweto East Zone A before the slum upgrading project began and who had partaken in the enumeration exercise. Data collected during the enumeration exercise contained the names of the household heads, their next of kin, household members, and their national ID numbers. As was stated by Expert2:

“The people living in the project affected area were the intended beneficiaries of the project”.

The intended beneficiaries of the slum upgrading project included the tenants living in the structures and the structure owners. In order for the Government of Kenya to identify the intended beneficiaries, identification cards were issued which were used to identify the households when it came to allocating the new units to the households. While conducting the surveys, the households were requested to state whether they were eligible for the slum upgrading project or not, i.e. if they had been identified during the enumeration process and issued with identification cards. By inquiring on their eligibility status, the study aimed to find out if there had been ineligible residents at both the upgraded and decanting site.

Figure 5 shows that 76.7% of the respondents at the upgraded site were eligible for the slum upgrading project as opposed to 23.3% who were not eligible for the project since some were renting or had inherited the units they were occupying. 90.0% of the respondents at the decanting site were eligible for the slum upgrading project while 10.0% were not eligible for the project. This shows that the upgraded site has a higher number of ineligible residents compared to the decanting site. A chi-square test of independence was conducted to determine if there was a statistical significance between the eligible and ineligible residents at the upgraded and decanting site. There is a significant relationship between the variables, $\chi^2(2)=6.739, p<.05$.

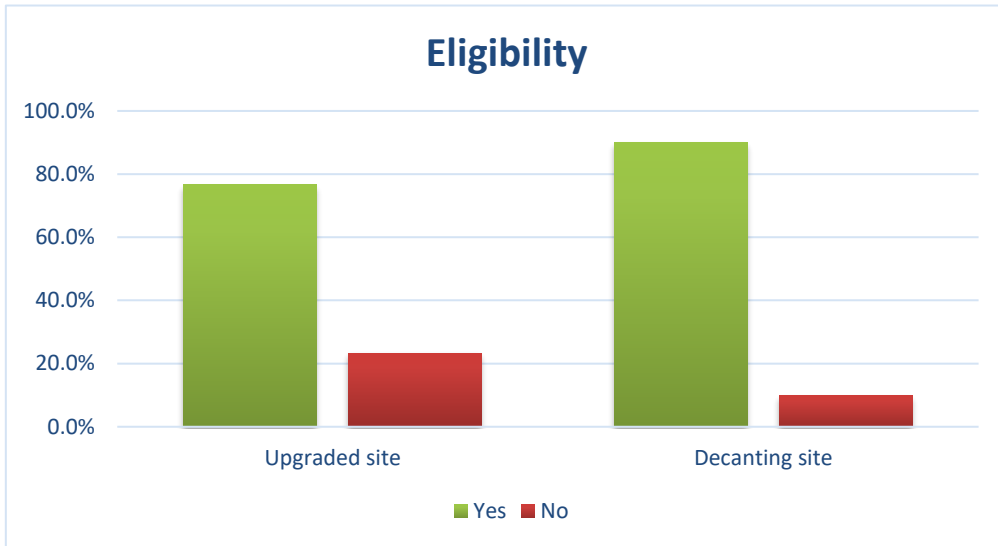


Figure 5: Eligibility of respondents

The household survey required the residents to state the reasons why they were not eligible for the project. As can be seen from figure 6 below, shows the reasons given by the residents as to why they were not eligible. In an interview session with Expert1 and Expert2, it was however, made clear that the residents who had inherited their units from deceased parents or partners were still considered as eligible.

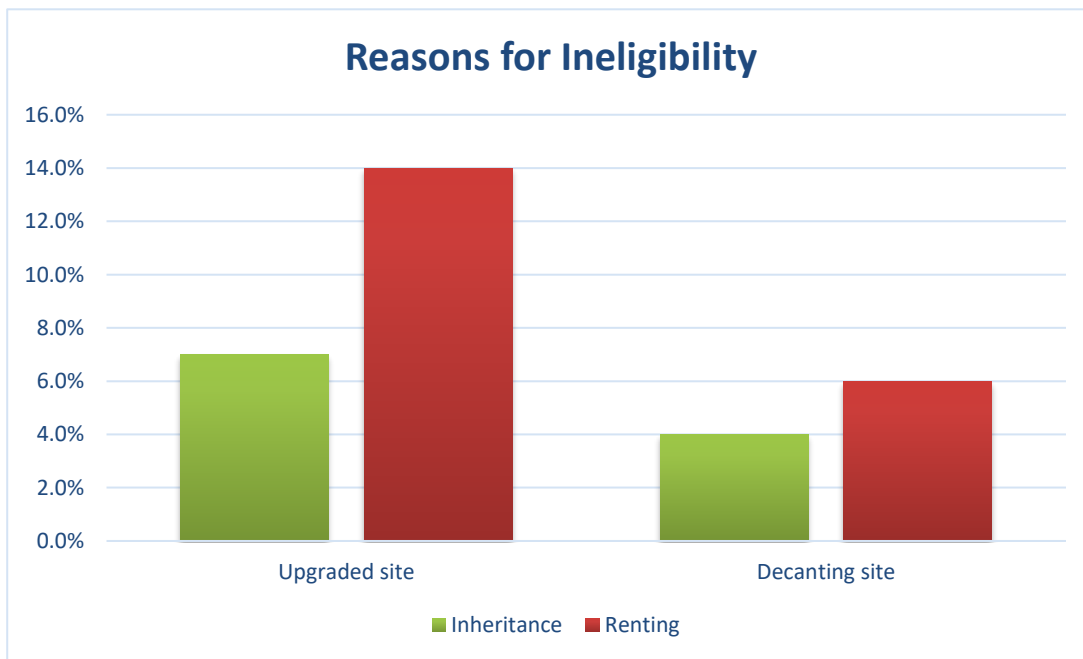


Figure 6: Reasons for ineligibility

4.1.3. Outcome of the slum upgrading project

822 housing units, 245 commercial stalls and a multi-purpose hall were ready for habitation and use in 2016. The housing unit prices were subsidised and went for the prices of: one bedroom-Ksh.600,00 (€5,011.83), two bedroom-Ksh.1,000,000 (€8,353.05) and three bedroom Ksh.1,350,000 (€11,276.62). This resulted in 1200(33%) households not being relocated to the upgraded units(E3 and E1).

Figure 7 shows the reasons given by respondents at the decanting site as to why they were not relocated to the upgraded site. The question posed to the residents was open with no multiple choices to choose from. The major reason for not relocating by majority of them was due to the failure of raising the down payment required. By constructing fewer housing units, even if one had saved the amount required, a housing unit at the upgraded site would still have not been allocated to the household if all the units at the upgraded site were full. One may have qualified for the balloting process and have raised the required amount, but due to fewer housing units available, a household may end up being allocated a housing unit with fewer rooms i.e. a household may have raised the amount for a two bedroom but allocated a one bedroom or a single room.

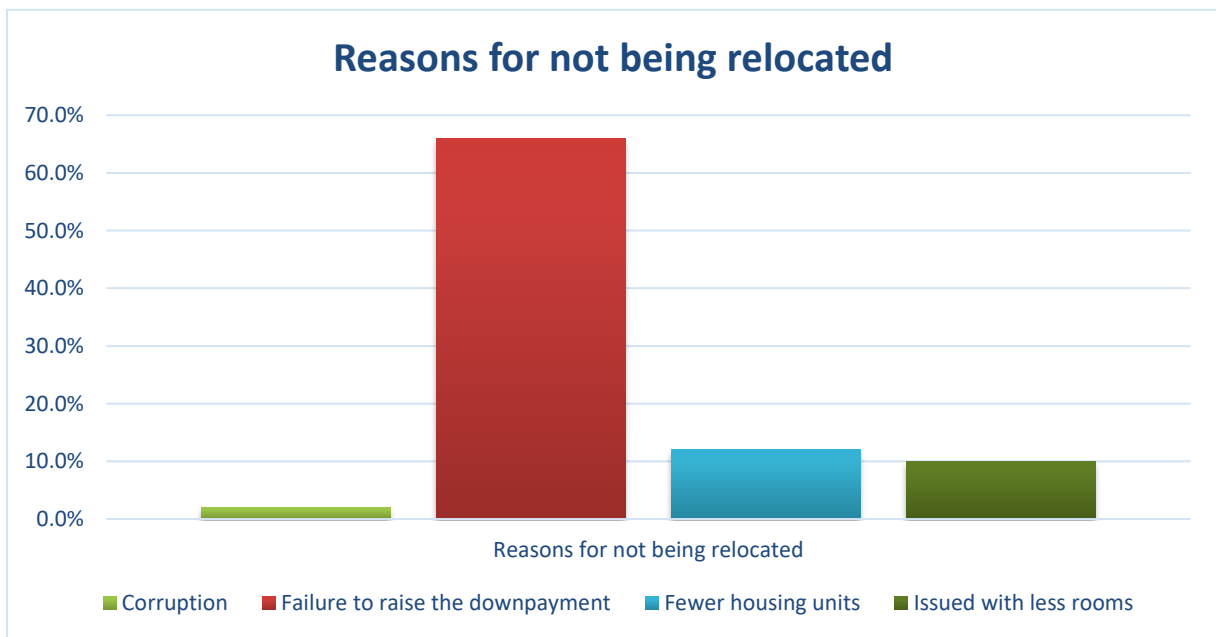


Figure 7: Reasons cited by residents for remaining at the decanting site

It should also be noted that residents who did not move to the decanting site, were still allocated units at the upgraded site as long as they showed proof of being enumerated. For a single room, the amount that should have been raised was Ksh.50,000(€432.88)³, for a one bedroom, the amount to have been raised was Ksh.75,000(€649.33) and for a two bedroom, the amount raised should have been Ksh.130,000(€1125.50) was required (Expert2, Expert1). The amount raised qualified one for the balloting process as well as getting a unit at the upgraded site. Due to limited resources of the inhabitants some were unable to raise the amount required. Interview with Expert2 revealed that:

“If one has not raised the set amount, they do not get the unit required”.

One of the objectives of the slum upgrading project was to improve accessibility to water, sanitation facilities and infrastructure. Services like hospitals, schools, water, electricity and sanitation services are essential to a community. Services like these should be easily accessible to a community to ensure the

³ Based on the current exchange rate: €1=Ksh.0.0087

wellbeing of the community is taken care of. Slum upgrading projects are meant to ensure that these kinds of services are easily accessible to everyone. From the field visit, it could be determined that water and electricity were readily available to the residents, with garbage pickup points placed around the estate. No new schools or hospitals had been constructed, however, there was a primary school a few meters away from the estate. Access to public transportation is also easier with pick up and drop off points outside the estate entrance.



Figure 8: Kibera Soweto East Zone A, year 2011. Source: Google Earth



Figure 9: Kibera Soweto East Zone A, 2020. Source: Google Earth

From figures 8 and 9, it can be seen that the area seems to be well planned with the vertical buildings introduced to save on land and house majority of the Kibera Soweto East Zone A residents. The road leading to the estate is tarmacked and there have not been any changes to it before and after the slum upgrading project. The residents living at the decanting site however, have access to the newly constructed southern bypass.

From the interviews carried out, all the informants agreed that they have been improvements in services like electricity and water at the upgraded site. The residents at the upgraded site access water regularly as compared to the residents at the decanting site who have to buy water daily. Sanitation has also been improved at the upgraded site, with garbage collection points placed at specific places with weekly garbage pickups while the residents at the decanting site have to sort out their own waste. Residents at both the

decanting and upgraded site have better access to latrines as compared to before the slum upgrading project. Electricity is also accessible. Primary schools are also within walking distances. The questionnaire asked residents to state whether there have been changes in services after the slum upgrading project. Residents were asked to tick a box indicating if the services were accessible, stayed the same or became inaccessible. From figure 11 shows the percentages in service accessibility at both the upgraded and decanting. It can therefore be noted that the slum upgrading project has achieved its objective of improving service accessibility. It can be seen that service accessibility has improved for the residents living at the upgraded site compared to the ones living at the decanting site. A chi-square test of independence was also carried out to determine if there was any relation between the changes in service accessibility at the upgraded site and decanting site. There is a significant relationship between the two variables, ($\chi^2(2)=65.58, P<.05$). This means that services are more accessible after a slum upgrading project compared to before one is carried out.

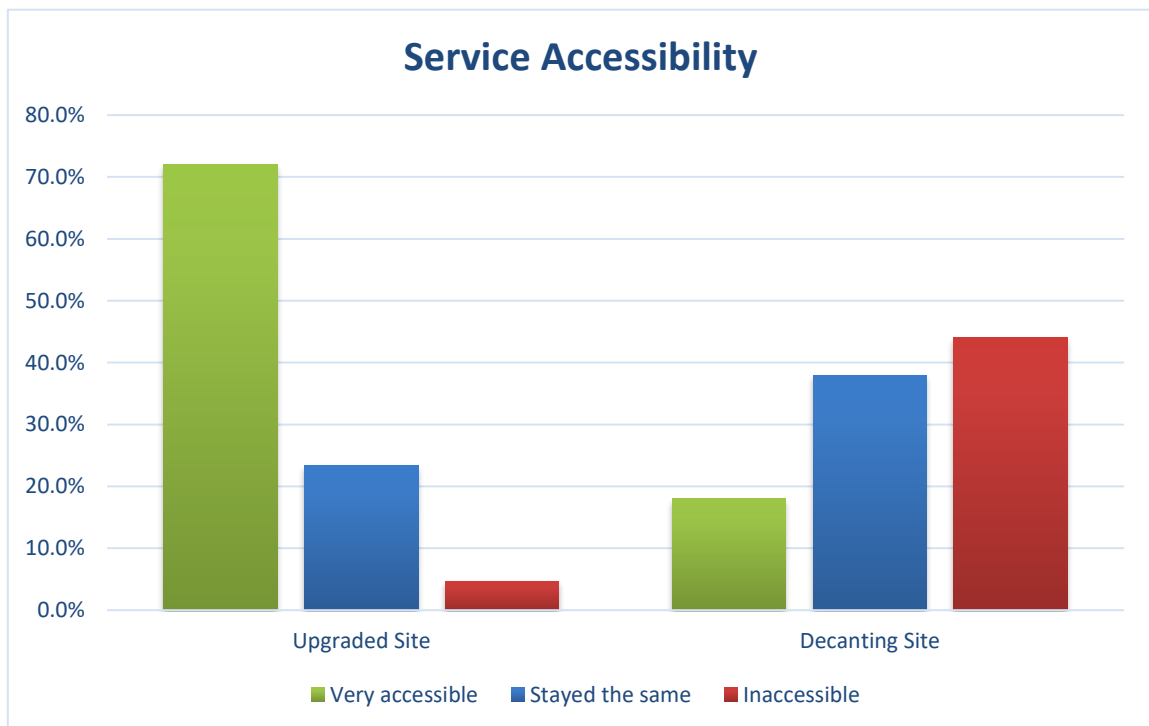


Figure 10: Service accessibility

From the images 11 and 12 below, a huge difference between the decanting site and the upgraded units can be seen. The upgraded site is well maintained with some mini-shops available to be rented to business owners. A social hall is also made available to the residents for their use. The number of mini-shops available at the decanting site is higher than the number of mini-shops within the decanting site made available to the residents.



Figure 11: Housing units at the upgraded site. Source: Rahma fieldwork,(2020).



Figure 12: Housing units at the decanting site. Source: Rahma fieldwork,(2020).

Figure 13 shows the perceptions on the achievement of this objective. Residents were asked a yes/no question on whether they think that the slum upgrading project had achieved its aim of maintaining the original inhabitants. There is a contrast in the responses and it can be noted between the two respondent groups i.e. at the upgraded site and the decanting site. A chi-square test of independence was carried out to determine if there was any relation between the perceptions of the residents at the upgraded site and decanting site on whether the slum upgrading project had achieved its aim of maintaining its original inhabitants. The proportion of residents who agreed that the slum upgrading project had achieved its aim differed, ($X^2(1)=6.91, P<.05$). This means that the residents at the upgraded site perceive that the slum upgrading project has achieved its aim as compared to the residents at the decanting site

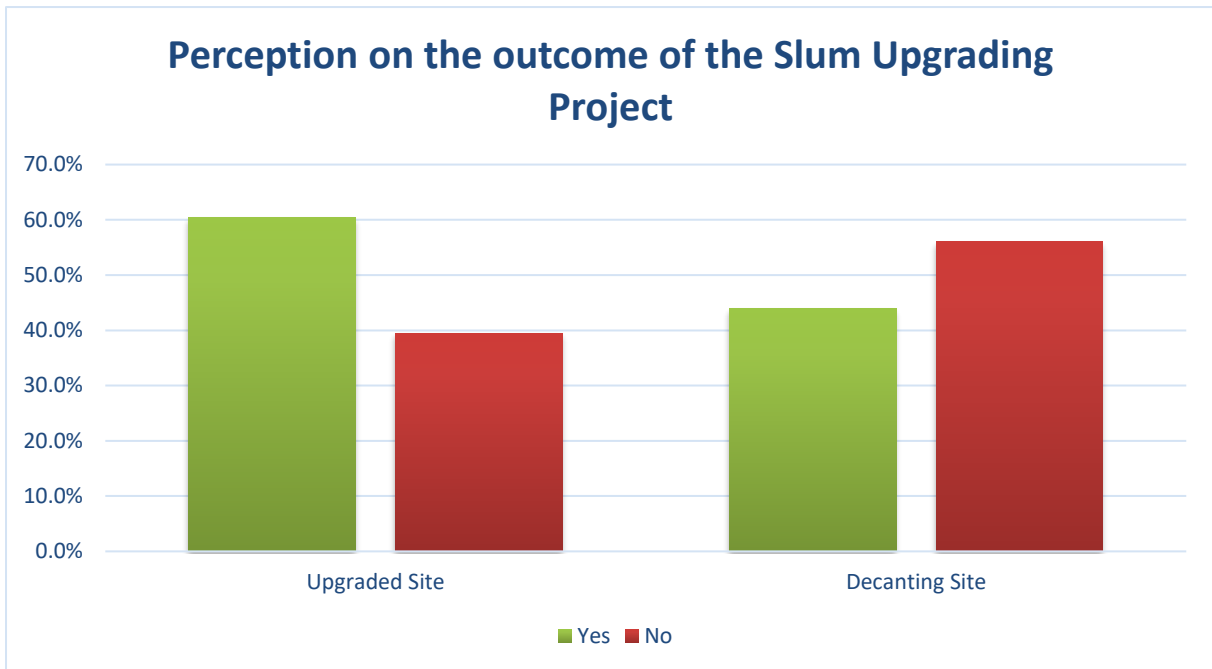


Figure 13: Perceptions of residents on the slum upgrading project

4.2. Socio-economic conditions of the beneficiaries of the slum upgrading project

Slum upgrading projects that lead to alterations in people’s lives usually result in majority of the intended beneficiaries displaced from their homes especially through involuntary displacements brought about by increase in rent with no improvements to employment opportunities or monthly incomes. The socio-economic conditions of the Kibera Soweto East Zone A residents was analysed using primary data collected during the household surveys both at the upgraded site and the decanting site. This was done to show any socio-economic changes experienced by the Kibera Soweto East Zone A residents after the slum upgrading project was completed.

4.2.1. Education level

Figure 14, shows the education level at both the upgraded and decanting sites. It can be seen that the education level at the upgraded site is higher compared to the respondents at the decanting site. From the chi-square test of independence carried out to determine if there was any relation between the education levels of the residents at the upgraded site and decanting site. There is a significant relationship between the two variables, ($X^2(4)=34.307, P<.05$). Residents at the upgraded site seem to be more likely to have a higher education level compared to the residents at the decanting site. The figure also shows the level of education for the residents who were ineligible for the slum upgrading project. The ineligible residents at the upgraded site have a higher education level compared to the residents who were ineligible at the decanting site. The ineligible considered in this analysis are the ones renting the units and not the ones who had inherited the units.

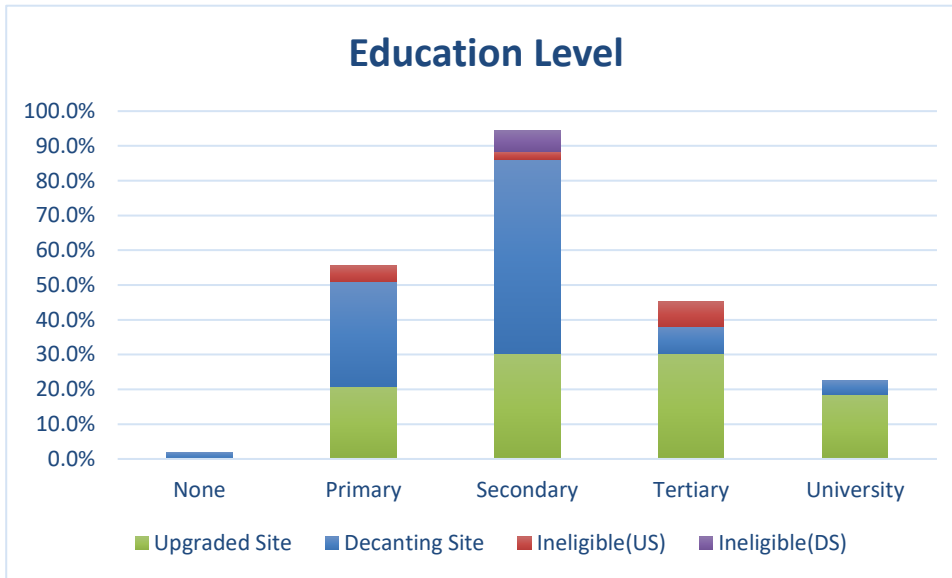


Figure 14: Education level

4.2.2. Employment status

Employment status was categorised into unemployed, temporary employed/freelancer and permanently employed. The respondents were required to choose the option applicable to them. The unemployed category refers to the ones who are looking for work, temporary employed/freelancer refers to people who are either self-employed or have short term contracts, permanently employed refers to the ones who have long term contracts or fall under the permanent and pensionable employment status. The figure 15 below shows the employment status of the residents both at the upgraded and decanting site. It also shows the employment status of the residents who were ineligible for the slum upgrading project. The figure shows that the major employment status of the ineligible residents at both the decanting and upgraded site is temporary employment/freelancing.

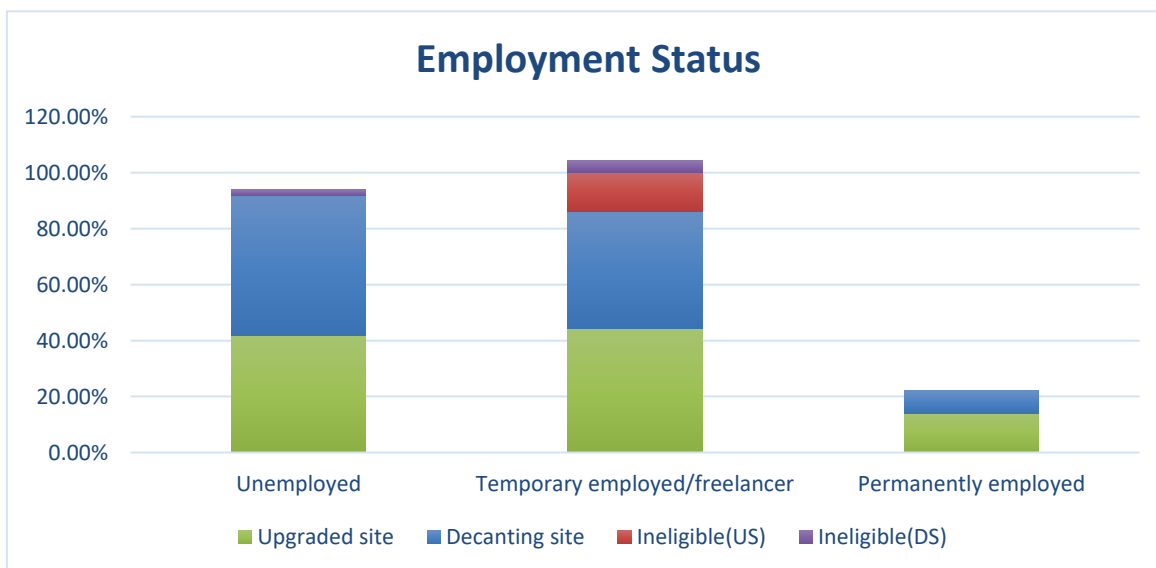


Figure 15: Employment status

Figure 16 below shows the changes in employment status at both the decanting and upgraded site. Changes in the employment status is considered if one has lost or gained employment as a result of the slum upgrading project. Here, the respondents were required to give a yes/no answer to the question.

Some of the residents stated that they have gained employment through opening a market stall others however stated that due to the shift from where their structure was located, they lost their employment. From the chi-square test of independence carried out to compare the frequency of changes in employment status at the upgraded site and decanting site. The relation between the two variables was not significant, ($X^2(1)=0.06, p=.809$). There is likely to be no change in employment status for the residents at the upgraded site.

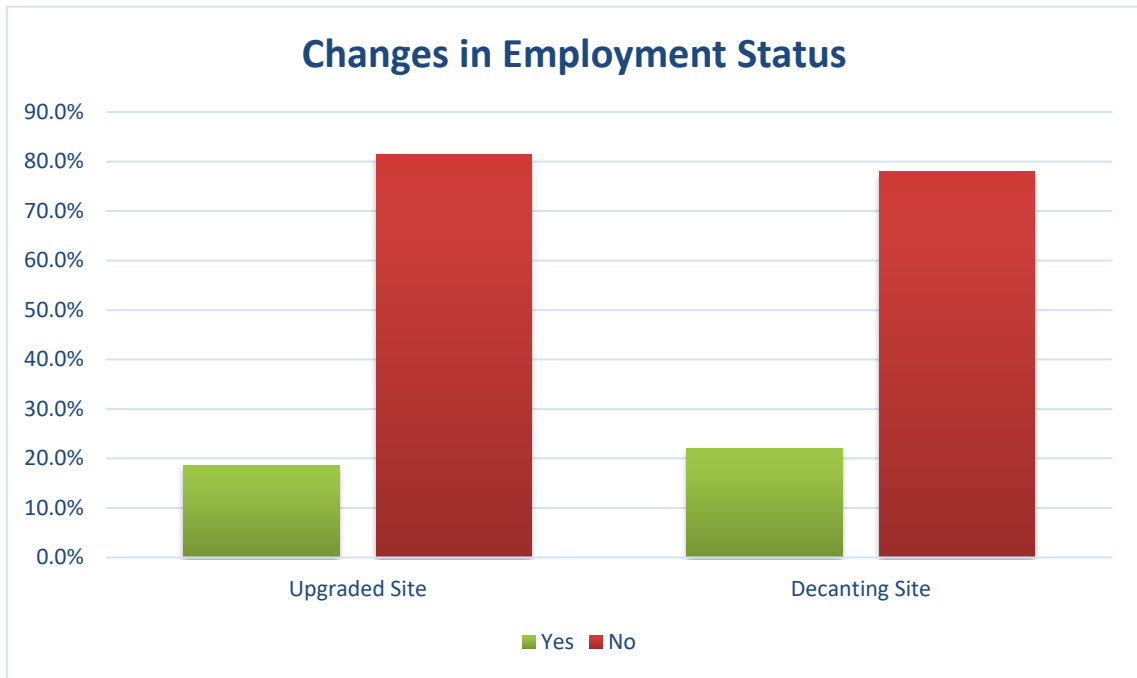


Figure 16: Changes in employment status

4.2.3. Household monthly income

Household monthly income refers to the total amount a household receives/has at the end of every month, be it in terms of salary paid or the total amount one has from their business. The household monthly income is usually linked to the employment status of an individual/household. Figure 17 below shows the current household monthly income of the respondents at both the upgraded and decanting sites. Respondents were required to choose the amount range in which their household monthly income falls under. Ineligible residents considered were only the renters. As it can be seen in the figure the ineligible residents enjoy a high household monthly income.

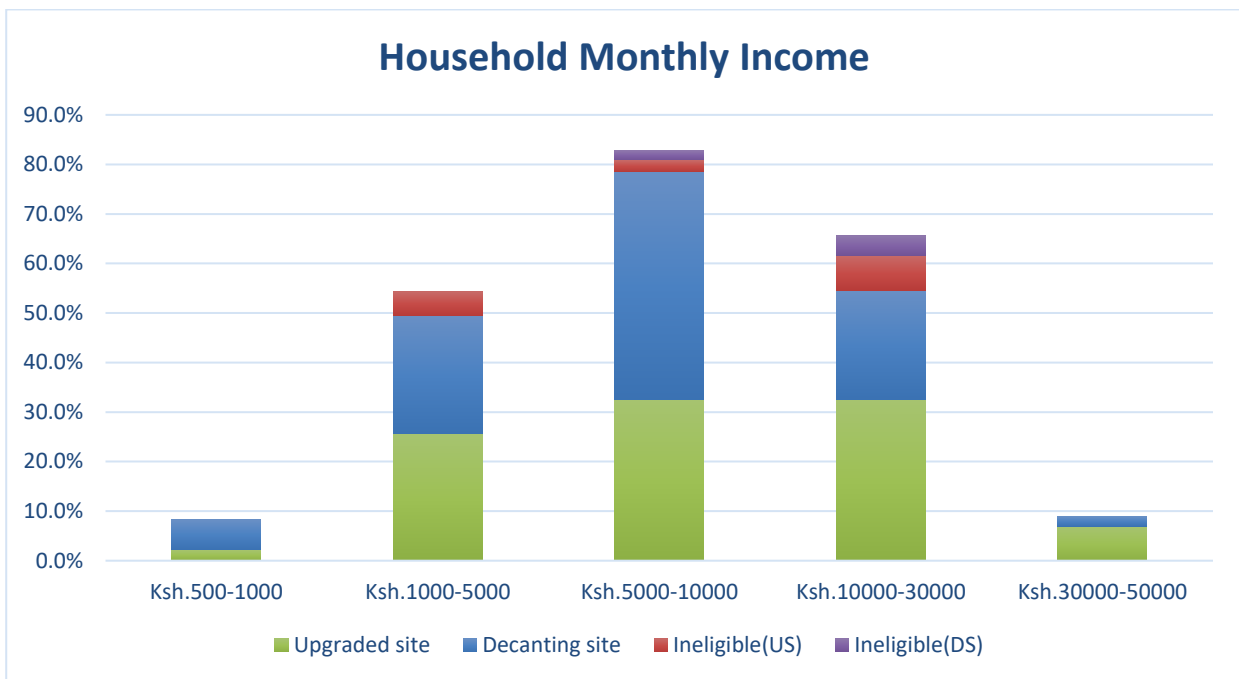


Figure 17: Household monthly income

The figure 18 shows the changes in household monthly income at both the upgraded and decanting sites. Some of the reasons given for change of household monthly income were linked to one acquiring a new job or getting a better job and a boost in business. Others however stated that the low business contributed to the change in monthly income while others stated that the cost of living had gone up. According to the chi-square test of independence conducted, there is a significant relationship between the two variables. Residents at the upgraded site are more likely to experience a change in their household monthly income compared to residents at the decanting site, ($X^2(1)=8.95, p<.05$).

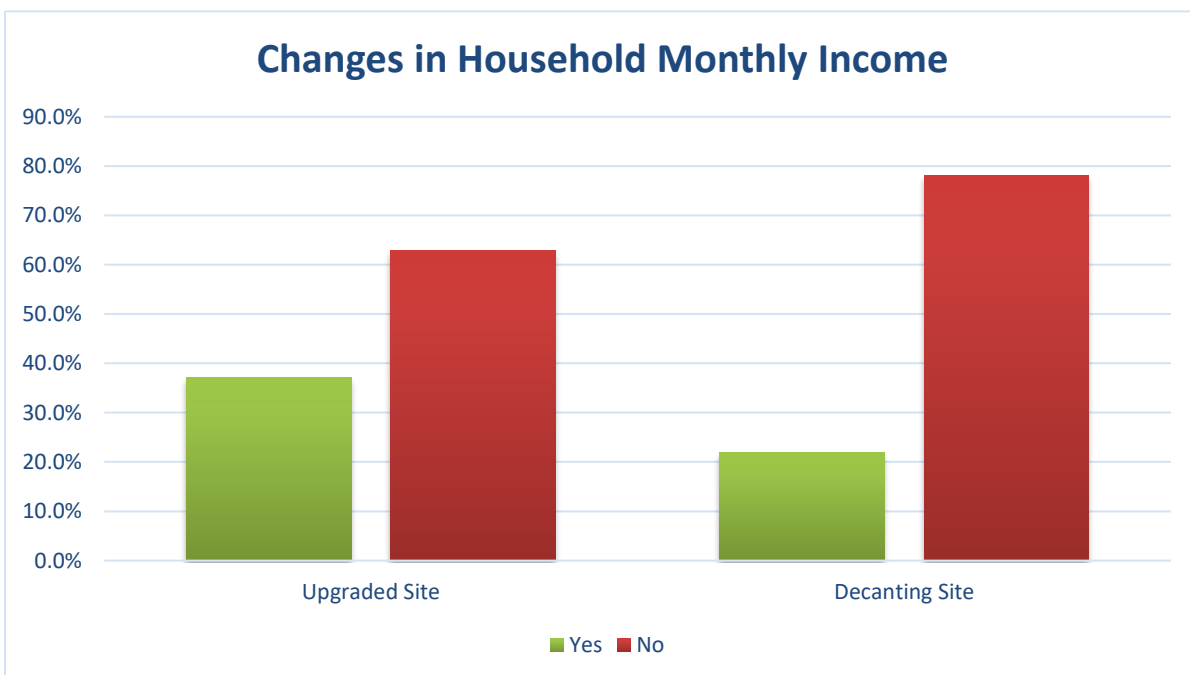


Figure 18: Changes in household monthly income

4.2.4. Rent

In the case of the slum upgrading project in Kibera, the cost recovery of the slum upgrading project is done by mortgaging the housing units to the residents whereby the residents are required to pay a monthly amount to the Government of Kenya. Figure 19 below shows the rent price of the respondents at the upgraded site. From the figure below, some of the ineligible residents at the upgraded site are seen to be paying the same amount of rent as the eligible residents while at the ineligible residents at the decanting site are paying higher rent.

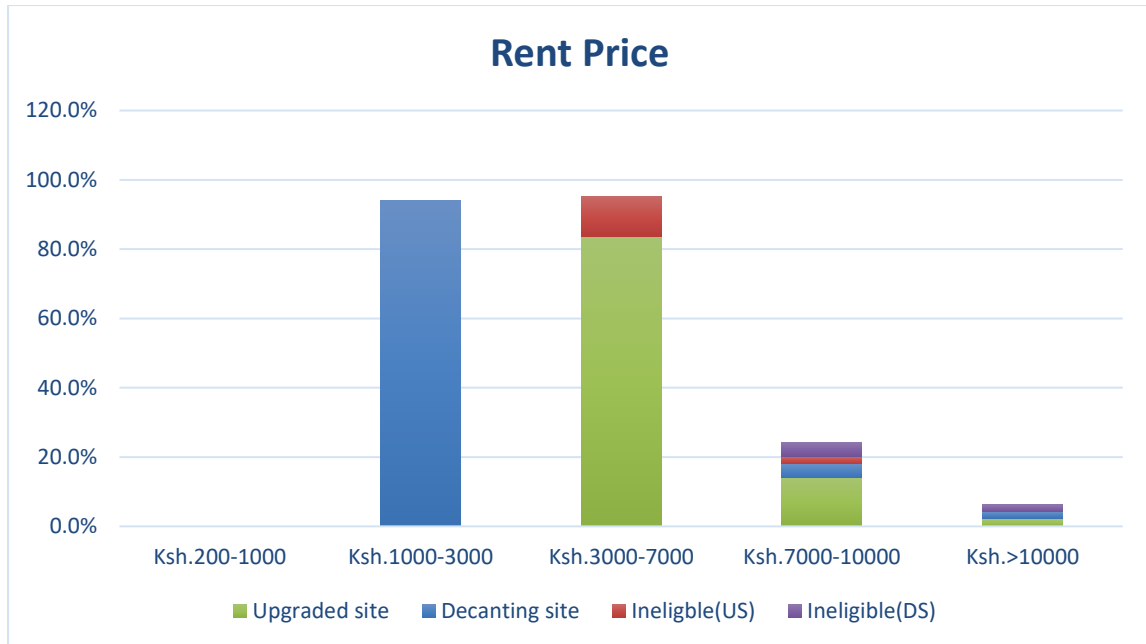


Figure 19: Rent prices

A yes or no response was required to determine if there was a change in rent at both the upgraded and decanting sites as shown in figure 20 shows the percentages stated above. A chi-square test of independence showed that there was significant relationship between the changes in rent prices at the upgraded site as compared to the decanting site, ($X^2(1)=15.21, p<.05$).

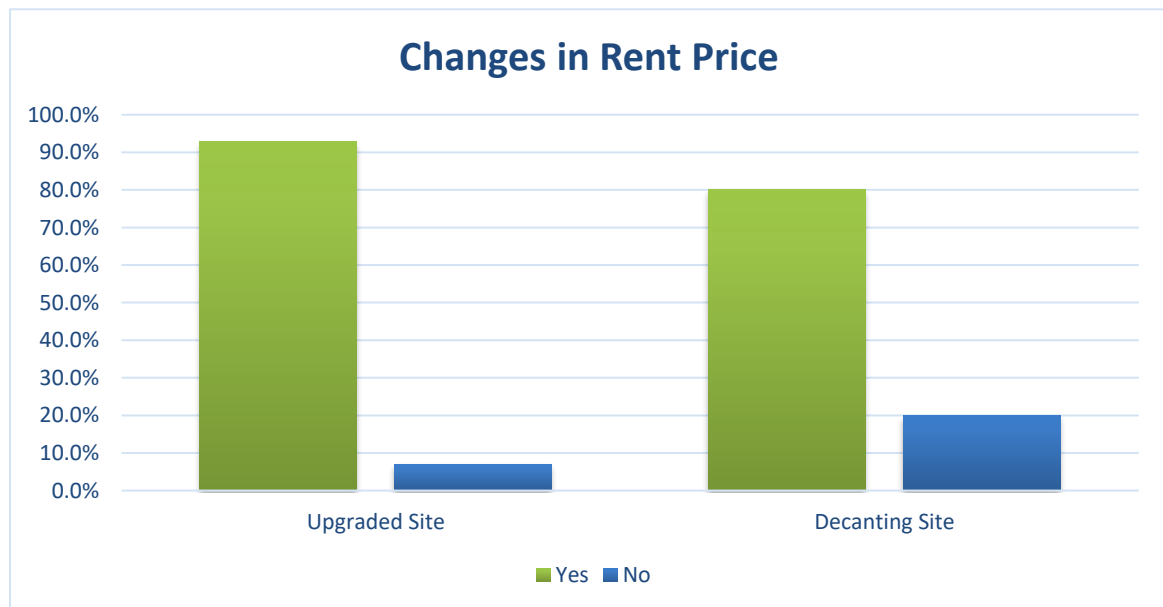


Figure 20: Changes in rent price

4.3. Perceived slum gentrification

The question on the perception of gentrification was directed to the residents staying at the upgraded site. Figure 21 shows the opinion of the residents at both the upgraded and decanting site on whether gentrification is occurring or not.

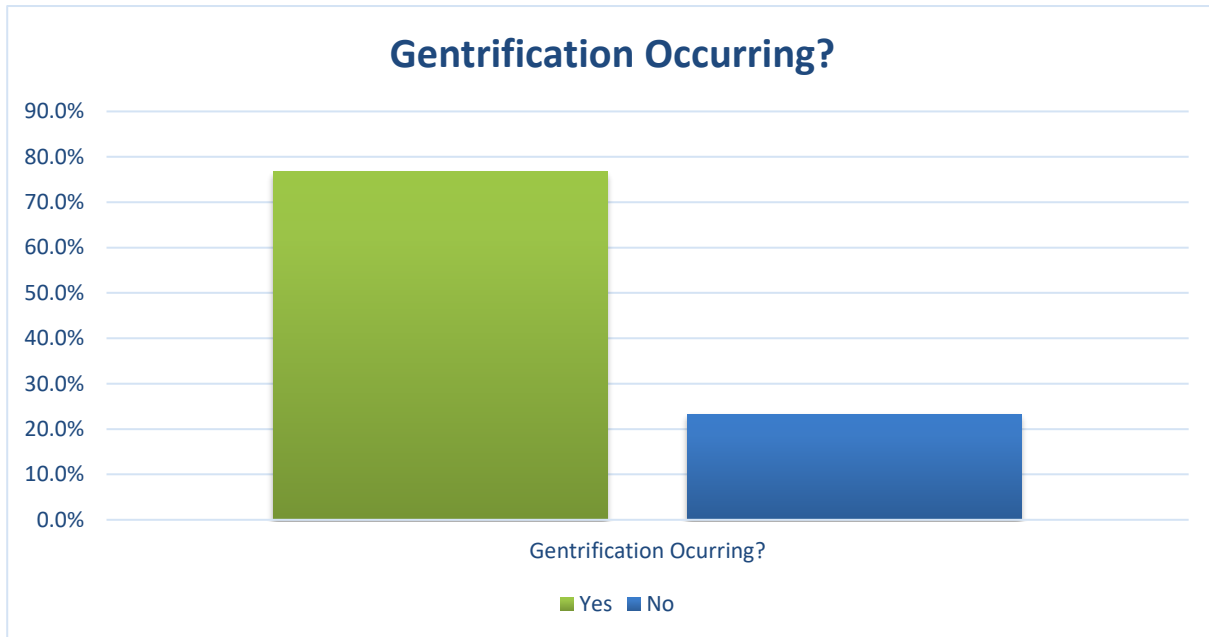


Figure 21: Probability of gentrification occurring

In the interviews conducted, there was not a consensus reached as to whether gentrification is occurring or not. When asked whether slum gentrification is occurring in Kibera, Expert 2 replied:

“It definitely is applicable to Kibera. Outsiders are settling into the units with others having sold their identification cards to other people”

Expert 3 responded by saying:

“Gentrification is not occurring in Kibera since they are the same people occupying the same area of upgrading”

Due to majority of the residents still remaining at the decanting site it is still undetermined as to what extent displacement due to the slum upgrading project has occurred. Expert 3 pointed out that providing more employment opportunities will be the best way to control gentrification since residents opt to rent their units in order to generate income. Since the household surveys covered just a small sample of the residents there could be more people renting units at both the upgraded site and the decanting site.

5. DISCUSSION

This section provides the interpretation of the results provided in chapter 4. The interpretations are based on the objectives set in Chapter 1. It aims to highlight the outcome of the slum upgrading project and if it leads to gentrification.

5.1. Analyse the Kenya Slum Upgrading project process

The research sought to look at how the slum upgrading project was carried out in order to identify whether its process has led to gentrification in Kibera Soweto East Zone A.

Though an enumeration exercise was conducted to determine how many people will be affected, the Kenyan Government constructed less housing units creating a problem when it came to resettling the residents of Kibera Soweto East Zone A. This ensured that not every resident was resettled at the upgraded site. By using a balloting process to allocate housing units to the residents seems like a fair and unbiased process but there was a prerequisite for one to be considered for the balloting process. One had to have raised a certain amount in line with the number of rooms one wanted to live in at the upgraded site. The amount was considered as a down payment for the unit issued to the person. Taking into account the income of the families living in Kibera Soweto East Zone A, the threshold for the amount required was not able to be raised by every resident. This process therefore, paved way for outsiders to partake in the process if they have the amount required for a unit. Outsiders could be issued with units they wanted resulting in the original inhabitants getting units that they did not want or no units at all as can be seen by the responses given by the residents in section 4.1.1 as to why they remained at the decanting site.

In addition to the down payment, a monthly mortgage (can also be termed as rent) has to be paid which further increases the financial burden on the residents. This has resulted in residents renting out their units at a higher price to allow them to have the monthly mortgage amount. As seen in figure 19, whereby the residents at the decanting site have rented out their units at a higher price so as to have an extra income as well as save up the amount required for them to be allocated a unit in the next phase of the project. The slum upgrading process can be seen as one that favours residents who are able to raise the costs of living in the upgraded units because majority of the original inhabitants might not be able to maintain the cost of living in the area and therefore opt to look for cheaper accommodation. In section 4.1.3, the residents at the upgraded site agree that the slum upgrading project has indeed achieved its aim of maintaining its original inhabitants as is shown in the results. This could be because their relocation from the decanting site has already happened while the residents at the decanting site are still awaiting relocation.

Jaitman & Brakarz (2013) point out that labour supply and household productivity can be reduced if there are no proper services such as water or sanitation. The slum upgrading project in Kibera has achieved this aspect as compared to the service accessibility at the decanting site as well as before the slum upgrading project. In regards to section 4.1.3, it can be noted that there has been change structure-wise, from semi-permanent structures to permanent structures. From the slum upgrading process carried out in Kibera as mentioned in section 4.1.1, it can be noted that gentrification is likely to occur or has already occurred. The relocation of the residents to the decanting site without proper set up of income generating activities is a contributor to gentrification. This results in involuntary displacement through increase in rent and cost of living resulting in the moving out of the resident who rents out their unit to earn an extra income. The same has been repeated with the relocation of the residents to the upgraded site without most of them having a steady monthly income which can also result in involuntary displacement. Requiring the residents to raise a certain amount so as to allow resettlement can be seen as a way of neglecting the low income households and only considering middle or high income households. Shutting out the intended beneficiaries from a project that is meant to help them, can be seen as a displacement method whereby only the affluent are able to acquire the units available. Also due to the lack proper employment

opportunities, one may have been able to raise the down-payment but are unable to keep up with mortgage payments. A strain on the household income is therefore created causing another involuntary displacement to occur. Not taking into account the household sizes of the residents, can be seen as contributor to low income households to losing out on the relocation to the upgraded site or resulting in them acquiring housing units that do not fit their family size resulting in overcrowding. Involuntary displacement can again be witnessed here, by either the family choosing to move to another area where their household would fit or breaking ties within the family resulting in some of the family members moving out to rent accommodation elsewhere so as to allow other family members to enjoy their new living space. Improving service accessibility, ensuring security, improved accessibility to and from the CBD makes the upgraded Kibera Soweto East Zone A an attractive place to live in which ensures there is a rising interest from outsiders who would like to enjoy the services.

However, it can be noted that the slum upgrading project in Kibera has not achieved its objective of ensuring the targeted slum dwellers are maintained in their original area since majority of the residents have not been relocated to the upgraded units.

5.2. Socio-economic conditions of the beneficiaries of the slum upgradign project

This section looks at whether there has been changes in the socio-economic conditions of the inhabitants of Kibera Soweto East Zone A after the slum upgrading project, whether they have deteriorated or improved. Looking at the various socio-economic indicators it can be seen that there has been a shift in the socio-economic conditions of the residents after the slum upgrading project. The education level results in section 4.2.1 show that the upgraded site has residents having higher levels of education than residents at the decanting site. The upgraded site has a higher number of residents who have achieved tertiary and university level of education, indicating that they are at an advantage of accessing better employment opportunities and having high income levels. This could be interpreted as shift in social upgrade of the residents occupying the upgraded units whereby there moves in a population with higher education accolades, meaning that they are able to gain access to better jobs, with higher incomes as compared to the residents who the slum upgrading project was meant to benefit.

One of the aims of the Kenya Slum Upgrading Project was to improve income generation. This was to be done by organising training courses that create technical and management skills to help the residents venture into new business opportunities (UN-Habitat, 2007). From section 4.2.2, it can be seen that the permanently employed people at the upgraded site are many compared to the permanently employed people at the decanting site. The number of temporarily employed people at the upgraded site is also higher compared to the decanting site. It can be interpreted that there is a shift in employment status showing that there is an income class higher than the original residents who lived in Kibera Soweto East Zone A. The changes in employment shown could be because some lost their employment after relocating either to the decanting site or upgraded site due to longer distance travelled to their work place or some got better employment opportunities. For families who have lost the income generating activity, it may end up being a challenge especially when it comes to the families' abilities to cater for their cost of living. In order for some families to sustain themselves while having no income, they might opt to rent out their units. The residents working temporary jobs or freelancing also are not assured of their next pay check and therefore might be difficult for them to cover their costs of living. Majority of the residents responded saying that their employment status has not changed after the slum upgrading project, meaning that employment opportunities have been limited. Others however, pointed out that their employment status has changed and this could be attributed to one finding a job near the upgraded or decanting site while some were able to put up small businesses near the area. At the upgraded site, the number of stalls for operating businesses are limited forcing the rest of the residents to look for employment elsewhere. Having limited employment opportunities could be seen as a driving factor for gentrification in the area.

Household monthly income is majorly dependent on the type of employment. As shown in section 4.2.3 household monthly income, after the slum upgrading it can be seen that household monthly income of the residents has changed for residents at the upgraded site, showing an increase in household monthly income of the residents. Due to improved services, there is a probability that families have more time to work or find employment, therefore increasing their income. Also due to improved infrastructure such as road networks it is easier for the residents to travel to and from the CBD or market areas where employment opportunities are available. Families having more than one breadwinner are at an advantage of being able to cater to their daily expenses, however, this is not the case for most Kibera Soweto East residents. This change can also be seen as an indicator of slum gentrification, showing that a higher income class is moving into the upgraded units.

Rent remains a big challenge for the residents at both the upgraded site and decanting site. Compared to before the slum upgrading project, residents of Kibera Soweto East Zone A have experienced changes in rent. Rent at the upgraded site is higher compared to the decanting site due to the improved housing conditions while the rent at the decanting site is standardized. The amount paid per month to cover their mortgage at the upgraded site is high for most residents. This has resulted in some residents renting out their units at higher prices to cover their daily expenses. Due to this, new residents end up occupying the units meant for the original inhabitants while the original inhabitants search for cheaper accommodation. Though the government perceives the rent prices as subsidised, by not providing more employment opportunities to the residents results in some residents struggling to raise the subsidised rent amount. This is in tandem with the statement made by Bah et al., (2018), when he says that slum upgrading projects could lead to gentrification through displacement of residents if housing costs are unaffordable.

5.3. Slum gentrification

In order to identify the occurrence of slum gentrification, indicators were selected from literature (see section 2.5). The indicators identified in section 2.5 were changes in education level, neighbourhood character change, class differential, social upgrading of locale by incoming high income groups, displacement, settlement upgrading/ landscape change and changes in housing stock (see table 3). All indicators were considered applicable in the study area except class differential. Changes in education level usually indicate highly intellectual groups showing that they can fathom situations that are going on around them and it is usually linked to income levels. Neighbourhood character change looks into changes in socio-economic status through type of employment and income levels. This is used to show whether there have been changes in people who have high paying jobs and have high income levels living in areas that predominantly have blue collar employment groups or group with low income levels. Class differential looks into the purchase of subsidised houses/land by wealthy groups preventing low income groups from purchasing said land. Social upgrading of the locale is linked to changes in education level and neighbourhood character change in regards to the employment opportunities accorded to highly educated people resulting in higher monthly incomes. Displacement comes about from the displacement of low income households by affluent groups in areas that are predominantly low income. Settlement upgrading (in this case referred to as slum upgrading)/landscape change investigates the physical change of the region i.e. a shift from makeshift structures to permanent structures. Changes in housing stock refers to increase in land prices/houses in places where land prices/houses were cheap but due to investments have increased.

The amount of rent required to be paid by a household as well as the down payment required before resettlement are contributing factors of slum gentrification. Employment opportunities in the region are limited resulting in low household monthly income for the residents. Looking at the results it can be noted that there has been changes in household monthly income (figure 18) and employment status (figure 16) for the residents at the upgraded site. This means that the Kibera Soweto East Zone A residents are still

unable to meet their daily needs and will eventually opt to look for cheaper accommodation in order for them to cater to their daily needs. As Lees, Shin, & Lopez-Morales, (2015) state, changing urban landscapes, direct or indirect displacement and social upgrading of the locale by higher income groups are factors that lead to slum gentrification. In regards to changing urban landscape, this is applicable in Kibera Soweto East Zone A as a result of the slum upgrading process. The attractiveness of the area due to better services (figure 11), security and improved infrastructure leads to an influx of new comers interested in the area who take advantage of the services. The indirect displacement of the residents can be seen in the form of the original inhabitants of Kibera Soweto East Zone A renting out their units due to unaffordable rent (figure 19). Ha, (2015) reiterates this point by stating that slum upgrading projects are a form of gentrification due to the displacement of poor residents as a result of pricey housing. Social upgrading of the locale by higher income groups can be seen in the difference in the level of education of the residents living at the upgraded and decanting site. The employment status between the two groups shows that the residents at the upgraded site are way better off than the residents living at the decanting site. There is security of tenure once the resident has completed their mortgage payments. However, acquiring tenure security might not be possible for the majority who are unable to pay the amount for the required 25 years. This means that the unit may end up being owned by an outsider instead of the intended resident who might prefer to live in another region despite the mortgage payment completion. Taking into account the economic challenges that the residents face and the increase in their rent it can be predicted that if not mitigated, majority of the residents of Kibera Soweto East Zone A will rent out their units or sell their units entirely.

Slum upgrading projects result in various impacts. Some impacts of slum upgrading projects that have resulted in slum gentrification as mentioned by Ha (2015) and applicable in the upgrading process undertaken in Kibera Soweto East Zone A, include: housing stock increase which is seen in the high rent prices that the Kibera Soweto East Zone A residents are paying compared to before the slum upgrading project, gap increase in housing conditions which can be noted in the well maintained upgraded site and the slightly dilapidated decanting site, shift in housing dwellings in this case from makeshift structures to gated apartment dwellings. Therefore, taking into account the general outcome of the slum upgrading process, the impacts of the slum upgrading project and the indicators mentioned in section 2.5, it can be noted that there is slum gentrification is occurring in the upgraded Kibera Soweto East Zone A.

Table 6: Summary of findings for slum gentrification indicators

Indicator	Indicator present?
Changes in education level	Yes. There are changes in the education level of the population of the residents living at the upgraded site compared to the decanting site.
Neighbourhood character change	Yes. There is a change in the social status of the population in Kibera Soweto East Zone A in regards to a higher number of employed people and households having a high household monthly income.
Social upgrading of locale by incoming high income groups	Yes. Can be identified through the employment status of the population at the upgraded site.
Displacement	Yes. In the case of Kibera Soweto East Zone A, involuntary displacement is occurring in the form of high rent forcing the residents to rent out their units in search of cheaper accommodation.
Slum upgrading/landscape change	Yes. This can be observed through the slum upgrading project that resulted in the construction of permanent housing with utilities easily accessible.

Changes in housing stock	Yes. The high price of the units allocated to the intended beneficiaries of the slum upgrading project and high down payments.
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5.3.1. Slum gentrification measures

The impacts of slum gentrification can either be considered positive or negative depending on the perspective of the residents in a region. Slums that have undergone through slum upgrading projects, rarely investigate the residing residents and usually miss out on the impact that the slum upgrading project has made and whether all the targeted residents were resettled or relocated appropriately without displacements. Therefore measures should be taken to prevent slum gentrification from occurring and if it has occurred then steps to take to prevent further spread should be taken.

Carrying out a monitoring and evaluation process after the slum upgrading project has been completed should be done to determine if all the beneficiaries of the slum upgrading project benefited and if not then a determination of why the residents are renting out their units should be done to identify the cause and how to mitigate it. Ensuring also that the number of housing units required to relocate the former slum dwellers should be enough so as to prevent other residents from remaining in their temporary relocation site. The monitoring and evaluation process should look into how the slum upgrading project has affected the following: access to health services, access to education facilities, access to water, electricity, green spaces, access to the area and CBD via transport networks, proper sanitation methods, street lighting, employment opportunities and number of employed people. All these are important in identifying any distress experienced by residents after the slum upgrading project and in turn ensures that there are minimal incentives to force the residents from vacating from their upgraded units. Investment in the community can also be done to increase the number of job opportunities in the area as well as ensure there is social cohesiveness in the area. If properly conducted on the residents living at the upgraded units then there is a high chance of reducing slum gentrification.

Citizen participation should be key and carried out before the slum upgrading project begins, during and after so as to allow the beneficiaries of the project to voice out their concerns. This will allow policymakers to come up with implementation measures for the project that benefit all the residents, reduce the cost of recovery of the project if any and limits the number of residents opting to move out of the upgraded units.

To conclude it is important to ensure that there are regular reviews on slum upgrading projects that look into displacements and housing prices that will result in curbing influxes of housing prices leading to displacement of low income households.

6. CONCLUSION AND RECOMMENDATIONS

6.1. Sub-Objective 1: Analyse the process followed during the Kibera Slum Upgrading Project

Sub-objective 1: Analyse the process followed during the Kibera Slum Upgrading Project

The study examined the slum upgrading approach used by the Kenyan Government in Kibera Soweto East Zone A. Analysing the process, provided a baseline in understanding how the slum upgrading project was carried and how the process leads to slum gentrification. The slum upgrading project process required temporary relocation of the Kibera Soweto East Zone A residents and then relocation to the upgraded units once they were complete. However, due to the limited number of housing units constructed by the Kenyan Government, a balloting process was used to allocate units to the Kibera Soweto East Zone A residents (see section 3.1.2 and section 4.1.1). The use of the balloting process, even though fair, could be seen as a cut-off especially for low income households, since one had to have paid the required down payment in order for one to be considered for it.

The study identified the use of the balloting process as an enabler of slum gentrification in that, it contributed to the indirect displacement of low income households by preventing them from participating in a process that will allow them access to better housing units. The study also found out that by constructing housing units that have less number of rooms, resulted in some of the Kibera Soweto East Zone A residents to decline their allocated units and hence choose to remain at the decanting site or relocate to other areas where the rent is affordable and space is adequate. The study therefore concluded that not taking into account large household families can be seen as a way to indirectly displace the Kibera Soweto East residents who are the official beneficiaries of the project. The study also found out that having high mortgage payments is unfair for residents who do not have high level of income and therefore struggle to raise the funds. The families therefore opt to rent or sell out their units in the hopes of finding another source of income. This can be seen as a rent hike which results in the displacement of low income households giving way to middle and high income households to settle in.

Looking at the objectives of the Kenya Slum Upgrading Project, the study concluded the project has achieved the objective of improving the physical infrastructure of Kibera Soweto East Zone A. Both the decanting and upgraded sites have permanent structures that majority of the Kibera Soweto East Zone A residents reside in compared to the makeshift structures that they occupied before. The study also concluded that the slum upgrading project has not achieved the objective of providing tenure security, since majority of its residents are still at the decanting site and not resettled in their own units. It should be noted that the security of tenure is only applicable to the residents living at the upgraded site and not at the decanting site with the residents living at the decanting site still awaiting their resettlement. In conclusion, it can be noted that the slum upgrading project process carried out in Kibera Soweto East Zone A, has contributed to the occurrence of slum gentrification through the indirect displacement of low income households. By ensuring that the same is not followed in the next phase of the project will ensure that after the whole of Kibera Soweto East has been upgraded that the people living in the units are the target population and not new individuals.

Sub-objective 2: Analyse the socio-economic conditions of the beneficiaries

The beneficiaries of the slum upgrading project were the original inhabitants of Kibera Soweto East Zone A. In this case, they were divided into two, the residents living at the decanting site and the ones living at the upgraded site (see section 4.1.2). The aim of this sub-objective was to investigate if there had been changes to the socio-economic conditions. The study sought to compare the socio-economic status of the Kibera Soweto East Zone A residents at the decanting site and upgraded site and analyse the socio-economic changes that they may have experienced as result of the slum upgrading project (see section

4.2). The study looked at the education level, household monthly income, employment status and rent. The study found out that the residents at the upgraded site currently have high level of education, more temporary and permanently employed residents, households with high income levels and higher rent prices compared to the residents at the decanting site. The study also found out that the residents at both the decanting and upgraded site experienced changes in rent prices compared to what they were paying before the slum upgrading project. The study showed that the slum upgrading has resulted in socio-economic changes of the Kibera Soweto East Zone A residents. However, these changes can be attributed to newcomers moving into the upgraded units resulting in the displacement of the intended beneficiaries of the project. The ineligible beneficiaries are an indication that the new comers have higher education levels, household monthly income and employment status. They also pay higher rent than the intended beneficiaries. They are a sample of the socio-economic status of newcomers who are moving into the housing units at the upgraded and decanting site. In conclusion, it can be noted that the slum upgrading project did indeed lead to a change in the socio-economic lives of the beneficiaries of the slum upgrading project either by improving it or deteriorating it. The increase in rent prices without changes in employment status or household monthly income results in a struggling household who eventually find cheaper accommodations giving way to other income classes to occupy their vacated areas. Some may decide to move out and live near their jobs also resulting in them renting out their units so as to earn an extra income. The slum upgrading project has brought changes, but they are changes that result highly in displacement of low income households who are unable to keep up with the living costs.

Sub-objective 3: Investigate the occurrence of slum gentrification as a result of slum upgrading

This objective aimed at looking at indicators of slum gentrification and identifying which ones are applicable to the Kenya Slum Upgrading Project. High rent prices, improved physical infrastructure, service availability and poor implementation of the slum upgrading process are factors that contribute to slum gentrification in this case. By improving the physical infrastructure and security, the area becomes more attractive and secure resulting in interest from unintended beneficiaries of the project. This results in corruption that could lead to unintended beneficiaries being allocated housing units or lead to the isolation of low income households who are unable to afford the high cost living brought about by increases in rent and low income generating activities.

The extent of slum gentrification in Kibera Soweto East Zone A, cannot be determined at the moment but given the fact that some of the residents who filled out the household survey were renting, then it can be deduced that there are many more who are renting the housing units, indicating that majority of the low income households have opted to move out of their units and renting them.

From the indicators of slum gentrification (section 5.3) it can be concluded that slum gentrification is occurring in Kibera Soweto East Zone A. The study found out that there are changes in education level, neighbourhood character change, social upgrading, changes in housing stock and displacement as a result of the slum upgrading project (Table 6) indicating that slum gentrification is occurring in Kibera Soweto East Zone A.

Ensuring that the Kibera Soweto East residents have a steady source of income will ensure that the residents are able to pay their mortgage and therefore secure their tenure as well as increase their household monthly income. This will prevent low income households from renting out their units since they can be able to afford it. Reducing the cost of recovery for slum upgrading projects will ensure that residents will not be left paying heavily for wanting better housing structures. We can conclude by saying that slum upgrading projects should not cover only the physical aspects but also the socio-economic aspects so as to cater to every resident affected by the project, this goes a long way to ensuring that slum gentrification does not occur.

6.2. Recommendations

This study recommends further investigation on slum gentrification in the case of Kibera Soweto East Zone A to analyse the extent of the slum gentrification that has occurred. Further studies could look into how many units have been rented out, if the Ministry of Housing is aware of units being rented out and if they are aware about it how are they addressing the issue, with the economic challenges being faced by the residents and finally is the Ministry of Housing planning on revising the mortgage payments for the residents so as to reduce the number of involuntary displaced households.

Further investigation can be extended on the upcoming Kibera Soweto East Zone B, due to the different approach that it has taken. They can focus on whether the different approach used in Zone B can or cannot lead to slum gentrification by assessing its practicality since there was no temporary relocation of the residents but rather residents were compensated for their units and told to look for accommodation elsewhere, highlighting how the Kenyan Government identifies the beneficiaries of the project, whether the balloting process will be used again to allocate units taking into account that the remaining residents of Kibera Soweto East Zone A are also to be rehoused in Kibera Soweto East Zone B, whether the amount of rent to be paid in Zone B will be the same as Zone A, if the housing units allocated consider the household size of the residents and if there are new facilities like health centres, schools, social halls that have been constructed.

Although some of the indicators recommended in literature to investigate slum gentrification can be used in countries in the Global South it is important to have clear cut indicators that fit into the Global South narrative. Level of displacement whether involuntary or direct is important in identifying slum gentrification occurrence. If possible to identify the number of displaced people and the number of new individuals who have moved into upgraded units is a cementing factor for slum gentrification. Identifying the reasons as to why the displacements have occurred is also important. That is where the other indicators come into play. Changes in housing stock/house prices/rent prices, social upgrading of the locale, changes in education level, neighbourhood character change are all important indicators of slum gentrification.

Further studies are recommended on slum gentrification especially in African countries where there are few studies that have been conducted on this matter.

7. LIST OF REFERENCES

- Ahmed Saad, O., Anwar Fikry, M., & El-Sayed Hasan, A. (2019). Sustainable upgrading for informal areas. *Alexandria Engineering Journal*, 58(1), 237–249. <https://doi.org/10.1016/j.aej.2019.03.001>
- Ascensão, E. (2015). Slum gentrification in Lisbon, Portugal: In L. Lees, H. B. Shin, & E. López-Morales (Eds.), *Global Gentrifications : Uneven Development and Displacement* (1st ed., pp. 37–58). Policy Press. <https://doi.org/10.2307/j.ctt1t894bt.9>
- Ascensão, E. (2018). Slum Gentrification. In L. Lees & M. Philips (Eds.), *Handbook of Gentrification Studies* (pp. 225–246). Edward Elgar Publishing Limited. <https://doi.org/https://doi.org/10.4337/9781785361746>
- Atkinson, R. (2004). The evidence on the impact of gentrification: new lessons for the urban renaissance? *European Journal of Housing Policy*, 4(1), 107–131. <https://doi.org/10.1080/1461671042000215479>
- Bah, E. M., Faye, I., & Geh, Z. F. (2018). Slum Upgrading and Housing Alternatives for the Poor. In *Housing Market Dynamics in Africa* (pp. 215–253). Palgrave Macmillan UK. https://doi.org/10.1057/978-1-137-59792-2_6
- Bouillon, C. P. (Ed.). (2012). *Room for Development: Housing Markets in Latin America and the Caribbean* (1st ed.). Palgrave Macmillan US. <https://ebookcentral.proquest.com/lib/itc/reader.action?docID=931817&query=Bouillon%2C+C.+2012.+Room+for+Development%3A+Housing+Markets+in+Latin+America+and+the+Caribbean.+New+York%2C+NY%3A+IDB+and+Palgrave%2C+Macmillan.>
- Chong, E. (2017). *Examining the Negative Impacts of Gentrification | Georgetown Journal on Poverty Law & Policy | Georgetown Law*. Georgetown Journal on Poverty Law & Policy. <https://www.law.georgetown.edu/poverty-journal/blog/examining-the-negative-impacts-of-gentrification/>
- Danso-Wiredu, E., & Midheme, E. (2017). Slum upgrading in developing countries: lessons from Ghana and Kenya. *Ghana Journal of Geography*, 9(1), 88–108.
- Davidson, M., & Lees, L. (2005). New-build “gentrification” and London’s riverside renaissance. *Environment and Planning A*, 37(7), 1165–1190. <https://doi.org/10.1068/a3739>
- Desgroppes, A., & Taupin, S. (2011). Kibera: The Biggest Slum in Africa? *Slum Upgrading Programmes in Nairobi Challenges in Implementation*, 12(1), 87–96. [https://doi.org/10.1016/0305-750X\(84\)90037-8](https://doi.org/10.1016/0305-750X(84)90037-8)
- Eldaidamony, M., & Shetawy, A. (2016). Gentrification Indicators in the Historic City of Cairo. *Procedia - Social and Behavioral Sciences*, 225, 107–118. <https://doi.org/10.1016/J.SBSPRO.2016.06.013>
- Ettyang², K. (2011). Empowering the Urban Poor to Realize the Right to Housing: Community-Led Slum Upgrading in Huruma—Nairobi. <http://Journals.Openedition.Org/Eastafrica>, 44, 147–158. <https://journals.openedition.org/eastafrica/539>
- Fernandez, R. F., & Calas, B. (2011). The Kibera Soweto East Project in Nairobi , Kenya. *Les Cahiers D’Afrique De L’est*, 44, 129–145.
- Field, E., & Kremer, M. (2008). *Impact Evaluation for Slum Upgrading Interventions*.
- Gaffney, C. (2016). Gentrifications in pre-Olympic Rio de Janeiro. *Urban Geography*, 37(8), 1132–1153. <https://doi.org/10.1080/02723638.2015.1096115>
- Glass, R. (1964). Introduction: Aspects of change. In Centre for Urban Studies (Ed.), *London: Aspects of Change*. MacGibbon & Kee.
- Grigorovich, J. (2008). Informality and Autonomy in the Slums of the Developing World. *The Canadian Undergraduate Journal of Development Studies*, V(III), 20–29. https://www.academia.edu/5396757/The_Canadian_Undergraduate_Journal_of_Development_Studies_Volume_V_Issue_III_Fall_Winter_2008
- Gulyani, S., & Talukdar, D. (2008). Slum Real Estate: The Low-Quality High-Price Puzzle in Nairobi’s Slum Rental Market and its Implications for Theory and Practice. *World Development*, 36(10), 1916–1937. <https://doi.org/10.1016/J.WORLDDEV.2008.02.010>
- Ha, S.-K. (2015). The endogenous dynamics of urban renewal and gentrification in Seoul. In L. Lees, H. B. Shin, & E. López-Morales (Eds.), *Global gentrifications* (1st ed., pp. 165–180). Bristol University Press. <https://doi.org/10.2307/j.ctt1t894bt.15>
- Harari, M., Wong, M., Azrina, K., Chen, X., Djuwadi, G., Iskandar, K., Kirk, J., Martinus, M., Park, J., Peng, X., Siahaan, B., Tanutama, V., & Yanurzha, R. (2017). *Long-term impacts of slum upgrading: Evidence from the Kampung Improvement Program in Indonesia **. http://real.wharton.upenn.edu/~harari/Harari_Papers/KIP_HarariWong_NBERSI.pdf

- Higgins, A. (2013). *Why residents of Kibera slum are rejecting new housing plans - ONE*. Seattle Globalist. <https://www.one.org/international/blog/why-residents-of-kibera-slum-are-rejecting-new-housing-plans/>
- Jaitman, L., & Brakarz, J. (2013). Evaluation of Slum Upgrading Programs: A Literature Review. *SSRN Electronic Journal*, November, 1–78. <https://doi.org/10.2139/ssrn.2305396>
- Kennedy, M., & Leonard, P. (2001). Dealing With Neighborhood Change : A Primer on Gentrification and Policy Choices. *The Brookings Institution Center on Urban and Metropolitan Policy*, April, 1–70.
- KNBS. (2019). 2019 Kenya Population and Housing Census Volume 1: Population by County and Sub-County. In *2019 Kenya Population and Housing Census: Vol. I* (Issue November). <https://www.knbs.or.ke/?wpdmpromo=2019-kenya-population-and-housing-census-volume-i-population-by-county-and-sub-county>
- KNCHR. (2015). *A Report Submitted To the High Court of Kenya (Nairobi) By the Kenya National Commission on Human Rights on the Implementation of Petition No. 304 of 2015: Allocation of Housing Units in Kibera Soweto East Zone A* (Issue 304).
- Lees, L. (2014). Gentrification in the Global South. In S. Parnell & S. Oldfield (Eds.), *The Routledge Handbook on Cities of the Global South* (1st ed., pp. 506–519). R. <https://doi.org/10.1017/CBO9781107415324.004>
- Lees, L., Bang Shin, H., & López-Morales, E. (2016). *Planetary Gentrification*. Polity Press. <http://ebookcentral.proquest.com/lib/itc/detail.action?docID=4455314>
- Lees, L., Shin, B. H., & Lopez-Morales, E. (2015a). Introduction: 'gentrification'-a global urban process? In L. Lees, B. H. Shin, & E. Lopez-Morales (Eds.), *Global Gentrifications: Uneven Development and Displacement* (First, pp. 1–18). Bristol University Press. <https://doi.org/doi:10.2307/j.ctt1t894bt.7>
- Lees, L., Shin, H. B., & Lopez-Morales, E. (2015b). Conclusion: global gentrifications. In L. Lees, B. H. Shin, & E. Lopez-Morales (Eds.), *Global Gentrifications : Uneven Development and Displacement* (1st ed., pp. 441–452). Polity Press. <http://ebookcentral.proquest.com/lib/itc/detail.action?docID=1938290>
- Lemanski, C. (2014). Hybrid gentrification in South Africa: Theorising across southern and northern cities. *Urban Studies*, 51(14), 2943–2960. <https://doi.org/10.1177/0042098013515030>
- Lucci, P., Bhatkal, T., Khan, A., & Berliner, T. (2015). *What works in improving the living conditions of slum dwellers: A review of the evidence across four programmes* (Issue December). <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10167.pdf>
- Magalhães, F. (Ed.). (2016). *Slum upgrading and housing in latin america*. Inter-American Development Bank.
- Mahabir, R., Crooks, A., Croitoru, A., & Agouris, P. (2016). The study of slums as social and physical constructs: Challenges and emerging research opportunities. *Regional Studies, Regional Science*, 3(1), 399–419. <https://doi.org/10.1080/21681376.2016.1229130>
- Mitchell, B. C., Richardson, J., & Franco, J. D. (2019). Shifting neighborhoods: Gentrification and cultural displacement in American cities. *National Community Reinvestment Coalition*.
- Muraguri, L. (2011). Kenyan Government Initiatives in Slum Upgrading. *Les Cahiers D'Afrique De L'est*, 44, 119–127. <https://journals.openedition.org/eastafrica/534>
- Nara, A., & Torrens, P. M. (2005). Inner-city gentrification simulation using hybrid models of cellular automata and multi-agent systems. *Proceedings of the Geocomputation ...*, 1–23.
- Ogundele, A. (2014). *Decanting and Social Sustainability: Kenya Slum Upgrading Programme (A Case Study)*. University of Waterloo.
- Omwoma, ronald matende. (2013). *Land Related Challenges To Slum Upgrading in Kenya. December*. <internal-pdf://0.0.1.93/Omwoma - 2013 - LAND RELATED CHALLENGES TO SLUM UPGRADING IN KENYA.html>
- Smith, P. G., Morrow, R. H., & Ross, D. A. (Eds.). (2015). Censuses and mapping . In *Field Trials of Health Interventions: A Toolbox* (3rd ed., pp. 159–182). Oxford University Press. <https://www.ncbi.nlm.nih.gov/books/NBK305507/>
- Stenton, C. (2015). *Struggling for the "right to the city": In situ informal settlement upgrading in Kibera, Nairobi* [Carleton University]. <https://curve.carleton.ca/d0913f63-6af9-4477-b8ff-3b6d43d22209>
- Syagga, M. P. (2012). Land Tenure in Slum Upgrading Projects. *Les Cahiers d'Afrique de l'Est*, 103–113.
- Turley, R., Saith, R., Bhan, N., Rehfuess, E., & Carter, B. (2013). Slum upgrading strategies involving physical environment and infrastructure interventions and their effects on health and socio-economic outcomes. *Cochrane Database of Systematic Reviews*, 2013(1). <https://doi.org/10.1002/14651858.CD010067.pub2>
- UN-Habitat. (2003). *The Challenge of Slums*. <https://doi.org/10.1006/abio.1996.0254>
- UN-Habitat. (2007). *UN-HABITAT AND THE KENYA SLUM UPGRADING PROGRAMME*. 39.

- <https://unhabitat.org/books/un-habitat-and-kenya-slum-upgrading-programme-kensup/>
- UN-Habitat. (2008). *UN-Habitat And The Kenya Slum Upgrading Programme Strategy Document*.
- UN-Habitat. (2014). *State of African Cities 2014: Re-Imagining Sustainable Urban Transitions*. United Nations.
<https://issuu.com/unpublications/docs/9789210575614>
- UN-Habitat. (2016). *Urbanization and Development Emerging Futures: World Cities Report*.
- UN-Habitat. (2018). *SDG Indicator 11.1.1 Training Module: Adequate Housing And Slum Upgrading*.
<https://unhabitat.org/wp-content/uploads/2019/04/Indicator-11.1.1-Training-Module.pdf>
- Vidhate, S. G., & Sharma, A. (2017). *Gentrification and Its Impact on Urbanization in India* (pp. 1–11).
<https://www.semanticscholar.org/paper/Gentrification-and-Its-Impact-on-Urbanization-in-Vidhate-Sharma/44731de1db298ed933e1ae6333ef2651f2ccfb89>
- Wanjiru, M. C. (2016). *The Evolution of Slum Upgrading : Mainstream Approaches Used*. Lund University.

8. APPENDIX

APPENDIX 1

Upgraded site household survey questionnaire sample

Household survey for current occupiers of the Kibera Soweto East Zone A upgraded units

Questionnaire to be answered by the household if available. First, we are interested in some personal details.

1. Gender(check where applicable):

1.Male

2. Female

3. Other

2. Age: _____

3. What is your household size? _____ (persons)

4. What is the highest level of education in the household(check where applicable)?

None	Primary	Secondary	Tertiary	University
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. When did you move to Kibera Soweto East Zone A? (check where applicable)?

Less than a year	1-2 years	2-5 years	5-10 years	More than 10 years
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Were you deemed eligible for the Kibera Soweto East Zone A slum upgrading project? (check where applicable)

Yes

No

If Yes, please proceed to question 7

7. If No, how was the upgraded unit awarded to you and was there a previous owner?

We would like to learn about where residents of Kibera Soweto East Zone A went to during the upgrading project

8. Were all the residents relocated to the upgraded units(check where applicable)?

Yes

No

If Yes, please proceed to question 9.

a) If No, do you know how many residents of Kibera Soweto East Zone A were not relocated to the upgraded units?

- b) Do you know where the residents who were not relocated to the upgraded units relocated to?
 Yes No
 If Yes, do you know where they moved to?
-

- c) Do you know of residents who were eligible but were not relocated to the decanting site but still were able to be relocated to the upgraded units?
 Yes No

We are interested in what changed for you personally after the upgrading project?

9. What is your employment status(check where applicable)?

Unemployed	Temporary employed/Freelancer	Permanently Employed

10. Has your employment status changed after the slum upgrading project?

Yes No

If Yes, how has it changed?

If No, please proceed to question 11

11. What is/was the household monthly income(in ksh):

- a) Before being relocated to the upgraded unit(check where applicable)?

500-1000	1000-5000	5000-1000	10000-30000	30000-50000	50000 and above

- b) At the decanting site (check where applicable)?

500-1000	1000-5000	5000-1000	10000-30000	30000-50000	50000 and above

- c) After being relocated to the upgarded unit(check where applicable)?

500-1000	1000-5000	5000-1000	10000-30000	30000-50000	50000 and above

- d) Would you say there has been a change in your household monthly income?

Yes No

If Yes, how has it changed?

If No, please proceed to question 12

12. How accessible are services like water, electricity, schools, hospitals or employment opportunities to you after the slum upgrading project(check where applicable)?

Very accessible	Stayed the same	Inaccessible

13. What was/is your rent price:

a) Before the slum upgrading project?

200-1000	1000-3000	3000-7000	7000-10000	10000 and above

b) At the decanting site?

200-1000	1000-3000	3000-7000	7000-10000	10000 and above

c) At the upgraded unit?

200-1000	1000-3000	3000-7000	7000-10000	10000 and above

d) Would you say that your rent price has changed(check where applicable)?

Yes

No

If Yes, how has it changed?

If No, please proceed to question 14

14. Have there been cases of people who have moved out of the upgraded units because they are unable to pay the rent, inaccessibility to employment activities etc(check where applicable)?

Yes

No

If Yes, do you know who are the new occupiers of the upgraded units after they have moved out?

If No, please proceed to question 15

15. Do you think the Kibera slum upgrading project has achieved the aim of maintaining the targeted people in their previous space or too many people have been displaced?

16. Gentrification is termed as a gradual process of the change of a particular region from an impoverished state to an affluent state through upgrading leading to the displacement of low-

income households (Nara & Torrens, 2005). From that description, do you think gentrification is happening in Kibera Soweto East Zone A after the slum upgrading project?

APPENDIX 2

Decanting site household survey questionnaire sample

Household survey for the residents who remained at the decanting site

First, we are interested in some personal details. Questionnaire to be answered by the household if available)

1. Gender(check where applicable):

1.Male

2. Female

3. Other

2. Age: _____

3. What is your household size? _____ (persons)

4. What is the highest level of education in the household(check where applicable)?

None	Primary	Secondary	Tertiary	University

5. When did you move to Kibera Soweto East Zone A? (check where applicable)?

Less than a year	1-2 years	2-5 years	5-10 years	More than 10 years

6. How long have you lived/did you live in the decanting site?

7. Were you deemed eligible for the Kibera Soweto East Zone A slum upgrading project? (check where applicable)

Yes

No

a) If Yes, why were you not relocated to the upgrading units?

b) If No, why were you not deemed eligible despite being relocated to the decanting site?

We would like to learn about where residents of Kibera Soweto East Zone A went to during the relocation to the decanting site

8. Do you know of any residents of Kibera Soweto East Zone A who were not deemed eligible but were relocated to the decanting site?

Yes

No

If Yes, do you know where they moved to?

If No, please proceed to question 9.

9. Do you know any residents of Kibera Soweto East Zone A who were deemed eligible but were not relocated to the decanting site?

Yes

No

If Yes, do you know where they moved to?

If No, please proceed to question 10

10. Do you know how many residents of Kibera Soweto East Zone A were not relocated to the decanting site?

Yes

No

If Yes, do you know where they moved to?

If No, please proceed to question 11

11. Do you know where the residents who were not relocated to the decanting site moved to?

Yes

No

If Yes, do you know where they moved to?

If No, please proceed to question 12

We are interested in learning what changed for you personally after the relocation to the decanting site?

12. What is your employment status(check where applicable)?

Unemployed	Temporary employed/Freelancer	Permanently Employed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Has your employment status changed after relocating to the decanting site?

Yes

No

If Yes, how has it changed?

If No, please proceed to question 13

13. What is/was your household monthly income(in ksh):

- a) Before being relocated to the decanting site(check where applicable)?

500-1000	1000-5000	5000-10000	10000-30000	30000-50000	50000 and above
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) After relocating to the decanting site(check where applicable)?

500-1000	1000-5000	5000-10000	10000-30000	30000-50000	50000 and above
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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c) Would you say there has been a change in your household monthly income?

Yes

No

If Yes, how has it changed?

If No, please proceed to question 14

14. How accessible are services like water, electricity, schools, hospitals or employment opportunities to you compared to before being relocated to the decanting site(check where applicable)?

Very accessible	Stayed the same	Inaccessible

15. What was/is your rent price:

a) Before being relocated to the decanting site?

200-1000	1000-3000	3000-7000	7000-10000	10000 and above

b) After relocating to the decanting site?

200-1000	1000-3000	3000-7000	7000-10000	10000 and above

c) Would you say that your rent price has changed and if it has, how has it changed?

Yes

No

If Yes, how has it changed?

If No, please proceed to question 16

16. Do you think the Kibera slum upgrading project has achieved the aim of maintaining the targeted people in their previous space or too many people have been displaced?

Yes

No

If Yes, how has it achieved this?

If No, do you know why the Kibera Slum Upgrading Project has not been able to achieve this aim?

APPENDIX 3

Key informant interview questions

1. Please state your role and for what duration you worked on the Kibera Soweto East Zone A slum upgrading project?

2. Who was eligible for the project and how was this determined?

3. How many people were eligible for the Kibera Soweto East Zone A slum upgrading project?

Questions in regards to the temporary site relocation

4. Were all the eligible people for the Kibera Soweto East Zone A slum upgrading project relocated to the decanting site?

Yes

No

- a) If No, how many did not go to the decanting site?

- b) Did any refuse to be relocated to the decanting site and moved elsewhere?

- c) Do you have any knowledge of where the eligible people who did not move to the decanting site move to?

- d) Did of Kibera Soweto East Zone A residents who were not relocated to the decanting site but were still able to be rehoused in upgraded units?

Questions in regards to completion of the slum upgrading project

5. Were all the eligible people rehoused in the upgraded units?

Yes

No

- a) If No, How many people were rehoused in the upgraded units?

- b) Do you have any knowledge of where the eligible people who did not move to the upgraded units moved to?

6. What changes have there been in the following in the upgraded Kibera Soweto East Zone A compared to before the slum upgrading project?(check where applicable)

- a) Accessible and quality schools

Improved	Stayed the same	Got worse

b) Accessible and quality hospitals

Improved	Stayed the same	Got worse

c) Reliable electricity

Improved	Stayed the same	Got worse

d) Reliable water

Improved	Stayed the same	Got worse

e) Accessibility to employment activities

Improved	Stayed the same	Got worse

7. How do the rent prices in the upgraded Kibera Soweto East Zone A differ from the initial rent prices (check where applicable)?

Increased	Stayed the same	Decreased

- a) What happens to the residents that are unable to pay the rent?

8. Slum upgrading projects aim at ensuring that the targeted population stay in their previous space. Has the project been effective in ensuring there has not been any displacement of the Kibera Soweto East Zone A residents from the upgraded units?

9. Gentrification is termed as a gradual process of the change of a particular region from an impoverished state to an affluent state through upgrading, leading to the displacement of low-income households (Nara & Torrens, 2005). From that description, do you think gentrification has occurred in Kibera Soweto East Zone A after the slum upgrading project?

10. If gentrification is occurring or has occurred, what could be the possible drivers for it?

11. If gentrification is occurring or has occurred, what do you think will be the proper way to control it or stop it from progressing?
