INFLUENCE OF COMMUNITY PARTICIPATION ON SUSTAINABILITY OF SELECTED NJAA MARUFUKU KENYA FOOD SECURITY PROJECTS IN KISUMU WEST, KISUMU COUNTY, KENYA

BY

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A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTERS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI.

2014
DECLARATION

This Research Project Report is my original work and has not been submitted for the award of a degree in any other University.

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To my dear husband Tom and my Son Jesse and daughter Sonia, for the love, understanding and support in the entire period of pursuing my studies. Thank you for always staying awake until late hours to give me moral support.
ACKNOWLEDGEMENT

I would wish to thank the Almighty God for His guidance, grace, strength and protection He gave me throughout my study. I sincerely want to acknowledge the University of Nairobi and in particular Kisumu Campus library for giving me ample time and resources to successfully accomplish my study. My sincere gratitude goes to my Supervisor Dr Raphael Nyonje, Senior lecturer Kisumu Extra Mural Studies, for his support and dedicated supervision. Thanks for your time and patience and your coaching all the way through.My sincere gratitude goes to Dr Joshua Wanjare from School of Business, Kisumu campus, for his technical support and guidance during the development of this research project report.

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ABSTRACT
The Government of Kenya initiated Njaa Marufuku Kenya Programme, a multi-sectoral programme under the Ministry of Agriculture, which invested in community food security projects as a way of helping local people improve their own lives and livelihoods. The members are given grants and technical support, with the intention of helping them combat food insecurity and reduce poverty. Community participation has for long been ignored in the development of these interventions leading to failures and non-sustainable Projects; as beneficiaries were not involved from the beginning and therefore they did not own them. To address this shortcoming donors and respective governments have employed a new strategy of partnership building and participation of the community members who are the beneficiaries. This Research aimed at exploring the influence of Community participation on sustainability of NMK funded Food Security Projects in Kisumu West sub county, Kisumu County. The research design used was descriptive research design. The population of the study included all the 215 community members of Kisumu West participating in the various projects under the programme with a sample size of 143 respondents. The study applied probabilistic techniques, and in specific stratified random sampling to obtain the study sample from the study population. The collection instruments that were used were closed ended questionnaires made of Likert scale and open ended questionnaires for the NMK facilitators These were ascertained for face validity by experts in project planning and management from the department of Extra Mural studies, University of Nairobi. The Questionnaires were pilot –tested using a sample of 14 respondents from Kisumu West sub county who were not participating in the study, after which its reliability was determined using Cronbach alpha coefficient, giving a reliability coefficient of 0.87. Raw data was collected from respondents through physical administering of Questionnaires. Quantitative data was analysed and presented using descriptive statistics such as frequencies and percentages and inferential statistics such as Correlation Coefficient (r). The study established that Community participation in project identification and Planning influences 23.25% of sustainability of NMK food security projects. Community Participation in Monitoring and Evaluation influences 6.3% of sustainability of NMK food security projects, Community Participation in Marketing of NMK products influences sustainability of NMK food security projects to the extent of 6.82% and Community Participation in Financing of NMK projects explained influenced the sustainability of NMK food security project to the extent of 10.43%. The study also established with a coefficient of determination $r^2 = 0.2325$ that there is a significant relationship between Community Participation in Project Identification and Planning and sustainability of NMK food security projects. A correlation coefficient of 0.251($r^2=0.063$) implied that there is a significant and strong positive relationship between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects. A correlation coefficient of 0.3229($r^2=0.1043$) implied that as community participation in financing of NMK products increases so does the sustainability of NMK food security project and with correlation coefficient of 0.2613($r^2=0.0682$) there is a significant relationship between Community Participation in marketing and sustainability of NMK food security projects.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADD</td>
<td>Agricultural development divisions</td>
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<td>ACB</td>
<td>Agricultural credit board</td>
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<td>BINP</td>
<td>Bangladesh Integrated Nutrition Programme</td>
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<td>BOSS</td>
<td>Beginning of sustainability status</td>
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<td>CDD</td>
<td>Community Driven Development</td>
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<tr>
<td>CIFS</td>
<td>Community-Driven Initiatives for Food Security</td>
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<td>CSA</td>
<td>Community Supported Agriculture</td>
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<td>DfID</td>
<td>Department for global Development</td>
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<td>EAC-ARDP</td>
<td>East African Community Agricultural Development Policy</td>
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<td>IFAD</td>
<td>International Federal for Agricultural Development</td>
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<td>LFA</td>
<td>Logical Framework Approach</td>
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<td>MAFISA</td>
<td>Micro Agricultural Financial Institute of South Africa</td>
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<td>MOYA</td>
<td>Ministry of Youth Agenda</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NM K</td>
<td>Njaa Marufuku Kenya</td>
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<tr>
<td>RWSS</td>
<td>Rural Water Supply System</td>
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<td>SARD</td>
<td>Sustainable agriculture and rural development</td>
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Development assistance is often offered on a temporary basis and it’s typical for projects to have definite time frames. Yet, the impacts of the assistance and projects are intended to be lasting. As a result, a challenge for international development is to achieve long term sustainability of projects. Historically, many projects have failed to achieve their intended goals (Bishop, 2001). Multiple factors contribute to this phenomenon. One key factor is the manner in which projects are planned and executed. It is critical to the success of a project that various elements of sustainability be considered throughout each stage of the project process. This is particularly true where outside involvement is discontinued after project closure, as is the case for much international development work (Salles, 2002).

In the United States of America, community participatory approaches to enhancing food security that engage multiple stakeholders have begun to gain momentum in multiple settings. The mechanisms of power among stakeholders within such community participatory food security planning processes warranted analysis. Sloane and fellow researchers collaborated with community residents to promote community-directed interventions aimed at sustainable healthy food availability in regions of Los Angeles encountering health disparities (Sloane et al., 2003). In Ecuador a research by sustainable agriculture and rural development engaged 90 local communities in assisting farmers in becoming self-sufficient. More than 20 indigenous communities participated in improving agricultural production and reducing risks to the ecosystem, through land-use planning and management. This initiative has ensured food security, increasing farmers’ income, land productivity and project sustainability (UNDP, 2003).

Poor nutrition has a significant contribution to the burden of disease experienced by Indigenous Australians. A number of factors affect the 'supply' and 'access' of nutritious food for urban communities and increase vulnerability towards food insecurity. A number of successful interventions and principles of good practice were identified using the food security framework...
developed by Rychetnick & Webb *et al* (2003); this described a range of intervention points to affect food supply and food access and a broad spectrum of changes a community can make were highlighted. A number of common factors associated with successful and sustainable programs included among others high levels of community participation and control of project design (Browne *et al*, 2009).

In Philippines, an evaluation of a World Bank project found out that during a ten year period, the National Irrigation Administration shifted from a top down government approach to heavy reliance on the local farmers in the design, operation and maintenance of local irrigation systems. It was discovered that the canals and structures worked better and rice yields were 20% higher and the irrigated area 35% greater than in control groups without participation (World Bank, 1991). The Participants were able to identify their problems on their own and plan out their course of action.

The Bangladesh Integrated Nutrition Programme (BINP) was started in 1995 with the main aim of developing community and government capacity to harness the resources of local development programmes aimed at increasing income, food security and access to clean water, and target them to those most nutritionally vulnerable. The high priority given to community participation in food security interventions generated good returns for the project, such as improved and effective nutrition services delivery, high staff morale and satisfaction of NGO partners. Consequently, this became an advocacy tool, which forged a strong Government of Bangladesh and NGO partnership and promoted programme ownership and sustainability. (Sloane *et al*, 2003).

In northern Ghana, The Community-Driven Initiatives for Food Security project is an integral part of the Government overall food security strategy. CIFS seeks to achieve a sustainable increase in household food security in the 10 districts of the Eastern Corridor, northern region of Ghana, by strengthening the existing community and regional mechanisms that support community-driven rural development, thus demonstrating, through the successful participatory planning and implementation of initiatives, that CDD is an effective way of increasing household food security. It focuses on developing capacity for key project stakeholders, supporting
participatory processes in selected communities and identifying priority food security initiatives within the selected districts and communities. The accumulated results to date are, 250 communities in 10 districts engaged at various stages of food security planning, coordination with local government structures and implementation of food security Projects; CIFS has also supported communities in the identification, design, planning, coordination, procurement and implementation of 194 community food security initiative projects (Promoting Project Sustainability, 2000).

A study by Warotte (2009) on YFSSIFS Project in KonsoWpreda, Ethiopia embarked to reverse the ongoing food insecurity risks through the realization of its major components like spate irrigation systems development and agricultural extension services. Six modern spate irrigation schemes were successfully constructed during the two phase’s of project intervention (2001-2005 and 2006-2008). The project adopted ‘Community first, project second’ intervention approach which ensured the participation of the community and proactive intervention over food insecurity. Besides successful construction of the spate irrigation schemes, input provision and training of farmers fostered the diversification of household income bases. The intervention of the project enhanced the food production for 2,200 households which are currently able to sustainably produce sufficient food for home consumption. Since the project intervention, the farmers have managed to grow and harvest twice in a year. About 93.5 percent of the respondents confirmed that their average production obtained during the last three years (2006–2008) had increased.

Kenya is one of the countries in sub-Saharan Africa that is not able to feed its population sufficiently and it, therefore, relies on outside assistance. Many food security projects have been funded by both the Kenyan government and other development partners in an effort to mitigate against food insecurity. Unfortunately, as revealed by assessment reports, such projects leave little impact after the end of funding (Wabwoba, 2012).

1.2 Statement of the Problem
The East African Community Agricultural Development Policy (EAC-ARDP) of which Kenya is a member state, recognizes the importance of eliminating hunger by ensuring sustainable food
security within the region and as a step to eradicate poverty, this they intend to achieve by linking smallholder producers to the markets. According to this policy, a sustainable food security can also be achieved by building the Capacity of smallholders through relevant trainings (EAC Secretariat, 2011).

During the formulation of The Agricultural Policy of Kenya, emphasis was made to attract various players who would have to arrive at various policy positions consultatively and in a participatory manner (Republic of Kenya, 2005). The Government went further and commenced the implementation of District Focus for Rural Development strategy, through programmes such as Njaa Marufuku Kenya which has emphasized on use of participatory methodologies in programs and projects (UNDP, 2003). The presence of NMK food interventions in Kisumu West sub county since 2005 has tried to reverse the area’s food insecurity situation, by providing an opportunity for fighting food insecurity among individuals and households for sustainable food security towards fulfilment of the MDG goals and thus realization of the Vision 2030-the country’s new long-term development blue print. This would be realized from effective implementation of the programme through full engagement of the community in projects to fully ensure sustainability of the NMK projects out puts and outcomes (Nduta, 2012).

Overwhelming amount of research has been carried out on the NMK programme and its impact on food security. A study conducted by Kamoni, Ombati & Oywaya-Nkurumwa (2013) on Implementation of Njaa Marufuku Kenya intervention in Kajiado County and its implications on food security aimed at establishing the major bottlenecks limiting the effectiveness of NMK intervention towards enhancing food security in Kajiado County. This study came up with a conclusion that training and empowerment of the NMK funded group members before the implementation of their respective projects had the potential to positively influence food security in Kajiado County.

A study by Nduta (2012) focused on examining the socio-economic factors influencing implementation of NMK programme for sustainable food security in Makuyu Division, Murang’a County. The researcher examined the extent to which demographic characteristics of the programme beneficiaries influenced implementation of the NMK programme, investigated
the level at which access to land by the beneficiaries influenced implementation and determined the extent to which capacity building of the programme beneficiaries influenced implementation of the NMK programme in Makuyu Division, Murang’a County.

However there is a Research gap on the influence of Community Participation on sustainability of NMK funded food security projects in Kisumu West sub County. This Research has concentrated on finding out if the community participation influences sustainability of the NMK funded food security projects. The NMK Projects have lasted approximately nine years and this being the case; the researcher used it as an ideal case to establish the influence of Community participation on the Projects sustainability, in terms of food production, access (availability) and utilization at community level. The study tried to find out if Community participation in Project identification and Planning, Monitoring and Evaluation, Financing and Marketing of Products really influences sustainability of the NMK food security projects in Kisumu West, Kisumu County, Kenya.

The study also went a step further and tested the following Alternate Hypothesis; there is a significant relationship between Community Participation in Project Identification and Planning and sustainability of NMK food security projects in Kisumu West. There is a significant relationship between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West. There is a significant relationship between Community Participation in Marketing of NMK products and sustainability of NMK food security projects in Kisumu West. There is a significant relationship between Community Participation in Financing of NMK projects and sustainability of NMK food security project in Kisumu West.

1.3 Purpose of the Study
The purpose of this study was to investigate the Influence of Community Participation on Sustainability of NMK Food Security Projects in Kisumu West, Kisumu County, Kenya.
1.4 Research Objectives

The objectives of this study were;

i. To investigate the extent to which Community participation in Project Identification and Planning influences sustainability of NMK food security projects in Kisumu West.

ii. To establish the extent to which Community participation in Monitoring and Evaluation influences sustainability of NMK food security projects in Kisumu West.

iii. To assess the level to which Community Participation in Marketing of NMK products influences sustainability of NMK food security projects in Kisumu West.

iv. To establish the level to which Community participation in Financing of NMK projects influences sustainability of NMK food security project in Kisumu West.

1.5 Research Questions

The study also sought to answer the following questions;

i. To what extent does Community participation in Project Identification and Planning influence sustainability of NMK food security projects in Kisumu West?

ii. To what extent does Community participation in Monitoring and Evaluation influence sustainability of NMK food security projects in Kisumu West?

iii. To what level does Community Participation in Marketing of NMK products influence sustainability of NMK food security projects in Kisumu West?

iv. To what level does Community participation in Financing of NMK projects influences sustainability of NMK food security project in Kisumu West?

1.6 Research Hypothesis

The study tested the following Alternate Hypothesis.

i. There is a significant relationship between Community Participation in Project Identification and Planning and sustainability of NMK food security projects in Kisumu West.

ii. There is a significant relationship between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West.

iii. There is a significant relationship between Community Participation in marketing of NMK products and sustainability of NMK food security projects in Kisumu West.

iv. There is a significant relationship between Community Participation in Financing of NMK projects and sustainability of NMK food security project in Kisumu West.
1.7 Significance of the Study
The study findings were hoped to help the Government through the Ministries of Youth Affairs (MOYA), Gender and social services in developing policies for the disbursement of the Youth and Women funds to CBO engaged in food security projects. It is also hoped that Ministry of Agriculture would use the result of this study to develop polices and strategies that would guide the planning for and allocation of funds for implementation of Food Security Projects within Kisumu County and other urban areas in Kenya. Non-Governmental Organizations (NGOs) and other Development Partners dealing with food security and poverty eradication would also find the report useful. The results of this study would be disseminated to University of Nairobi Libraries thus would contribute to the body of knowledge. These study findings would also be generalizable to other Food Security Projects.

1.8 Basic assumptions of the study
The study was based on the following assumptions; it was assumed that all Food Security Projects operating within Kisumu West sub County in Kisumu County were duly registered and thus were operating legally. Also it was assumed that the records of the Ministry of Agriculture Kisumu County had been up dated, and that it was proper to use them to draw a representative sample.

1.9 Limitation of the study
This study was faced by participants who were unwilling to cooperate with interviewer; this was countered by working closely with the NMK facilitators whom they were familiar with to help them understand the sole purpose of the research.

1.10 Delimitation of the study
The study was delimited to NMK Food Security Projects operating within Kisumu West Sub County in Kisumu County as it has a conglomeration of many food security projects of different types. The study also focused on Influence of Community Participation in Planning and Identification, Monitoring and Evaluation, Marketing of products and Financing of Njaa Marufuku Kenya Projects.

1.11 Definition of significant terms in the study
Agricultural Policy Government decisions that influence the level and stability of input and output prices, public investments affecting agricultural production, costs and revenues and allocation of resources.
Capacity building  Capacity building consists of developing knowledge, skills and operational capacity so that individuals and groups may achieve their purposes (Okello et al., 2008).

Community  Members of the lowest administrative unit at which the project is working.

Empowerment  ability of people, in particular the least privileged, to have access to productive resources that enable them to increase their earnings and obtain the goods and services they need; and participate the decisions that affect them (IFAD, 1995).

Project Financing  Volunteering labor, time, money and materials to a project for the benefit of development activities and to help make the project self-sustaining

Evaluation:  Periodic assessment of a project (at mid-term and upon completion) to assess the relevance, efficiency, effectiveness, and sustainability of the project in relation to its objectives.

Food security projects  Interventions to address food supply and food access

Food insecurity  “Access to adequate food is limited by a lack of money and other resources.” (Nord et al., 2007)

Monitoring:  It is a continuous process of information collection and analysis, which takes place as the project is being implemented. Information on actual progress is compared to the planned outcomes and activities, in order to identify necessary project changes.

Participation  is a partnership built upon the basis of dialogue among the various actors during which the agenda is jointly set and local views and indigenous knowledge are deliberately sought and respected.

Sustainability  Ensuring that the activities supported through projects and the benefits realized are maintained and continue after the end of the projects funding (IFAD, 2007)

1.1.2 Organization of the study

This project research proposal is organized into three chapters: Chapter one is the introductory chapter that deals with the introduction, problem statement, purpose of the study, objectives of the study, the research questions, research hypothesis, significance of the study, limitations and delimitations of the study, basic assumptions of the study, definition of significant terms and the organization of the study. Chapter two contains the review of related literature. This is presented in three main themes. It also contains the perceived theoretical and conceptual framework. Chapter three contains the methodology that will be used to answer the research questions and subsequently the research objectives and Null hypothesis to be tested.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter makes a critical assessment of relevant literature related to Community participation in Food Security projects and its influence on their sustainability by different authors who have dealt with the subject. The works cited have covered different aspects of community participation i.e. Project Identification, Monitoring and Evaluation, Financing and Marketing. A framework for analyzing there linkages to sustainability of food security projects is also discussed in this chapter.

2.2 Concept of Njaa Marufuku Kenya Programme

Njaa Marufuku Kenya Programme is a multi-sectoral programme under the Ministry of Agriculture, Livestock and Fisheries with support from Community Based Organizations; Training institutions; and Public-Private Partnerships. The intervention was started in 2005 by Agriculture Sector Ministries with support from FAO and the MDG centre, to provide a framework for a 10-year action plan (2005-2015) for hunger eradication in Kenya. According to the Ministry of Agriculture (2013), the programme has benefited 4,200 community groups since June 2005. The project has worked with 110 private sector organizations. 74 % of the direct beneficiaries have started various group/individual based projects and are able to contribute regularly for their revolving fund to enhance sustainability. It was developed for implementing and fulfilling the MDG-1 whose target is to half the number of poor and hungry people in Kenya by the year 2015. The goal of the programme is to contribute to the reduction of poverty, hunger and food insecurity among poor and vulnerable communities in Kenya. NMK supports community-driven agricultural development Projects that increase productivity, enhance the generation of rural incomes and address health and nutritional improvement. (Nduta, 2012)

The Njaa Marufuku Kenya (NMK) programme supports young people through community-driven food security improvement projects and private sector food security innovations. These Interventions are geared towards increased agricultural productivity, agro-processing and value-
addition, food utilization, health and nutrition improvement as well as rain water harvesting and environmental conservation activities. Target beneficiaries are empowered through capacity building and provision of cash-grants to enable them to fully participate in economic activities and rural income generation activities centered on agricultural production. The project trains community group facilitators who train youth groups on how to write proposals and how to apply for grants from the programme. Beneficiaries receive grants to start projects in the agriculture sector. The seed capital allows community groups to scale up innovative projects and create a revolving fund for sustainability. The supported projects include small-scale irrigation, production of high value and drought tolerant crops, animal production, agricultural produce value addition and marketing, and bee keeping. The Ministry of Agriculture is the focal point in NMK implementation, The Poverty Eradication Commission (2009).

In Kisumu County, sub counties such as Muhoroni, Nyando, Nyakach, Seme and Kisumu West have food security projects that have already been implemented and are ongoing. The reason for their selection is largely due to their poverty levels as a result of unfavourable climatic conditions. Documented records from Ministry of Agriculture at the County headquarters-Kisumu; indicate that the government through the disbursed a total of about kshs 9,600,000 to support the community food security projects within the above mentioned Districts. The government through the Ministry of Agriculture aims to achieve sustainable food security within the districts which would be subject to proper management and implementation mechanisms of the program by the communities involved.

2.3 Community participation in Project Identification and Planning on sustainability

Sustainability has been referred to as a dynamic process, comprising of many interrelated components (Harvey et al, 2002; Carter et al, 1999). Levels of sustainability are achieved as projects changes over time with the most typical pattern being an increase in benefits starting from the Project need identification and implementation. It then levels off in the rate of increase in benefits as communities take over responsibility. Finally, and unfortunately, there is often a dropping off of benefits over the long-term as communities struggle to maintain their level of service.
The top-down approach to development believed that people were too ignorant and perhaps primitive to effectively discern and decide what was good and appropriate for them and as such were not expected to set up their own development priorities, rank them and identify the most felt need (Mulwa, 2008, p.15). Projects Needs identification is an important stage in development at the grassroots level, community development starts with need identification or the realization that there is a need. This identification and the sharing of the vision elicit a commitment from the people to continue with the process of community development to become a reality. If people are involved in this process, they are likely to own the process as their own and therefore manage it effectively (Ford, 2003).

At this level, stakeholders identify and prioritize the core of the problems and their causes and effects (Regional Partnership for Resource Development, 2009) this process is followed by group discussions and analysis. Such a discussion is aimed at understanding the problem, how it affects them and its extent. This shared understanding provides a solid foundation for identifying the problem and trying to find ways of solving it. It also helps to clarify the scope of the problem at hand and the resource available. The community is also able to set the objectives, goals and how the intended development will proceed (Mulwa, 2008). Therefore for any development to succeed there must be participation by stakeholders and beneficiaries.

Through understanding their needs, being able to prioritise and rank them according to the severity of the needs, they understand how the problem affects them including their causes and effects. They are also involved in assessing the options available to them given their resource base. Participatory needs identification by community members is important because once they collectively conceive a problem and prioritize it; they then move it to the stage of appreciating and discussing it exhaustively before a consensus is built. The objective analysis is done and a possible solution worked out based on the cause effect relationship (Ford, 2003). This leads to the planning stage which is an important stage because finer details are discussed. The problem is discussed further by focusing on the budget, resource mobilization, expected completion date, designing and costing of activities, implementation plan and schedule and wrap-up evaluation plan (Ford, 2003).
According to Bown (2008) Communities Participation in Projects identification and planning promotes new values, attitudes, knowledge and skills among community members and builds their capacity as agents of change. Therefore, genuine participation is a necessity in order to enable all constituent groups of local community involved at all stages of project from design to evaluation. ‘Community first, project second’ intervention approach is adopted by the projects to make community participation more systematic and institutional. It is a guiding principle where clear responsibility and task division is made between the community and project for labour intensive project activities. Moreover, the community takes the first step in discharging its responsibility and this is granted as a precondition for the project to launch its part (IIRR, 2012).

Action-Planning during project identification and design involves stakeholders in a participatory process of planning and decision-making that strengthens the project concept while also contributing to improving capacity. This process, through planning workshops, mobilizes local commitment and provides the basis for building a team that can provide the continuity inherently lacking in a donor's staffing rotation. Local ownership of the development activity is ensured, and the goal of developing effective implementing organizations is explicitly recognized (Ingle, 2005).

The World Bank and other funding agencies have endorsed the Logical Framework Approach (LFA) as an effective planning tool for designing, implementing, and evaluating effective projects. It is equally useful for incorporating sustainability issues into the project concept. However, to ensure sustainability of benefits after project inputs cease, the benchmark elements leading to this desired outcome, or BOSS (Beginning of Sustainability Status) conditions, must be built into the project from the earliest stage—at identification. In this way, accountability for working towards sustainability throughout the process can be documented, and appraisal of the extent to which the design and implementation process is promoting sustainability can be done. Numerous documents describe the Logical Framework Approach as a structure. Benchmarks and verifiable indicators are the link between the stated project purpose, the outputs and inputs for the project, and the 'real world', concrete, quantified indicators. At each level—from the more general purpose to the most specific project activities—incorporate at least one benchmark and
its verifiable indicators which is related to achieving benefit sustainability by the end of the project (Adoum, Carol & Ingle, 1991)

In addition to the initial design, the way a project is implemented can have considerable influence on its long-term sustainability. For instance, by fostering participatory approaches, remaining flexible in the face of inevitable setbacks, and strengthening the capacity of stakeholders to plan and manage future actions can help ensure that interventions have a lasting impact on the vulnerable communities they serve. The IFAD Strategic Framework 2007-2010 (IFAD, 2007j) outlines the institution’s approach to implementation, with an eye specifically towards ensuring project sustainability. The document describes IFAD’s plans to improve project implementation processes in order to ensure that the expected net benefits will not only be maintained or exceeded over the life of the project, but will be sustained after project completion.

IFAD identified several factors directly related to implementation and are significant in determining sustainability, each of which is and falls within project control; Project objectives must be clear, account for important assumptions, and should not be over ambitious. Projects need to build systematic institutional, economic, social and risk analysis and risk mitigation into design and implementation. Project management must be able to provide or arrange for the provision of consistent implementation support to institutional partners. A clear exit strategy must be planned and agreed on by key partners during the design phase and used as a reference point (benchmark) throughout project implementation (IFAD, 2007j)

2.4 Community Participation in Monitoring and Evaluation

Guijt & Gaventa (1998) Describes Participatory Monitoring and Evaluation as a process where primary stakeholders (those affected by the intervention) are active participants; take the lead in tracking and making sense of progress towards achievement of self-selected or jointly agreed results at the local level, and drawing actionable conclusions. It goes beyond involving primary stakeholders in a process of ‘conventional’ M&E, such as consulting them on indicators and asking them to provide information or feed-back on the results. Here the emphasis of PM&E is
on deepening participation, a process that is intrinsically linked to learning and empowerment. The effectiveness (and sustainability) of such a process requires that it be embedded in a strong commitment towards corrective action by communities, project management and other stakeholders in a position to act.

According to Guijt & Gaventa (1998) Development of the PM&E approach include:-Building commitment and engagement at the community level and deciding on who participates and how this will evolve. PM&E process involves jointly establishing goals and expectations, tracking progress and information collection, joint analysis, sharing results and identifying action points and communication and feed-back systems to community, program, and other stakeholders. Monitoring and evaluation in food security projects main purpose is to allow project teams to run projects effectively and ensure that they have the desired results for beneficiaries (ACF, 2011).

The success of donor funded projects on food security intervention continues to face serious challenges, which have made them unable to solve the perennial food shortages faced by communities in the arid and semi-arid areas (Kimweli, 2013). Community participatory M & E encourages the ownership of and accountability for the M&E process and outputs by the communities themselves (CARE_PMERL, 2012). The sustainability of food security projects is a function of the community involvement in M & E activities throughout the projects life cycle i.e. key stakeholders in an intervention are allowed to participate in the project activities from formulation to termination and provide feedback that contribute to a successful project (ACF, 2011).

Findings of the case studies of IFAD field operations in the Philippines and India confirm several underlying concerns regarding project M&E, most of which centre on inappropriate evaluation methodologies and inconsistent use of criteria for sustainability. It was reported that project M&E systems are not being effectively used as project management tools. While staff regularly track outputs (training, infrastructure projects, agricultural demonstrations, etc.), they are not actively engaged in tracking outcomes or impact of project activities. Thus opportunities for knowledge management and learning are often lost (TANGO International, 2008).
A study by (Kimweli, 2013) to find out the role of monitoring and evaluation practices on the success of donor funded food security projects in Kibwezi district established that the community was not involved in monitoring and evaluation of the food security projects. This was contrary to the clearly set out guidelines and emphasis by donors on participatory monitoring and evaluation of the projects. These projects had been funded subject to demonstration of a clearly outlined M & E framework in the proposal. Drafting was also done without the community participation leading to an up- down approach to the development of the projects and the M & E frameworks which made the projects deficient of addressing the community priority needs. Keeping the community out of the M & E system raised serious questions of integrity, transparency and accountability in the projects on the side of the implementing agencies. Questions have been raised on who really benefited from these food security projects which to date have not addressed food security in the area.

2.5 Community Participation in Financing on Sustainability

Government directly funds developmental projects in various communities. In this case it identifies the need of the local community, initiates and implements the programme without any financial, materials or labour support from the communities. The major problem with such a project is that the people may not even be consulted. They may not even participate in planning, implementing, monitoring and evaluating the success or failure of these projects (Hassan & Oyebamiji, 2012). This approach ends up derailing the psychological and moralistic feelings of the community, hence sustaining and managing the projects becomes a major problem, (Abiona, 2009).

The Integrated approach to community development emphasizes on a joint effort of government, non-governmental organization and the community to implement a project. All resources of the community, whether physical or monetary, are united with those of government or non-governmental organization in this approach. The approach involves coordination of all human and material resources available and the stake of the local people in the project is high (Anyanwu, 1992). The approach also emphasizes on the concept of self-help which is also
paramount in sustainable community development because it secures people’s interest in the project of development and implementation.

Community Members’ Levy is also a major source of fund in many communities, the decision for levy or voluntary contribution is often determined after community members have identified their felt-need or a problem which needs immediate solution and attention. Members often donate or decide a levy depending on cost implications of the project. This type of funding assures citizen participation, democratic values and cooperation among the community. It brings about the concept of self-help which is paramount in sustainable community development in that it secures people’s interest in project since they have committed their financial resources (Anyanwu, 1992; Abiona, 2009).

When a programme is initiated, planned and funded by the people through self-help efforts, the people are more committed to the success and sustainability of the programme. There is a strong link between self-help and sustainability of project. People participate for the sole reason that they have seen success achieved and have become enthusiastic enough to work towards achieving it (Hassan & Oyebamiji, 2012). According to Christine (1998) Community Participation in financing creates an enabling environment for sustainability by allowing users not only to select the level of services for which they are willing to pay, but also to make choices and commit resources in support of choices made by the community.

In the past success of Community Participation was measured as amount of labour, upfront contribution by communities during project construction, but currently it means that community are actively involved in project development activities through making appropriate labour, time and financial contribution to both initial and long term operating and management of projects (Kumar, 2002). Community contribution can also be in terms of Monetary investment, material equipment, skills and general participation in project related committees and meeting moral support and rules and regulations that govern and assist in the process of repairing and maintaining social infrastructure. In the pursuit of sustainability, the capacity of local institutions to meet recurrent costs is determinant for their survival (Salles, 2002:17-32).
Adequate degree of social cohesion within a community is also considered by many to be a fundamental factor in sustainability; World Bank (2003) illustrates this issue in the context of RWSS projects in Morocco. The collective willingness to maintain the water supply system, is a reflection of social cohesion, and is dependent on the concept of community identity. Cater et al, (1999) further argues that apart from social cohesion and the motivation to support a collective asset, another closely related factor is the impact of charismatic individuals. Such people are of course part of the social capital of a community, although village leaders may not necessarily represent the best interests of all households. Nonetheless, it is not uncommon to find neighbouring rural communities with very similar resources, both having gone through identical project processes, which end up with very differing results. In many cases, the apparent success in one village is explained by the presence of a strong and committed individual, who may or may not be a member of the village ruling elite.

2.6 Community Participation in Marketing on sustainability

A study in Bar-Sauri-Gem by Okoth, Odunga & Oduke (2013) on the role of community capacity building in ensuring sustainability of Bar-Sauri Millennium Villages Project found out that marketing of the farm produce was a major challenge in the area; the respondents identified training in marketing strategies as a way of capacity building and recommended it for similar projects. From the study, it was found out that, most of the agricultural products lacked ready market and since they are perishable, they go to waste. It is therefore important to get ready market for these produce during their economic life. The respondents reported that, training them in marketing would help them search for the best prices of their products in time so as to avoid wastage.

Petrus (2010) argues that meeting the goal of reducing poverty and hunger requires learning how to create inclusive value chains that are market-led by involving resource-poor farmers in the uptake of new technologies and market opportunities. Participation in agricultural value chain ensures a balance between market access and market readiness and could also help them to assess between the performance of a modern and a traditional technology, and to develop more confidence to take risks related to farming. It is also an important factor for success in farming.
Recent work on agricultural value chains and the role of the private sector in Thailand highlights that food is increasingly channelled via formal sector outlets and there is a natural tendency towards concentration at all levels in the value chain. According to Raj (2008) Adoption of new technologies by small farms, participation in local and regional markets and participation in value chains is stunted by low knowledge, risk and uncertainty. It is also clear that their participation in high-value chains is affected by lack of post-harvest technology, access to storage and know-how related to quality standards and certification.

Since adopting socialism, as opposed to capitalism, Malawi’s economy has been agro-based and hence economic growth is achieved through production and export performance. A review of three case studies conducted in the Northern Region of Malawi by Chirwa (1998) prior to liberalisation shows an integration model where promotion of rice production was connected to readily available markets in the west through a government-run grain seller. The government established 16 Rice Schemes in all eight Agriculture Development Divisions (ADD). Chirwa (1998) further explains that, it was through this economic nationalisation model that the government managed production, marketing and pricing through government institutions.

The ADDs also provided specific research and extension services to support and increase rice production. Structured demand connects large, predictable demand for Agricultural products to small farmers, which reduces risk and encourages improved quality, leading to improved systems, increased income and reduced poverty. A good example of structured demand for smallholder farmers include supply of food to the school feeding programmes where governments have incorporated feeding programs in the school system as a way of addressing low school enrollment it also acts as a motivation for children to stay in school (Laverack, 2007). Linking farmers to markets through these programmes constitutes value ladders.

The government of the Republic of South Africa established MAFISA program which is designed to assist resource poor farmers with finance in the form of loan with 8% compound interest rate and is repayable in accordance with a production cycle of the project. This is in contradiction with the study by (Larson, 1994) who found out that farmers lack collateral in terms of land and other assets normally access credit through informal lender who normally
charges higher interest rates. Larson (1994) argues that borrowers choose informal financial services because of easy access, variable loan size, flexible repayment schedule, personal guarantees, convenience and very short period needed to obtain loan approval. Micro Agricultural Financial Institute of South Africa, (MAFISA), plays a similar role to Agricultural Credit Board (ACB) which aims to improve access to credit for smallholder farmers

Education improves managerial ability in terms of better formulation and execution of farm plans; and acquiring better information to improve marketing ability. When a community lacks adequate knowledge of the dynamics of the financial market, financial institutions flood the rural areas with cheap loans, using rates well below the market value, and this, though celebrated by the populace, has deleterious effects on the social empowerment, economic empowerment and market empowerment of the grassroots poor (Raj, 2008). Studies done in Malawi through its micro loan supported programmes both in the Central and Southern Regions indicate improving trends in measurements of participants’ confidence, self-esteem, skills and managerial abilities in business in the targeted areas of the study (Kalanda, 2002:33).

Marketing information improves the bargaining power of producers especially when dealing with traders. However, acquiring market information in South Africa, at the right time and place is often a characteristic of commercial farmers due to their ability to access websites, publications and commodity associations. The provision of information to small-scale farmers is one way of maintaining transparency and inclusiveness. According to Morss & Gow (1985) this will make markets to be more accessible. Bailey (1999) agrees that there is evidence that market information also reduces risk of losses and ensures sustainability.

Local farmers can also be supported to continue to grow local food given the impact of urban sprawl and the substantial challenges brought about by climate change. Community Supported Agriculture (CSA) is a model popular in the USA with emerging interest in Australia. CSA schemes link farmers to their community through the direct sale of farm produce. The sale of produce supports farming and acts as an incentive for consumers to purchase regular supplies of seasonal, competitively priced fruit and vegetables. Low income groups can be assisted through schemes that offer subsidized produce (Rychetnick & Webb et.al, 2003). Encouraging people to
shop at farmers markets, roadside stalls, or joining vegetable box subscription schemes also provide farmers with alternative avenues for selling their produce locally.

Storage has some added advantages amongst farmers; this is because it increases market flexibility. Lack of storage facilities leads most smallholder producers to sell produce almost immediately after harvest in order to ease congestion, leading them to sell their produce at lower prices. Proper post-harvest handling and storage contribute in ensuring quality maintenance for perishable agricultural produce. Moreover, agricultural commodities have to be harvested at a specific point in time, but are consumed year-round, thus necessitating proper storage facilities (Sasseville, 1998). Therefore, if crops are to be available for consumption throughout the year, proper storage facilities have to be implemented by both farmers and traders. Households with proper storage facilities do not need to market their produce immediately because after harvest prices tend to be low they can store their produce and sell when prices are higher. Most smallholder farmers do not have access to adequate storage infrastructure and end up selling their produce soon after harvest, also because they need the money involved.

2.7 Theoretical Framework

There are differing opinions as to the origins of participation theory. The roots of citizen participation can be traced to ancient Greece and Colonial New England. Before the 1960s, governmental processes and procedures were designed to facilitate "external" participation. Citizen participation was institutionalized in the mid-1960s with President Lyndon Johnson's Great Society programs (Murdock, 2005). Participation represents a move from the global, a spatial, top-down strategies that initially dominated most development initiatives to more locally sensitive methodologies (Storey, 1999).

According to Midgley et al (1986) a wide suite of definitions of participation have been identified, one commonality to all definitions is the role of community in decision-making. As such participation is often referred to as community participation. ‘Chamala (1995:6) stated that ‘community participation has been the hallmark of many successful development projects around the world’. Michener (1998) however argues that the term is widely applied in academic and project documents without regard for implementation realities. Price & Mylius (1991) also
identified local ownership of a project or program as a key to generating motivation for sustainable agricultural activities.

Gow & Vansant (1983) identified four strengths of community participation in development i.e. People identify problems they consider most important, Local people make better economic decisions and judgments in the context of their own environment and circumstances, Volunteer labor, time, money and materials to a project, a condition for breaking patterns of dependency and passivity and Locals control over the amount, quality and benefits of development activities helps make the process self-sustaining (Botchway, 2001).

White (1981) also identified a number of beneficial reasons for community participation: with participation, more will be accomplished, and services can be provided more cheaply. Participation: has an intrinsic value for participants; is a catalyst for further development; encourages a sense of responsibility; guarantees that a felt need is involved; ensures things are done the right way; uses valuable indigenous knowledge; frees people from dependence on others’ skills; and makes people more conscious of the causes of their poverty and what they can do about it. Bamberger (1988) identified the following weaknesses of community participation: Negotiations with beneficiaries may delay Project start-up, Participatory approaches increase the number of managerial and administrative staff required and organized communities may exert pressure to raise the level or widen the range of services beyond those originally planned, leading to an increase in project costs

This study adopted this theory because it helped explain concept of community participation and how it influences sustainability of Projects. The philosophical assumption for this study is that, is not only enough to identify communities vision of development, but it is important to get their views of their plans to achieve their dreams or vision. This is because people will change only if they participate in the decision about the change. The general principles of participatory approach include among others the following: Encouraging communities to take responsibilities, Promote participation for all, Reconcile different interests, Listen to the community, examine the situation/problem from different points of view and then adapt to local situations.
All the cited authors can help us draw some conclusions agreed from the participation theory that the process creates prosperity and sustainability by empowering communities. It empowers the communities by giving them resources to shape their future and authority to use their resources. Participation is a new vision that seeks to put the rural communities in the driver seat and give them a new set of powers, rights and obligations which enables them to ensure sustainability of their projects.

2.8 Conceptual Framework:
A conceptual framework is a hypothesized model identifying the concepts under study and their relationships (Mugenda & Mugenda, 2003). The conceptual framework provides a structural description of the relationship between the variables forming the concepts of the study on the sustainability of food security projects. The independent variables are grouped together on the left side but not in any order of importance. The dependent variable is placed on the right hand connected with an arrow as a sign of direct relationship. The Moderating variable in this study is Education (knowledge) because it has a strong contingent effect on the nature of the relationship between the dependent and the independent variable. It modifies the nature of the relationship positively or negatively, for example if the Community Members have knowledge on marketing strategies then they are likely to know where to sell and at what time and this would contribute to sustainability of the NMK projects. This study was guided by the following conceptual framework.
Figure: 1 conceptual framework

Moderating Variable

Education (knowledge)

Independent variables

Participation in Project identification and Planning
- Need analysis
- Project identification
- Project Planning

Participation in M&E
- Information gathering
- Information sharing & utilisation
- Tracking resources
- Evaluating progress

Participation in Financing
- Forms of financing
  - Money
  - Skills
  - Labour
  - Time
  - Materials

Participation in Marketing
- Structured markets
- Value chains
- Marketing strategies
- Storage

Dependent variable

SUSTAINABILITY OF NMK FOOD SECURITY PROJECTS
- Food accessibility
- Food availability
- Food utilisation
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
Research is the systematic and rigorous process of enquiry which aims to describe phenomena and to develop and test explanatory concepts and theories (Bowling, 2002). This study followed the three general research process i.e. exploration of the situation, collection of data and analysis & interpretation of results. This chapter describes the Research methodology that was used in the study. It describes the Research design, Target Population, Sample size and selection to be used, their reliability and validity. It also explains the procedures for data collections, techniques for data analysis.

3.2 Research design
The study used descriptive research design because this method is normally undertaken in order to ascertain and be able to describe the characteristic of the variables of interest in a situation, according to Sekaran (2010). The design was chosen for this study because the researcher was trying to describe the characteristic of the variables of interest in the situation e.g. the age groupings, forms of financing etc. The researcher was also trying to learn about and describe characteristics of a group of farmers e.g. the age and education level.

3.3 Target Population
According to Mugenda and Mugenda (2003) Target population is that population that the researcher wants to generalize the results and wishes to draw conclusion. The population of the study included all the 215 community members participating in the various projects under the programme as per data records of Njaa Marufuku Kenya as at January 2014 obtained from the Provincial Agricultural Office, Kisumu County (Appendix 2). The respondents were the Agricultural Staff in charge of the programme and Community members participating in various
projects under the programme. The choice of this group was on the basis that they were involved in the planning and implementation of the Projects.

3.4.1 Sample size and Sample Selection
Kothari (2004) argues that a sample size is a sub-set of the total population that is used to give the general views of the target population. This study had a sample size of 140 respondents as this is in conformity with the Krejcie and Morgan (1970) sample size table (Appendix 3).

3.4.2 Sampling techniques
According to Frankel and Wallen (2008), sampling is the act of selecting a suitable sample for the purpose of determining characteristic of the whole population. The study applied probabilistic techniques of specific stratified random sampling to obtain the study sample from the study population. Stratified random sampling is a sampling process in which each element of the population has an equal chance of inclusion in the sample (Ogula, 1998). Kothari (2004) recommends stratified sampling because it’s accurate, easily accessible and divisible into relevant strata and enhances better comparison. The advantage of this type of sampling is the ability to ensure inclusion of sub-groups that would be emitted entirely by other sampling methods because of their small number in population.

The community members were uniformly spread across the Sub county of Kisumu West. A sample of respondents were selected from the target population of 215 with a sample size of 140 as per Krejcie and Morgan (1970) Sample Size Table through stratified proportional random sampling in order to ensure that they were evenly spread within the 10 community funded groups. The stratum was 35 male and 105 female, giving a ratio of 1:3. From this ratio, 35 male members and 105 female members were randomly selected for the interview. Two Community group facilitators and the NMK desk officer were also included in the study sample to give a total of 143. From the individual group members the sample was be selected randomly by running the names of the members through a random sampling programme in SPSS.
Table 1.1
Sample size distribution table

<table>
<thead>
<tr>
<th>Name of Group</th>
<th>Members in Groups</th>
<th>Sample per Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunga Mariwa W/G</td>
<td>7</td>
<td>7/215*140 = 04</td>
</tr>
<tr>
<td>Usoma widows &amp; Orphans SHG</td>
<td>15</td>
<td>15/215*140 = 09</td>
</tr>
<tr>
<td>Kinda E teko W/G</td>
<td>20</td>
<td>20/215*140 = 13</td>
</tr>
<tr>
<td>St.Paul’s support group</td>
<td>41</td>
<td>41/215*140 = 27</td>
</tr>
<tr>
<td>Kogony Kirembe W/G</td>
<td>20</td>
<td>20/215*140 = 13</td>
</tr>
<tr>
<td>Tushikane WG</td>
<td>22</td>
<td>22/215*140 = 14</td>
</tr>
<tr>
<td>Tea tree Greenland WG</td>
<td>30</td>
<td>30/215*140 = 20</td>
</tr>
<tr>
<td>Kungu W/G</td>
<td>20</td>
<td>20/215*140 = 13</td>
</tr>
<tr>
<td>St.Anne’s Mwangaza CBO</td>
<td>30</td>
<td>30/215*140 = 20</td>
</tr>
<tr>
<td>Hope alive Kenya Initiative</td>
<td>10</td>
<td>10/215*140 = 07</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>215</strong></td>
<td><strong>140</strong></td>
</tr>
</tbody>
</table>

Source; General overview of NMK programme Kisumu West Sub County Report January 2014

3.5 Research instruments

According to Creswell (2003) research instruments are the tools used in the collection of data on the phenomenon of the study. The study relied on both primary and secondary data of qualitative and quantitative nature. Primary data was collected using semi structured interviews with focused discussion groups and ministry of agriculture officers who were involved in the implementation of the food security projects. Self-administered questionnaires with both open and closed ended questionnaires were used. The closed ended questionnaires made of Likert scale was administered to Community members participating in the Projects. Given that the time
of study was short, use of questionnaires came in handy, because it is both cost effective and was used to cover a vast area within a short time. The questionnaire was divided into two sections: One for Community members and the other for the Agricultural staff (NMK facilitators), the section for Community members was further divided into four sub sections, labelled A, B, C D and E.

Section A was used to collect information on the demographic background of the Community members. Section B had 9 items which were used to find out the level of participation of the community members in Project identification and planning. Section C, was composed of 8 items, all inform of Likert scale, these were used to find out the extent of the community involvement project monitoring and evaluation, Section D was composed of 8 items and were used to find out Community Participation in Financing and Section E was composed of 8 items and were used to find out Community Participation in marketing. The section for NMK Facilitators had eleven items; two were open ended questions and the rest closed ended Likert scale. These items were used to find out the extent facilitators had ensured that the community members participate and their opinion on if the communities participation influences sustainability of the projects.

3.5.1 Piloting of Instruments

Piloting is conducting mini versions of the full-scale study as a way of pre-testing the questionnaires to ensure that research instruments are working properly. According to Mugenda and Mugenda (2003), a sample equivalent to 10% of the study sample is enough for piloting the study Instruments. Piloting was conducted by administering the questionnaires to 14 community members drawn from Kisumu West sub county who are not participating in the study and was repeated after two weeks, the questionnaires were then assigned arbitrary scores which were then keyed into SPSS software and analysed using Pearson’s Product-Moment correlation, r and a value of 0.7 obtained then interpreted to show a relationship between the variables. The results were discussed jointly with Supervisors. Questions not clear were noted and reworded where necessary to generate required responses.
3.5.2 Validity of study
According to (Mugenda and Mugenda, 2003), validity is the degree to which an instrument measures what it purports to measure. Face validity is whether a questionnaire appears to measure what it is supposed to measure (Trochim, 2006). This study subjected its instruments of data collection to face validity because it ensures the appropriateness, meaningfulness, and usefulness of the inferences made from the results (Cherry, 2010). The face validity of the data collection instruments were ascertained by experts in project planning and management.

3.5.3 Reliability of Study
Reliability is the consistency and stability of data collection instruments against chance factors or environmental conditions in measurement of the variables (Cherry, 2010; Trochim, 2006). The instruments for data collection were tested for internal reliability and correlated through Cronbach’s alpha coefficient. A figure of 0.87 was obtained indicating instruments stability of measure across time, Reliability helps to eliminate ambiguities and biases in the data collection instruments.

3.6 Data collection procedures
This procedure started after being given an approval letter by the University to go to the field. A permit to conduct the study was also acquired from the Ministry of Higher Education, Science and Technology. The researcher collected the data personally accompanied by the NMK facilitator in charge of each group. The researcher introduced herself and explained to them the ethical principles observed in line with their Constitutional rights. The Researcher then went ahead to administer the Questionnaires to the Respondents who responded to the items there in and handed over the Questionnaires back to the Researcher. This procedure enabled Researcher to collect back all the Questionnaires. Data collected was analysed, concluded and recommendations made. There after a Report written and submitted to the supervisors.

3.7 Data Analysis techniques
After data collection, questions were coded then data entered in the Computer for analysis. Qualitative data processing involved familiarization, transcription, coding and identification of emerging issues, synthesis and interpretation. Process also involved data editing to ensure that erroneous entries are inspected and corrected. Quantitative data was analyzed using descriptive
statistics such as frequencies and percentages and inferential statistics with Correlation coefficient \((r)\). The correlation analysis was computed at 5% level of significance.

3.8 Ethical Considerations

The researcher sought permission from relevant authorities before commencing on the study. The respondents were assured that the study was meant for academic purpose only. Respondents were treated with utmost confidentiality; they were also interviewed on their willingness and allowed to withdraw from participating if they wished.
Table 2.1: Operational Definition of Variables

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Variables</th>
<th>Indicators</th>
<th>Measuring levels</th>
<th>Tools of data collections</th>
<th>Tools of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To investigate the extent to which Community participation in Project Identification and Planning influences sustainability of NMK food security projects in Kisumu West</td>
<td>Project Identification and Planning</td>
<td>-Need analysis</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Project identification</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Project planning</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies Correlation coefficient (r)</td>
</tr>
<tr>
<td>To investigate the extent to which Community participation in M&amp;E influences sustainability of NMK food security projects in Kisumu West</td>
<td>Monitoring and Evaluation</td>
<td>-Information sharing</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Information Utilisation</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Tracking resources</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Evaluating progress</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies Correlation coefficient (r)</td>
</tr>
<tr>
<td>To investigate the level which Community participation in Financing influences sustainability of NMK food security projects in Kisumu West</td>
<td>Forms of Financing</td>
<td>-Skills</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Labour</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Time</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Materials</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies Correlation coefficient (r)</td>
</tr>
<tr>
<td>To investigate the level to which Community participation in Marketing influences sustainability of NMK food security projects in Kisumu West</td>
<td>Marketing</td>
<td>-Structured Markets</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Value chain</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies Correlation coefficient (r)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Storage</td>
<td>Interval</td>
<td>Questionnaire</td>
<td>Percentages Frequencies</td>
</tr>
</tbody>
</table>

30
CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1: Introduction

This chapter presents results and discussions from the analysis of the responses based on the study objectives. The study had four objectives namely to: investigate the extent to which Community participation in Project Identification and Planning influence sustainability of NMK food security projects in Kisumu West; establish the extent to which Community participation in Monitoring and Evaluation influences sustainability of NMK food security projects in Kisumu West; assess the level to which Community Participation in marketing of NMK products influences sustainability of NMK food security projects in Kisumu West and establish the level to which Community participation in Financing of NMK projects influences sustainability of NMK food security project in Kisumu West.

The study tested four Null hypotheses for the purpose of testing the influence of community participation in sustainability of selected Njaa Marufuku Kenya food security projects Kisumu West. The hypothesis were: there is no significant relationship between Community Participation in Project Identification and Planning and sustainability of NMK food security projects in Kisumu West; there is no significant relationship between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West; there is no significant relationship between Community Participation in marketing of NMK products and sustainability of NMK food security projects in Kisumu West; there is no significant relationship between Community Participation in Financing of NMK projects and sustainability of NMK food security project in Kisumu West.

4.2 Questionnaire Response Rate

The study targeted 140 group members from Kisumu west. The study managed to get the views of all the 140 group members which translates to a questionnaire response rate of 100%. This is above the 75% response rate proposed as the minimum response rate according to Frankel and Ward (2003). To achieve this response rate, the researcher administered the questionnaire to the
respondent, allowed them some time to fill in their responses and then collected the filled-in questionnaires immediately.

4.3 Demographic characteristics of Respondents

This section presents the demographic characteristics of the group members who were involved in the study. The study chose to explore three demographic characteristics that could help explain group dynamics, ability to give reliable information in the study and ability to participate in group activities. These demographic characteristics included Age of Respondents, Distribution of Respondents by Gender and Level of Education of Respondents. The results were analysed, discussed and conclusions made on how they influence sustainability of NMK food security Projects.

4.3.1 Distribution of Respondents by Gender on Sustainability of NMK food security Projects.

The study started by exploring the Distribution of Respondents by Gender and establishing its influence on sustainability of NMK food security Projects. The researcher asked the respondents to indicate their Gender and presented the findings in table 4.1.

Table 4.1:
Distribution of Respondents by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>79</td>
<td>56.43</td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>43.57</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>100</td>
</tr>
</tbody>
</table>

As presented in table 4.1, from the sample of 140 a total of 79(56.43%) were male and 61(43.57%) were female. Despite the study implicating that more male participated in the NMK Project activities than female, the number of female indicates their readiness to participate and that there is more awareness than before on the part of female gender to be involved in community development (Osaghae, 2012).
These findings also show that the study involved the views of both male and female group members meaning that the findings of the study were representatives and unbiased based on gender which agrees with observations made by Cornwell (2000) who noted that there is need to emphasize on equal participation between men and women in decision making processes, implementation, operation and maintenance and monitoring and evaluation of food security projects.

It is widely recognized that women play a critical role in agriculture, yet they continue to face social and economic constraints that hinder their full engagement, advancement and equality in the sector. Research has revealed that when women are provided with equal resources, they can produce yields equal to those of men, if not greater. The 2011 State of Food and Agriculture report stated that closing the gender gap and providing women with the same resources as men could increase individual yields by 20-30 per cent and ensure sustainability of food security (Akinwumi, Adesina, & Djato, 1997).

4.3.2 Age of respondents and sustainability of Projects

The study examined the age distribution of the group members and how it influences sustainability of food security projects and presented the findings in Table 4.2.

Table 4.2:
Age distribution of the group members

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30</td>
<td>26</td>
<td>18.57</td>
</tr>
<tr>
<td>31-40</td>
<td>54</td>
<td>38.57</td>
</tr>
<tr>
<td>41-50</td>
<td>41</td>
<td>29.29</td>
</tr>
<tr>
<td>51-60</td>
<td>19</td>
<td>13.57</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>100</td>
</tr>
</tbody>
</table>

From Table 4.2, a total of 26, (18.57%) respondents were aged between 18 and 30 years. A total of 54 (38.57%) were between 31 and 40 years old. Another 41 (29.29%) were aged between 41 and 50 years of age and lastly 19 (13.57%) were between 51 years and 60 years old. These findings clearly show that majority of the group members, in fact over 50% of the group members, were below 40 years of age and were thus able to engage actively in the physically
involving agricultural activities. This is a pointer that they were the most involved group members in the group activities. According to a study by Jammiel (2005) in Zimbabwe; age distribution has a key role in determining labour distribution. The study findings also concur with the conclusion made by Kabue (2011) that young people may be receptive to new ideas and innovations in agriculture and they are more likely to try out new initiatives.

Checkoway and Richards-Schuster (2003) and Walker (2010) also argued that the youth participate in food security projects, but their participation is uneven. The authors further elaborated that some young participate with fervour, and others express interest but are unsure how to proceed, and still others try to proceed but lack support from adults or face obstacles in the community. This makes youth participation undefined, underdeveloped and hence requires further exploration in order to educate and encourage youth to participate in community development projects.

4.3.3 Level of Education and sustainability of Projects

The study also explored the level of education of the group members and how it influences sustainability of NMK food security project. The study asked the respondents to indicate their age brackets, results were analysed and the findings presented in table 4.3.

**Table 4.3:**

*Distribution of the Respondents by Level of education*

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never attended school</td>
<td>6</td>
<td>4.29</td>
</tr>
<tr>
<td>Primary School</td>
<td>53</td>
<td>37.86</td>
</tr>
<tr>
<td>Form four level</td>
<td>81</td>
<td>57.86</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>140</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From table 4.3, 6(4.29%) group members had never attended school, 53(37.86%) attained primary education and 81(57.86%) group members had form four level of education. From these findings, 134(95.72%) group members had some formal education and were therefore able to read and understand the tools of data collection and give reliable findings. The other respondents who had challenges were assisted by the researcher.
According to Saara (2005) Education qualification is a key to project implementations and sustainability. A study by Michelle (2006) carried out in Senegal also reported that non-formal education had a key role in promoting community participation in implementation and sustainability of community projects. Educational attainment by the household leads to awareness of the possible advantages of modernizing agriculture by means of technological input, read and understand documentation, read instructions on the fertilizer packs, and diversification of household income which in turn would enhance projects sustainability (Nduta, 2012)

4.4 Community participation in Project Identification and Planning on sustainability

One of the study objectives was to explore the extent to which Community participation in Project Identification and Planning influence sustainability of NMK food security projects in Kisumu West. The study obtained the respondents opinion on Participation in Project Identification and Planning, on consultation by Ministry of Agriculture before Projects initiation, and Community participation in deciding the project activity to carry out. The researcher also sought the opinion of NMK facilitators on the success of the community groups.

4.4.1 Members opinion on Participation in Project Identification and Planning

The study began by exploring opinion of the group members on the extent of participation in project identification and planning and presented the findings in table 4.4. The respondents were to respond in a four point Likert scale. Strongly disagree was scored as 1, disagree was scored as 2, agree was scored as 3 and strongly agree was scored as 4. For each statement the scores of the responses were summed up and divided by the total number of respondents to give the mean. A mean less than 1.5 means that the respondents were strongly disagreeing, a mean response ranging between 1.5 and 2.5 meant that the respondents were disagreeing with the statement; a mean response ranging between 2.5 and 3.5 meant that the respondents were agreeing with the statement and lastly a mean greater than 3.5 meant that the respondents were strongly agreeing.
**Table 4.4:**

*Perception of Respondents on community participation in project identification and planning*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Research Organization should carry out a research in this area to find out community needs before implementation of NMK program</td>
<td>Freq. 11</td>
<td>84</td>
<td>45</td>
<td>3.243</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  7.86</td>
<td>60</td>
<td>32.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Agriculture should consult me before the initiating the NMK program</td>
<td>Freq. 5</td>
<td>81</td>
<td>54</td>
<td>3.35</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  3.57</td>
<td>57.86</td>
<td>38.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is necessary for me to be involved in identifying Community needs</td>
<td>Freq. 2</td>
<td>71</td>
<td>67</td>
<td>3.464</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  1.43</td>
<td>50.71</td>
<td>47.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should participate in deciding the project activity to carrying out</td>
<td>Freq. 3</td>
<td>68</td>
<td>69</td>
<td>3.471</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  2.14</td>
<td>48.57</td>
<td>49.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should participate in Planning of the project</td>
<td>Freq. 2</td>
<td>73</td>
<td>65</td>
<td>3.45</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  1.43</td>
<td>52.14</td>
<td>46.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation should be continuous and not adhoc</td>
<td>Freq. 3</td>
<td>70</td>
<td>67</td>
<td>3.457</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  2.14</td>
<td>50</td>
<td>47.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation should include all the community members</td>
<td>Freq. 2</td>
<td>67</td>
<td>71</td>
<td>3.492</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>%  1.43</td>
<td>47.86</td>
<td>50.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in project identification and planning influences the sustainability of the projects</td>
<td>Freq. 2</td>
<td>65</td>
<td>73</td>
<td>3.5</td>
<td>Strongly agree</td>
</tr>
<tr>
<td></td>
<td>%  1.43</td>
<td>46.43</td>
<td>52.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the researcher asked the respondents whether the research organization should carry out a research in this area to find out community needs before implementation of NMK program a total of 11(7.86%) respondents disagreed, 84(60%) respondents agreed and 45(32.14%)
respondents strongly agreed. The mean response was 3.243, this means that the respondents agreed that the research organization should carry out a research in this area to find out community needs before implementation of NMK program.

4.4.2 Opinion of members on consultation by Ministry of Agriculture before Projects initiation

The respondents were also asked the group members whether the Ministry of Agriculture should consult them before initiating the NMK program. A total of 5 (3.57%) respondents disagreed, 81(57.86%) respondents agreed and 54(38.57%) respondents strongly agreed. The mean response was 3.35; this means that on average the respondents agreed that the ministry of Agriculture should consult them before initiating the NMK program. The respondents were asked if it is necessary for them to be involved in identifying Community needs. A total of 2 (1.43%) respondents strongly disagreed, 71(50.71%) respondents agreed and 67(47.86%) respondents strongly agreed. The mean response is 3.464 meaning that on average the respondents agreed that it is necessary for them to be involved in identifying Community needs.

4.4.3 Community participation in deciding the project activity to carry out

The respondents were asked whether they should participate in deciding the project activity to carry out. A total of 3 (2.14%) group members disagreed, 68(48.57%) group members, 69(49.29%) group members strongly agreed. The average response was found to be 3.471; this meant that on average the respondents agreed that they should participate in deciding the project activity to carry out. The study asked the respondents whether they should participate in Planning of the project, a total of 2(1.43%) respondents disagreed, 73(52.14%) respondents were in agreement and 65(46.43%) respondents strongly agreed. The average response was 3.45; this meant that on average the respondents were in agreement that they should participate in Planning of the project.

The researcher asked the respondents whether participation should be continuous and not adhoc. A total of 3(2.14%) respondents disagreed, 70(50%) respondents agreed and 67(47.86%)
respondents strongly agreed. The mean response was found to be 3.457, these means that on average the respondents were of the view that participation should be continuous and not adhoc. The respondents were asked whether participation should include all the community members. A total of 2(1.43%) respondents disagreed, 67(47.86%) respondents agreed and 71(50.71%) respondents strongly agreed. The mean response was 3.492. This meant that on average the respondents agreed that participation should include all the community members.

According to Tade (2001) no matter the level of technical and financial assistance offered to self-help groups, the members should share actively in the decision to undertake certain projects. Rather than imposing development projects on a community, its members should be allowed to participate meaningfully in the planning and execution. Development should move from bringing government close to the people to bringing people closer to government. In other words, it is high time the culture of bottom-up approach is changed to development planning, otherwise, development may be a mirage.

The respondents were asked whether participation in project identification and planning influences the sustainability of the projects. A total of 2(1.43%) respondents disagreed, 65(46.43%) respondents agreed and 73(52.14%) respondents strongly agreed. The mean response was found to be 3.5, meaning that on average the respondents strongly agreed that project identification and planning influences the sustainability of the projects. The study capped the analysis of the objective by exploring the influence of community participation in project Identification and planning on sustainability of NMK food security projects using a cross tabulation analysis as presented in table 4.5.
Table 4.5:
Participation in project identification and planning on sustainability of food security Projects

<table>
<thead>
<tr>
<th>Extent of participation</th>
<th>Rate of Sustainability</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Very high</td>
<td>3</td>
<td>2.14</td>
</tr>
<tr>
<td>High</td>
<td>11</td>
<td>7.86</td>
</tr>
<tr>
<td>Average</td>
<td>15</td>
<td>10.71</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>20.71</td>
</tr>
</tbody>
</table>

Community participation in project Identification and planning was indicated by needs analysis project identification and planning. The respondents were therefore asked whether the community was involved in needs analysis, project identification. A total of 53(37.86%) respondents said it was to a very high extent, 50(35.72%) said it was to a high extent and 37(26.42%) respondents said it is to an average extent. The respondents were asked to state how they would rate food accessibility, food availability and utilisation from NMK food security projects. Out of the 74 respondents who rated it as very good, 46(32.86%) rated the community participation in needs analysis, project identification and planning as very high, 19(13.57%) rated it as high and 9(6.42%) rated it as average.

This shows that most involvement of the community to a high extent was associated more with food accessibility, food availability and utilisation from NMK food security projects. Out of the 29 respondents who rated food accessibility, food availability and utilisation from NMK food security projects as average, a total of 3(2.14%) rated community involved in needs analysis, project identification and planning as very good, 11 (7.86%) rated it as good and 15 (10.71%)
rated it as average. This shows that low community involvement was associated with lower food accessibility, food availability and utilisation from NMK food security projects.

These study findings are in line with the view that communities must be empowered through active participation for sustainability. Participation is a partnership built upon the basis of dialogue among the various actors during which the agenda is jointly set and local views and indigenous knowledge are deliberately sought and respected (Stanley, 2003). This is because communities have considerable capacity to plan and implement programmes when empowered i.e. given power to decide on the projects they want to carry out and negotiate on the best method of doing it (Tade, 2001).

4.4.4 Opinion of NMK facilitators on the success of the community groups
The study sought the opinion of the NMK facilitators on the success of the community groups and presented the findings in table 4.6

<table>
<thead>
<tr>
<th>Success of the community groups</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful</td>
<td>2</td>
<td>75</td>
</tr>
<tr>
<td>Not successful</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From table 4.6, a total of 2(75%) NMK facilitators said that the groups were successful while 1(25%) NMK facilitator said that the groups were not successful. The study went on to probe the NMK facilitator who said that the groups were not successful and his reason for saying that the groups were not successful. He said that some of the groups had members who always wanted to deviate funds from the main purpose of the project into other activities that were unrelated to the project. He also pointed out that in the groups not everyone was committed to the project work and only became active when funds were available. He also added that at first the group members were active but as time went on they started having divisions in the group as well as conflicts. The NMK facilitators were however in agreement that community participation in the project monitoring and evaluation influenced the sustainability of the of the NMK projects.
This is in line with a study by Gido & Clement (1999) who noted that it is essential for every member of the project team to clearly understand the goals and each objective at every stage of the project and have the responsibility to be ethical at work and try to be as efficient as possible. The Staff who is critical to the success of the project should form part of the project team and have a long term relationship with the project, offering those critical skills required for continuous or close communication necessary for the project success.

**Hypothesis 1**

H0: There is no significant relationship between Community Participation in Project Identification and Planning and sustainability of NMK food security projects in Kisumu West

In testing the Null hypothesis, the study used correlation analysis relating Community Participation in Project Identification and Planning as the independent variable and sustainability of NMK food security projects as the dependent variable. The correlation analysis was computed at 5% level of significance. Table 4.7 shows the results of the correlation analysis.

**Table 4.7:**

<table>
<thead>
<tr>
<th>Correlation analysis between project identification and sustainability of food security projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation ($r$)</td>
</tr>
<tr>
<td>P value</td>
</tr>
<tr>
<td>$r^2$</td>
</tr>
</tbody>
</table>

From the correlation analysis presented in table 4.7, the correlation between Community Participation in Project Identification and Planning and food security projects as the dependent variable was found to be 0.4822. This was a positive value implying that as community participation in project identification increased food security increased as well. The p value was truncated at 0.000, this is a value less than 0.05, this means that we reject the null hypothesis and accept the alternative hypothesis that there is a significant positive relationship between Community Participation in Project Identification and Planning and sustainability of NMK food security projects in Kisumu West. In other words, as community participation in project identification and planning and sustainability of NMK increased, food security also increased as well. The coefficient of determination $r^2$ was found to be 0.2325. This means that community
participation in project identification and sustainability influences project identification and planning to up to 23.25%.

Table 4.4 gives a clear opinion of the Respondents on how they want to participate during the Project Identification and Planning stages and if their participation influences sustainability. Local people have to enjoy the right to their opinions. This takes place within broad-based planning committees and extensive systems of information sharing. Use of the media, press conferences and public meetings must be viable strategies of information sharing for empowering the community (Scoones & Thompson, 2000). Community involvement therefore requires cooperative project structures that are neither restrictive nor repressive.

Chikati (2009) argues that Planning is a communication process where people with different views and ideas share on how a desired situation should look like and how they are likely to get there and how to express these ideas together and reach a consensus. The respondents in the study agrees with Mulwa’s views who stated that through communication people can achieve the commitment necessary to sustain the decision taken by them. Participation in Planning therefore implies control of the process and for effective development to be realized, the community, which is the major beneficiary of the project, must be involved by use of project implementation committees to coordinate project planning and other aspects such as need identification, budgeting, resource identification, procurement and allocation all for the project sustainability (Mulwa, 2008, p. 18-20).

4.5 Community participation in Monitoring and Evaluation influence and sustainability of food security projects.

In an attempt to answer the study question on level of community participation in monitoring and evaluation of projects and its influence on sustainability of NMK food security projects in Kisumu west the study asked the respondents perception on monitoring and evaluation of the projects. The respondents were also asked if it was necessary for them to be involved in frequently Reporting of the project progress during meetings. Lastly the respondents were asked whether their participation improved project’s performance.
4.5.1 Perception of the community members on monitoring and evaluation of projects

The study started by first exploring the perception of the community members on monitoring and evaluation of projects using likert scales and presented the findings in table 4.8

**Table 4.8:**

*Community participation in monitoring and evaluation*

<table>
<thead>
<tr>
<th>Statement</th>
<th>disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should participate in my project by gathering information</td>
<td>Freq. 2</td>
<td>73</td>
<td>65</td>
<td>3.45</td>
<td>Agree</td>
</tr>
<tr>
<td>% 1.43</td>
<td>52.14</td>
<td>46.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should participate in utilizing information gathered</td>
<td>Freq. 2</td>
<td>62</td>
<td>76</td>
<td>3.528</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>% 1.43</td>
<td>44.29</td>
<td>54.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should frequently Report the project progress of the project during meetings</td>
<td>Freq. 1</td>
<td>58</td>
<td>81</td>
<td>3.571</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>% 0.71</td>
<td>41.43</td>
<td>57.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The baseline data should be used to compare the project performance</td>
<td>Freq. 2</td>
<td>54</td>
<td>84</td>
<td>3.585</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>% 1.43</td>
<td>38.57</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My Participation in the tracking of the project resources will help to develop sense of ownership</td>
<td>Freq. 1</td>
<td>59</td>
<td>80</td>
<td>3.564</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>% 0.71</td>
<td>42.14</td>
<td>57.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My Participation in Monitoring and Evaluation will enhance sustainability of project out puts and outcomes</td>
<td>Freq. 1</td>
<td>58</td>
<td>81</td>
<td>3.571</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>% 0.71</td>
<td>41.43</td>
<td>57.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My Participation will Improve project’s implementation performance</td>
<td>Freq. 1</td>
<td>51</td>
<td>88</td>
<td>3.621</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>% 0.71</td>
<td>36.43</td>
<td>62.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The study started by exploring whether they should participate in the project by gathering information. A total of 2 (1.43%) respondents disagreed, 73 (52.14%) respondents agreed and 65 (46.43%). The mean response was found to be 3.45, this shows that on average the respondents agreed that they should participate in the project by gathering information. When the researcher asked the community should participate in utilizing information gathered. A total of 2 (1.43%) respondents disagreed, 62 (44.29%) respondents agreed and 76 (54.29%) respondents strongly agreed. The mean response was 3.528; this means that the respondents strongly agreed that community should participate in utilizing information gathered.

4.5.2 Members reporting of the project progress during meetings
The respondents were asked if it is necessary for them to be involved in frequently Reporting of the project progress during meetings. One respondent disagreed, 58 (41.43%) respondents agreed and 81 (57.86%) respondents strongly agreed. The mean response is 3.571 meaning that on average the respondents strongly agreed that it is necessary for them to be involved in frequently reporting the project progress of the project during meetings. The respondents were asked whether baseline data should be used to compare the project performance. A total of 2 (1.43%) respondents disagreed, 54 (38.57%) respondents agreed and 84 (60%) respondents strongly agreed. The mean response was found to be 3.585 meaning that on average the respondents strongly agreed that baseline data should be used to compare the project performance.

The study explored whether the participation in the tracking of the project resources will help to develop sense of ownership. A total of 1 (0.71%) respondent disagreed, 59 (42.14%) respondents agreed and 80 (57.14%) respondents strongly agreed. The mean response was 3.564; this means that on average the respondents strongly agreed that participation in the tracking of the project resources will help to develop sense of ownership. The respondents were asked whether participation in Monitoring and Evaluation will enhance sustainability of project outputs and outcomes. A total of 58 (41.43%) respondents agreed and 81 (57.86%) respondents strongly agreed. The mean response was found to be 3.571; this meant that on average the respondents strongly agreed that their participation in monitoring and evaluation enhanced sustainability of project outputs and outcomes.
Lastly the respondents were asked whether their participation improved project’s implementation performance. A total of 51(36.43) respondents agreed and 88(62.86%) respondents strongly agreed. The mean response was found to be 3.621; this means that on average the respondents strongly agreed that their participation will improve project’s implementation performance. In exploring the influence of community participation in monitoring and evaluation influences sustainability of NMK food security projects, the study conducted a cross-tabulation analysis on community participation in monitoring and evaluation on sustainability of NMK food security projects and presented the cross tabulation analysis in table 4.9.

**Table 4.9:**

*Participation in monitoring and evaluation on sustainability on food security*

<table>
<thead>
<tr>
<th>Extent of Participation</th>
<th>Sustainability Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Very high</td>
<td>2</td>
<td>1.43</td>
</tr>
<tr>
<td>High</td>
<td>8</td>
<td>5.71</td>
</tr>
<tr>
<td>Average</td>
<td>19</td>
<td>13.57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
<td><strong>20.71</strong></td>
</tr>
</tbody>
</table>

Community participation in project monitoring and evaluation was indicated by this group through involvement in information sharing, utilisation and evaluation of Project progress. The respondents were therefore asked the extent to which the community participated in information sharing, utilisation and evaluation of progress. A total of 49(35%) respondents said it was to a very high extent, 46(32.86%) said it was to a high extent and 45(32.14%) respondents said it is to an average extent. Out of the 74(52.85%) respondents who said that the extent of food accessibility, food availability and utilisation from NMK food security projects was very good, a total of 35(25.00%) said that their involvement in information sharing, utilisation and evaluation of progress was very high, 24(17.14%) respondents said that it was to a high extent and 15(10.71%) respondents said it was to an average extent.
These findings show that participation in monitoring and evaluation through information sharing and utilisation to a high extent was associated with very good food accessibility, food availability and utilisation from NMK food security projects. On the other hand out of the 29 (20.71%) respondents who said that food security was average, 2 (1.43%) respondents rated their involvement in monitoring and evaluation as very high, 8 (5.71%) rated it as high and 19 (13.57%) rated it as average. These findings show that low involvement of community in monitoring and evaluation was associated with low food security and vice versa.

**Hypothesis 2**

Ho: There is no significant relationship between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West.

The study again used the correlation analysis in testing the second Null hypothesis. The dependent variable was sustainability of NMK food security projects and the independent variable was food security projects in Kisumu West. Table 4.10 shows the correlation analysis.

**Table 4.10:**

<table>
<thead>
<tr>
<th>Correlation coefficient ($r$)</th>
<th>0.251</th>
</tr>
</thead>
<tbody>
<tr>
<td>P value</td>
<td>0.017</td>
</tr>
<tr>
<td>Coefficient of determination ($r^2$)</td>
<td>0.063</td>
</tr>
</tbody>
</table>

The correlation coefficient between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West was found to be 0.251. This is a positive correlation meaning as Community Participation in Monitoring and Evaluation increases, sustainability of NMK food security projects in Kisumu West also increases and vice versa. The p value was found to be 0.017, considering that this is a value less than 0.05, we reject the null hypothesis and accept the alternative hypothesis that there is a significant relationship between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West. The coefficient of determination was found to be 0.063; this means that Community Participation in Monitoring and Evaluation explained 6.3% of sustainability of NMK food security projects in Kisumu West. In other words Community
Participation in Monitoring and Evaluation influences 6.3% of sustainability of NMK food security projects.

This study findings are in line with a study by Kimweli (2013) on The Role of Monitoring and Evaluation Practices to the Success of Donor Funded Food Security Intervention Projects in Kibwezi District which established that Participatory monitoring and evaluation in food security projects contributes to the success of food security projects though it should be complemented with good project management skills. IFAD (2007) Also emphasizes that a PM&E process contributes to the construction of information feedback systems that strengthen learning and build organizations that value critical reflection, and learn from success and failure alike and therefore the respondents were in order to claim that that participation in monitoring and evaluation through information sharing and utilisation to a high extent was associated with very good food accessibility, food availability and utilisation from NMK food security projects.

4.6 Community Participation in marketing of NMK products influence on sustainability of food security projects.

The third objective sought to explore the level to which community Participation in marketing of NMK products influences sustainability. The study sought to establish from the NMK facilitators if the project beneficiaries participated in training on marketing strategies on a weekly basis, its relevance on sustainability of the Projects. Lastly, the study asked the respondents whether involvement in training has been useful to the sustainability of their projects.

4.6.1 Participation in training on marketing strategies

The study established from the NMK facilitators that the project beneficiaries participated in training on marketing strategies on a weekly basis. This showed that there was regular training on marketing to the project group members. The NKM facilitators however said that the turn up for the training was moderate and needed to be improved for it to be more successful.

The started went on to explore the opinion of the respondents on marketing of NMK products using likert scales and presented the findings in table 4.11
Table 4.11:
Community participation in marketing of NMK products

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should participate in marketing of project products</td>
<td>Freq. 1</td>
<td>62</td>
<td>77</td>
<td>3.542</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>%</td>
<td>0.71</td>
<td>44.29</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The government should assist the groups to access the structured markets</td>
<td>Freq. 1</td>
<td>64</td>
<td>75</td>
<td>3.528</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>%</td>
<td>0.71</td>
<td>45.71</td>
<td>53.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joining the Value chains helps to improve the market value of the products</td>
<td>Freq. 1</td>
<td>76</td>
<td>63</td>
<td>3.442</td>
<td>Agree</td>
</tr>
<tr>
<td>%</td>
<td>0.71</td>
<td>54.29</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in marketing is relevant towards sustainability of the Project</td>
<td>Freq. 0</td>
<td>72</td>
<td>68</td>
<td>3.485</td>
<td>Agree</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>51.43</td>
<td>48.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training on marketing strategies helps members sell products at the right time</td>
<td>Freq. 0</td>
<td>61</td>
<td>79</td>
<td>3.564</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>43.57</td>
<td>56.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The trainings offered in marketing are of relevance towards sustainability of the Project</td>
<td>Freq. 0</td>
<td>66</td>
<td>74</td>
<td>3.528</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>47.14</td>
<td>52.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement in training been useful to the sustainability of our project</td>
<td>Freq. 1</td>
<td>62</td>
<td>77</td>
<td>3.542</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>%</td>
<td>0.71</td>
<td>44.29</td>
<td>55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The respondents were asked whether they should participate in marketing of project products. 1(0.71%) respondent disagreed, 62(44.29%) respondents agreed and 77(55%) respondents strongly agreed. The mean response was found to be 3.542; this meant that on average the respondents. The study explored the opinion of the respondents on whether the government should assist the groups to access the structured markets. 1(0.71%) respondent disagreed, 64(45.71%) respondent agreed and 75(53.57%) respondent strongly agreed. The mean response was found to be 3.528, this meant that on average the respondents strongly agreed that the government should assist the groups to access the structured markets. The study also explored the opinion of the respondents whether joining the Value chains helps to improve the market value of the products. A total of 1(0.71%) respondent disagreed, 76(54.29%) respondents agreed and 63(45%) respondents strongly agreed. The mean response was found to be 3.442; this meant that on average the respondents agreed that joining the Value chains helps to improve the market value of the products.

These study findings concur with one done by Miller, Besser, and Weber (2010) in some of the Districts in Limpopo province on Poultry production for both egg and broilers. The study concluded that a well planned structure for any business determines its marketability and sustainability. The researchers emphasised a need to do market surveys before the establishment of the food security projects. In addition, studies need to be conducted on the marketing strategies for a given project so as to improve on the marketability of the products and subsequently their sustainability. Factors to be considered should include having contracts with the nearest retailers and shops, strategies for meeting market demands in terms of quality and quantity, and widening of the advertisement methods (Park, Mishra and Wozniak, 2011).

4.6.2 Community participation in marketing relevance on sustainability of the Projects

The study asked the respondents whether participation in marketing is relevant towards sustainability of the Project. A total of 72(51.43%) respondents agreed, 68(48.57%) respondents strongly agreed. The mean response was found to be 3.485; this meant that on average the respondents agreed that participation in marketing is relevant towards sustainability of the Project. The respondents were asked whether training on marketing strategies helps members sell products at the right time. A total of 61(43.57%) respondents agreed, 79(56.43%) respondents
strongly agreed. The mean response was found to be 3.564; this means that on average the respondents strongly agreed that training on marketing strategies helps members sell products at the right time.

The respondents were asked whether the trainings offered in marketing are of relevance towards sustainability of the Project. A total of 1(0.71%) respondent strongly disagreed, 62(44.29%) respondents agreed and 77(55%) respondents strongly agreed. The mean response was found to be 3.542; this meant that the respondents strongly agreed that the trainings offered in marketing are of relevance towards sustainability of the Project.

4.6.3 Participation in training on marketing strategies and sustainability of NMK projects

Lastly, the study asked the respondents whether involvement in training had been useful to the sustainability of their projects. A total of 1(0.71%) respondents disagreed, 62(44.29%) respondents agreed and 77(55%) respondents strongly agreed. The mean response was found to be 3.542; this meant that on average the respondents strongly agreed that involvement in training been useful to the sustainability of our project. The study went on to explore the influence of community participation in marketing of NMK products influences sustainability of NMK food security projects. The influence was explored using a cross tabulation as presented in table 4.12.

**Table 4.12:**

*Participation in marketing strategies, value chain and market structure on sustainability of food security projects*

<table>
<thead>
<tr>
<th>Extent of Participation</th>
<th>Sustainability Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>Very high</td>
<td>3 2.14</td>
<td>11 7.86</td>
</tr>
<tr>
<td>High</td>
<td>9 6.43</td>
<td>13 9.29</td>
</tr>
<tr>
<td>Average</td>
<td>15 10.71</td>
<td>13 9.29</td>
</tr>
<tr>
<td>Total</td>
<td>29 19.28</td>
<td>37 26.44</td>
</tr>
</tbody>
</table>
From table 4.1, a total 51(36.42%) rated the marketing strategies, value chain and market structure as very high. Another 48(34.29%) rated it as high and 41(29.29%) rated training in marketing strategies as average. Out of the 74 (54.28) respondents who rated food accessibility, food availability and utilisation from NMK food security projects as very good, 37(26.42%) respondents rated training in marketing strategies as very high, 26(18.57%) respondents rated it as high and 13(9.29%) respondents rated training in marketing strategies as average. Among the 29(19.28%) respondents who rated food accessibility, food availability and utilisation from NMK food security projects as average, a total of 3(2.14%) rated training in marketing strategies as very high, 9(6.43%) rated it as high and 15(10.71%) rated training in marketing strategies as average. These findings show that low food accessibility, food availability and utilisation from NMK food security projects is associated with average training in marketing strategies and vice versa.

These study findings are in line with (Chanda, Fincham and Venter, 2010) views that training marketing strategies are critical for the NMK food security members. Markets need products in bulk which the community project members may not be able to meet, some consumers need for example already dressed chickens, of which project members may not have the capacity or knowhow to deliver. On the other hand, due to these limitations community members may be perceived incapable of producing healthy food to the consumers' satisfaction. Chanda et al. (2010) reiterated that safety of food for consumption regarding handling, storage, processing and distribution is crucial. It is, therefore, imperative to develop demand-driven skills for training the rural communities involved in agricultural project initiatives. Little/no knowledge may cause the members to run at a loss as chickens which are supposed to be sold at six weeks of age may end up being sold at 12 weeks of age.

**Hypothesis 3**

Ho: There is no significant relationship between Community Participation in marketing of NMK products and sustainability of NMK food security projects in Kisumu West.

The study conducted a correlation analysis to explore the relationship between community participation in marketing of NMK products and the sustainability of NMK food security projects in Kisumu west by testing the third Null Hypothesis and presented the findings of the correlation analysis in table 4.13.
Table 4.13:
Correlation analysis between Community Participation in marketing of NMK products and sustainability of NMK food security projects

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient ((r))</td>
<td>0.2613</td>
</tr>
<tr>
<td>P value</td>
<td>0.0018</td>
</tr>
<tr>
<td>Coefficient of determination (r^2)</td>
<td>0.0682</td>
</tr>
</tbody>
</table>

The correlation coefficient between Community Participation in marketing of NMK products and sustainability of NMK food security projects was found to be 0.2613. Considering that this is a positive correlation it implies that as community participation in marketing increases, food security also increases. The significance was found to be 0.0018, this was a value less than 0.05, this means that we reject the null hypothesis and accept the alternative hypothesis that there is a significant relationship between Community Participation in marketing of NMK products and sustainability of NMK food security projects in Kisumu West. The coefficient of determination was found to be 0.0682; this simply means Community Participation in marketing of NMK products explains 6.82% of the variance of sustainability of NMK food security projects. In other words Community Participation in marketing of NMK products influences sustainability of NMK food security projects to the extent of 6.82%.

A study by Oduke, Odunga & Okoth (2013) in Siaya identified training in marketing strategies as a way of ensuring sustainability of food security projects and recommended it for other projects. From the study, they concluded that, most of the agricultural products lacked ready market and since they are perishable; they go to waste, it is therefore important to get ready market for the produce during their economic life. The respondents reported that, training them in marketing would help them search for the best prices of their products in time so as to avoid wastage. In support of this view, Kumwenda (2004) believes that non-participatory factors such as macro-economic issues, market issues and infrastructure issues are critical determinants of project success.
A review of three case studies conducted in the Northern Region of Malawi (Chirwa, 1998) prior to liberalization shows an integration model where promotion of rice production was connected to readily available markets in the west. Most farmers contend with market competition, and their survival is best determined by their market response (Brue & Mac Connell, 2002). Adequate information systems on marketing must be in existence in order for producers to sell at will. Marketing as a concept includes not only selling points, but also issues of promotion, quality assurance and standardization, and efficiency and effectiveness (Brue & Mac Connell, 2002).

4.7 Community participation in Financing of NMK projects influence on sustainability of food security projects in Kisumu West.

The fourth objective explored the level to which community participation in financing of NMK project influences the sustainability of food security projects. Perception of the NMK facilitators on community participation in project financing and Opinion of the respondents on community participation in financing of projects were sought. The study also asked the respondents whether when they can’t offer an idea, they should offer labour towards project activities.

4.7.1 Perception of the NMK facilitators on Level of Success of Projects

The study started by exploring the opinion of the NMK facilitators on whether community participation in project financing has contributed to the success of NMK funded project. Table 4.14 shows the results of the findings.

<table>
<thead>
<tr>
<th>Level of Success</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very successful</td>
<td>1</td>
<td>33.33</td>
</tr>
<tr>
<td>Successful</td>
<td>1</td>
<td>33.33</td>
</tr>
<tr>
<td>Not very successful</td>
<td>1</td>
<td>33.33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From table 4.14, one of the NMK project facilitators said that the community participation in financing was very useful to the sustainability of the project; the other facilitator said that it as
successful and the last facilitator said that community participation in financing was not very useful to the sustainability of the project. This showed that to a large extent community participation in project financing was useful in sustainability of the project. This can be supported by Quarter (1992) who purports that there is a general assumption that people get involved so that they can commit themselves to others and the community and that social satisfaction is highest where one finds oneself in the position to support others.

4.7.2 Opinion of the respondents on community participation in financing of projects

The study explored the opinion of the respondents on community participation in financing of the NMK projects. Table 4.15 shows the results of the analysis.
Table 4.15:  
Community participation in financing of the NMK project

<table>
<thead>
<tr>
<th>Statement</th>
<th>Freq.</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finances from the Government is adequate</td>
<td>61</td>
<td>43.57</td>
<td>40</td>
<td>11.43</td>
<td>5</td>
<td>1.72</td>
<td>Disagree</td>
</tr>
<tr>
<td>I make useful financial contribution to my Project</td>
<td>10</td>
<td>7.14</td>
<td>8.57</td>
<td>57.14</td>
<td>27.14</td>
<td>3.04</td>
<td>Agree</td>
</tr>
<tr>
<td>I participate in giving ideas that benefit the project</td>
<td>1</td>
<td>0.71</td>
<td>4.29</td>
<td>52.86</td>
<td>42.14</td>
<td>3.36</td>
<td>Agree</td>
</tr>
<tr>
<td>When I can’t offer an idea, I should offer labour towards project activities</td>
<td>0</td>
<td>0</td>
<td>4.29</td>
<td>49.29</td>
<td>46.43</td>
<td>3.421</td>
<td>Agree</td>
</tr>
<tr>
<td>Labour provided by members should be free</td>
<td>2</td>
<td>1.43</td>
<td>4.29</td>
<td>52.86</td>
<td>41.43</td>
<td>3.34</td>
<td>Agree</td>
</tr>
<tr>
<td>My participation in financing of the project has contributed to its sustainability</td>
<td>2</td>
<td>1.43</td>
<td>3.57</td>
<td>51.43</td>
<td>43.57</td>
<td>3.37</td>
<td>Agree</td>
</tr>
<tr>
<td>Lack of commitment is one of the problems I face from community participation</td>
<td>0</td>
<td>0</td>
<td>2.86</td>
<td>39.29</td>
<td>57.86</td>
<td>3.55</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>
From table 4.15, it emerged that there was inadequate government funding. A total of 61 (43.57%) respondents disagreed that the government funding was adequate, 56 (40%) respondents disagreed, 16 (11.43%) respondents agreed and 7 (5%) respondents strongly agreed. The mean response was 1.72, this meant that on average the respondents disagreed that there was adequate government funding.

4.7.3 Community financial contribution to the Project on sustainability

When the respondents were asked if they made useful financial contribution to the Project, A total of 10 (7.14%) respondents strongly disagreed, 12 (8.57%) respondents disagreed, 80 (57.14%) respondents agreed and 38 (27.14%) respondents strongly agreed. The mean response was 3.04; this meant that on average the respondents agreed that they made useful financial contribution to the Project. The study asked whether they participate in giving ideas that benefit the project. 1 (0.71%) respondent strongly disagreed, 6 (4.29%) respondents disagreed, 74 (52.86%) respondents agreed and 59 (42.14%) respondents strongly agreed. The mean response was 3.36, meaning that on average the respondents agreed that they participate in giving ideas that benefit the project.

The study findings are supported by the argument that People will be willing to sacrifice their resources for a cause that is beneficial to their existence (Dudley, 1993). According to Binder (2008), the financing process which involves raising and maintaining adequate funding for food security projects is of critical importance for their sustainability.

4.7.4 When they can’t offer an idea, they should offer labour towards project activities

The study also asked the respondents whether when they can’t offer an idea, they should offer labour towards project activities. A total of 6 (4.29%) respondents disagreed, 69 (49.29%) respondents agreed, 65 (46.43%) respondents strongly agreed. The mean response was 3.421, this meant that on average the respondents agreed that when they can’t offer an idea, they should offer labour towards project activities. The respondents were asked whether labour provided by members should be free. A total of 2 (1.43%) respondents strongly disagreed, 6 (4.29%) respondents disagreed, 74 (52.86%) respondents agreed and 58 (41.43%) respondents strongly agreed. The mean response was found to be 3.34; this showed that on average the respondents agreed that labour provided by members should be free.
According to Musa (2002), whose views are in line with this study findings argues that, because of the poor resources of the communities, when they have to initiate or maintain a project, they contribute unskilled labour, food and water. According to Amos (1978) it was discovered that self-help groups gave priority to economic and social welfare projects. These they financed through donations, levies community labour and matching grants from local government. Projects executed include primary and post primary schools, clinic maternity homes, roads, bridges, post agencies, market stall, and town halls.

The respondents were asked whether participation in financing of the project has contributed to its sustainability. Whether 2(1.43%) respondents strongly disagreed, 5(3.57%) respondents disagreed, 72(51.43%) respondents agreed, 61(43.57%) respondents strongly agreed. The mean response was 3.37, meaning that on average the respondents agreed that participation in financing of the project has contributed to its sustainability. The respondents were asked whether lack of commitment is one of the problems they face from community participation. A total of 4(2.86%) respondents disagreed, 55(39.29%) respondents agreed and 81(57.86%) respondents strongly agreed. The mean response was found to be 3.55; this showed that on average the respondents strongly agreed that lack of commitment is one of the problems they face from community participation.

The study went on to explore the influence of financial support on the sustainability of the project and presented the findings in table 4.16.

**Table 4.16: Community Participation in financing on sustainability of food security**

<table>
<thead>
<tr>
<th>Extent of Participation</th>
<th>Sustainability rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Very high</td>
<td>5</td>
<td>3.57</td>
</tr>
<tr>
<td>High</td>
<td>9</td>
<td>6.43</td>
</tr>
<tr>
<td>Average</td>
<td>15</td>
<td>10.71</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>20.70</td>
</tr>
</tbody>
</table>
From table 4.16, 54(38.57%) respondents rate the financial support their groups had as very high, a total of 45(32.14%) respondents rated the financial support as high and 41(29.29%) rated the financial support as average. Out of the 74 respondents who rated the food accessibility, food availability and utilisation from NMK food security projects as very good, 35(25.00%) respondents rated the financial support they received as very high, 24(17.14%) rated food security as high and 15(10.71%) respondents rated the financial support as average. On the other side out of the 29 respondents who rated their food security as average, 5(3.57%) rated the financial support as very high, 9(6.43%) rated the financial support as high and 15(10.71%) rated the financial support as average. These findings show that increase in financial support was associated with high food accessibility.

The study by Okafor (2005) on donors and NGOs funded projects concluded that when the poor people are empowered with resources, voices and skills, it really leads to sustainable development. Supporting this view is Willis (2002), who argues that for projects to be sustainable there, must be community participation. This is because, through participation, the community develop skills for collective action, maintenance and sustainability.

**Hypothesis 4**

Ho: There is no significant relationship between Community Participation in Financing of NMK projects and sustainability of NMK food security project in Kisumu West.

In testing of the fourth Null hypothesis, the study used correlation analysis at 5% level of significance. Table 4.17 shows the results of the correlation analysis.

**Table 4.17:**

*Correlation analysis between Community Participation in Financing of NMK projects and sustainability of NMK food security project*

<table>
<thead>
<tr>
<th>Correlation coefficient ((r))</th>
<th>0.3229</th>
</tr>
</thead>
<tbody>
<tr>
<td>P value</td>
<td>0.0001</td>
</tr>
<tr>
<td>Coefficient of determination ((r^2))</td>
<td>0.1043</td>
</tr>
</tbody>
</table>

The correlation analysis between community participation in financing of the NMK projects and sustainability of NMK food security project was found to be 0.3229. Considering that this was a
positive correlation, it implies that as community participation in financing of NMK projects increases so does the sustainability of NMK food security project. The p value was found to be 0.0001; considering this is a value less than 0.05 we reject the null hypothesis and accept the alternative hypothesis that there is a significant relationship between Community Participation in Financing of NMK projects and sustainability of NMK food security project in Kisumu West. The coefficient of determination \( r^2 \) was found to be 0.1043; this means that community participation in financing of NMK project explained 10.43% of the variance of sustainability of NMK food security project in Kisumu West. In other words, between Community Participation in Financing of NMK projects influenced the sustainability of NMK food security projects to the extent of 10.43%.

These respondents opinion from this study have clearly brought out the fact that Community members are not empty vessels waiting to be filled they want to contribute whatever resources they have to help sustain there projects. According to Van der Waals (2000), social capital and community resources can best define whether the community has the capacity to stand alone in facing poverty. Community Participation in Financing was initially viewed as ‘cheap labour’ as it implied mobilization of local resources and labour. When communities are able on their own to mobilise their energies and resources to deal with problems, it leads to self-reliance (Mgawanyemba, 2000). Another strategy for building a self-reliant community is the use of local knowledge and skills (Nancy, 2001). Experts in development have boasted of how little projects costed as a result of this contribution. In Malawi, World Bank officials require 25% as community contribution before a project proposal gets their approval (Mazibuko, 2001).
CHAPTER FIVE
SUMMARY OF RESEARCH FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1: Introduction
This chapter presents a summary of the research findings, a conclusion of the research findings and draws recommendations based on the research findings. This chapter is sub divided into five main sections namely summary of research findings, conclusion, recommendations, and suggestions for further study and contribution to the body of knowledge.

5.2 Summary of Research findings
This section presents a summary of the research findings as grouped according to the objectives of the study namely Project identification and planning, Monitoring and evaluation, marketing of project products and project financing.

5.2.1 Community participation in Project Identification and Planning
The study established that the respondents strongly agreed that research organization should carry out a research in this area to find out community needs before implementation of NMK program, Ministry of Agriculture should consult the community members before the initiating the NMK program, it was necessary for the community to be involved in identifying Community needs, the community members should participate in deciding the project activity to be carried out, the community members should participate in Planning of the project, participation should be continuous and not adhoc, community participation should include all the community members. The community members also strongly agreed that project identification and planning influences the sustainability of the projects. The study established that Community participation in Project Identification and Planning influences sustainability of NMK food security projects in Kisumu West up to 23.25%. Statistically, Community participation in Project Identification and Planning explain 23.25% of NMK food security projects in Kisumu West.

5.2.2 Community participation in Monitoring and Evaluation
The study established that the community members agreed that they should participate in the project by gathering information. The community members also strongly agreed that they should participate in utilising the information gathered, frequently reporting the project progress of the
project during meetings, the baseline data should be used to compare the project performance, community members participation in the tracking of the project resources will help to develop sense of ownership, community participation in Monitoring and Evaluation will enhance sustainability of project out puts and outcomes and project participation will Improve project’s implementation performance. The study established that Community Participation in Monitoring and Evaluation influenced sustainability of NMK food security projects in Kisumu West to the extent of 6.3%.

5.2.3 Community participate in marketing of project products
The study established that the community members were agreeing that joining the Value chains helps to improve the market value of the products and participation in marketing is relevant towards sustainability of the Project. The study also established that the community members strongly agreed that they should participate in marketing of project products, the government should assist the groups to access the structured markets and training on marketing strategies helps members sell products at the right time and involvement of the community in training has been useful to the sustainability of the project. The study established that the coefficient of determination was found to be 0.682 meaning that Community Participation in marketing of NMK products influenced sustainability of NMK food security projects to up to 6.82%.

5.2.4 Community participation in financing of NMK projects
The study established that the respondents disagreed that finances from the Government were adequate. The respondents agreed that they make useful financial contribution to their Project, they participate in giving ideas that benefit the project, when they can’t offer an idea, they should offer labour towards project activities, labour provided by members should be free and their participation in financing of the project had contributed to its sustainability. Lastly, the respondents strongly agreed that lack of commitment is one of the problems they face from community participation. The coefficient of determination was found to be 0.1043; this meant that community participation in financing of NMK projects influenced sustainability of NMK food security project to up to 10.43%.

5.3 Conclusion
The purpose of the study was to explore the influence of community participation in sustainability of selected Njaa Marufuku Kenya Food Security Projects Kisumu West, Kisumu
County, Kenya. From the study findings, it can be concluded that demographic characteristics of the project including gender, age distribution and education qualification of the participants have a role to play in the sustainability of the food security projects.

5.3.1 Community participation in project identification and planning
The study concludes that, Community participation in project identification and planning influences sustainability of NMK food security projects. The researcher found out that community participation in conception, design and implementation of the projects is above average meaning that contributions by the community members influence decisions made during design and implementation stages. Participatory needs identification by community members is important because once they collectively conceive a problem and prioritize it; they then move it to the stage of appreciating and discussing how to solve it. The study therefore concludes that ownership of community projects by the beneficiaries is very important for sustainability. The study findings are similar to those found by Mulwa (2008) who noted that the level of community ownership depends largely on the extent of community participation during conception, design and implementation of projects. He further reports that planning also helps to clarify the scope of the problem at hand and the resources available. The community is also able to set the objectives, goals and how the intended development will proceed.

5.3.2 Community Participation in Monitoring and Evaluation
It was also discovered that close monitoring and evaluation of the NMK food security projects is very important for enhancing sustainability. The beneficiaries should establish management committee whose members should keep monitoring the progress of their projects and also evaluate their performance over time. This leads us to a conclusion that it’s very necessary for the community members to participate in the project by gathering information and utilise the information gathered by frequently reporting the project progress during meetings and also use baseline data to compare the project performance. The study findings can also help us in concluding that community member’s participation in the tracking of the project resources will help to develop sense of ownership and enhance sustainability of project out puts and outcomes. Findings similar to these were reported by Wabwoba & Wakhungu (2013) whose study recommends that for Kenyan communities to enjoy food security through community projects,
the following measures should be adopted: involve group members in project design, implementation, resource contribution, monitoring and evaluation, to ensure ownership and hence sustainability.

5.3.3 Community Participation in Marketing of NMK products

The study established that the community members were agreeing that joining the Value chains helps to improve the market value of the products and participation in marketing is relevant towards sustainability of the Project. The study therefore concluded that the community members should participate in marketing of project products and that the government should assist the groups to access the structured markets and training on marketing strategies to helps members sell products at the right time because involvement of the community in training has been useful to the sustainability of the project. These findings are similar to the findings reported in a study by Oduke, Odunga & Okoth (2013) the respondents reported that, training them in marketing would help them search for the best prices of their products in time so as to avoid wastage.

5.3.4 Community Participation in Financing of NMK projects

The findings in the study show that it is important to fully involve the community members that are beneficiaries in development no matter the sources of funding and that the best form of sustainable development is community driven projects in which members have committed their resources, initiated, planned, executed and monitored. The Researcher can therefore conclude that the source of funding is a major determinant of project sustainability and its recommended that community members strive to achieve self-reliance, self-help, self-growth based on the felt needs of the community as the main pillar of development and be more committed to self-help projects than relying on external support. Moreover, the community should commit at least one resource (financial, skill, idea or labour) to have a sense of belonging to the projects.
These conclusions are in agreement with the observations by Sara and Katz (1998) who noted that participation is characterized by control, community contribution, and participation in decision making, representation, responsibility, authority and informed choice. The researchers also emphasized that the contribution by the community can either be in cash or kind.

5.4 Recommendations
The study recommends that there needs to be more financial support from the government. This is because the study established that on average the respondents disagreed that the funding from the government was adequate.

The study also recommends that there should be more community participation in Project Identification and Planning so that there is increased sustainability of NMK food security projects this is because it was established that it influenced up to 23.25% of sustainability of food security projects.

The study also recommends that community participation in financing of NMK projects should be enhanced because it influences up to 10.43% of sustainability of food projects. They should be enhanced for them to influence more than 50% of sustainability of food projects.

5.5 Suggestions for further study
The study suggests that a similar study should be conducted in future as a follow up or a longitudinal study, probably after one year so as to assess whether there is improvement in the sustainability of the food projects.

The study recommends that a similar study should be conducted in another County possibly in an urban centre so as to compare with the findings of this study.

The study also recommends that a regression analysis study should be conducted to establish the predictive equation that explains the relationship between the independent variable to the dependent variable.
5.1 Contribution to the body of knowledge

<table>
<thead>
<tr>
<th>Objective</th>
<th>Contribution to the body of knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.  To investigate the extent to which Community participation in Project Identification and Planning influence sustainability of NMK food security projects in Kisumu West.</td>
<td>Community participation in Project identification and planning influences sustainability of NMK food security projects up to 23.25%. The correlation between Community Participation in Project Identification and Planning and food security projects as the dependent variable was found to be 0.4822.</td>
</tr>
<tr>
<td>ii. To establish the extent to which Community participation in Monitoring and Evaluation influences sustainability of NMK food security projects in Kisumu West.</td>
<td>Community Participation in Monitoring and Evaluation influences 6.3% of sustainability of NMK food security projects The correlation coefficient between Community Participation in Monitoring and Evaluation and sustainability of NMK food security projects in Kisumu West was found to be 0.251.</td>
</tr>
<tr>
<td>iii. To assess the level to which Community Participation in marketing of NMK products influences sustainability of NMK food security projects in Kisumu West.</td>
<td>Community Participation in Marketing of NMK products influences sustainability of NMK food security projects to the extent of 6.82% The correlation coefficient between Community Participation in marketing of NMK products and sustainability of NMK food security projects was found to be 0.2613.</td>
</tr>
<tr>
<td>iv.  To establish the level to which Community participation in Financing of NMK projects influences sustainability of NMK food security project in Kisumu West.</td>
<td>Community Participation in Financing of NMK projects explained influenced the sustainability of NMK food security project to the extent of 10.43%. The correlation analysis between community participation in financing of the NMK projects and sustainability of NMK food security project was found to be 0.3229.</td>
</tr>
</tbody>
</table>
REFERENCES


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APPENDICES

Appendix I: LETTER OF TRANSMITTAL

BEATRICE A. MISEDHA,
P.O. BOX 133,
SONDU

RE: Influence of Community Participation on Sustainability of selected Njaa Marufuku Food
Security Projects in Kisumu West sub county, Kisumu County.

I am a post-graduate student of the University of Nairobi, currently conducting a research on the
Influence of Community Participation on Sustainability of selected Njaa Marufuku food security
Projects. You have been selected to assist in providing the required information, as your views
are considered important in this study. I am therefore kindly requesting that you fill this
questionnaire. Please note that any information given will be treated with utmost confidentiality
and will only be used for the purpose of this study

Thank you.

Beatrice Miseda
APPENDIX II: RESEARCH QUESTIONNARE

QUESTIONNARE FOR COMMUNITY MEMBERS

Kindly tick [√] where appropriate

SEC A: Background Information

1. Sex (i) Male [ ] (ii) Female [ ]
2. Indicate Age
   18-30 [ ]
   31-40 [ ]
   41-50 [ ]
   51-60 [ ]
3. What is your education level?
   (i) Never attended school [ ]
   (ii) Primary School [ ]
   (iii) Form four level [ ]
   (iv) Under graduate [ ]
   (v) Post graduate [ ]
4. How long have you stayed in the County?
   (i) Less than a year [ ]
   (ii) One year [ ]
   (iii) Two years [ ]
   (iv) Three years [ ]
   (v) Four years [ ]
   (vi) More than four years [ ]
### SECTION B: Community Participation in Project Identification and Planning

Please rate how strongly you agree or disagree with each of the following statements by placing a tick [✓] in the appropriate box.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree 1</th>
<th>Disagree 2</th>
<th>Agree 3</th>
<th>Strongly Agree 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A Research Organization should carry out a research in this area to find out community needs before implementation of NMK program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ministry of Agriculture should consult me before the initiating the NMK program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. It is necessary for me to be involved in identifying Community needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I should participate in deciding the project activity to carrying out</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. I should participate in Planning of the project</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>6. Participation should be continuous and not adhoc</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. Participation should include all the community members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Participation in project identification and planning influences the sustainability of the projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. To what extent is the community involved in needs analysis, project identification and planning?
   - Very high [ ]
   - High [ ]
   - Average [ ]
   - Low extent [ ]
   - Very low extent [ ]
### SECTION C: Community Participation in Project Monitoring and Evaluation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I should participate in my project by gathering information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I should participate in utilizing information gathered</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I should frequently report the project progress of the project during meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The baseline data should be used to compare the project performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. My Participation in the tracking of the project resources will help to develop sense of ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. My Participation in Monitoring and Evaluation will enhance sustainability of project outputs and outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. My Participation will improve project’s implementation performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. To what extent is your group involved in information sharing, utilisation and evaluation of progress?
   - Very high [ ]
   - High [ ]
   - Average [ ]
   - Low extent [ ]
   - Very low extent [ ]
### SECTION D: Community Participation in Financing of NMK products

<table>
<thead>
<tr>
<th>Strongly Disagree 1</th>
<th>Disagree 2</th>
<th>Agree 3</th>
<th>Strongly Agree 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Finances from the Government is adequate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I make useful financial contribution to my Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I participate in giving ideas that benefit the project</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4. When I can’t offer an idea, I should offer labour towards project activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Labour provided by members should be free</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. My participation in financing of the project has contributed to its sustainability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Lack of commitment is one of the problems I face from community participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How would you rate the financial support your group has?
   Very high [ ]    High [ ]    Average [ ]    Low extent [ ]    Very low extent [ ]
## SECTION E: Community Participation in Marketing of NMK products

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I should participate in marketing of project products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The government should assist the groups to access the structured markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Joining the Value chains helps to improve the market value of the products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Participation in marketing is relevant towards sustainability of the Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Training on marketing strategies helps members sell products at the right time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The trainings offered in marketing are of relevance towards sustainability of the Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Involvement in training been useful to the sustainability of our project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How would you rate the marketing strategies, value chain and market structure?  
   - Very high[ ]  
   - High[ ]  
   - Average[ ]  
   - Low extent[ ]  
   - Very low extent[ ]
Appendix III: QUESTIONNAIRE FOR THE NMK FACILITATORS

Kindly spare your time to answer the following questions based on your experience in the implementation of NMK Program. All information will be confidential and for research purpose only.

1. In your opinion to what extent are the projects being implemented by the community groups in Kisumu County successful?
   (i) Very successful [ ] (ii) successful [ ] (iii) Not successful [ ]

2. If not successful, what do you think would have contributed to their failure?

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

3. How have you ensured that the Community participates in Project Identification and planning to ensure sustainability of the projects?

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

4. In your own opinion do you think Community participation in the Project Monitoring and Evaluation influences sustainability of NMK projects? (i) Yes [ ] (ii) No [ ]

5. How often do the project beneficiaries participate in training on marketing strategies?
   (i) Weekly [ ] (ii) monthly [ ] (iii) annually [ ] (iv) none of the above [ ]

6. What is the turn-up rate of the project beneficiaries during training sessions and for field demonstrations? (i) High turn-up [ ] (ii) moderate turn-up [ ] (iii) Low turn-up [ ]

7. Do you think participation community in Project financing and marketing strategies is of any relevance towards sustainability of the MNK funded projects?
   (i) Yes [ ] (ii) No [ ]

9. To what extent is the involvement of Community in financing useful to the sustainability of the MNK funded projects?
   (i) Very successful [ ] (ii) Successful [ ] (iii) Not very successful [ ]

10. From your own assessment, do you think participation level of the beneficiaries will influence Sustainability of the Projects after the NMK program ends?
    (i) Yes [ ] (ii) No [ ]

11. Kindly explain your assessment……………………………………………………………………...
Appendix IV: Data for Njaa

Marafuku Kenya funded groups

<table>
<thead>
<tr>
<th>Kisumu West (Former K/North)</th>
<th>Male</th>
<th>Female</th>
<th>Year</th>
<th>Funds received</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunga Mariwa W/G</td>
<td>1</td>
<td>6</td>
<td>2008</td>
<td>150,000</td>
<td>Dairy production</td>
</tr>
<tr>
<td>Usoma widows &amp; Orphans SHG</td>
<td>2</td>
<td>13</td>
<td>2008</td>
<td>150,000</td>
<td>Grain amaranth production</td>
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TOTAL                        | 58   | 157    |      | 215            |
### Appendix V: Krejcie and Morgan (1970) Sample Size Table

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</table>
THIS IS TO CERTIFY THAT:  

**MS. BEATRICE AKINYI MISEDA**  
of UNIVERSITY OF NAIROBI, 0-40109  
SONDU, has been permitted to conduct research in Kisumu County  
on the topic: INFLUENCE OF COMMUNITY PARTICIPATION IN SUSTAINABILITY OF SELECTED DJAA MARUPUKU KENYA FOOD SECURITY PROJECTS KISUMU WEST, KISUMU COUNTY, KENYA  
for the period ending:  
30th July, 2014  

Applicant's Signature:  

Secretary,  
National Commission for Science, Technology & Innovation  

CONDITIONS:  
1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do so will lead to the cancellation of your permit.  
2. Government Officers will not be interviewed without prior appointment.  
3. No questionnaire will be used unless it has been approved.  
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.  
5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.  
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.  

RESEARCH CLEARANCE PERMIT  

Serial No.: 1913  

CONDITIONS: see back page.
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref: No.

NACOSTI/P/14/0497/1531

Beatrice Akinyi Miseda
University of Nairobi
P.O.Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Influence of community participation in sustainability of selected Njaa Marufuku Kenya Food Security Projects Kisumu West, Kisumu County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Kisumu County for a period ending 30th July, 2014.

You are advised to report to the County Commissioner and the County Director of Education, Kisumu County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

DR. M. K. RUGUTI, PhD, MISC.
Ag. SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Kisumu County.

13th June, 2014