

**THE ROLE OF COMMUNITY PARTICIPATION IN THE
INFORMAL SETTLEMENT UPGRADING; CASE STUDY OF
HURUMA, NAIROBI**

BY

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**A research project submitted in partial fulfillment of the requirements for the
award of degree of Master of Arts in Construction Management from
University of Nairobi**

APRIL 2012



DECLARATION

I Christopher Kaniiru M'ithai do hereby declare that this thesis is my original work and has not been presented for a degree in this or any other university for examination or any other purpose.

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Signature.......... Date.....09/07/2012.....

The thesis has been submitted for examination with my approval as a university supervisor

Signed.......... Date.....10/07/2012.....

Mrs. Catherine Kariuki

DEDICATION

To gift of support and love given, life and appreciation to Lord Almighty, my wife and daughter i.e. Faith and Chantal, parents' brothers and sisters. Supervisor and friends who have given me support to complete this noble task.

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This thesis project would never have materialized without the combined effort of family, friends, lecturers and support of my colleagues. The development and maturation of this document is owed to the Department of Real Estate and Construction Management of University of Nairobi.

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All the above contributed in a great way in compiling of the thesis project but a general debt of appreciation is due to the people who manuscripts were used and offered an access to data in libraries, archives and people who were available for the interviews. Thanks to all friends who in one way or another contributed to the successful production of the work. To all who participated and showed interest in my work, may God bless you all.

ABSTRACT

Slum-upgrading projects are by no means easy to organise, resource, implement or replicate. To be successful, slum-upgrading projects require careful design and management. In particular, local conditions need to be considered; housing affordability and project finance must be sustainable in the long-term.

One of the “accepted” best practices in addressing the challenge of the slums is now “participatory slum improvement”. However, despite such high-level recognition, the practice is still fairly uncommon and mostly limited to small-scale or “demonstration” projects. The problem with community participation is that it is relatively slow to implement and depends on the cooperation, goodwill and resources of residents, as well as their governments and other stakeholders.

The purpose of this study was to find out the role of community participation in informal settlement construction upgrading and offer the way of community participation to complete the project on time. The objectives of this research are to find out the main causes of delays, the roles and way of community participation and other partners in housing projects implementation in informal settlements.

The concept of informal settlement is a broad one. It can potentially include rural communities, backyard shacks and the illegal occupants of inner city buildings. The main focus of this thesis is on ‘conventional’ informal settlements which are typically located in the city. The area under study uses non conventional informal settlement upgrading.

The literature reviewed mainly deals with the community participation in the informal settlements upgrading and elements of community participation in upgrading. Models of informal settlement upgrading and the causes of delays in upgrading were also reviewed. The community participation adopted for this study is self reliance.

This research is a case study. The sampling is both probability and non probability. The research sample was one hundred (100) units. The area of the study was the Huruma informal settlements. The tabulation of the data was used to come up with percentages usually to compare and contrast data from different informal settlements in Huruma.

There are three types of houses in the area and they include upgraded houses, shanties and the ones under construction. In all the settlements the city council of Nairobi has already given partial approval for the plans of the housing project. The members to the group are composed of structure owners and tenants who have formed a self help group. The formation of the self help groups in these settlements helped in bringing the interest of the community together.

There is community participation in the informal settlements. The NGOs contributed by supporting the community through providing technical support in the design and construction time. The members are trained to improve their skills in construction works in masonry, carpentry and site management.

The main causes of delays in informal settlement upgrading are the funding and the cost of the housing project. It is important to clarify what the community can do and

what they cannot do. All the activities that require technical knowledge that the community don't have should be given to professionals.

There is a need of a master programme for the whole project so that time can be managed well. The funds should put aside to cater for variation and creating income generating opportunities in the community should be considered. To enable the houses to be affordable the Local Government should provide the infrastructure. The money that the NGOs use in providing these services can then be used in subsidizing the cost of the buildings.

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LIST OF ABBREVIATIONS

AMT	Akiba Mashinani Trust
BCSJ	Bayview Citizens for Social Justice
CBO	Community Based Organisation
COD	Chairman of Department
COOPI	Cooperazione Internazionale
COHRE	Centre for Housing Rights and Eviction
ESIS	Emergency Servicing of Informal settlement
GOK	Government of Kenya
GTZ	German Technical Cooperation
KENSUP	Kenya Slums Upgrading Programmes
MoU	Memorandum of Understanding
NCC	Nairobi City Council
NGO	Non Governmental Organisation
OPP	Orangi Pilot Project
PT	Pamoja Trust
UNCHS	United Nations Centre for Human Settlement
UN-HABITAT	United Nations Human Settlement Programme
UON	University of Nairobi

CHAPTER ONE

1.0 INTRODUCTION

Africa is characterized by rapid urban population growth rate in poorly growing and sometimes declining economies. This has caused housing systems to be poor with more than 60% of the people living in unsanitary conditions. These housing systems are found in all slums (UNHABITAT, 2002).

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According to UN HABITAT (2008) Kenya's slums are growing at an unprecedented rate as more and more people move to Kenya's cities in search of employment and other opportunities urban areas offer. The government and local authorities are faced with the serious challenge of guiding the physical growth of urban areas and providing adequate services for the growing urban population. The Kenyan urban population makes 40 percent of the total population and more than 70 percent of these urbanites lived in slums, with limited access to water and sanitation, housing, and secure tenure.

Many methods of solving the problems have been adopted but today the magnitude of urban housing problem is such that the best power capable of solving it is those affected by it. According to Achieng (2003) technical and planning assistance are therefore necessary although they will not solve the problem on their own, therefore the government efforts to improve informal settlements and the first priority should be to give measures that will release people's initiative and their capacity to solve their own problem.

According to Chambers (1997), one of the icons of the development era, states that “from 1950’s through 1960 to 1970’s in the prevailing orthodox of development it was the professionals who had answers, the locals and poor people had the problem”. The idea of involving communities in shaping their own housing and living conditions was mooted at the United Nations Conference on Human Settlement in Vancouver Canada 1976. The conference stated that community participation should not be dispensable especially in planning strategies and formulation, implementation and management in informal settlement upgrading (UNCHS, 1991).

In an informal settlement upgrading project unlike conventional housing scheme; the target population is already on site and it is necessary to involve the community in the preparation of the upgrading plans, without active cooperation the plan implementation is difficult. Earlier responses to the housing problem for the urban poor has shown that no government is in a position to finance, on its own the regularization and upgrading of all squatter settlements in urban areas and the communities are therefore to pay all or most of the project cost. (UNCHS, 1985)

Evidence is seen in a project in Huruma Kenya where Caitlin (2005) found that the residents organized, financed, and contributed labour to all phases of site and materials preparation and construction with only minimal assistance. During the process, the assistant role was limited to initial training of community members for participatory planning, then as liaison/facilitator between the community, NGOs, the NCC, and the Department of Planning, and finally as technical advisor during construction. The Huruma community begins to discuss around the issues of better

housing for all. They contribute to housing design and these suggestions are presented to an architect in a community meeting. The project is still continuing.

This study investigates the main causes of delays where community participation exists in an informal settlement in Nairobi. To achieve this, the study evaluates community participation in informal settlements and the institutions involved in slum upgrading. This is undertaken by studying informal settlements which have implemented community participation in Nairobi.

1.1 Statement of the problem

Growing urban poverty is one of the most challenging problems facing the developing countries in the 21st century. Proper low-income housing remains scarce, forcing most of the urban poor to live on illegally occupied lands without sufficient basic services such as water, roads or sewage systems. The UN Habitat (2003) estimates that almost 1 billion people or one-sixth of the global population currently lives in the slums.

Informal settlements account for more than 50% of the urbanised area in cities like Cairo, Manila and Lima, just to mention a few (Claudio, 2002). According to the UN Global Report on Human Settlements (2003) 924 million people, or 31.6% of the world's urban population lived in slums in 2001 and forecast indicated that it will increase to 2 billion people in the next 30 years if no concrete actions are undertaken.

In Sub-Saharan Africa 72 per cent of the urban population live in slums. The equivalent figure for Asian cities is 42 per cent, while it is 32% in Latin America. The

UN Millennium Development Goal is to reduce the slums through the construction of 100 million new houses in 15 years. Forty countries out of 51 on the African continent had more than half of their urban populations living in slums (UNHABITAT, 2008).

In the Kenyan context it has been found that slum-upgrading projects are by no means easy to organise, resource, implement or replicate. To be successful, slum-upgrading projects require careful design and management. In particular, local conditions need to be considered; housing affordability and project finance must be sustainable in the long-term; consultation and direct, meaningful, sustained community involvement are vital; and residents must be effectively protected from evictions and violence (GOK, 2008).

Like other aid projects focusing purely on construction, early slum upgrading projects tended to be carried out in isolation. Government of Kenya often did not follow through with services, communities did not maintain the facilities, and governance structures disappeared once the international experts involved were gone (KENSUP Implementation Strategy 2005, Financing Strategy, 2005).

According to Malombe (1997) the Mathare 4A projects objective was to make sure that tenants do not get displaced after the improvement. This was done by ensuring that rent did not change. The issue of land ownership in this project remained unresolved and their rights remaining with the church is a possibility of future problems. The tenants were dissatisfied with these arrangements because they were hardly involved in deciding the tenure system. This led to rejection of the tenure system where the tenants were to pay rent to church because church was given the land.

According to UN-Habitat (2003), one of the “accepted” best practices in addressing the challenge of the slums is now “participatory slum improvement”. It also adds that despite such high-level recognition, the practice is still fairly uncommon and mostly limited to small-scale or “demonstration” projects. More knowledge of participatory slum improvement/upgrading, its processes, accomplishments, challenges and lessons for larger scale efforts is essential in moving towards solutions to the growth of slums.

Community participation has been advocated as a possible solution in slum upgrading because of high cost associated with traditional development approaches, current monetary and man power constraints and realization that the local solutions can be effective. It has however, its own problems and UN-Habitat (2008) found that it is relatively slow to implement and depends on the cooperation, goodwill and resources of residents, as well as their governments and other stakeholders.

To support this statement World Bank (2002) also argued that community participation was found to be time-consuming and complex. For instance phase 2 of Hanna Nassif upgrading in Tanzania was extended by six months. Graham (2004) also found that in South Africa Emergency Servicing of Informal Settlements (ESIS) Project in Cape Town the city achieved basic service provision to 90% of all accessible settlements.

There is always a problem of projects taking more time than planned. As it was for the Huruma project in Kenya was planned to take three years (2005-2007), at a cost of 1.5 million euro (US\$2.1 million). The project was completed in 2010 due to

complications of community involvement in project implementation. Cooperazione Internazionale (COOPI) was the project's implementing agency, with the Italian ministry of foreign affairs one of the main donors (IRIN, 2010).

According to Afreen et al (2005) in Kenya, Kambi Moto, people were concerned about the delay (2 years versus the 6 months that was originally promised) to see the transformation from the modeling houses to the construction of the buildings. In Gitathuru, people were also frustrated that it not only took 3 years instead of the projected 3 months to build one community toilet cluster but the original idea of building 2 additional clusters were scraped due to the delay in construction of the first one.

The research intends to find out the way of managing informal settlement upgrading with community participation to complete projects on time and make them sustainable. The purpose of this study is to investigate the role of community participation in informal settlement upgrading and how to minimize delays in the construction of housing project.

1.2 The objectives of the study

The main objective of the study is to find out the role of community participation in informal settlement upgrading. This goal is attended to by the following specific objectives;

1. To find out the main cause of delays in housing projects implementation in informal settlements.

2. To find out the roles of the community members and other partners in housing construction projects in informal sector.
3. To establish the way community participates in informal settlement upgrading.

1.3 Hypothesis

The delays in house construction in informal settlements are caused by the lack of community participation in project implementation.

1.4 Justification

Whereas the concept of informal settlement is a broad one, which can potentially include rural communities, backyard shacks and the illegal occupants of inner city buildings, the main focus of this thesis is on 'conventional' informal settlements (slums) which are typically located within a city. Whereas many of the insights and conclusions of this thesis might have relevance for other types of informal settlements, they are thus not the primary target.

According to Cities Alliance (2003) in Latin America most of the population is urban, yet populations in cities and slums are still increasing at alarming rates due to internal growth. In Africa and Asia, however, existing slums will continue to grow and new ones will be continually created for at least the next two to three decades unless governments combine the vision and resources to anticipate and provide for this certain urban growth.

As a result of the above the improvement of slums is one of the Millennium Development Goal, although the target of reaching 100 million slum dwellers seems very low (Centre on Housing Rights and Evictions, 2005).

Nairobi's slum challenges exemplify the challenges posed by rapid urbanization. The government and other civil society organizations had searched for decades for ways to assuage the problem of rapid slum growth. These varied from arbitrary evictions and demolitions to charity work and hand-outs and few projects have had long-term success (Alder, 1995).

The study has evaluated and suggests the ways of reducing delays in community housing projects in informal settlements. The study has also identified the main causes of delays and how they can be smoothly eliminated to make sure projects are completed on time.

1.5 Limitations

The study assumes objectivity on the part of the respondents. Any subjectivity response could negatively influence the results. This was reduced by researcher touring both settlements and making his own observations and having focus on group discussions with the residents who are still residing in the settlements of huruma and also residents who have benefited from the new scheme.

Institutional bottle necks have been experienced especially when seeking information from government offices, supporting NGOs and community participants which do not have a very well established formal management.

1.6 Assumptions

All community members in informal settlements have a common bond that is same priority of housing construction upgrading and they all participate fully and support the upgrading process.

The activities of NGOs and CBOs include financing of housing and other activities which improve the quality of life within the informal settlement. The low income groups in Kenya urban areas have very limited access to credit and therefore find it difficult to improve their conditions.

The conventional lending institutions charge very high interest rates and insist on collateral and this has kept away the low income groups. On the other hand NGOs charge interest rates which are lower than what conventional lending institutions charge and they rely on group guarantees instead of collateral.

✓

1.6 Organization of the Report

The study will be divided into five chapters. Chapter one introduces the study by discussing challenges that have occurred globally and greatly contributed to the housing shortage. It also includes community contribution, the problem statement of the research, objectives of the study, justification, study limitations and organization of the study.

Chapter two discusses the literature review and conceptual framework. Chapter three discusses the detailed background information on the study area and methodology.

The study area background includes physical characteristics, demographic factors, housing, physical infrastructure, community facilities and the economic factors of the area.

Chapter four discusses the techniques of data collection and analysis of all the data collected from the field including interpretation of the data. It also shows the research design, sampling frame and the sample chosen for the study. It also indicates the contribution of various factors in delays and failures in housing scheme slum upgrading. Chapter five contains the conclusions and recommendations on the main causes of delays and what can be constituted in the housing project to enable the informal settlement community finish the project on time.

1.7 Definition of Terms According to this Study

Informal settlements: These are settlements which are provided outside the formal system usually on other people's private land, road and rail reserves, riparian reserves, car parks, and land way leaves. They are also be referred as slums. //

Upgrading refer to settlement upgrading as a strategy for providing housing to low income households that involves the provision of basic services to existing informal settlements and improving the over time.

Community participation: It is a voluntary involvement of beneficiaries in contribution to the execution of the project in sharing the benefits derived there and in making decisions with respect to setting goals of the project from conception, planning, implementation, financing and management of the project.

Community based organization: This is an institution which facilitates the mobilization of funds by the communities with the aim of using funds to develop the community projects or led to its members for individual needs.

Community based finance institutions: The organizations which enable low income groups to participate fully and democratically in the development process and which have their roots in the community.

Housing scheme constitutes of basic infrastructure such as roads water sanitation, waste disposal as well as urban services such as health facilities, schools, market community centres, play grounds and small scale enterprises which will supply the inhabitants of settlement with vital source of income.

CHAPTER TWO

LITERATURE REVIEW

2.1.0 Introduction.

The literature review covers the various areas of this research project according to the objectives. There is community participation in the informal settlements upgrading which deals with how different communities have participated in different communities highlighting the success and failures. It explores the relationship, roles and activities in community participation and other partners.

It also reviews what has been done in informal settlements through community participation, what works has been carried out and the outcome. The recommendation on how to improve the shortcoming faced in previous project is explored. It also evaluates the community contribution according to other projects and the process followed in the informal settlement upgrading.

The various factors causing delays in the slum upgrading housing scheme are explored. This is done by referring to the various case studies on projects which have been carried out on slums in different parts of the world. It also explores the challenges in slum upgrading and how they have been dealt.

Characteristics of Informal Settlements

Informal settlements occur when the current land administration and planning fails to address the needs of the whole community. These areas are characterized by rapid, unstructured and unplanned development. On a global scale informal settlements

are a significant problem especially in third world countries housing the world's disadvantaged. The word "slum" is often used to describe informal settlements within cities that have inadequate housing and squalid, miserable living conditions. They are often overcrowded, with many people crammed into very small living spaces.

2.1.1 History of Informal Settlements

At some point in any growing city the supply of existing buildings which could be profitably converted into tenements was fully utilized. The pressure of rising numbers and often the fact that there were more profitable sources of investment than tenements led to informal settlements becoming the main new source of low income accommodation.

Late in the 17th century, Gerald Aungier tried to attract traders and artisans to Bombay. As a result, the population grew six-fold in the fourteen years between 1661 and 1675. Some of the more prosperous traders built houses inside the British fort. The rest lived in crowded "native-towns" around the walls. These were probably the first slums to grow in Bombay.

The problem of overcrowding certainly remained through the 18th century. A count made in 1794 found 1000 houses inside the fort walls and 6500 immediately outside. All over the world, the 19th century saw the growth of slums give the lie to the idea of progress brought on by large-scale industrialization and the understanding and control of diseases. Bombay was no exception. The cotton boom, followed by the rapid growth of mills and shipping drew a large population from the rest of the country into

a city ill-equipped to deal with them. In the middle of the 19th century slums grew around the mills and other places of employment.

In the 1950s many sub-Saharan Africa cities did not have large middle income housing stock which they could easily convert into tenements. In some of the largest cities of late 19th and early 20th centuries a considerable number of informal settlements had developed before the World War II e.g. Caracas, Rio de Janeiro and Montevideo already had intensive informal settlements by 1940s but in most cities it is within the last four or five decades that informal settlements have become the major source of new cheap housing (Hardley and Satterthwaite 1995).

Informal settlements in Nairobi have grown gradually since 1902 when the British Colonial government officially founded the City of Nairobi. So too have the responses to regulating and upgrading the settlements. Colonial government policy towards informal settlements was predicated on containment, labour supply, public health and racial segregation. At independence in 1963, the Government of Kenya balanced the expectation of emancipation for land and shelter with a policy of containment and slum clearance then prevalent internationally. Slum clearance led to the proliferation of new slums, giving rise to new policies, including site and service schemes of green-field development. (Syagga, Mitullah and Karirah, 2001)

In 1986, the Government of Kenya ushered in the implementation of Structural Adjustment Programmes (SAPs), which were expected to lead to economic growth. The Nairobi City Council, which is charged with the provision and management of services within its jurisdiction, could not cope with the problem due to a combination of factors: the poor economic situation; rapid population growth; limited resources;

inefficient revenue collection; strict control by the Ministry of Local Government; and poor management. On their part, donors had no clear approach to working with informal settlements; they lacked coordination and did not view "urban" as a funding category. (Syagga, Mitullah and Karirah, 2001)

2.2.0 The Genesis of Informal Settlement Upgrading

Until the 1970s, the Government of Maharashtra and the Municipal Corporation of Greater Mumbai followed a policy to unilaterally demolish slums and clear land of encroachments. However, this strategy did not work because people simply re-built their huts after some time at the same location or, if there was too much harassment, at another unoccupied location nearby. Moreover, land-owning agencies were just not equipped to police their lands and their lower officials often connived with middlemen to allow encroachments. Even when the state government did try to resettle the poor, they were unsuccessful. Resettlement proceeded erratically according to the whims and fancies of local municipal officials and the poor were completely excluded from any decision-making. As a result, more often than not, because they had been forcibly relocated without concern for their social and economic networks, the poor returned to their original locations or to nearby ones. (Burra and Mahadevan, 2003)

In the 1970s, however, legislation and policy changed. Slums began to be viewed as housing solutions and the states began to provide water, sanitation, electricity and other amenities in these areas. Furthermore, the states started to recognise that when slums were demolished, some form of resettlement was needed. This was reinforced by the idea of involving communities in shaping their own housing and living

conditions was mooted at the United Nations Conference on Human Settlement in Vancouver Canada 1976 and the conference stated that community participation should be indispensable especially in planning strategies and formulation, implementation and management of the informal settlement upgrading (UNCHS, 1991).

Many countries such as Brazil, Venezuela, Ghana, Kenya and Philippines already recognize the slum upgrading programs as a successful approach, which contributes to the improvement of the living conditions of the urban poor (World Bank, Cities Alliance, 2001).

2.2.1 Community Participation in Informal Settlement Upgrading

Throughout history, the poor usually had to build their own houses and neighbourhoods and they have almost always built them outside the official 'legal' area of elite and contrary to norms and regulations (Hardley and Satterthwaite, 1995).

The need for community participation is supported by the projects undertaken by NGOs at the local, national and international levels that incorporate community participation have in majority of cases been successful. NGOs that operate internationally such as Save the Child Fund and Oxfam are regarded as having successful programmes and projects due to their participatory mode of operation (UNCHS, 1987, Karirah, 1996)

According to Habitat, (1985) community participation is an indispensable element in any informal settlement upgrading process if the community which originally developed the settlement, have the responsibility of improving houses. In informal

settlement upgrading project unlike a conventional housing scheme project, the target population is already on site and it is necessary to involve the community in the preparation of the regularization and upgrading plans. Without active cooperation the plans cannot be implemented, more over in view of magnitude of the housing problem of urban poor no government is in a position to finance it on its own, the regularization and upgrading of all informal settlements in urban areas and communities therefore have to pay all or most of the cost of upgrading projects.

According to Habitat (1985) community participation can be defined as a voluntary and democratic involvement of beneficiaries in contribution to the execution of the project in sharing the benefits derived there from and in making decisions with respect to setting goals formulating the project and preparing and implementing the plans.

Community participation has been used in some instances in relation to community self reliance and self help. According to Karirah (1996) the concept (self reliance and self help) provides a much narrower definition of community. Existing literature shows that it is much more than the mere contribution of labour and or money. It is an active process by which beneficiary or client groups influence the direction and the execution of the peoples well being in terms of personal growth self reliance or other values they may cherish.

Another common usage of community participation refers to the mobilization of people to undertake social and economic development projects. Typically projects are conceived and designed from above and the people are mobilized to implement them.

Participation is in the form of labour and materials provision either free or paid for (Ghai, 1990).

In mobilization, the external agencies enter into the community and bring some project which is not the priority of the community. However this could be spontaneous, induced or coerced participation. According to UNICEF (1982), spontaneous participation is the ideal mode, as it allows for voluntary and autonomous action on the part of the people to organize and deal with their problems aided by external agencies, but induced participation is the opposite and may result in minimal or no community participation while coerced participation is regarded as the least acceptable option. Major conflicts of interest between the different resident categories for instance between renters and owners, established dwellers and recent arrivals, may make participation unrealistic even when there is good political leadership (Saunders, 1979).

All the above views and definitions of community are largely on development and not shelter per se, and often differ from those of community itself. It is likely that the poor understanding of community participation may differ from the above and each community and individuals will have different views of community participation.

Karirah (1996) gives some of the main reasons favouring the community participation approach to be the following, high cost associated with traditional development approaches, current monetary and man power constraints and realization that the local solutions can be effective. In addition it provides an opportunity for developing international solidarity in the struggle against oppression and resultant marginalization as well as community participation which does not only benefit the

community in question but in practical terms also benefits agencies such as social welfare departments planning offices and housing authorities.

UNCHS (2001) in emphasizing the advantages of community informal settlement upgrading participation state that it ensures that there is minimum physical displacement while houses are progressively upgraded; also immediate and large difference in quality of life of low income earners group and further it ensures that the target beneficiaries are reached especially the poorest of the population who are in the main programme. It also promotes investments in locally available goods; it is amenable to replication in other low income groups in various urban setting and enables external development agencies to work together with the community which has come together as a cohesive unit to improve shelter.

According to UNCHS (1987) to emphasize on that it states;

“Community participation broadens their resource base physically, financially and most importantly in human terms. It clarifies the prevailing conditions and problems, distributes responsibilities for the design, management and execution of programmes and projects.”

But self help construction projects have not avoided criticism and opposition and the critics identify community participation as a form of self exploitation of the poor and the means of subsidizing the formal sector by reducing pressure on wages. (Habitat, 1984)

But UN-HABITAT (2003) showed that over a long period, other solutions that tried to make use of the labour and resources of slum dwellers, and which seek to preserve and involve communities, have become preferred solutions to slum improvement. One popular alternative in slum upgrading consists of regularization of the rights to land

and housing and improving the existing infrastructure, such as the availability of water, sanitation, storm drainage and electricity.

For instance the Bayview Village Community in Virginia USA, the Bayview Citizens for Social Justice (BCSJ) was the key stakeholders of the project and the direct beneficiaries of the improvements to their community. The participatory design process generated a consensus among the community and acted as a catalyst for social and physical change. Through collaboration and partnerships with community members, local environmental organisations, activists for civil rights and design professionals the citizens of Bayview were able to guide themselves to rebuilding their community. Community participation and ownership is integral to the success of the project. BCSJ worked with Cox to obtain a private foundation loan that provided the \$345,000 needed to purchase the land, originally proposed as the site for the Jail. (Bowen and Lush, 2007)

In the above project local authorities provided grants and funding while the media became an innovative partner as wide exposure of the impoverished living conditions of the community attracted funds from private donors. It was a challenge to obtain the initial support of the local authorities but the initial state government grants temporarily improved access to clean drinking water and after the visible success of this, further funding was easier to obtain as the community had proved their commitment to the project. The approach taken by Cox and the BCSJ on revitalizing Bayview was the novel one that does not focus solely on building houses but also transforming people's lives as well. The project was a success since it was started in 1996 and was completed in 2003. (Bowen and Lush, 2007)

UN-HABITAT (2003) continues to argue that typical upgrading projects should provide footpaths and latrines, street lighting, drainage and roads, and often water supply and limited sewerage. Upgrading has significant advantages, it is not only an affordable alternative to clearance and relocation, but it also minimizes the disturbance to the social and economic life of the community. The results of upgrading are immediate, highly visible, and make a significant difference in the quality of life of the urban poor. In case of Kibera Highrise constructed as part of the Kenya slum upgrading programme some of the beneficiaries have rented houses and moved back to slums. This is because of lack of community participation which to collapse of the sources of finance. (The Standard May 12 2011)

2.2.2 Elements of Community Housing Upgrading Process

In an informal settlement upgrading project unlike conventional housing schemes, the target population is already on site and it is necessary to involve the community in the preparation of the upgrading plans. The housing project scheme should start by getting the number of community members and structures to be upgraded and engaging other stakeholders. This involves enumeration, design, implementation and maintenance.

2.2.2.1 Enumeration

Informal settlement dwellers do an enumeration in order to establish the total number of residents living in the communities. A community data entry team keys-in the information and then the data is hung up in the community halls or open spaces for the community to verify the information on the inhabitants of each structure. Having known the number of households within each settlement, the City Council is able to

authorize the planning of these settlements (Caitlin, 2005). World press (2010) also argues that communities and human settlements can only be upgraded by building on the local knowledge and capacities that exist within a given settlement through enumeration.

2.2.2.2 Design (Community Dreaming)

According to Caitlin (2005) the community begins to discuss around the issues of better housing for all. They contribute to the design of house they would want. These suggestions are presented to an architect in a community meeting. The architect then modifies the “community dream” to suit the number of families and the size of the land. The final design agreed upon by the community is then presented to the whole community, general public, City Council and stakeholders form a “Cloth Model”.

2.2.2.3 Construction

This is the implementation stage of the housing scheme. It involves participatory Planning & Budgeting which involves needs assessment, development of financing strategies (including community contribution), participatory project implementation and management which involves identification and development of skills within the community, community procurement system and sourcing of appropriate and affordable materials (Caitlin, 2005). Afreen et al (2005) also adds that the informal houses upgrading is participatory with the community labor as equity contribution and formation of community-based management structures for community assets.

2.2.2.4 Maintenance

This involves the maintenance of the upgraded houses, entire infrastructure after construction and common areas. The community members are trained so that they can be able to continue with the project after the withdrawal of the donors (Afreen et al 2005)

2.2.3 Approaches to Informal Settlement Upgrading

COHRE (2005) states informal settlement upgrading actually varies and it is subject to local decision-making and can include anything from technical improvements to socio-political arrangements. Mark (2008) also argues that in broad terms informal settlement upgrading entertains approaches which are more flexible, participative, and integrated. It is important that the different approaches to informal settlement upgrading are properly understood. It is obvious that approaches and definitions vary from one place to another and that in some part, conventional upgrading is well understood to the extent that more innovative approaches are now being tested and implemented, in other parts, even basic upgrading is a more or less foreign approach which is either neglected or ineffectively and haphazardly implemented when it is undertaken.

Upgrading is broadly defined as physical, social, economic, organizational, and environmental improvements undertaken cooperatively among citizens, community groups, businesses, and local authorities to ensure sustained improvements in the quality of live for individuals (Cities Alliance, 2003). More specifically, the primary goals of upgrading projects are to provide secure land tenure in informal and often

illegal areas, and to improve basic infrastructure and service delivery (Gulyani and Connors, 2002).

The effort of upgrading without involvement of the community participation was not successful. For instance the past efforts of upgrading in Mathare 4A, Kibera, Pumwani and Eastlands Nairobi elicited major limitations clearly manifested in the lack of identification of an appropriate institutional, and financial and legal framework to manage the processes towards implementation. Responses revealed that that these attempts had neither been participatory nor had they addressed the involvement of the stakeholders (Mwaura, 2002).

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It is important that the different approaches to informal settlement upgrading are properly understood. These mostly include conventional, non conventional and relocation informal settlement upgrading.

2.2.3.1 Conventional informal settlement upgrading

Conventional informal settlement ('in-situ') upgrading entails the re-development of an informal settlement in a comprehensive and relatively complete fashion in respect of housing, tenure and infrastructural services. The full range of project fundamentals have to first be secured before such upgrading can be successfully achieved. This requires that extensive community interactions and workshops and having land availability secured. Bulk services availability secured with preliminary cost estimate, Preliminaries, environmental assessment completed and no material constraints identified. To add on that geotechnical conditions assessment and preliminary town planning including preliminary layout, yield estimates, determination of possible

relocation, and identification of relocations solutions. Preliminary services layouts and estimates, planning and environmental approvals confirmed as achievable. (Mark, 2008)

While upgrading of the Tanzania-Bondeni settlement in Voi took 12 years to complete, it has been noted that the participatory approach that was taken ensured that the upgrading was sustainable. The settlement, with a population of 5000 residents, was chosen as a pilot project within the Voi Municipality. The majority of the residents were structure-owners, although the settlement was situated on Government land as well as on land owned by the Kenya Railways Corporation and private interests, the various stakeholders managed to negotiate secure tenure for the beneficiaries. In the case of Voi, the tenure took the form of a community land trust, which was chosen from a number of options. The land trust restricted the residents' ability to sell their units, which meant that they were less susceptible to land speculation and the pressure to sell their shares. Sponsored by the German Technical Cooperation (GTZ), the project was multi-sectoral from the outset and involved a wide range of stakeholders. Committees were also instituted at community, local and national levels. The two aspects that were overlooked were the need for the project to go beyond shelter to include nutrition, child healthcare and family planning, as well as the need for active monitoring and evaluation (COHRE, 2005).

2.2.3.2 Relocation

This is another approach to informal settlement upgrading. A variation of the above theme is that of self-help or community driven housing is typically a slower delivery method but one which offers several advantages. These includes mobilization and

realization of local social capital, greater ownership and control of the housing process by local residents, greater participation by residents in the design process, and potentially the achievement of a bigger or more valuable housing product as a result of sweat equity and or a more cost effective construction process (Mark, 2008).

Relocations may affect only a portion of the settlement or the entire settlement and may be temporary or permanent. Whilst temporary relocations of portions of the settlement may be inevitable and permanent relocations of some residents might also be inevitable, the relocation of entire settlements, often to worse located land relative to livelihood opportunities and other amenities should be undertaken only as a last resort and in special circumstances, given the significant negative impacts on residents that typically flow from such wholesale relocations (Mark, 2008).

The Kayole Mihang'o Muungano settlement in Kenya is a good example of an informal settlement where relocation was applied successfully. The settlement was established by a group of squatters invading the land belonging to the armed forces of Kenya Embakasi and established temporary buildings. The government decided to relocate them to the adjacent government land between the armed forces land and Ngong River because armed forces land is a restricted area (Appida, 2009).

The following observations were made by Appida (2009). The poor living conditions and lack of the services in the informal settlement persuaded some inhabitants to form a women's group. The women group enabled the members to participate in production of houses. The group was able to provide services in terms of water, solid waste management, and health facility. However they have a lot of work to be done,

such as providing play grounds, open spaces, electricity supply, surface water drainage, roads access and connection the sewer network which they have not managed due to lack of resources. It was noted that after the withdrawal of the African Housing Fund, low monthly contribution have contributed to low rate production of houses. The other problem noted planning regulations were not enforced in Kayole.

2.2.3.3 Non Conventional In-Situ Upgrading

This approach is receiving increasing attention from African and other Asian Governments like India. This is because of significant constraints in achieving conventional upgrading and identifying suitable relocations destinations for green-fields projects. Non conventional upgrading takes two main forms. First is the provision of interim relief measures or the initiation of initial upgrading measures to address key needs such as fire protection, basic sanitation, access to potable water, solid waste removal, basic health care, and improved internal access ways (e.g. for emergency vehicles). The second is delivery of a full upgrade solution but utilizing different methods and housing typologies. This could include combination elements such as the upgrading houses in phases and sharing the houses left at the time of for use, most of which are aimed at increasing densities and minimizing relocations. (Mark, 2008)

For instance in Orangi pilot project, Karachi Pakistan COHRE (2005) found that Orangi was the largest of Karachi's informal settlements, housing approximately one million people. Due to the initiative of a locally based NGO called Orangi Pilot services, health care and employment opportunities in little more than a decade.

Orangi residents were motivated not only to pay for improvements to sewage systems but also to assume responsibility for their construction and maintenance. Residents were interested in participating because their houses represented a significant investment for them. In the end, residents performed between 80 and 90 percent of the work needed to build the sewer system, leaving the Karachi government with the responsibility only for the provision of the main drains and treatment plants. (COHRE, 2005)

Functioning partnerships between stakeholders as well as the incremental, community-based approach to tackling neighborhood problems have rendered the Orangi Pilot Project (OPP) one of the most successful slum-upgrading projects to date. However, since residents had land tenure, they were more willing to invest in services. (COHRE, 2005)

The OPP as well as numerous other community based projects have demonstrated that slum dwellers are willing to contribute both their own labor as well as cash for such schemes. Furthermore, the schemes help to empower the residents and encourage them to actively lobby the government and thereby influence public sector priorities and investment programs. The work of the Society for the Promotion of Area Resource Centres (SPARC) and Mahila Milan in India are other examples of grassroots involvement in slum upgrading. (UN-HABITAT, 2006)

Graham (2004) also found that in South Africa the Emergency Servicing of Informal settlement (ESIS) Project was the first phase of the three-phase incremental upgrading

plan outlined in the City's Framework for Upgrading Informal Settlements (City of Cape Town, 2004b). It aimed to provide basic services (water, sanitation and refuse removal) to all informal settlements within the city. The ESIS Project was considered a success in so far as it achieved near universal basic servicing over a short time, and thereby discharged the City's legal obligation to provide basic services to the poor.

2.3.0 Challenges and factors causing delays in Informal Settlement Upgrading

According to Talukhaba (1988) delays in construction industry occur in many ways in the formal settlement. There are delays caused by parties involved for instance delays that emanate from the client as a result delayed payment to the contractor and consultants. There are delays caused by the design team due to failure to issue detailed design drawings at the time required. Kimani (2004) also found that contractors may cause delay as a result of poor planning on materials, plant or labour resources.

Successes have been noted in some of the informal settlement upgrading projects, but they have many challenges among which included delays in completion of the project and increasing the cost. To support this in "The Challenge of Slums Global Report on Human Settlements 2003" the UNCHS (Habitat) they stated that

"Informal' suggests a different way from the norm, one, which breaches formal conventions and is not acceptable in formal circles – one which is inferior, irregular and, at least somewhat, undesirable. However, research and practice over the years have demonstrated that differences may not imply inferiority. Although an informal settlement may be built on land zoned for industry and is, therefore, illegal, it provides accommodation, location and identity for its inhabitants at a cost that they can probably afford.".....

According to Mark (2008) the challenge of informal settlement is obviously a complex one **and** there are thus a wide range of issues and contributing factors, many of which **overlap** or are mutually re-enforcing. Syagga, Mitullah and Karirah, (2001) also found that **due** to the very complex nature of informal settlement development in Nairobi, **attempts** to upgrade slums have had mixed results. Past upgrading projects in Kenya have **had** both strengths and shortcomings at policy level. The shortcomings include: lack of affordability, high standards for infrastructure, land tenure complications, **and** administrative inefficiency.

Many projects **fail** to be sustainable as too little attention is given on how to create or strengthen **existing** institutional structures which are necessary supportive environment **for** sustainable development. It is due to this weakness in planning (a top down planning **instead** of bottom up) lack of community participation and weakness in monitoring systems that most projects become unsustainable after being implemented. (Habitat, 1995)

Chambers (1997) one of the icons of the development era states from 1950's through 1960 to the 1970's in the prevailing orthodox of development, it was the professionals who had the **answers**, and the local and poor people had the problem. Today magnitude of **urban** housing problem is such that the best power capable of solving it is the people **affected** by it. Therefore the government effort to improve informal settlements, the first priority is to give measures that will release people initiative and their capacity **to** solve their own problem. (Achieng, 2003)

UNCHS (1984) adds that housing that is not adapted to needs and resources of the occupants become oppressive. Unless the user is in control of design construction and maintenance of the shelter and is free to build according to his real and perceived needs and priorities the dwelling becomes a barrier to personal fulfillment and a burden to the economy.

In Kenya today, there is a process of negotiation between the slums and the state. Unfortunately this process is characterized by aggression. The state declares its commitment to solving the slum problem and sets up a program within a Ministry of housing to coordinate slum upgrading. The state then finds that the slums are very inconveniently located, on riparian land, road reserves, power, railway and other utility reserves and on private poverty. It follows that whenever any organ of the state, except the slum upgrading program, is confronted with a slum, that organ seeks to evict the people. And on the slum dwellers end, every eviction is resisted. If and when resistance fails the next step is inevitably the invasion of some other contestable land (undeveloped land) by slum dwellers. (Nairobi slums inventory, 2007)

According to World Bank (2002) problems encountered during Hanna Nassif project in Tanzania included weak construction planning and poor supervision of works. It appeared that the community and the project's non-technical support paid less than due attention to the need for proper survey, engineering design, works planning, contract management and construction supervision. Evaluations suggest that the community was, perhaps, asked to do too much, particularly in fields where professional/technical competence was required. Planning and designing a storm water drainage scheme for a community of nearly 20,000 people in a tropical climate

requires engineering expertise. The skill limitations of the workers were realized somewhat late in project implementation but should be avoided in the future. While it is critical to involve the community throughout the upgrading process, it is equally important to clarify what the community can do and what they cannot do.

These problems resulted in the project being extended by six months. Problems also occurred with the payment of the supervision consultants. Many unskilled workers did not understand the concept of community contribution and the payment of lower than normal rates for their labor. However, a case study of Hanna Nassif comparing unit rates for machine-based work against the labor-based methods used showed the benefits of using labor-based methods.

In addition, although some attention was given to maintenance activities, success in this area has been limited. With poor solid waste collection people continued to dump waste into drains, there was no schedule of periodic maintenance works and no formalized inspection system for any of the infrastructure. Although there has been much training, there is little practical maintenance culture beyond emergency or reactive measures. (World Bank, 2002)

Afreen et al (2005) also found that despite high levels of participation and interest in the various upgrading processes, general problems of exclusion still exist. Some structure owners are adamant about not participating and some tenants who wanted to participate are unable to do so. The structure owners disagreed with the following aspects of the upgrading process; Major reasons behind the dissent involve the issues of beneficiary selection for upgraded houses and transparency in the savings scheme. This was the confusion as well as suspicion and inhibits participation. With extremely

low income, some people are simply unable to save and be part of the savings scheme. Hidden cost which is interest rate is another issue that contributes to the problem of exclusion. There was also an additional cost in rent in the neighbourhood for the people who cannot move into the new houses until construction is complete. The cumulative costs make the process highly unaffordable.

According to Graham (2004) the constraints were listed, in order of importance, by officials as being: lack of additional land, community politics, bureaucratic 'red tape', and difficulties accessing finance and resources. Both state and non-state stakeholders considered the lack of available land for de-densification, relocation, and the construction of new housing to be one of, if not the most critical issue for informal settlement intervention in Cape Town.

Graham (2004) also he adds that the city achieved basic service provision to over 90% of all accessible settlements. The lack of supply to the few remaining settlements was mostly due to 'community politics' and difficulties gaining permission from private landowners to service settlements on their land. The 'community politics' referred to here were disagreements between the City and the community leaders over levels of service and location of services. Residents claimed that this was as a result of lack of consultation.

Graham (2004) also found out that residents in a number of settlements were willing to disrupt the Project and sacrifice the benefit of basic services in order to get jobs, or to be paid more for these jobs. This phenomenon would seem to indicate that the employment potential of Project was seen by residents to be more important than the services themselves. There is thus an interesting shift in emphasis from the residents'

perspective with their primary demand for basic services being superseded by the demand for jobs, at least in the short-term, which may have implications for the form and viability of future projects

To add on the above challenges most of the bureaucratic constraints during the Project were found to be related to procurement processes and the accessing of funds. However, the funding was made available and some of the normal procurement procedures were waived for the period of the project. The Project was slow to start because Development Support had to establish a new project office to cope with the scale of the project and the servicing deadline.

According to Afreen et al (2005) difficulties in obtaining planning and environmental approvals for informal settlement responses also posed a material constraint to all forms of housing delivery, including upgrading. These constraints apply not only to full upgrading but also to interim relief measures (e.g. a city fire department unwilling to install fire protection measures until such approvals have been obtained). The constraints relate partially to the need for the necessary legislative authorizations and partially to the desire to protect the ownership and value of assets which might be located on land which is not owned by the municipality in question.

Many of the problems of upgrading (and other types of housing delivery) are closely related to the issues of costs and affordability and in particular, the actual versus desired costs of the total housing product. Current estimates by government (i.e. the cost for elements such as top structure subsidies, infrastructure and land acquisition)

tend to be significantly under-estimated. Whilst a top quality product is desired, the funding provided is usually inadequate to meet this aspiration.

A striking feature of the Projects reviewed had the following similar issues. The disruptions were caused by disputes over opportunities and payment for casual employment of settlement residents during the installation of services. Lack of community participation has also contributed to delays in projects.

2.3.1 Factors Contributing to the Success of Informal Settlement upgrading

According to Warren (2005), in practice the emphasis seems to be on physical development (“eradicating shacks”) and infrastructure provision is undertaken in a conventional way by large contractors with little scope for labour-intensive methodology or innovation. The approach is top-down and focused on meeting ambitious targets, resulting in inadequate community participation and there is an almost total focus on the role of government, with little recognition of other role-players.

For the informal settlement upgrading to be successful the following points should be taken into consideration;

Informal settlement upgrading is not about eradicating shacks, it is about an integrated approach to development aimed at addressing poverty and there need to be a range of complementary social, economic and physical development programmes; social and economic development programmes should not be an add-on to physic development programmes.

There is a need to understand informal settlement communities. In order to be able to undertake integrated development interventions, it is important to have reliable and up-to-date information about the community, e.g. about affordability levels and Sustainable livelihoods assessments are a way of gaining a better understanding of informal processes and people's everyday lives

Real community participation is essential. The key lesson that can be learned from international good practice is that real community participation by committees representing beneficiaries is essential, at all levels from strategy level down to project implementation level; participation in allocation processes, layout design and house design is particularly important. Capacity building, both on leadership skills and technical knowledge, is a prerequisite for successful community participation.

Partnerships are important. Another lesson from international good practice is that government bodies are not able to do everything on their own, partnerships are essential, especially partnerships between government bodies, community organizations, NGOs and multilateral organizations (e.g. the Slum Networking Project in India) and procedures must be put in place to facilitate real partnerships.

Flexible land tenure arrangements must be put in place; Individual ownership is expensive and complex and is not suited to the needs of the poor. Flexible land tenure arrangements that help bridge the gap between formal and informal land tenure systems need to be put in place. The range of interim tenure options includes moratoriums on evictions, temporary occupation licenses, and community and

individual leases. A degree of decentralized community-control of the tenure system is important.

Upgrade in situ wherever possible; *In situ* upgrading is always preferable to relocation, in order to maintain social and economic links and networks. In the case of temporary structures, roll-over upgrading may be appropriate, but the negative impacts of temporary relocation should be minimized. If there is going to be relocation it should be to well-located land.

Mitigation against the negative impacts of modification; the negative impacts of the modification of housing (the penetration of non-monetary housing delivery processes by market forces), e.g. displacement of the poor through downward-raiding, must be mitigated against, e.g. through collective forms of tenure.

Informal settlement upgrading always needs to be part of an integrated housing strategy that includes a range of delivery options to meet different housing needs and that has clear resource allocations and time frames. An integrated housing strategy needs to include a managed land settlement strategy, in which people can get rapid access to land with basic services, in order to pre-empt the formation of new informal settlements. (Warren 2005)

2.4 The Role of Actors Involved in Informal Settlement Upgrading

2.4.1 Informal Settlements Communities

Public agencies are more responsive to the pressures exerted on them by organized interest groups. Since the least organized and marginalized sections of the society

have little opportunity to influence the Government, their interests are likely to be totally ignored. It is because of this that most residents or communities form organization, cooperatives, groups or associations (Karirah, 1996)

It is necessary to organize the low income groups into organizations which would enable them to initiate development projects which are appropriate to their needs but for which they have to contribute, to inculcate themselves a sense of ownership. These are community based organizations (CBOs) or self help groups. These are the main actors at the grass root level. Self managed CBOs organizations are healthy for local level participation as advocated for by global strategy for shelter to the year 2000. (Appida, 2009)

According to Word Bank (2002) concept of community participation is well understood and has been adopted for all recent upgrading schemes. An example of what communities are prepared, and can do, has been demonstrated in the Hanna Nassif project. Further, the Sustainable Dares Salaam Program (SDP) has been focusing on capacity building at the community level in order to assist communities to plan, implement and manage sustainable environmental programs. The broad acceptance of and increasing capacity for involving communities is likely to be a positive factor in efforts toward bringing upgrading initiatives to scale.

According to Caitlin (2005) comprehensive framework to guide the community-led process includes mobilization which involves development of a representative and democratic community governance structure, organized around communal savings, awareness creation and consensus building among Structure owners and tenant

negotiations. It also involves enumeration & mapping (Community census and resource identification) and Strategies for land tenure.

Participatory Planning & Budgeting which involves needs assessment, development of financing strategies (including community contribution) and development of appropriate incremental house typologies. Settlement layout accommodating all residents, planning for infrastructure and review of regulations and by-laws and negotiation is also part and pulse of planning.

Participatory project implementation and management which involves identification and development of skills within the community, community procurement system and sourcing of appropriate and affordable materials. It also adds organization of community labor as equity contribution and formation of community-based management structures for community assets.

According to UNCHS (1984) self-help groups assumed part of labour component in development of housing schemes for a considerable reduction in the cost of housing to be achieved. Self-help construction generates beneficial effects such as people have an opportunity to learn useful skills. Households are persuaded to pull labour and financial resources for construction of their houses could contribute to community cohesiveness.

2.4.2 Local Authorities and community participation

All over the world, the management of cities is the direct responsibility of local authorities. This is local democracy at its best with city authorities being held directly

accountable to the local populace. African local authorities are seriously hampered by a lack of resources. A recent survey shows that in cities of highly industrialized countries, total local government revenue per person is 9 times that of the average for cities in the developing world, 18 times higher that of Latin American cities and 39 times that of African cities. (UN-HABITAT, 2008)

Hardley and Satterthwaite (1995) states that local government often serve cities with several million inhabitants with structures and levels of presentation and political ideas which might have some validity for urban centre's with few thousand inhabitants but which are totally ineffective in larger metropolitan centre's. For instance Nairobi has not updated any land use or master plan since 1973; the Strategic Development Plan for Nairobi is not in place. The Nairobi City Council (NCC) has responded with creation of a Social Welfare Department to look after poor people's initiatives.

In the age of globalization, the role of local authorities has been further eroded, caught between the demands of the international economy, where city bids against city to attract international capital. With liberalization and the privatization of public services, few government officials know how to ensure that private companies do not only take into account the interests of their international shareholders but also deliver pro-poor investments in infrastructure. (UN-HABITAT, 2008)

Because of this Ian (1982) argues that central administrators cannot know the complex variety of factors that affect the success of the projects in local communities. In their attempt to cope with uncertainty they create highly centralized and

standardized procedures or through fear of making mistakes they do nothing about urgent decisions that are essential for implementing local projects and programs.

Physical mapping: The significant and innovative part of the proposal entails the slums dwellers being involved in a detailed process of mapping establishing and appreciating the situation of their living environment social, economic and physical

Decision Making and planning process: This entails physical planning of the project sites, the provision of infrastructure and other services and will involve initiating a process of debate, consultations and consensus building about the design and delivery of elements of slum upgrading

Relocation and Compensation: In order to give way for the provision of infrastructure facilities, where necessary, some affected structures should to be relocated. With regard to the relocation of land, this will be done through consensus among tenants, structure owners and the local leadership. In certain circumstances, structure owners will be invited to claim compensation.

Infrastructure and services: Local authorities will integrate the provision of services to slum areas. This will be combined with enhancing capacity of existing facilities within and in the periphery of the settlements

Improvement of shelter: Will involve the quality of the shelter fabric to decent habitable state using locally available building materials and appropriate low cost building technologies

Tenure Arrangements: Land tenure component will focus more on regularization of land for purposes of integrating the settlements into the formal physical and economic framework of urban centres. But at the end of the day, to guarantee security of tenure and certainty of residency, and absence of violent forced eviction Programme

2.4.3 Government of Kenya (GOK) and community participation

The views of state on community participation are undoubtedly central to the types of community participatory approaches adopted by government agencies. The types of participation the state encourages or discourages the in which NGOs (local or international) implement their programmes if they go through the official machinery and the emerging conflicts or consensus that would occur from participatory approaches.

A study by Claude and Zamor (1986) found that the degree of variation in participation depending on regions ideology. They state for example, that the market economies surveyed for their study (Nigeria, Kenya, and Ivory Coast) do not encourage citizens to participate in development and planning. This they argue that is as a result of a carryover from colonial past. They also argued that the best overall record in popular participation is supported by populist-socialist state like Tanzania and Algeria.

But that has little changed because the GOK has the responsibility for the execution and management of KENSUP and therefore, it takes care of the land/tenure issues, coordination, resource supply, and monitoring and evaluation. Additionally, it is

responsible for the legal and policy framework, as it is up to the GOK to develop the regulatory, legal and institutional framework and the enabling conditions more favourable for slum upgrading and the alleviation of poverty. (UN-habitat, 2008)

State sometimes supports community participation for ulterior motives. For example just before elections, for political reasons, the government or political party in power may start community development projects with a lot of participation in them to gain much needed support (Gilbert and Ward, 1984). This has evince in many countries Kenya included (Gatabaki-kamau, 1995)

The emergence of NGOs and CBOs and the various roles they play in community participation, especially in low cost shelter and urban services provision, have resulted in a lot of potential for making community participation a popular approach.

2.4.4 Non Governmental Organizations (NGOs) and community participation

According to Serageldin et al (2006) argued that quite apart from their advocacy role, NGOs and CBOs have emerged as key partners of municipalities in efforts to alleviate poverty, regularize land occupancy, deliver services, and otherwise act on the multifaceted aspects of social exclusion. Pervasive difficulties in securing financing for capital investments and in building a capacity for outreach and community organization within the organizational structure of local government has been the catalyst and the driving force sustaining the shift towards action through partnerships between local authorities, NGOs, and CBOs. Community-based service providers are increasingly involved in the delivery of services to poor communities.

They also argued that they link Formal and Informal Service Providers. In many developing countries, unplanned urban growth and mounting densities have overwhelmed the capacity of local governments to deliver services and eroded the efficiency of traditional systems. As is usually the case, the poorer neighborhoods are the most affected by curtailment or collapse of service delivery systems.

Most funds run by NGOs were established to enable low income urban dwellers access financial services. They have managed this by building micro finance services in order to create economic opportunities to low income earners in urban areas. They also have agencies in the field of informal settlements. Such national institutions support projects started by communities by providing technical advice, access to finance and other service. They also give grants to lower the construction cost. (UNCHS, 1987)

According to Karirah (1996) many NGOs provide education and community facilities in informal settlements. Most NGOs use a participatory approach which aims to ensure the development activities have a sustainable impact of the lives of the people, activities undertaken have reasonable financial input and can be repeated by community.

However it is difficult to generalize on the role of NGOs in the informal settlements because the form, content and scope of their work vary greatly. This is shaped by unique circumstances of each continent and region, country and neighbourhoods and the different objectives they have. (International Seminar of NGOs in limuru, Kenya, 1987)

Ideally NGOs do assist in two vital ways. They help to organize, articulate their, demands, and implement their own programmes, and to manage and maintain their houses. They also act as mediators between people and their CBOs in the negotiations with the commercial enterprises and Government agencies. (Karirah 1996)

In human settlements, NGOs have been said to increase the housing supply in three principal ways; through housing provision programmes of various kinds, projects or programmes testing or demonstrating innovation for adoption by other kinds of organizations and motivating those who have underused capacities. (Turner, 1987)

Nevertheless, NGOs play an important role in the shelter projects they are involved in, for successful community participation to result; the residents themselves have to be willing to come together in their effort for development.

2.4.5 Civil Society Organizations and community participation

Civil society organizations offer a lot of expertise on different issues relevant to informal settlements, whether technical or community-based experience. They are also well placed to mobilize communities and represent their interests. Their involvement enhances participation and helps mobilize slum dwellers around common goals and promote consensus building for slum upgrading. (UN-habitat, 2008)

2.5.0 Models of community participation

The community development movement of 1950s and 1960s is the source of inspiration for contemporary community participation theory.

2.5.1 Government's community participation model

The views of the state on community participation are undoubtedly central to types of community participatory approaches adopted by government agencies. This type of participation encourages or discourages the in which the NGOs implements their programme if they go through the official machinery and the emerging conflicts or consensus that would occur from participatory approaches.

2.5.2 Self help or self reliance Community participation model

Various actors ranging from the state to international NGOs, local NGOs and donor agencies are involved. The community participation approach uses bottom-up method. Participation is viewed as a process of empowerment of the deprived and the excluded groups of people. It involves inevitable sharing and transfer of power to the social group which allows the community to control their lives and improve their conditions. Existing literature shows community participation is much more than contribution of money and labour. It is an active process by which beneficiary clients or groups influence the direction and execution of the project (Karirah, 1996).

2.5.3 External conceived participation model

The projects are conceived and designed from the above and people and people are mobilized voluntarily to implement them. Participation may be in form of money and labour. In mobilization the external agencies are entering the community and bringing

some project. The major conflicts of interest between the different categories may occur for instance between the renters and structure owners may make participation unrealistic.

2.5.4 Induced or coerced participation model

They may result to participation by some community members. This is where the community is given conditions to fulfill for them to get funding. This may be a feeling that the community leaders will take the project by own after rejection by other members.

According to Karirah (1996) the instruments of community participation are

1. Information sharing; with beneficiaries in order to facilitate collective or individual action
2. Consultation; when the individuals are not only informed but also consulted. Beneficiaries have the opportunity to interact and provide feed back which can be taken into account at design and implementation.
3. Decision making; beneficiaries have a decision making role in the matters of the project design and implementation. It is very crucial for real community participation when the objective is empowerment.
4. Initiation action; refers to the protective capacity and the confidence to get going on one's own. In using initiation action the intensity of community participation may be said to have reached its peak when beneficiaries are able to take initiative in terms of actions or decisions pertaining the project.

In this study self reliance community participation model is adopted in relation to shelter concentrating to community efforts to acquire land, develop their houses and provide infrastructure needed.

2.6 Chapter summary

According to the literature reviewed community participation has been identified as one of the indispensable elements in any informal settlement upgrading project but it has a potential of misuse. Community participation continues to be recognized as an important approach. It is a concept based on the full understanding of the need for partnership between all actors in the informal settlement upgrading process.

Experience from projects given support by the Government shows that community participation can be enhanced in terms of its physical, social and economical outcomes as long as there are perceived common interests and effective organizational structures that fulfill the common goals for the benefit of the community as a whole.

Community participation requires partnership for realization of the projects. NGOs are increasingly being recognized as being able to produce results in their interventions in informal settlements as opposed to those that go through Government agencies. This is in relation to many projects they have successfully undertaken, their important role in mobilizing the communities and the approach they adopt in most cases, which takes into account the peoples felt needs and desires such as financing housing, land and infrastructure development.

The state and local Government have to be involved in the project since NGOs and the community cannot provide all the services needed by on their own. Therefore the Government attitude and views of participation affect the nature of its involvement and the success of participatory approaches. CBOs in turn have been seen to be important in community participation because they are self organized by local residents whereas NGOs are organized by outsiders.

The projects reviewed of informal settlement upgrading projects had the following as the causes of delays; inadequate counterpart funding at the time it was needed and of costs and affordability and in particular, the actual versus desired costs of the total housing product. Also some policy provisions essential for successful project implementation were not in place, particularly in relation to the generation of revenues to sustain the services provided. To add on that the private sector was not adequately involved in the operations and maintenance component of project design. The last but not least difficulties in obtaining planning and environmental approvals for informal settlement responses pose a material constraint to all forms of housing delivery, including upgrading.

CHAPTER THREE

RESEARCH METHODOLOGY AND STUDY AREA

3.0 Introduction

This section provides the description of the procedures used to collect analyze and present data and explores the study area. These procedures are based on the stated problem together with the objectives. This research descriptive case study and it involved the characteristics of a phenomenon and exploring possible correlations among phenomena. Objectives of the research were used in the selection of the research data collection method.

The area of study was in Nairobi City which many researchers has stated that like many capital cities in developing countries, was created as a direct result of colonization. It was designated as a town in 1899 at which time it had a population of 10,000 and consisted of 18 square kilometers of land. In 1905 the British East African protectorate moved the headquarters of the Kenya Uganda Railway (KUR) from Mombasa to Nairobi, thereby establishing it as a primary city in East Africa (Mitullah 2003)

3.1.0 Household surveys and individual interviews

An extensive quantitative survey was conducted in Kambi Moto, Mahira and Gitathuru. The survey served as an entry point to the communities and allowed direct exposure to the on-the ground realities in these three informal settlements. The survey was divided into three sections: the first section was designed to collect socio economic variables. The subsequent sections looked into the role of community participation in various stages of the upgrading process and the causes of delays in the

upgrading process. It also aimed to assess the opinions and perceptions of different groups of people within the communities, (such as tenants and structure owners) on these issues. It was conducted over 18 days with assistance from community leaders who accompanied me during the survey.

Interviews were conducted with community members, local government officials and non-governmental organizations working in Nairobi Huruma slums. The interviews covered current and historical issues in slum upgrading in Huruma informal settlements.

3.1.1 Constraints to data collection

Although sources of data used for impact assessment may include case studies, interviews with participants, staff, and organizations, direct observations, and secondary sources, socioeconomic household surveys. In conjunction with household surveys, it is frequently useful to consult experts to evaluate project features such as construction quality.

However the researcher was able to access enough data on infrastructure, community facilities, housing development, and availability of funds for construction of houses as well as interrelationships between members and their officials which provides adequate ground for analysis. The settlements have 1237 households to be used in this survey and 100 units were found to be a fair representation for this study.

3.2.0 Sources and nature of data to be obtained

The primary data was collected using questionnaires with both closed and open ended responses, field observations personal interviews which also include closed and open ended responses focusing on community discussions and photography. Both secondary and primary data sources were obtained using variables concerning employment status and income of the residents, participation of community and partners from inception to completion of the project, provision of support services, relationship of the people between the local/central government, as well as international agencies. The secondary data included maps and other records from City Council of Nairobi, records held by group officials and NGOs, newspapers and other publications.

3.2.1 Study of relevant literature and Questionnaires

Literature material formed an important part of the research methodology. The literature concerning community participation and causes of delays in informal settlements upgrading has been used in order to come up with issues relevant to the study. This was important since it gave information and highlighted what has been done, what is yet to be done, core issues and recommendations. The questions were coded to give the respondent easy time in answering and also to help the researcher during data analysis. There were open ended questions to allow the respondents to elaborate on their answers.

3.3 Sampling procedure

There are five informal settlements in Huruma from where the sample was selected from. The informal settlements were selected in purposeful sampling and proportional

stratified random sampling was used to select the sample. Three informal settlements will be used as the survey sample and systematic random sampling was used and every fourth unit was taken. The fourth unit was arrived at because the informal settlements will have around four hundred units after they are completely upgraded. The main aim of this study is to find out the causes of delays in informal settlement upgrading in housing projects. Sampling procedure is dependent on the characteristics of the population to be interviewed.

In this study two categories of members were interviewed. For community participation survey all members were considered. However to ensure equal representation, half of the respondents were picked from the members who have benefited from the housing scheme and other half were picked from members who have not.

For survey concerning the delays in housing scheme upgrading, provision of infrastructure and community facilities the study relied on members who have participated in the construction project since they were the ones who were involved in day to day planning and execution of construction works and therefore they were capable of giving objective information which is amenable to comparative analysis. The duration that the project has taken and the time estimated was taken from the NGOs, and group records.

3.4 Sample size

According to Alreck and Settle (1995) the sample size depends on the budget and the degree of the confidence required. It is rare to sample more than 10% and a minimum

of 100 units and maximum of 500 units for a population of 5000 units is adequate. Further Roscoe (1975) suggested some simple rules of thumb for selecting appropriate sample sizes based on an analysis of acceptable confidence levels in behavioral research studies. The general recommendation is that sample sizes be at least 30 and need not be larger than 500 (at 500, sample error will not exceed 10 percent of the standard deviation about 98 percent of the time. For this survey the sample size preferred is 100 units.

3.5 Data preparation, presentation and analysis

Information from the survey questionnaires was collected in coded data format except for few open ended question. To ensure production of quality data the researcher with the assistance of two field enumerators scrutinized the completed questionnaires. In case of where there were doubts repeated interviews was be conducted.

All questionnaires were numbered and made ready for data processing which consisted of editing coding of open ended questions and preparation of data entry screen (designing of data format) after which data cleaning and entry was done. The main data analytical tool which was used in analyzing the data was the basic frequency statistics which includes frequency tables and percentile. The cross tabulations Pearson correlation coefficient was used to determine the existence of the relation between the variables. The method used in data presentation in this study is tabulation for the purpose of comparing what is has been happening in the various settlements and in Huruma.

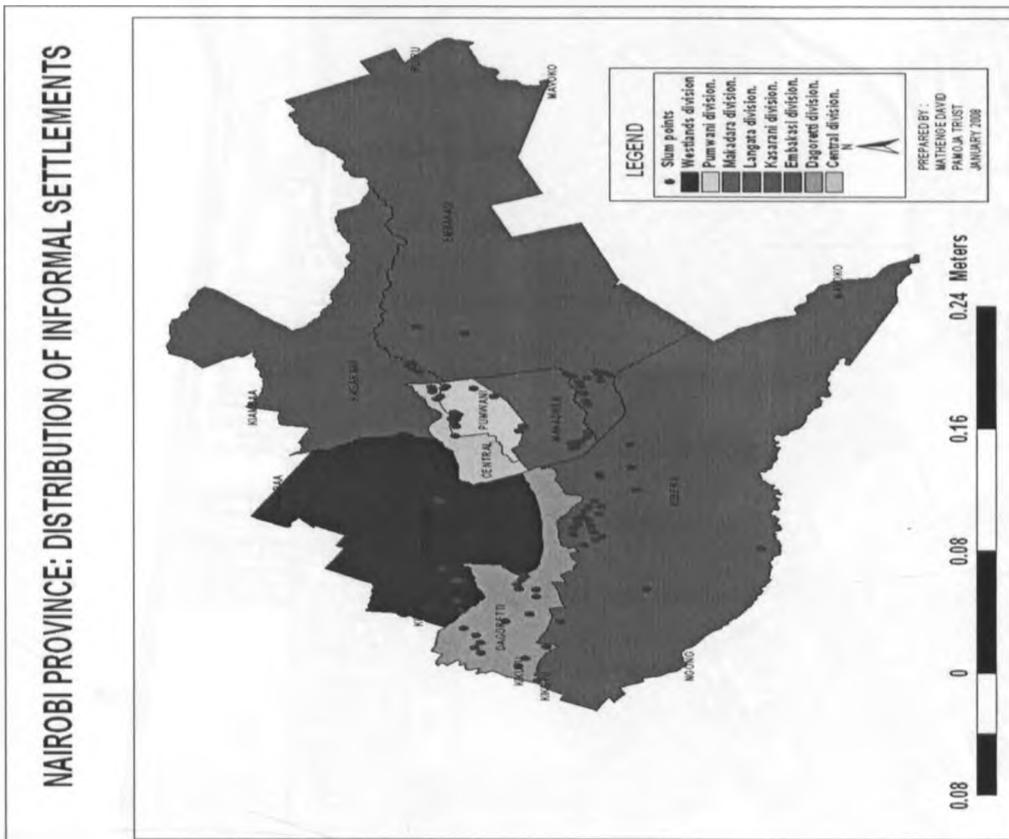
3.6 Study Area

The Huruma informal settlement is situated in the Northeast quadrant of Nairobi in Nairobi County, Kenya's capital city and consists of five villages: Kambi Moto, Mahira, Redeemed, Ghetto and Gitathuru. Over the last ten years, the Nairobi City Council, Pamoja Trust and a number of other stakeholders have been working closely with the residents of Huruma informal settlements towards the improvement their living conditions.

The envisaged outcomes of the upgrading process in Huruma are settlements where the residents would have secure land tenure, adequate housing, and basic services. Another of the paramount outcomes of the process was to ensure that the Huruma community develops an institutional framework that is able to manage, sustain, and deal with issues concerning the settlement.

The Huruma upgrading project began in earnest in 1999, when an ongoing conversation between residents of the relatively small informal settlement of Huruma and the non-profit Pamoja Trust resulted in a commitment by both to work together to turn the community's desire to improve its physical environment into effective action with visible results. Working together the community organized and managed a daily savings scheme, which was the second most critical component to the upgrading project, as it cultivated a culture of savings and repayment that gained residents access to outside capital loans that ultimately financed construction of the new upgraded units.

Though the process of upgrading in Huruma has been undertaken by the Department of Planning in Nairobi City Council, the Council acknowledges that issues of access to secure land, adequate housing and services for the poor are too broad for any one entity to solve alone. Solutions to these problems must involve collaboration between many actors. The Council therefore plays the role of coordinating a collaborative, flexible, negotiated upgrading process, which involves all the stakeholders.



Map of Nairobi County

3.7 Profile of Huruma

There are five villages involved in the upgrading initiative, i.e. Kambi Moto, Mahira, Redeemed, Ghetto and Gitathuru. These five villages take up 3.817 hectares. They have a total population of 6564, which is made up of 2309 households. The normal structure seen in the Huruma settlements is a 12 by 10 foot shack built with an iron sheet roof, mud & wattle walls and a mud floor. Like most informal settlements the basic services in Huruma like water, sewage, road access, and toilets are inadequate and sometimes non-existent. The average household density per hectare for the five villages is 604. (Caitlin, 2005)

Table 3.1; Huruma population

Village	Area	Households	Density	Population	Tenant H'holds	Structure Owner H'holds
Kambi Moto	0.4 ha	539	1347	1241	375	79
Mahira	0.427 ha	384	899	1174	102	260
Redeemed	0.96 ha	259	269	798	88	153
Ghetto	0.28 ha	813	2309	2365	303	452
Gitathuru	1.75 ha	314	177	986	237	58
Totals	3.817 ha	2309	604hse/ ha	6564	1105	1002

Source: Pamoja Trust/ NCC enumeration survey October 2001

3.8 Physical Planning, Shelter and Infrastructure

This survey was focused on three of those five villages. The villages have a total of 2309 households and three settlements have 1237 units. Each household represents a

single room. The rooms are sometimes individual structures. The structures are closely packed together in rows separated by narrow passage ways.

3.9.1 Land

The land that the Huruma informal settlements sit on is public land under the trusteeship of the Nairobi City Council. Though parts of the land had in previous planning exercises been identified for development of public facilities like clinics and schools, the Director of City Planning at the Council indicated that the council would have no objection to the re-planning of the area for the benefit of Huruma residents. The five villages in this survey occupy 3.817 hectares. The soil in the area is predominantly black cotton soil. The villages of Redeemed, Kambi Moto, Mahira, and Ghetto are flat and not prone to flooding. Gitathuru is near the Nairobi River, and flooding affects 10% of structures close to the river.

3.9.2 Structures and Ownership patterns

The five villages vary in size and the number structures in each of them as shown in table 3.1. Some of the structures are occupied by tenants while some are occupied by the owners of the structures. The ratio of tenants to structure owners also varies according to the village. Some of the owners of structures may not live in the structures they own, but for a variety of reasons these structure owners may live within Huruma and sometimes outside Huruma.

3.9.3 Strategic Entry Point

The residents of Huruma informal settlements are unanimous in seeing security of their homes and land as their biggest need. This comes against a backdrop of

numerous evictions in other slum areas or irregular allocations that benefit non-residents of the areas. And though upgrading of the housing, sanitation and health facilities are also considered as vital, there is a rational fear that without tenure regularization the benefits of these other developments may not accrue to the residents (Huruma informal settlement survey, 2001).

3.10 Chapter summary

The data was collected by administering questionnaires to the residents both tenants. The resident's information was concerned with socio economic characteristics, community participation and causes of delays in informal settlement upgrading. For each settlement a systematic random survey was undertaken. The sample size of 100 units was used because the population is 2309 households located in 3.817 hectares and there 1105 and 1002 tenants and structure owners respectively. The data collected from the households survey was processed using Microsoft excel and simple statistics including percentages of variables. Tabulation was used to compare the relationship of variables in different informal settlements and tables and graphs were used in data presentation.

CHAPTER FOUR

DATA FINDINGS AND ANALYSIS

4.0 Introduction

This chapter deals with the analysis of the data collected and interpretation of the analyzed data to come up with informed decisions. The raw data was arranged in concise and logical order in the form of statistical tables usually referred as tabulation. Statistics has been used to describe the findings through comparative analysis. The analysis in this chapter focuses on socio-economic, community participation, other partners and causes of delays in informal settlement upgrading in Huruma settlements. In socio economic the variables examined are time they have lived at the site, income, ownership, type of household and composition of self help group. The variables to be analyzed in community participation are the role they play and the activities involved in construction works from inception to completion and the causes delays in the informal settlement upgrading.

4.1 Rationale for selecting Huruma

Huruma is an informal settlement with many characteristics depending on their location. For all the settlements in Huruma, the community has negotiated for the “Special Planning Area”, an understanding where the local government agreed to allow residents to build on the land using more affordable materials and smaller structures than the Local Government (Adoptive bylaws) (building) order 1968 normally permitted. (Afreen et al, 2005)

In Huruma the relationship between tenants and structure owners is less contentious and the local politics are more agreeable towards the upgrading process. It is also

smaller than most other settlements in Nairobi, which makes it a more manageable project. Finally, Huruma is located next to a major road, making it more accessible and visible. The success of a slum-upgrading project in Huruma thus offers more visibility and greater potential for replication of the process elsewhere.

The study highlights the remarkable potential of community participation in such approach, as well as its shortcomings and challenges. In this settlement, the selected areas for study are Kambi Moto, Mahira and Gitathuru. These three areas were selected because they were found to have qualities that are different from each other. This broadened the sample size making it more representative of the Huruma settlements. All settlements are at different stages of upgrading, some are complete, others are under construction and others have yet to start and are therefore still shanties. There is site layout master plan for the all the three areas under study and the community demolishes shanties at the section where they are constructing only as it can be seen in plate 5.3.

4.2 Socio economic factors

These factors include how long the residents have lived in the settlements, current type of household for the respondent, ownership status of the respondent before upgrading, composition of the settlement community members and their average incomes per day as illustrated in Table 5.1. These factors may help in arriving at some reasonable conclusion for instance these characteristics would reveal whether the members are actually in low income bracket depending on what they earn per day. Majority (76%) earns Kshs. 200 or less per day while 23% earns above Kshs. 200 and up to Kshs. 500 while only 1% earns more than Kshs. 500 per day. This shows the

income is low and that why the community members are encouraged to save something little every day.

Table 5.1 Socio economic variables

Variable	Mahira		Kambi moto		Gitathuru		Huruma	
	No	%	No.	%	No.	%	No.	%
Occupied								
1-5 years	0	0	2	6	0	0	2	2.7
6-10 years	0	0	2	6	1	6	3	4
11-15 years	1	4	5	15	4	22	10	13.3
above 16 years	23	96	24	73	13	72	60	80
Household type								
Not upgraded	8	33	13	39	6	33	27	36
Upgraded	6	25	18	55	9	50	33	44
Under construction	10	42	2	6	3	27	15	20
Ownership								
Structure	22	92	7	21	10	56	39	52
Tenant	2	8	26	79	8	44	36	48
Composition								
Tenant	0	0	4	12	0	0	4	5.3
Structure owner	16	67	0	0	1	6	17	22.7
Both	8	33	29	88	17	94	54	72
Income								
200 or less	16	67	26	79	15	83	57	76
500	8	33	6	18	3	17	17	22.7
1000	0	0	1	3	0	0	1	1.3
Total	24	100	33	100	18	100	75	100

Source: Field Survey, 2011

4.2.1 History of the settlements

From Table 5.1 both the tenants and structure owners are fairly represented. Majority of the respondents have lived in the area for more than 16 years with 96%, 72% and 73% have lived at the area in Mahira, Gitathuru and Kambi moto respectively. The rest 4%, 22% and 15% have lived in the area for more than 10 years and less than 16 years in Mahira, Gitathuru and Kambi moto respectively, only 6% in both Kambi moto and Gitathuru have lived there for more than 6 years and less than 11 years and only 6% have lived in Kambi moto for 5 years and less. In Huruma 80% of the informal settlements residents have lived in the informal settlements for more than 16 years and this supports the argument that the informal settlements have been with us for a long time. The number of years lived does not affect the level of upgrading because who have lived in the settlement for less than ten years are structure owners who came to occupy their houses after upgrading.

4.2.2 Types of household

In these settlements there are three main types of the households surveyed. The settlements had different types of households depending on the level and stage of construction. The upgraded houses are 25%, 50% and 55% for Mahira, Gitathuru and Kambi moto respectively. The houses under construction are 42%, 17% and 6% while the households which are not upgraded are 33%, 33% and 39% for Mahira, Gitathuru and Kambi moto respectively. In Huruma the 36%, 44% and 20% of the houses surveyed were not shacks, upgraded from shacks to stone houses and under construction respectively as shown by table 5.1 in previous page. The photograph in the plate 5.1 and plate 5.2 shows the upgraded houses and houses under construction. In first phase of house construction, the units are built up to first floor because of the

cost of the house. The next phase the members are allowed to complete their house provided they the criteria set by the self help group.

Plate 5.1 Houses under construction in Mahira informal settlement



Source: Field Survey, 2011

Plate 5.2 Upgraded houses in Kambi Moto informal settlement



Source: Field Survey, 2011

4.2.3 Ownership and Membership

The respondents were drawn from two categories comprising of tenants and structure owners and they vary and the structure owners are 92%, 56% and 21% for Mahira, Gitathuru and Kambi moto respectively as shown in table 5.1. In Mahira and Gitathuru all the respondents belong to a self help group while in Kambi moto 96% were members of self help group with only 4% not being members. The groups for all settlements are composed of both structure owners and tenants. The Pamoja Trust and Nairobi City Council enumeration survey 2001, percentages for composition of Kambi moto agrees with the findings of this survey but for Mahira and Gitathuru it does not agree. The reason for this is that some tenants did not have the faith in the project and they left the settlements.

4.2.4 Household income

The Table 5.1 shows that the income of the respondents varied between less than Kshs.200 to 1000 per day. The majority in the informal settlements earn Kshs 200 or less with 67%, 83% and 79% for Mahira, Gitathuru and Kambi moto respectively while 33%, 17% and 18% earn more than Kshs. 200 to 500 in the same order and only 3% earns 1000 per day. In Huruma informal settlements 76% of the residents earn Kshs. 200 or less while 23% earn more than Kshs. 200 and Kshs. 500 with only 1% earning more than Kshs. 500 per day. This shows that most of these people are in the low wage earners group as the data from the Kenya National Bureau of Statistics showed that the upper limit of the low income band has been revised from Sh10,000 per month to Sh23,671 per month (Business Daily, April 19, 2012)

4.3.0 Community participation

This section examines the community participation in the Huruma upgrading which involved the incorporation of the community members from the inception of the project, design, construction to the maintenance of the project. This involved design, ideas contributed by the community such the size of the houses, type of the house and common areas through community meetings and also free casual labour during construction , amount of time spent and the special training to enable the community carry on with works when supporting agencies drop out of the project.

4.3.1 Design and modeling

The study has revealed that 93% of the Huruma community members actively participated in design and modeling process. The coordinating NGOs and City Council of Nairobi felt that the community members' attendance was very good. As it can be seen from table 5.2, 100% of the Mahira residents, 89% of Gitathuru and 91% of the Kambi moto participated in design and modeling of the houses. The majority of the community members spent around 5-6 hours per week in design and modeling with 79%, 75% and 44% spent that time for Mahira, Gitathuru and Kambi moto respectively while 17%, 25% and 39% spent 3-4 hours with few spending less than 2 hours and more than six hours in the same order as shown in table 5.2. In Huruma 93% of the community members participated in the design and modeling of the houses in the informal settlements. This agrees with the UNCHS (1984) which found out that in housing scheme unless the user is in control of design, construction and maintenance of the shelter and is free to build according to their real and perceived needs and priorities the dwelling environment becomes a barrier to personal fulfillment and a burden to the economy.

Table 5.2 Community participation in design and modeling

Variables	Mahira		Gitathuru		Kambi moto		Huruma	
	No.	%	No.	%	No.	%	No.	%
Participation								
Design & modeling								
Yes	24	100	16	89	30	91	70	93.3
No	0	0	2	11	3	3	5	6.7
Time spent in hours								
1-2	1	4	0	0	7	25	8	11.8
3-4	4	17	4	25	11	39	19	27.9
5-6	19	79	12	75	9	32	40	58.8
More than 6	0	0	0	0	1	4	1	1.5
Ideas suggested								
None	1	4	0	0	3	9	4	5.5
Few	7	29	14	88	24	73	45	62.5
A lot	15	77	2	12	6	18	23	32
Ideas accepted								
None	2	9	1	6	5	15	8	11.4
Few	22	91	14	88	24	72	60	85.7
A lot	0	0	1	6	1	13	2	2.9
Giving ideas								
Community meeting	24	100	16	100	30	97	70	98.6
Proposals	0	0	0	0	1	3	1	1.4

Source: Field Survey, 2011

The participants were very expressive and had different ideas. From the field survey it was established that over 75% of the participants in Mahira, Kambi moto and Gitathuru gave out their ideas. The ideas were to construct the houses in phases, the size of the house they needed that is two bedroom, table room and kitchen. Only two people from Mahira, five people in Kambi moto and one person in Gitathuru who provided ideas said those ideas were not accepted. The ideas of having bungalows

was not accepted because the size of the plot was small that is why they settled for flats. The flats are three storeys; ground floor being the lounge and kitchen, first floor and second floor being bedroom 1 and bedroom 2 respectively and a terrace flat roof to be used as laundry area. As it can be seen in the table 5.2 more than 70% were satisfied that the participation in design and modeling with only 8%, 25% and 26% were not sure in Mahira, Gitathuru and Kambi Moto respectively. They participated in design through suggesting the number of rooms that they and satisfaction came when their expectations were met. Only one person in Kambi moto said that that the completed structure did not meet the expectations for participating in design and modeling process. He complained that the rooms were small. Caitlin (2005) also found out that there is comprehensive framework to guide the community-led process which is a memorandum of understanding (MOU) between the community members in informal settlements and other partners. The MOU shows clearly the role for each partner in the project.

The NGOs contribute by providing funds for the modeling process and the professionals to help in design and construction of cloth model houses to enable the community experience the type of the house they expect. The professionals involved are architects, engineers and site managers. The architect and engineers are involved in design while the site manager supervises the construction works on sites. Nairobi City Council also contributes by giving the professional advice and allowing lesser space allowed for development to be provided than that required by the building Code of 1968. For example the in front of the building 20ft is supposed to be left according to the building code of 1968 but there is no space left as it can be seen in plate 5.2 and

between the buildings at least 8ft is supposed to in between the flats but they have left only 4ft.

4.3.2 House construction

The contribution of community members in the construction phase of the informal settlements comes in various ways. NGOs and City Council of Nairobi said that the community members are supposed to provide free unskilled labour, mobilize members to volunteer, manage daily labour and finances, procure materials, raise 20% of the cost of the project and maintain the houses and infrastructure as stated in the memorandum of understanding between the community members and other organizations supporting the upgrading process.

In the actual construction of the houses various labour sources were utilized. In the construction process the majority of the community members participated with 96%, 69% and 94% participating in the construction of the upgraded houses in Mahira, Gitathuru and Kambi moto as shown in Table 5.3. Majority participated as unskilled workers with 79%, 69% and 71% in Mahira, Gitathuru and Kambi moto by digging trenches and assisting the skilled workers. In Gitathuru and Kambi moto only 19% and 6% participated as skilled workers in masonry works and carpentry while 21%, 12% and 23% participated in both as skilled and unskilled workers as shown in table 5.3. The unskilled workers were not paid they volunteered so as to lower the cost of house construction. The skilled workers were paid at a lower rates than the rate on conventional construction sites because they were members of the community benefiting from the project and the ones who worked as both they were paid for skilled work only.

Table 5.3 Community participation in the informal house upgrading

Variables	Mahira		Gitathuru		Kambi moto		Huruma	
	No.	%	No.	%	No.	%	Freq	%
Participation								
No	0	0	1	6	1	3	2	2.8
Sometimes	1	4	4	25	1	3	6	8.5
Yes	23	96	11	69	29	94	63	88.7
Days worked								
1	3	12.5	2	13	18	55	23	31.9
2	3	12.5	1	6	9	27	13	18.1
3	18	75	13	81	5	18	36	50
Training								
Yes	2	8	9	56	14	45	25	35.2
No	22	92	7	44	17	55	46	64.8
Procurement								
Community	24	100	15	94	27	87	66	93
Partners	0	0	1	6	4	13	5	7

Source: Field Survey, 2011

From the field survey members differed on the number of days their households spent on the construction process depending on the informal settlements. In Kambi moto majority spent 1 day per week i.e. 55%, while in Mahira and Gitathuru 3 days i.e. 75% and 81% respectively as shown in table 5.2. The number of days the community member volunteered did not affect the completion date but it shows how the community members were dedicated to the actual construction work. For instance in Kambi Moto there was more community members volunteering than in Gitathuru and Mahira. The community members were trained in order to participate in the construction process; 8%, 56% and 45% were trained while 92%, 44% and 55% were not trained in Mahira, Gitathuru and Kambi moto respectively. Majority were trained

on masonry works and the rest on carpentry and site management during the construction on the upgrading project. In all settlements majority of respondents agreed that community procures the materials with only one person in Gitathuru and four people in Kambi Moto saying that the materials are procured by the other partners as illustrated in Table 5.3. The findings agrees with the UNCHS (1984) which also found out that self help construction generates beneficial effects for instance people have an opportunity to learn useful skills thus improving their position in labour market.

4.3.3 Community meetings

The community meetings are very important because they discuss house construction, community welfare, savings and giving loans which directly affects the house construction scheme. The community meetings decide on the people to volunteer every day and the loan to be borrowed and how to pay back. All the community members attend the meetings with majority attendance in Mahira and Kambi moto 87% and 67% while only 35% attending all times in Gitathuru and the rest attend meetings sometimes with 13%, 65% and 33% in Mahira, Gitathuru and Kambi moto respectively. Kambi Moto and Mahira had less delays in than Gitathuru because the attendance of the meeting was good and decisions were made fast. Afreen et al (2005) found that community meetings are very essential for success of community participation in upgrading project. The UNCHS (1984) also found out that households who pulled labour and financial resources for the construction of their houses contributed to community cohesiveness through meetings.

Table 5.4 Community participation in meetings and infrastructure provision

Variables	Mahira		Gitathuru		Kambi moto		Huruma	
	No.	%	No.	%	No.	%	No.	%
Meeting attendance								
All times	21	87	10	56	22	66	53	70.7
Sometimes	3	13	8	44	11	33	22	29.3
Meeting objectives								
House construction	0	0	1	6	3	9	4	5.4
Savings and loans	0	0	0	0	1	3	1	1.3
Welfare	0	0	1	6	0	0	1	1.3
Construction, welfare, savings & loans	24	100	16	88	29	88	69	92
Benefit from NGOs								
Grant	0	0	1	6	1	3	2	2.7
Loans	0	0	1	6	11	34	12	16
Legal services	1	4	0	0	1	3	2	2.7
All the above	23	96	16	88	20	60	59	78.6
Land tenure								
Influence	0	0	15	83	20	61	35	46.7
None	24	100	3	17	13	39	40	53.3
Infrastructure								
NGOs	1	4	6	33	4	12	11	14.7
Nairobi city council	0	0	0	0	5	15	5	6.6
Community & NGO	23	96	12	67	24	73	59	78.7
Maintenance								
Community	15	63	17	94	30	91	62	82.7
NGOs	9	37	1	6	1	3	11	14.7
Local authority	0	0	0	0	2	6	2	2.6

Source: Field Survey, 2011

4.3.4 Other partners

These are the actors helping the community other than the community members. They include three Non Governmental Organizations and the local Government that is Nairobi City Council. The NGOs working in the Huruma informal settlements are Pamoja Trust (PT), Akiba Mashinani Trust (AMT) and Cooperazione Internazionale (COOPI). Pamoja Trust and Akiba Mashinani Trust are involved in house construction upgrading by giving technical support, providing loans and training community members. COOPI was involved in the provision of infrastructure through grants and technical support while the Nairobi City Council is involved in the provision of infrastructure and approving the plans.

All community members from all the informal settlements agreed that they have other partners helping in the upgrading process except one person in Mahira who said that he just needed the plot and he was not ready to upgrade at the time. The random survey also found that the NGOs staff interacts with the community in Mahira there was interaction daily 67% and Kambi moto (76%) and for Gitathuru there was interaction with NGOs staff monthly (71%). The higher interaction shows that the community has a lot of work going on and thus they need more attention and this helps in completion of project. The level of interaction and presence of the NGOs depends on the works going on. The majority of the community interacts with the Nairobi City council regularly with 67%, 69% and 45% for Mahira, Gitathuru and Kambi moto respectively. The interaction has yielded good results in that the community members living in the informal settlements do not live in fear of evictions by the structure owners or the Nairobi City Council.

The community benefits from the NGOs by getting grants, loans and legal services. The survey found out that majority agree that they benefit from all the above with 96%, 88% and 60% in Mahira, Gitathuru and Kambi moto respectively with the rest laying emphasis on one of the above points. The community benefits from the Nairobi City Council by being given free plans approval and being allowed to improve the informal settlement. In Mahira 80% said they get free plans approval, land and water while 8% approval of the building plans, 4% land 8% percent don't benefit with anything. When the buildings are completed the water are provided so that each house can be able to pay the amount of water that they use. In Kambi moto only 3% thought that they get free plans approval, land and water while 36% the benefit with free plans approval and land respectively, 9% water supply and 15% don't benefit. In Gitathuru 67% thought they benefit from free plans approval and 33% provision of land by the Nairobi City Council as shown in table 5.4. Karirah's (1996) findings also agreed that most NGOs use a participatory approach which aims to ensure the development activities have a sustainable impact of the lives of the people, activities undertaken have reasonable financial input and can be repeated by community. The UNCHS (1984) also found that the main role of local authorities should be to ensure access to essential resources such as land, which they have provided in these settlements.

4.3.5 Land tenure

Significant strides have been made to increase security of tenure among residents of Huruma. All five informal settlements of Huruma benefited from the Council designating the settlement as a "Special Planning Area", allowing less space to be provided inside and outside the building than that required by the building code of 1968 and the each sent representatives to sign the memorandum of understanding

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(MOU) in July 2003. However, the community still does not own the land as land is under government title. (Afreen et al 2005)

The land tenure for the settlement is informal because the local government has not offered the legal ownership although the community has given green light to carry on with the house construction upgrading works. On land tenure status all the respondents in Mahira agreed that it has no effects on upgrading while in Gitathuru and Kambi Moto only 17% and 39% concurred that it had no negative effect on upgrading process. Majority from Gitathuru and Kambi Moto on the contrary thought otherwise with 88% in Gitathuru and 61% in Kambi Moto stating that it has a negative effect as shown in table 5.4. To counter the effect of the negative influence among the 88% for Gitathuru, 75% said the upgrading should start when the community has the surety of tenure while 5% thought that upgrading should start and then community should push the government for secure security of tenure. The need for security of tenure was mostly influenced by location of the settlement, for instance Gitathuru is located on the riparian land whereas Mahira is located on undeveloped commercial plot. In Kambi moto 27% thought that the upgrading should start when the community as the security of tenure and 34% thought that upgrading should start and then community should push the government for secure security of tenure. Syagga, Mitullah and Karirah, (2001) also found out that the land tenure of informal settlements had a lot of complications which agrees with the findings of this study. To add on that UNCHS (1984) also found that lack of security of tenure makes the community members reluctant to invest very much in the houses.

4.3.6 Infrastructure

Infrastructure is one of the main components for informal houses upgrading scheme and it includes schools, clinics, social facilities, water, sewer electricity and roads. Infrastructure provides the services to the built environment to make the houses and other facilities available usable. The settlements being informal are rarely provided with urban services and infrastructure as it would be the case of other low income settlements except where upgraded. Initially the residents used water from Nairobi City Council and the connection was illegal. All the upgraded houses are connected to sewer and water. In all settlements the sewer main trunk passes in the site making it easy to be connected easily. The access to the informal settlement is good because the location is next to well planned developed houses. Over three quarters of the houses in Huruma are accessible through footpaths, while the remaining quarter is accessible by a motor vehicle. These access roads are loose surface roads, with roadside drains. The footpaths do not have any drainage. The settlement is connected with electricity for the upgraded houses but the shanties most of them are connected illegally.

Majority in all the settlements agrees that infrastructure is provided by community and NGOs with 96%, 62% and 73% agreeing that the infrastructure is provided by the NGOs and community in Mahira, Gitathuru and Kambi moto respectively as illustrated by Table 5.4. Only 4%, 38% and 12% thought that infrastructure are provided by NGOs in Mahira, Gitathuru and Kambi moto respectively. Only 15% in Kambi moto said that the City council provides the infrastructure. Majority from all the settlements agree from the random survey that community contribution to the infrastructure is free labour with 67%, 100% and 97% in Mahira Gitathuru and Kambi moto while 33% in Mahira said their contribution is both money and free labour with

only one person in Kambi moto said the contribution is money. The free labour is used in digging trenches, mixing of mortar and assisting the skilled laborers. Maintenance is done by the community according to the respondents with a few showing that work is done by the NGOs and both NGOs and community as shown in table 5.4. On the other hand the community contributes 20% of the cost of the project and they are advanced 80% as the loan by donors. The community is given 80% of the amount that they have for construction of houses. The UNCHS (1984) found that the resources for self help house are tapped from formal as well as informal resources. The most important informal source is the members own savings as the viability of any self help institution depends on it.

4.4 Challenges in the upgrading process

The time estimated for the any construction project is of essence if the project is to be completed on time without delays and with the estimated cost. The construction of houses in Huruma is done in phases and the phases depend on the number of houses the settlement wants to upgrade depending on loan they are able to borrow. It was found from the field survey that More than 90% of the respondents in all the settlement agree that there was a programmed time. In Kambi Moto they planned to build twenty four units in six months but it took two years to complete the units. To add on that in Gitathuru they had planned to construct twelve units in five months but it took one and half years to complete the houses. All the community members in Mahira and Gitathuru agree that the house construction upgrading was not completed on time with only one person in Kambi Moto said that the project was finished on time. Majority in all the settlement agree that the project had the time overrun for more than one year with 58% in both Mahira and Kambi moto and 53% in Gitathuru

while 42%, 47% and 36% in Mahira, Gitathuru as shown below in Table 5.5. The findings agrees with the UN-habitat (2008) which found out that the problem with community participation is that it is relatively slow to implement and depends on the cooperation, goodwill and resources of residents, as well as their governments and other stakeholders.

Table 5.5; Challenges in the upgrading process

Variables	Mahira		Gitathuru		Kambi moto		Huruma	
	No.	%	No.	%	No.	%	No.	%
Challenges								
programme time								
Yes	24	100	18	100	30	91	72	96
No	0	0	0	0	3	9	3	4
Completed on time								
Yes	0	0	0	0	1	3	1	1.4
No	24	100	18	100	30	97	72	98.6
Time overrun								
4-8 months	0	0	0	0	2	6	2	2.7
1 year	10	42	8	44	12	39	30	41.1
More than 1 year	14	58	10	56	17	55	41	56.2
Preparation								
Community	0	0	5	28	4	12	9	12
Professionals	0	0	3	17	1	3	4	5.3
Both	24	100	10	55	28	85	62	82.7
Professionals								
Architect	10	42	4	22	20	61	34	45.3
Project manager	4	16	4	22	4	12	12	16
Both	10	42	10	56	9	27	29	38.7

Source: Field Survey, 2011

The projects construction programmes must be prepared to help in completion of the project on time. Construction programmes are mostly made by both community and professionals with 100%, 53% and 85% of the respondents in Mahira, Gitathuru and Kambi moto respectively supporting that while 29% and 12% said the programmes are prepared by community and only 18% and 3% said the programmes are prepared by professionals in Gitathuru and Kambi moto respectively as shown in Table 5.5. The community NGOs and Nairobi City Council agreed that professionals and community should prepare the construction programme together.

Plate 5.3; Installed under construction and not upgraded houses in Kambi Moto



Source: Field Survey, 2011

The professionals involved in the preparation of the construction programmes are architects with 42%, 22% and 61% in Mahira, Gitathuru, and Kambi moto while 16%, 22% and 12% said the programmes were made by project managers in the same order as shown in Table 5.5. The rest 42%, 56% and 27% said the programmes are prepared

by both the project manager and the architect. There are master plans for the settlements that are under survey but there is no master plan programme for the time the project of house construction is supposed to take. The planning is done weekly and fortnightly when the construction work is going on. As confirmed earlier this is done in the meetings where community and professional are involved.

4.5 The causes of delay

Delays in the construction in construction industry occur in many ways. There are delays caused by parties involved for instance the client not making payment to the contractor and consultants, design team failure to issue detailed design drawing at the time required (Talukhaba, 1988). Contractors can also cause delays as a result of poor or lack of planning on materials, plant or labour resources which brings variation (Kimani, 2004). Delays are also caused by community participation, management of the resources and cost of the housing scheme being expensive compared with the income of the residents in the informal settlement upgrading.

2

4.5.1 Funding

It was found from the field survey that majority of the surveyed population in all the settlements strongly agreed that the delay in construction was caused by funding with 71%, 56% and 67% in Mahira, Gitathuru and Kambi moto respectively as shown in Table 5.6. In funding there are various factors which contribute to delay. The field survey has established that insufficient funding for the project contributes 34%, 28% and 37% for Mahira, Gitathuru and Kambi Moto respectively and in Huruma 33.3% as shown in Table 5.7. Accessing additional money in case of variation is the second contributor to delays on funding with 29%, 22% and 24% for Mahira,

Gitathuru and Kambi Moto and 25.3% in Huruma. The least cause of delays in construction upgrading of the houses according to households surveyed are funding time and misappropriation of funds each with 5% and 2% for Huruma as shown in Table 5.7.

Table 5.6; Causes of delay

Variables	Mahira		Gitathuru		Kambi Moto		Huruma	
	No.	%	No.	%	No.	%	No.	%
Funding (Finance)	17	71	10	56	23	67	50	67
Community participation	1	4	1	5	1	3	3	4
Revenue and cost of house	6	25	7	39	9	30	22	29
Withdrawal of partners	0	0	0	0	0	0	0	0
Any other	0	0	0	0	0	0	0	0
TOTALS	24	100	18	100	24	100	75	100

Source: Field Survey, 2011

The other partners who are the City Council of Nairobi and NGOs sometimes may not be having the funds at the time when the community requests for the loan although this rarely happens. The NGOs said that inadequate funding causes delay because the community is mostly not able to raise the required 20% cost of the project they are supposed to raise so as to get the 80% funding and this makes the community to be given the funds which are not able to complete the project. The UNCHS (1984) also found out that many low income families did not construct their houses within the required time because lack of funds to hire labour and materials. Diana (2008) also found lack of legal housing and the informality in their livelihood and shelter

solutions mean that the realities of the housing solutions of the urban poor often do not fit well with professionally conceived plans and programmes.

In the informal settlements there is funding from donors who do give grants and loans. This brings the factor of the management of the funds and because of the donors have strict guidelines on expenditure which the community follows being guided by a member from the donating NGO. The NGOs and Nairobi City Council said that misappropriations of funds didn't cause delay in the house construction upgrading scheme. The NGOs have put down the measures to control the way funds are used and they have their representatives on the ground to ensure that there is no misappropriation of funds that is why we have only 2% saying that misappropriation of funds caused delay.

4.5.2 Community participation and planning

According to UNCHS (1985) Community participation has been identified as one of the indispensable element in any informal settlement upgrading project. The field survey illustrated that majority of the household's has shown that community participation is good with only 4% saying that it caused delay as shown in Table 5.6. Thus community participation does not cause the delays since the community is involved from the inception to completion with 4%, 6% and 3% in Mahira, Gitathuru and Kambi Moto respectively said that community participation caused delay and 4% in Huruma saying that community participation caused delay as shown in Table 5.7. The factor which contributed to delay in community participation is community politics which is the disagreements between the community members. The reviewed literature also shows that there has been community politics which contributed to

delay in those projects for instance as the provision of basic services in informal settlements intervention in Cape Town. All other partners said that internal conflicts caused delay with only one saying it had no effect. The reason put forward is that it is mostly observed during the change of the leadership and this mostly occurs when the leaders have self interest

According to the previous analyzed data planning is mostly done by both community and professionals provided by the other partners involved in the informal settlements upgrading. Data collected showed that the delay in the execution of the project is not caused by community planning without assistance from the professionals as shown in Table 5.7. From the field survey all the other partners said that the lack of professional assistance did not cause delay because they provided the professionals to help the community in any technical support that they needed at all the phases of the project execution from inception to completion

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Community participation in design and actual construction didn't affect the completion time as shown in Table 5.7. All the other partners also said that lack of community participation has not caused any delay in Huruma informal settlement. They said the project is a community led process and they are involved from inception to completion and the left to maintain the project. The UNCHS (1985) also found out that the active community participation helps to run the informal house upgrading without problems because there is minimal displacement on the beneficiaries of the project who are already on site.

Table 5.7; Causes of delay

Variables Causes of delay	Mahira		Gitathuru		Kambi Moto		Huruma	
	No.	%	No.	%	No.	%	No.	%
Funding								
Funding time	1	4.2	0	0	3	9	4	5.3
Insufficient funding	8	33.3	5	28	12	37	25	33.3
Funds misappropriation	1	4.2	1	6	0	0	2	2.7
Variation in cost	7	29.2	4	22	8	24	19	25.3
Community participation								
Planning without professionals	0	0	0	0	0	0	0	0
Community politics	1	4.2	1	6	1	3	3	4
Design	0	0	0	0	0	0	0	0
Actual construction	0	0	0	0	0	0	0	0
Revenue and cost of house								
House being expensive	6	25	6	33	8	27	20	26.7
Lack of policy for revenue	0	0	1	6	1	3	2	2.7
Totals	24	100	18	100	33	100	75	100

Source: Field Survey, 2011

4.5.3 Policies for revenue generation and cost of the housing

The field survey as revealed that the cost of the house and revenue is among the main cause of delay with 25%, 39% and 30% in Mahira, Gitathuru and Kambi Moto respectively and in Huruma 29% being the second factor contributing to delays as illustrated in Table 5.6. The cost of the houses that is house being expensive (Kshs.225000 for construction of ground floor and toilet at first floor) compared to income of the community members are the main cause of delay with 25%, 33% and 27% in Mahira, Gitathuru and Kambi Moto respectively and in Huruma 26.7%. The community members operated businesses in the shanties such as kiosks and lack of policies to sustain revenue was the least cause of delay among other factors with 6%,

3% and 2.7% in Gitathuru, Kambi Moto and Huruma respectively. The reason for this is that members of the community were being trained on the use of construction skills such as masonry and carpentry which they applied to continue earning some revenue. The reason for cost being among the main causes of delay is that there were very few respondents who earn ksh.500 per day. This shows that respondents have low income. The other partners said that houses are not expensive because they are given all the support to lower the cost of the scheme such as grants to make the houses affordable. Syagga, Mitullah and Karirah, (2001) also found that due to the very complex nature of informal settlement development in Nairobi, the shortcomings being lack of affordability which agrees with the finding of this study.

The withdrawal of the partners did not contribute to the delay in all the settlement surveyed. The reason was that the community members were well prepared for the exit and they were trained to be self reliant after their withdrawal. To add on that the partners who withdrew their support had completed providing the support that was needed from them.

4.6 Chapter summary

From the field survey it as illustrated by discussion there are types of houses in the Huruma. They are upgraded houses, shanties and the other ones under construction. Both structure owners and tenants have put in considerable inputs in the houses construction upgrading in the three informal settlements although Mahira and Kambi Moto have had more effort depending on location and they have no fear of eviction.

The interest of the structure owners and tenants is to own land and permanent houses. From the information on the land tenure and the process for allocation of land from government is lengthy and it must be approved by all concerned authorities. From the identification of the different actors and their motives for upgrading in the three settlements has demonstrated that interests in the informal settlements are vast and mutually reinforcing in Kenya. However the formation of the self help groups in these settlements helps in bringing the interest of the community together.

There is community participation in these informal settlements. The NGOs contributed by supporting the community through providing technical support in the design and construction time. The community members provide free unskilled labour, manage daily labour and finances, procure materials and raise 20% of the cost of the project.

From the field survey all the informal settlements in Huruma benefited from the designation of the settlement as a "Special Planning Area", and the each sent representatives to sign the memorandum of understanding (MOU) in July 2003. There is a wide range of issues causing delays in informal settlement upgrading, many of which are mutually re-enforcing. They include funding, community participation, revenue and the cost of the house.

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CHAPTER FIVE

CONCLUSION AND RECOMENDATIONS

5.0 Introduction

This study was set out to establish the way for community participates in informal settlement upgrading and find out the roles of the community members and other partners in upgrading. It was also to find out the main causes of delays in housing projects implementation in upgrading informal settlements.

5.1 Summary

There is community participation in the Huruma informal settlement with community leading the process. Community participation is one of the indispensable elements in any informal settlement upgrading process if the community which originally developed the settlement is involved. The informal settlement residents are involved from inception, designing and modeling, construction upgrading up to the maintenance.

The challenge of informal settlement is obviously a complex one and there is a wide range of issues and contributing factors to delays in informal settlement upgrading, many of which overlap or are mutually re-enforcing. These factors have been explored and each has been found to contribute in some way with some contributing more than others.

NGOs and the City Council of Nairobi have contributed to make the project a success although there are some hiccups. They have provided professional advice, loans, grants, legal services where required and technical training to ensure the house

upgrading scheme in the informal settlements becomes a success. The partners have played a very important role in making the project to run smoothly and whenever any NGO withdrew after their time of support was over it was found that the process of upgrading informal settlement had no much effect because the NGOs left after achieving their goal.

5.2 Conclusions

They informal settlements were formed from the spaces left for future development of the area except Gitathuru which is located in the riparian land. There are two categories of respondents and they are tenants and structure owners. They came together to form the self help groups for the project of informal settlement upgrading. The respondents are in the low income bracket making it very hard for the community members to afford the upgraded houses.

It also revealed that the community members are involved in the project from inception to completion and maintenance after construction. Moreover it was evident that urban poor have done a lot for themselves in the informal settlements upgrading by using limited resources to develop their houses. More than 85% in all the settlement participated in the design and modeling and more than 90% gave out there ideas to the design team. The ideas were given out through the community meeting forums in all the informal settlements. The settlement which had very good community participation translated to good turnout of unskilled workers and the community members just volunteered to work once in a week.

At the construction phase more than 70% in all villages participated as unskilled labour by volunteering without any payment that is 'sweat equity' to lower the cost of the houses. The other partners trained the community members to enable them participate in the construction process and use those skills beyond the construction of the houses. In all the settlements the community volunteered an average of two days in a week.

The attendance of the meeting by community members was good. The objectives of these meetings were community welfare, house construction upgrading, savings and loans. Each partner has a role to play for instance AMT provides loans, COOPI provided grant for infrastructure construction and technical assistance while the PT provides technical assistance, loans and legal services whenever needed and last but not least City Council of Nairobi provides land and technical assistance.

The land tenure is informal and an issue depending on the location of the settlement. Gitathuru felt more insecure because it located in the riparian land while Kambi moto and Mahira located on area which was reserved for market development and parking area feel secure. The other partners agreed that the community should continue with upgrading while following up to get security of tenure. The issue of land tenure in the informal settlement is complex because they have only signed a memorandum of understanding which is not secure. The infrastructure that is water, sewer and drainage are provided by community and NGOs. The community provides free unskilled labour while the NGOs give grants for infrastructure construction to lower the cost of the houses.

The projects were not completed in time in all the informal settlements. In planning there was no master plan for the whole project. There were only planning for sections under construction without any drawn bar chart or critical path method. This shows the planning of the time resource was poor. The estimated time was exceeding mostly by one year or more and this was contributed by a multiple factors.

The delays are caused by variation in projected cost, inadequate funding and funds sometimes not getting to community on time. Cost variation was the major cause of the delays. The management of the donor money did not contribute much to the delays in informal settlement upgrading because they have representatives on the ground. Community politics contributed little to delays. The cost of the houses contributed a lot to the delay because they were expensive compared to their income.

5.3 Recommendations

It is critical to involve the community throughout the upgrading process, from inception to completion. It is important to clarify what the community can do and what they cannot do. All the activities that require technical knowledge that the community don't have should be given to professionals.

There is a need of a master programme for the whole project so that time can be managed well. It should be done by the professionals and be always revised to be up to date so that it can be able to reflect the true status of the housing scheme construction project.

Variation in the project cost is a major cause of delays. The study revealed that there was no ten percent allowance for variation during the estimating and costing. The funds should be put aside to cater for variation to avoid application of loans when there is change in prices.

Creating income generating opportunities in the community should also be considered. Poverty is an inescapable obstacle which makes upgrading process unaffordable for many informal settlements. In order to address this fundamental difficulty in a sustainable and meaningful way, residents need to be empowered with marketable skills that will allow them to have better income. This will enable the community to have enough savings to secure the amount required for the project.

The financial management training is needed to enable the community manage the funds well for construction especially in procurement of materials. This will eliminate the little misappropriation of funds which the project may have experienced.

Community politics was found to be one of contributing factors to delays and thus the community should also be trained on leadership and conflict resolution. This will enable the community leaders to control community politics without causing delays in the upgrading process and resolve any problem whenever it occurs. In order to minimize conflict and maximize outreach, community leaders should mobilize people instead of involving the social workers who do not belong to the informal settlement. The mobilization should be enhanced to eliminate any delay being caused by lack of involvement of all community members.

In addition, there needs to be income generating opportunities within the communities. One of the suggestions to achieve this came from the community like having their own hardware so that they make profit by selling goods and buy materials at lower cost. Although there was training of the community members it should be enlarged and this will enable more community members to get gainful employment in other areas of the construction industry.

To enable the houses to be affordable the Local Government should provide the infrastructure such as sewers, roads, water supply and storm water drains. The money that the NGOs use in providing these services can then be used in subsidizing the cost of the buildings.

5.4 Areas of further research

1. The sustainability in community participation in informal settlements and the ability to replicate the project in other informal settlements as compared to ones implemented by government.

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APPENDIX 1

QUESTIONNAIRE FOR COMMUNITY

SAMPLING OF HOUSEHOLDS

A study of the role of the community participation in the informal settlement upgrading

Declaration; the information given in this study shall be treated utmost confidential and used only for this research

Tick the box of what you agree with

ZONE..... AREA.....
Name of the informal settlement.....
Household/ structure number.....
Date of survey.....

SOCIO ECONOMIC

1. How long have you lived here years? 1-5 6-10 11-15 more than 16
2. Have you ever been enumerated Yes No
3. Type of household Not upgraded upgraded Under construction
4. Ownership status of the structure Tenant Structure owner Any other
5. Are you a member of CBO or self help group? Yes No
6. What is the Membership composition? Tenants Structure owners
Both
7. Average total household income per day in Kshs. 200 or less 500
1000 Any
other.....

ROLE AND PARTICIPATION

1. Did you participate in the design and modeling process of the housing scheme? Yes No

2. If yes, how many hours did you participate in design and modeling per week?
1-2 3-4 5-6 Any other.....

3. How many ideas and suggestions did you provide during design and modeling? None Few A Lot Please list the ideas you contributed.....
.....
.....

4. How many of your ideas were accepted? None Few A lot Which ones were accepted.....
.....

5. How did you give out your ideas? Through; Community meeting Writing letters Writing proposals Any other.....

6. Did participation in design of upgraded houses help you to achieve your goals? No Not Sure Yes

7. Did you participate in the construction in any of the upgraded house in this settlement? No Sometimes Yes

8. How did you participate? Casual labour Skilled labour Both

9. Were you paid for the work you did? No Yes

10. If yes, how much in Kenya shillings per day? 100 200 300 400 500 If yes to both (Q 9) indicate what you were paid for.....

11. How many days would you estimate that your household spent on the construction process per week 1 2 3

12. Did you receive special training in order to participate in the construction process? Yes No

13. What kind of training? Masonry skills Carpentry skills site management Any other specify

14. Who procures the materials? Community Other partners Any other
.....
.....

15. Do you regularly attend the community meeting? All times sometimes None

16. Are there any NGOs working in the settlement? Yes No
17. How regularly do you interact with the NGO staff? Daily Every week
Fortnight Every month
18. What is the objective of the meetings? House construction Saving and giving loans Welfare All the above
19. How does the community benefit from NGO? Grant Loans Legal services All the above
20. How regularly do you interact with Nairobi City Council staff? Regularly
Never Seldom
21. How does the community benefit from Nairobi City Council? Free plans approval Provision of land Water supply All None
22. How does the land tenure status affect the upgrading process? Negative influence None
23. If it has negative influence, at what time should upgrading start? When following up to secure land tenure when you have secure land tenure
24. Who provides the infrastructure Community NGOs Nairobi City Council Community and NGOs
25. What is the contribution of community to infrastructure? Free labour money
26. Who maintains the infrastructure after construction? Community NGOs
Local Government Any other.....
27. How much do the community and donors contribute to house construction respectively

CHALLENGES IN CONSTRUCTION UPGRADING PROCESS

1. Was there any programmed time frame of the project? Yes No
2. If yes was project completed within the estimated period Yes No
3. If no what was the time overrun 1-3months 4-8 months 1 year
more than 1 year
4. What was the planned time..... and time taken was.....
5. Who made the construction programs? Community Members
Professionals Both

6. If both or professionals which professionals are part of planning? Architects []
 Project managers [] Civil engineers [] Any other.....
7. Is there any master plan for the whole project? Yes [] No []
8. If yes where is the master plan? It is there [] Not there
9. Which one of the following is the main cause of delays in informal settlement upgrading? Funding [] Community participation [] Revenue and Cost of housing [] Withdrawal of partners [] Any other.....

10. In funding which of the following is the main cause of delay
- a. Inadequate funding at the time required.
 - b. Insufficient provision of funds for the projects.
 - c. Misappropriation of donor funds.
 - d. Accessing loan or donor money in case of variation
11. In community participation in informal settlement upgrading which one of the following is the main cause of delay?
- a. Community planning without assistance from the professionals.
 - b. Conflicts between the community members
 - c. Community participation in design
 - d. Community participation in actual construction
12. In the cost of the house and variation
- a. The house prices being more expensive than what community members expected
 - b. Lack of policies to sustain revenue after upgrading

Any general remarks from the community members on how to improve upgrading process.....

Thank you very much for you time and assistance.

APPENDIX 2

QUESTIONNAIRE FOR THE OTHER PARTNERS

A study of the role of the community participation in the informal settlement upgrading **Declaration**; the information given in this study shall be treated utmost confidential and used only for this research

Tick the box of what you agree with

PARTICIPATION AND ROLES

- 1) Name of organization
- 2) Type of the organization NGO Local authority Consultancy firm
- 3) Are you all working in Huruma settlement Yes No
- 4) How long have you operated in this or other informal settlement
.....
- 5) For how long are you planning to work in this informal settlement in years?
1 2-3 4-6 7-10 More than 10
- 6) What are the objectives of the organization? House construction upgrading
] Provision of infrastructure providing loans Giving grants
Approving plans Training members on technical matters Giving
technical support Advocacy
- 7) What are the activities your organization is involved in? Security of tenure
for urban poor Housing upgrading Infrastructure provision
Community Mobilization Advocacy
- 8) For the above activities how do you organize yourself? Having
representatives at the informal settlement Community leaders reporting to
your office Any other method (specify)
- 9) Who provides the infrastructure Community NGOs Nairobi City
Council Community and NGOs
- 10) What is the contribution of community to infrastructure? Free labour
money Any other.....
- 11) Who maintains the infrastructure after construction? Community
Government NGOs Any other

- 12) Who coordinates the money for construction works? Community Other partners
- 13) How much funding is required from the NGO? 100% 80% 50%
- 14) How much money does the community provide? 20% 50% Any other
- 15) Which of the following are the roles of community during construction
- a. Contribution of free labour (sweat equity)
 - b. Community mobilization to attend meetings
 - c. Daily management of labour and finances
 - d. Procuring of all construction materials
 - e. Choosing beneficiaries for the upgraded houses
 - f. To raise 20% of funds required for the project
 - g. To maintain houses and infrastructure after upgrading
 - h. Any other.....

CHALLENGES IN CONSTRUCTION UPGRADING PROCESS

1. What was the programmed time frame for this project in years? Less than 1 1-2 3-4
2. Was project completed within the estimated period Yes No
3. If no what was the time overrun 1-3months 4-8 months 1 year more than 1 year Any other.....
4. What was the planned time.....
5. Who made the construction programs? Community Members Professionals Both
- 6.
7. Which one of the following is the main cause of delays in informal settlement upgrading? Funding Community participation Revenue and Cost of housing Withdrawal of partners Any other.....
.....
.....
8. In funding which of the following is the main cause of delay
(a) Inadequate funding at the time required.

- (b) Insufficient provision of funds for the projects.
- (c) Misappropriation of donor funds.
- (d) Accessing loan or donor money in case of variation

Give reason.....

9. In community participation in informal settlement upgrading which one of the following is the main cause of delay?

- a. Community planning without assistance from the professionals.
- b. Conflicts between the community members
- c. Community participation in design
- d. Community participation in actual construction

Give reason.....

10. In the cost of the house and revenue

- a. The house prices being more expensive than what community members expected
- b. Lack of policies to sustain revenue after upgrading

Give reason.....

Any general remarks from the organization on how to improve upgrading process

.....

Thank you very much for you time and assistance.