

EFFECTS OF SLUM UPGRADED NEIGHBOURHOOD LIVELIHOODS ON THE WELFARE OF THE RESIDENTS, A CASE OF KIBERA SLUMS IN KENYA

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Abstract

Aim: *With the projected increases in slum population, the demand for urban upgrading interventions is expected to grow. The main aim of this study was to seek a noble effort to reduce proliferation of informal settlements and slums. The findings of this study might be useful to the Kenyan government in providing knowledge on livelihood strategies adopted by Kibera residents after slum up-grading programme. In addition, information was provided on the extent to which the identified factors influence the occupancy levels for the government to make adjustments that will ensure high occupancy levels are reported in the future.*

Study scope: *The study sought to evaluate the effects of livelihood strategies in slum upgrading project on the welfare of Kibera residents. The study considered four independent variables; job opportunities, enterprise development, provision of public services and self-help project funding.*

Findings: *The findings are consistent with the characteristic of slums where majority work in informal jobs or are unemployed altogether. It was noted that the introduction of pricing schemes for water has reduced cost in the upgraded houses as compared to the slums ($M=3.97, SD=0.907$). It was also established that there is an increased access to education financing in the upgraded project than in the slums as shown by a mean of 4.01 and a standard deviation of 1.098.*

Keywords: *Informal settlements, Livelihood strategies, Slum upgrading, Sustainable Livelihoods*

1. Background of the study

It is estimated that over a billion people live in slums and informal settlements in the cities of the world. Urbanization is happening at a very fast rate with an estimated urban population of almost five billion projected by 2030. Most of the increasing urbanization will take place in developing countries mainly in Asia and Africa where one-third of all urban residents are estimated to fall below the poverty level. Over 300 million urban poor live in

informal settlements, this population is made of over 200 million in Asia, 50 million in Latin America and over 60 million in other African cities which are experiencing high population growth (UN HABITAT, 2008). In Kenya, life is unbearable for the population that lives in the slums and informal settlements of capital city Nairobi. Approximately 60% of Nairobi dwellers live in the

slums and informal settlements yet they are squeezed in less than 5% of the residential area.

Livelihood strategies are the planned activities that men and women undertake to build their livelihoods. They usually include a range of activities designed to build asset bases and access to goods and services for consumption. Livelihood strategies include coping strategies designed to respond to shocks in the short term, and adaptive strategies designed to improve circumstances in the long term. Livelihood strategies are determined by the assets and opportunities available to men and women as well as by the choices and preferences of men and women. According to Odero (2010) people living in the slums have minimal access to clean water, inadequate number of good schools, limited access to social amenities, poor sanitation, and wide spread social-cultural conflicts. In addition, these individuals are exposed to the threats of forceful evictions from the illegal structures they have made home. Kenya, like other countries, has witnessed an unprecedented increase in urban population over the past fifty years. This has posed a great challenge to urban economies which have been unable to cope with the increasing demand for essential services such as housing, health and education. As a result, more urban dwellers in Kenya live in poverty and reside in overcrowded slums that lack basic amenities to sustain a minimum level of living.

According to the UN HABITAT (2008), the Kibera Slum Upgrading initiative is holistic and integrated in the sustainable development approach. The overall aim of the project is to improve the livelihoods of people living and working in Kibera through targeted interventions to address shelter, infrastructure, services, land tenure and job opportunities, as well as the impact of HIV/AIDS in the settlements. The programme set out to deal with land tenure issues, livelihood development and alternatives while using local capacities to redevelop structures and build the capacities of the slum dwellers.

In addition, the initiative aimed at linking the slum dwellers to credit institutions, for instance, cooperative savings schemes which would also play an important role in empowering slum dwellers to access housing finance that generally is beyond their reach (UN Habitat, 2008).

KENSUP aimed at ensuring proper organisation of the physical infrastructure that characterises all slums. A situational analysis of the slum listed the following losses that tenants would have sustained during upgrading: loss of proximity to job opportunities; loss of sources of income; loss of homes; and loss of socio-economic networks (Syagga et al., 2001). In this process the slum residents would lose their informal ability to sustain livelihood and economic empowerment (Syaggah et al., 2001).

Informal entrepreneurship is documented as vital to Kibera inhabitants compared to a mere 3% reported being involved in the formal sector (Crosson, 2004). A majority of inhabitants do not own the premises on which their businesses are situated. This means that formal licensing and payment of monthly or quarterly rent is unheard of within the slum. While emphasizing this crisis in living conditions, Syaggah et al., (2001), also refer to the intensity and diversity of commercial activities and initiatives within the slums, which provide an essential livelihood to many of the residents and contribute to Nairobi's economy.

This loss is a subject of concern especially within the view that almost three quarters of Kibera's households earn less than KES 10,000 per month; with an average of five people per household, this translates to approximately one USD per person per day (Mulcahy & Chu, 2009). The projected provision of free access to water will remove the livelihoods of established water sellers, who have laid out considerable amounts of capital (connection fees, deposit, materials and labour) to install their commercial water taps. Improving

infrastructure may have the effect of increasing rent speculation.

The slum residents, whose economic stakes are linked to the housing and service delivery situation in the slums, are able to predict the impact that a public intervention may have on their economic standing. Disadvantaged slum dwellers are often more in need of empowerment since slum dwellers are characterized by strong aid dependence, stemming from a tradition of patrilinearity (Kimuna, 2008). Because of the collective actions they organize, community-based organizations (CBOs) which are able to pool resources and in this way gain ownership of something they could not have accessed or owned as individuals, for instance land or houses (Mitullah & Lewa, 2001). As a consequence, people in Kibera are relatively more dependent on group activities for their living, while some especially adult males often have an alternative source of income.

The physical condition of Kibera slum is characterized by high density living, improper utilization of public goods, lack of basic amenities, unhygienic and polluted environment, poor literacy rate, unemployment, crime, social, moral and psychological degradation and poor health. Slums mainly provide informal labor market, characterized by low wage, insecurity and uncertainty of working hour. Despite the growing and projected numerical importance of slum dwellers in Kenya and SSA, and the documented poor living conditions in the slum, most research on poverty, shocks and coping strategies focuses on rural areas. While acknowledging the existence of a few studies relating to urban poverty in SSA, and in Kenya, a dearth of knowledge exists on the financial circumstances of slum dwellers, and their coping strategies. The current study seeks to investigate the impact of slum upgrading projects on the livelihood strategies of Kibera residents.

2. Kenya Slum Upgrading Programme (KENSUP)

The Government of Kenya report asserts that KENSUP was initiated in year 2000 to facilitate national wide slum upgrading of over 200 slums in Kenya (GOK: 2004). The report estimates Kibera slum to have an area of 110 hectares distributed in 13 villages totaling to a population of 600,000. These villages includes: Kianda, Makina, Soweto West, Raila, Gatwekera, Kisumu Ndogo, Kichinjio, Mashimoni, Laini Saba, Soweto East, Silanga, Lindi, and Kambi Muru. The upgrading programme has started with Soweto village after which it will spread to other villages. The primary goals of KENSUP is to improve the livelihood of people working and living in the informal settlements in the urban areas of Kenya, to reduce poverty and fulfill the millennium development goal 7 Target 11 – to improve the lives of 100 million slum dwellers by the year 2020. The vision of the programme is to facilitate improved and sustainable urban living environments in Kenya while the mission is to develop and implement policies, programmes and strategies to facilitate reduction and prevention of slums in Kenya. The key values of KENSUP includes: decentralization, sustainability, transparency and accountability, democratization and empowerment, resource mobilization, secure tenure, partnership and networking (GOK, 2004).

KENSUP main objectives according to the Kenya government includes: to develop a national wide slum upgrading and management framework, institute good urban governance, provide social and physical infrastructure, provide security of tenure and improved housing; enhance opportunities for income generation and job creation; attract private sector finance and encourage investment in slum upgrading; promote a culture for environmental conservation and management; enhance the capacity for research, planning, implementation, monitoring and evaluation; and to address and mitigate the prevalence of HIV/AIDS. According to COHRE, the greatest challenge lies with the slum

dweller who suspect that the government will turn over the complete houses to middle class as happened in the past (2005). KENSUP has cited existing challenges as: competing interests; lack of land; governance; tenant-landlord conflicts; bureaucracy; political, cultural and religious inclinations (GOK 2004). In sum, the vision, mission and objectives of KENSUP can be described as worthwhile. If implemented they will tremendously alleviate the suffering of the slum dwellers by linking them to productive means within a legal and secure tenure. The programme addresses an important sector that can diversely improve the well being and living standards of the slum dwellers and at the same time contribute to the economic growth of the whole country. Nevertheless, the main problem remains. By analyzing the responses, feeling and attitudes of target beneficiaries and KENSUP stakeholders this study will recommend appropriate interventions for future slum upgrading programmes in Kibera and elsewhere.

3. Statement of the Problem

According to the UN-HABITAT (2008), the progress made on Kibera slum improvement has not been enough to counter the growth of the slum. In this sense, the report says, efforts to reduce the number of slum dwellers or improve their living standards are not adequate or satisfactory. Since the implementation of the slum upgrading programme begun, no evaluation reports of the programme have emerged or been made public. There are no documented sources that indicate how the lives of the slum residents have been affected by this process of development. Further there are no public records capturing the voices of the slum residents on how their lives have been impacted both individually and communally. It is against this background that the study sought to establish the effect of livelihood strategies in slum upgrading projects on the welfare of Kibera residents.

4. Study's Objectives

- (i) To establish the effects of job opportunities on the welfare of Kibera residents
- (ii) To establish the effects of enterprise development on the welfare of Kibera residents
- (iii) To determine the influence of provision of public service on the welfare Kibera residents
- (iv) To evaluate the effect of self-help project funding on the welfare of Kibera residents

5. Limitations of the Study

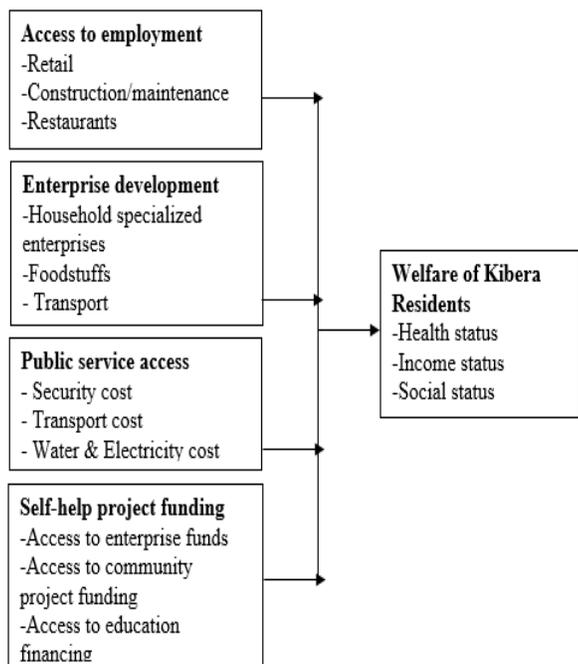
The process of slum upgrading in Kibera is a sensitive issue and has been subject to a lot of political controversies. As such access to true and reliable information from respondents was hampered and the researcher relied on probing questions to ensure reliability and accuracy of information that was obtained. However, assistance from the area chief was sought and a list of beneficiaries of this project including their contacts was accessed from the KENSUP offices in Kibera slum. Access to secondary data from UN-Habitat provided the necessary information required for the completion of the research report.

6. Conceptual Framework

As shown in figure 1, the independent variables include; job opportunities, enterprise development, public service access and self-help project funding. The dependent variable was welfare of Kibera residents.

Independent variable

Dependent variable



7. Research Methodology

To achieve the research objectives and to address the research problem the researcher conducted quantitative research. The researcher considered the most suitable research design to be a descriptive survey design. The target population of the study included Kibera residents who have moved to upgraded houses as well as those who have not moved. Kibera has 170,070 residents (GOK, 2009). The government of Kenya on July 2016 handed over 822 houses to their new owners from Soweto East following the completion of the first phase. The study collected both primary and secondary data. Secondary data was collected from documented evidence in literature and other reports. Primary data was collected using questionnaires. After data collection, the filled-in and returned questionnaires were edited for completeness, coded and entries made into Statistical package for social sciences (SPSS version 22). Content analysis was used to analyze qualitative data.

8. Data Analysis, Interpretation And Presentation

Welfare of Kibera Residents

The study sought to evaluate the effects of livelihood strategies in slum upgrading project on the welfare of Kibera residents. According to the findings, the residents agreed that the slum upgrading project affected their welfare in terms of health, economic and social status. It was noted that the responses were both positive and negative.

Table 1: Welfare of Kibera residents

Welfare of residents	Mean	Standard Deviation
Health status has improved significantly as a result of slum upgrading project	3.9	0.9
Economic status has improved significantly as a result of slum upgrading project	3.9	0.7
Social Status has improved significantly as a result of slum upgrading project	4.0	0.9

Key for the mean were as follows: 1.0-1.8 - very small extent, 1.8-2.6- small extent, 2.6-3.4- moderate, 3.4-4.2 large extent and 4.2-5- very large extent

The residents were further required to rate three aspects of Welfare (health, economic and social status). The respondents indicated that the slum upgrading project affect their social status to a large extent as shown by a mean of 4.02 and a standard deviation of 0.881. The respondents also indicated that their welfare in terms of economic and health status was affected to a large extent as shown by means of 3.93 and 3,85 respectively.

According to Huchzermeyer & Marie, (2006), access to improved housing through enabling conditions and slum upgrading, developed in an inclusive and integrated manner, will contribute to

reducing social inequalities and strengthen drive towards sustainable urbanization. Economically, upgraded slums trigger local economic development, improve urban mobility and connectivity and integrate an enormous economically productive sphere into the physical and socioeconomic fabric of the wider city. Where homes are located, how well designed and built, and how well they are weaved into the environmental, social, cultural and economic fabric of communities are factors that, in a very real way, influence the daily lives of people, their health, security and wellbeing, and which, given the long life of dwellings as physical structures, affect both the present and future generations.

Job Opportunities

Employment status

As shown in table 2, 46% of the respondents were in informal jobs while 34% were unemployed. It was further noted that 20% of the respondents were in formal jobs.

Table 2: Employment status

Employment Status	Frequency	Percentage
Informal job	108	46
Formal job	47	20
Not employed	79	34
Total	234	100

The findings above are consistent with the characteristic of slums where majority work in informal jobs or are unemployed altogether. Unemployment is visible through the fact that many people resort to informal trade. All major roads are occupied by informal shops, where a variety of trading takes place, ranging from people selling food cooked and uncooked, clothes, electrical appliances, coal etc. Informal trading based on observation is the main source of income for the majority of people (Crosson, 2004).

Influence of KENSUP on job opportunities

The study sought to find out the influence of KENSUP on job opportunities by presenting statements to respondents to rate on a 5 point likert scale. Where: 1- strongly disagree, 2- disagree, 3- neutral, 4- agree and 5- strongly agree.

Table 3: Influence of KENSUP on job opportunities

Statement	Mean	Std Dev
People living in the upgraded housing have more access to business attendant jobs as compared to those living in the slum	3.6	0.8
Jobs in the small scale business in the upgraded housing has increased as compared to the slums	3.8	0.7
The business attendant jobs have employed more people in the upgraded housing as compared to the slums	3.8	1.0
There is an increase in the number opportunities in repair in the upgraded projects compared to those in the slum	3.7	0.9
There is an increase in the number opportunities in maintenance in the upgraded projects compared to those in the slum	3.8	0.9
Jobs in the construction sites have increased in the upgraded housing project as compared to the slum	3.6	0.7
There is an increased opportunity in finding jobs in the delivery of food supplies in the upgraded projects compared to those in the slum	3.9	0.8
Jobs in food staff have increased in the upgraded projects as compared to the slums	3.7	0.8
Increased number of food staff jobs in the upgraded houses have created more jobs in supplies and related businesses	3.9	0.8

Key for the mean were as follows : 1.0-1.8 - Strongly disagree, 1.8-2.6- disagree, 2.6-3.4- Neutral, 3.4-4.2 Agree and 4.2-5- Strongly agree

It was established that most respondents agreed to the statements with mean ranging from 3.6 to 3.9s. Most notably the respondents agreed that increased number of food staff jobs in the upgraded houses have created more jobs in supplies and related businesses as showed by a mean of 3.9 and a standard deviation of 0.8. It was further established that there is an increased opportunity in finding jobs

in the delivery of food stuff in the upgraded projects compared to those in the slum (M=3.9, Std Dev=0.8).

It was also established that the business attendant jobs have employed more people in the upgraded housing as compared to the slums as shown by a mean of 3.8 and a standard deviation of 1.0. The other findings of the study are shown in table 4.8. It is evident that KENSUP had affected job opportunities in Kibera both positively and negatively. In terms of livelihoods, the respondents observed that they had lost their informal businesses while some reported that the KENSUP had improved their livelihood as a result of new job opportunities. The findings concur with Moser (1996) who indicated that households often use their housing units as a base for home enterprises, particularly where it provides women with opportunities for economic activity. This suggests that many who relied on their location to provide simplicity for their small enterprises lost these avenues of livelihoods. On the other hand others gained for instance one of the female respondent observed that since construction started she began her food kiosk to serve the construction workers and this helped her a lot in managing fees for her children and other household expenses.

Enterprise Development

Main Source of Income

The study sought to find out the main source of income for the respondents where it was established that majority (42%) of the respondents were doing informal businesses while 32% trading and 26% in formal businesses. Table 4 shows the findings of the study.

Table 4: Main Source of Income

Employment Status	Frequency	Percentage
Trading	75	32
Informal business	98	42
Formal business	61	26
Total	234	100

All the respondents also agreed that there are there financial interventions made by the government, civil society or nongovernmental organization in the improvement of the family incomes. However, the main source of income remain there savings and borrowing from family and friends. It was also evident that slum upgrading programs had increased programs aimed at improving the income of the poor, such as job training and microenterprise development.

According to Syagga (2011), majority of the slum dwellers are doing informal businesses where a variety of trading takes place, ranging from people selling food cooked and uncooked, clothes, electrical appliances, coal among others. Informal trading based on observation is the main source of income for the majority of people.

Influence of KENSUP on Enterprise Development

The study sought to find out the influence of KENSUP on enterprise development using statement on a likert scale. Based on the findings, the respondents agreed that the program affected the enterprise development in Kibera slums. The mean of the statements ranged from 3.6 to 4.0. This indicates that stakeholders have complemented upgrading programs with income, labour, employment, credit markets and entrepreneurial skills.

Table 5: Influence of KENSUP on Enterprise Development

Statement	Mean	Std Dev
There are higher chances of household goods enterprises surviving in the upgraded projects compared to the slums	3.7	0.7
There is an increased number of household enterprises in the upgraded houses as compared to the slums	3.6	0.6
The upgraded houses have created a ready market for the household specialized enterprises	3.7	0.8
Many service provision enterprises have emerged in the upgraded houses as compared to the slums	3.7	0.7
There more opportunities in providing sanitation services in the upgraded houses as compared to the slums	4.0	1.0
There is an increase in opportunities for food stuff business in comparison to the slums	3.7	0.8
There is an increased use of bodaboda transport in the upgraded project than in the slums	4.0	0.9
Transport business in delivering supplies to businesses in the upgraded houses have improved as compared to the slums	3.7	0.8
Commuter transport business is performing well in the upgraded houses as compared to the slums.	3.6	0.9

Key for the mean were as follows: 1.0-1.8 - Strongly disagree, 1.8-2.6- disagree, 2.6-3.4- Neutral, 3.4-4.2 Agree and 4.2-5- Strongly agree

The respondents strongly agreed that there is an increased use of bodaboda transport in the upgraded project than in the slums as shown by a mean of 4.0 and a standard deviation of 0.9. Further findings indicated that there more opportunities in providing sanitation services in the upgraded houses as compared to the slums (M=4.0, SD=1.0) and that many service provision enterprises have emerged in the upgraded houses as compared to the slums (M=3.7, SD=0.7). The other findings of the study are shown in table 4.10.

The findings corroborate Werlin, (1999) who observed that engaging private financial institutions

leads to institution-based strategies that extend access to credit to the poor for housing, services, and business development, especially financing for developers and infrastructure providers, and micro-credit for households. Measures to support small-scale enterprise and remove regulatory or other obstacles to the growth of the informal sector will increase employment, productivity and private investment among the urban poor. Cities with slums often have significant fiscal resources at their disposal, opportunities to mobilize private investment, technical knowledge and indigenous entrepreneurial talents (Syagga, 2011). In the slums themselves, there is both nascent and active organizational dynamism and powerful self-interest coupled with unrecognized or under-utilized talent. Meeting the future growth in demand for services will require significant strengthening of urban management and financial performance, coupled with more effective partnerships with the private sector and the communities themselves.

Public Service Access

The study sought to find out the extent to which KENSUP influence the selected aspects of access to public service. The respondents were asked to rate the statements on a 5 point likert scale.

Table 6: Influence of KENSUP on Public Service Access

Statement	Mean	Std Dev
There is an improved formalized cost of access to water in upgraded project in comparison to the slums	3.8	0.8
The introduction of pricing schemes for water has reduced cost in the upgraded houses as compared to the slums	3.9	0.9
Water shortages have reduced in the upgraded houses as compared to the slums	3.7	0.9
There is ease cost of access to electricity directly from Kenya power in the upgraded project as compared to the slums	3.5	0.5
Due to upgrading project, electricity connection is now affordable	3.5	0.6
The upgraded projects have reduced the dangers of illegal connections as compared to the slums	3.6	0.9
There is reduced cost of affording security in the upgraded project in comparison to the slums	3.6	1.0
Security has improved in the upgraded project due to youth job opportunities as compared to the slums	3.8	0.8
Community security has improved security in the upgraded houses as compared to the slums	3.6	0.7

Key for the mean were as follows: 1.0-1.8 - Strongly disagree, 1.8-2.6- disagree, 2.6-3.4- Neutral, 3.4-4.2 Agree and 4.2-5- Strongly agree

It was evident that the respondents agreed to the statements given that means ranged from 3.5 to 3.9. It can therefore be deduced that KENSUP project had improved access to education, health, water and security. Access to public services includes social and institutional services and goods, which can include education, civic life, and opportunities for social development. Access to these services is essential in the Slum upgrading program.

It was noted that the introduction of pricing schemes for water has reduced cost in the upgraded houses as compared to the slums (M=3.9, SD=0.9). It was further indicated that there is an improved formalized cost of access to water in upgraded project in comparison to the slums (M=3.8, SD=0.8). Further findings indicated that security has improved in the upgraded project due to youth

job opportunities as compared to the slums as shown by a mean of 3.8 and a standard deviation of 0.8. According to Cowen and Shenton, (1996), slum upgrading deals with city issues by containing environmental degradation, improving sanitation, lowering violence and attracting investment. It elevates the quality of life of the upgraded communities and the city as a whole, providing more citizenship, political voice, representation, improved living conditions, increased safety and security.

Self-help Project Funding

The fourth objective of the study sought to evaluate the effect of self-help project funding in the upgraded project on welfare of Kibera residents. From the findings, the respondents agreed that KENSUP influence self-help project funding given that mean ranged from 3.4 to 4.0. The dwellers therefore seek self-help funding from NGOs. NGOs, if involved in getting people together and forming a group, can attract some international funding from development agencies and trusts that offer low interest loans. This study therefore argues for new pro-poor housing policies that include the power of self-help efforts of the poor; and provide the institutional, financial and technical framework.

Table 7: Influence of KENSUP on Self Help Project Funding

Statement	Mean	Std Dev
There is increased access to enterprise fund in the upgraded houses as compared to the slums	3.4	1.0
There is an increase in pro-poor loans by NGOs in the upgraded houses as compared to the slums	3.4	1.0
There are incentives to get small business financing in the upgraded houses as compared to the slums	3.5	1.8
The is increased access to community project funding in the upgraded project than in the slums	3.7	0.9
There is an increase in CBOs funding projects in the upgraded project than in the slums	4.0	0.9
Community funding has improved amenities in the upgraded projects as compared to the slums	3.6	0.6
The is increased access to education financing in the upgraded project than in the slums	4.0	1.0
NGOs offer education financing in the upgraded project as compared to the slums	3.6	0.8
The government funding has increased in the upgraded project as compared to the slums	4.0	0.9

Key for the mean were as follows: 1.0-1.8 - Strongly disagree, 1.8-2.6- disagree, 2.6-3.4- Neutral, 3.4-4.2 Agree and 4.2-5- Strongly agree

According to the analysis of the findings, the respondents agreed that there is an increase in CBOs funding projects in the upgraded project than in the slums (M=4.0, SD=0.9). It was also established that there is an increased access to education financing in the upgraded project than in the slums as shown by a mean of 4.0 and a standard deviation of 1.0. Further findings indicated that the government funding has increased in the upgraded project as compared to the slums as shown by a mean of 4.0 and a standard deviation of 0.9. According to Grima (2012), Self-help Groups (SHGs) have been supporting the idea of depending on savings by women for upgrading. But, in reality in developing countries these savings are often restricted to their own small extra earnings and can

contribute in a small way. So, complementary finance as loans is required.

9. Correlation Analysis

Pearson correlation was used to measure the degree of association between variables under consideration i.e. independent variables and the dependent variables. Pearson correlation coefficients range from -1 to +1. Negative values indicates negative correlation and positive values indicates positive correlation where Pearson coefficient <0.3 indicates weak correlation, Pearson coefficient >0.3<0.5 indicates moderate correlation and Pearson coefficient >0.5 indicates strong correlation. In this study, Pearson correlation coefficient will be used in this study.

Table 8: Correlation Analysis

In order to check whether the variables are related, the Pearson Correlation Coefficient was used in this study. The results were analyzed and tabulated as per table 8 below.

		Access to employment	Enterprise development	Public service access	Self-help project funding	Welfare
Access to employment	Pearson Correlation	1	0.951	0.502	0.851	0.963
	Sig. (2-tailed)		.000	.000	.000	.016
	N	234	234	234	234	234
Enterprise development	Pearson Correlation	0.951	1	0.851	0.450	0.955
	Sig. (2-tailed)	.000		.000	.000	.001
	N	234	234	234	234	234
Public service Access	Pearson Correlation	0.502	0.851	1	0.416	0.844
	Sig. (2-tailed)	.000	.000		.000	.010
	N	234	234	234	234	234
Self-help project funding	Pearson Correlation	0.851	0.450	0.416	1	0.939
	Sig. (2-tailed)	.000	.000	.000		.022
	N	234	234	234	234	234
Welfare	Pearson Correlation	0.963	0.955	0.844	0.939	1
	Sig. (2-tailed)	.016	.001	.010	.022	
	N	234	234	234	234	234

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The findings shown in Table 8, the correlation matrix indicates that access to employment was very strongly positively correlated with the residents welfare (r=.963 and P<0.05). This was followed by enterprise development (r=.955 and P<0.05) which is a strong and significant relationship as far as the welfare of residents is concerned. Further self-help project funding also showed strong, positive and statistically significant relationship (r=.939 and P<0.05) and public service access showing also positive and statistically significant relationship (r=.844 and P<0.05). The correlation matrix reaffirms the findings in the descriptive analysis that access to employment, enterprise development, public service access and self-help project funding affect welfare of Kibera residents. According to Kelbaugh (2009) if job-creation is to become a much more explicit objective within settlement-related activity, then it will probably achieve the best results if urban

development minimizes the fragmented and narrowly framed interventions which have characterized human settlement programmes in Kenya to date, and instead maximizes sustainable and holistic urban development models that emphasize community empowerment.

10. Regression Analysis

In addition, the researcher conducted a multiple regression analysis so as to test relationship among variables (independent) on the welfare of Kibera residents. The researcher applied the statistical package for social sciences (SPSS V 21) to code, enter and compute the measurements of the multiple regressions for the study.

Model Summary

Regression model is used here to describe how the mean of the dependent variable changes with changing conditions. Regression Analysis was carried out for access to employment, enterprise development, public service access, self-help project funding and welfare of Kibera residents.

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.937	0.878	0.789	0.5273

The four independent variables (access to employment, enterprise development, public service access and self-help project funding) that were studied explain 87.8% the welfare of Kibera residents as represented by the R². This therefore means that other factors not studied in this research contribute 12.2% of the welfare of Kibera residents. This implies that these variables are very significant therefore need to be considered in any effort to boost welfare of the residents. The study therefore identifies variables as critical determinants of the welfare of Kibera residents.

Table 10: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.534	2	1.267	9.475	.0179 ^a
	Residual	9.307	232	2.327		
	Total	3.465	234			

- a. **Predictors: (Constant),** access to employment, enterprise development, public service access, self-help project funding.

The significance value is 0.0179 which is less than 0.05 thus the model is statistically significance in predicting how access to employment, enterprise development, public service access and self-help project funding affect welfare of Kibera residents. The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 9.475), this shows that the overall model was significant. The study ran the procedure of obtaining the coefficients, and the results were as shown on table 11 below.

Table 11: Coefficient Results

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.147	1.2235		1.615 0.367
	Access to employment	0.752	0.1032	0.152	4.223 .0192
	Enterprise development	0.487	0.3425	0.054	3.724 .0269
	Public service access	0.545	0.2178	0.116	3.936 .0251
	Self-help project funding	0.524	0.2217	0.122	3,867 .0248

Multiple regression analysis was conducted as to determine the relationship between performance and the four independent variables. As per the SPSS generated table above, the equation: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$: becomes

$$Y = 0.752X_1 + 0.487X_2 + 0.545X_3 + 0.524X_4 + \epsilon$$

According to the regression equation established, taking all factors into account (access to employment, enterprise development, public service access, self-help project funding) constant at zero Welfare of Kibera residents was 1.147. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in access to employment will lead to a 0.752 increase in Welfare of Kibera residents; a unit increase in enterprise development will lead to a 0.487 increase in Welfare, a unit increase in public service access will lead to a 0.545 increase in Welfare and a unit increase in self-help project funding will lead to a 0,524 increase in welfare of Kibera residents. At 5% level of significance and 95% level of confidence, access to employment had 0.0192 level of significance, enterprise development showed a 0.0269 level of significance, public service access showed a 0.0251 level of significance, self-help project funding showed a 0.0248 hence the most significant factor is access to employment. All the significance values were less than 0.05 ($p < 0.05$) implying that they were statistically significant in explaining the welfare of Kibera residents. Polak (2009) argues that slum dwellers live in the poor conditions because they need jobs and income to survive and they have made rational decisions that they can find jobs in the cities than in their villages. There are thousands of informal grassroots enterprises that thrive in slums and need workers even if they pay miserable wages, and to him this is better than earning nothing allowing one to survive and keeping open the chance that life will improve. The fact that jobs and income are the main tools of inducement for people to live in slums seems to have made little impact on the action of most of the organizations devoted to

improving the lives of the dweller (Urussowa, 2010). Further Gong and van Soest (2002) observes that apart from house improvement, slum upgrading should also prioritize the socio-economic improvement of the poor by offering job opportunities, business opportunities provision of government services and self-help project funding.

11. Summary

The study established the influence of access to employment on welfare of Kibera residents and found that that increased number of food staff jobs in the upgraded houses have created more jobs in supplies and related businesses. It was further established that there is an increased opportunity in finding jobs in the delivery of food stuff in the upgraded projects compared to those in the slum. It was also established that the business attendant jobs have employed more people in the upgraded housing as compared to the slums. The study sought to find out the main source of income for the respondents where it was established that majority of the respondents were doing informal businesses while some trading and others in formal businesses. All the respondents also agreed that there are there financial interventions made by the government, civil society or nongovernmental organization in the improvement of the family incomes. However the main source of income remain there savings and borrowing from family and friends.

The study sought to find out the influence of enterprise development on welfare of Kibera residents, based on the findings, the respondents agreed that the program affected the enterprise development in Kibera slums. The respondents strongly agreed that there is an increased use of bodaboda transport in the upgraded project than in the slums. Further findings indicated that there more opportunities in providing sanitation services in the upgraded houses as compared to the slums and that many service provision enterprises have emerged in the upgraded houses as compared to the slums.

The fourth objective of the study sought to evaluate the effect of self-help project funding in the upgraded project on welfare of Kibera residents. According to the analysis of the findings, the respondents agreed that there is an increase in CBOs funding projects in the upgraded project than in the slums. It was also established that there is an increased access to education financing in the upgraded project than in the slums. Further findings indicated that the government funding has increased in the upgraded project as compared to the slums. According to Grima (2012), Self Help Groups (SHGs) have been supporting the idea of depending on savings by women for upgrading.

12. Conclusions

From the research according to the women at the estate, their social lives have also been affected. Their networks have been broken and they did not have much choice in selecting their neighbours as is the case in the slum. Surprisingly there are still conflicts amongst the women at the new site due to sharing of common facilities.

It has also been observed that there is a high level of unemployment in Kibera slums. Unemployment is visible through the fact that many people resort to informal trade. All major roads are occupied by informal shops, where a variety of trading takes place, ranging from people selling food cooked and uncooked, clothes, electrical appliances, coal among others. Informal trading based on observation is the main source of income for the majority of people.

It was also clear that the KENSUP programme is being implemented without any policy guideline as the policy on upgrading is still in the pipeline. This could be a setback in the evaluation of the progress and success of the programme. It is not clear how the programme will address the issue of informal trading that is currently taking place, the majority of the people in Kibera survive on informal trading. Also observed was the lack of public participation. It had to be noted that, relocation of the residents to

the temporary relocation area was not well received as it affected their welfare.

The findings also indicated the increased use of bodaboda transport in the upgraded project than in the slums and that there more opportunities in providing sanitation services in the upgraded houses as compared to the slums and that many service provision enterprises have emerged in the upgraded houses as compared to the slums and that there is also increased access to education financing in the upgraded project than in the slums through increased government funding in the upgraded project as compared to the slums.

13. Recommendations

The study recommends that job creation initiatives to be implemented for the rising populations. This can be achieved through provision of good infrastructure in the slums to attract domestic and foreign investment, which is necessary for large-scale job creation. To facilitate the shift into the formal sector, local authorities should adjust their laws and regulations to lower the costs and increase the benefits for people to formalize their enterprises. They should also provide assistance to small enterprises to upgrade skills and increase access to productive resources and market opportunities.

It is the role of the government to facilitate the realization of housing rights. It should provide a conducive legal framework. The proposed slum upgrading policy is a good initiative. However, the policy needs to give clear definitions in order to prevent the misinterpretation of the policy. The policy should advocate that upgrading programmes should enhance the community's lives. It should create avenues for community participation in the projects in order to address their needs. Through upgrading initiatives, communities should be able to access improved housing and it should be accompanied by related amenities. Furthermore, upgrading initiatives should encourage the use of local labour.

Government needs to engage with the community based organizations in order to fast track development. It should further explore the introduction of energy efficiency in its housing projects so as to limit the beneficiaries' expenditure on energy. Informal activities that should be incorporated into the slum upgrading programme, include child care facilities, home based shops (tuckshops) and proper school sites should be provided.

14. Suggestions for Further Research

Arising from the findings in this study, future researchers could consider the following areas and issues for further study. This study concentrated on establishing the effects of livelihood strategies in slum upgrading project on the welfare of Kibera residents. However, welfare was tested as a composite score of health status, income status and social status. It would be interesting if the individual livelihood strategy dimensions were tested against each of areas in the welfare of Kibera residents as outlined in the conceptual framework. The findings may be different from the ones obtained in this study.

The context of the study was Kibera residents. Future research could be undertaken to replicate this study or compare other slums like Kawangware, Kangemi, Mathare and others to check whether the findings will be the same.

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