FACTORS AFFECTING THE SUSTAINABILITY OF COMMUNITY FOOD SECURITY PROJECTS IN ARID AND SEMI-ARID LANDS, KENYA.THE CASE OF FOOD SECURITY PROJECTS IN TURKANA COUNTY

CHRISTINE M. NYAGA

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[1] Christine M. Nyaga and [2] Dr. Willy Muturi

[1] Student,   Jomo Kenyatta University of Agriculture & Technology, Kenya

[2] Lecturer, Jomo Kenyatta University of Agriculture & Technology, Kenya

ABSTRACT

Over the years, the government of Kenya and development partners have invested in community food security projects as a way of helping local people improve their own lives and livelihoods. A number of communities in Kenya have been given grants and technical support by both local and international donors, with the intention of helping them combat food insecurity and reduce poverty. The purpose of this research was to determine the factors that could be responsible for these food security projects not continuing to achieve their objectives and, therefore, for the persistent food insecurity even among these funded groups. The site for the study was Turkana County. The study objectives were; to assess the effect of Community Project Management training on sustainability of community food security projects in ASAL, Kenya, to determine the extent to which thoroughness of the needs assessment within communities affects sustainability of food security projects in ASAL, Kenya. Primary data was collected using questionnaires. Triangulation was done to ensure validity by rephrasing the questions to ensure validity and the data collection instruments were pretested using peers to ensure reliability. The questionnaires were filled after which the data was analyzed and checked for errors in response. Operationalization of variables was also presented to show the overview of the study. The data collected was processed through tabulation and tallying, thereafter it was coded and analyzed by use of measures of content analysis. The data was then presented using tables and charts. The study revealed that majority 57.1% agreed that community project management training played a major role in the sustainability of food security projects. 71.4% of the respondents strongly agreed that food security projects done where project management training has been done to the farmers perform better. 85.7% of the respondents disagreed that they understood the process of needs assessment. 57.1% disagreed that the Community was involved in the food security projects from the initial stages, most of them attested that they are only made aware of the project when everything has been planned. 71.4% agreed that Food security projects done where community systems have been put in place are more sustainable. From the study it was concluded that: the community beneficiaries participating in Food Security programs did not receive adequate training on how to manage the projects hence when the partners left they were not able to manage the projects to be able to continue over a longer time other than the project timelines; it was also established that need assessment on food security projects in Turkana County was not thoroughly done. From the results the study recommended that for sustainability of food security projects in ASAL to be achieved there was need for the development partners to ensure that Community Project Management training is done to all the stakeholders; thoroughness of the needs assessment within communities is done to ensure the root problems are identified.

Key Words: *Sustainability, Community Food, Security Projects*

INTRODUCTION

The number of undernourished people in the world remains high. In 2010, the Food and Agriculture Organization (FAO) estimated that more than 900 million people suffered from hunger. This indicates a global structural problem threatening the achievement of the Millennium Development Goal (MDG) to halve hunger by 2015 (FAO 2010). Consequently, FAO dedicated its 2010 annual report on "The State of Food Insecurity in the World" to countries in protracted crises, i.e. which are experiencing chronic food deficits, disruption of livelihoods over a prolonged time and the incapability of the state to respond to and mitigate threats to its population. For the period from 1996 to 2010 the FAO classified 22 countries as being in protracted crisis, out of which 17 are in Africa (FAO 2010).

Food insecurity remains globally widespread and stubbornly high (FAO, 2006). In 2003, the FAO estimated that there were 842 million undernourished (defined by FAO, 2003b as a situation of chronic food insecurity) people worldwide: 798 million (95 percent) in the developing world, 10 million in industrialized countries and 34 million in countries in transition. In sub-Saharan Africa, the number of undernourished people has been increasing: from 169 million in 1992 to 206 million in 2003, and by 2015, the FAO (2006) estimates that the region will be home to around 30 percent of the undernourished people in developing world, compared with 20 percent in 1992.

The persistent and chronic nature of the food problem in sub-Saharan Africa is in contrast to the 1996 World Food Summit Commitment, revised in 2002 to reduce global hunger by half by 2015. The trend calls for drastic measures to arrest the situation (FAO, 2006). Three out of five countries of the East African Community, including Kenya, are also classified as being in protracted crises (FAO 2011). In August 2011, Kenya was hit by a severe food crisis, during which 3.75 million people were food insecure and 1.4 million pastoralists were in a state of emergency (FEWS NET 2011). In late 2013 and early 2014 a significant amount of information on drought conditions in northern Kenya and low crop production in southeastern Kenya became available and the media announced imminent drought for the northern dry lands. This has been recurring and in February 2015 National Drought Management Authority (NDMA) announced that 1.6 million persons were at the risk of food insecurity due to an imminent drought mainly affecting the ASAL.

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. Achieving sustainable food security in Sub-Saharan Africa is one of the main challenges facing the international community and national governments. The current food crisis in Kenya clearly demonstrates that some people in the country are dangerously vulnerable to shocks that threaten food availability and accessibility. There is, therefore, an urgent need to build resilience in rural communities and increase their capacity to meet the challenges associated with climate change and droughts, market volatility, social uncertainty and the impact of globalization. At the heart of the strategies to build such resilience and tackle food insecurity is the existence of an effective institutional and policy development framework that can support local innovations while taking into account the biophysical, social and macro-economic constraints within which rural livelihoods operate.

In Kenya, the strategic objective is to cut the food insecure people by 600, 000 annually (Wanjama, 2002). One of the strategic plans for achieving the objective is identification and up-scaling of successful food security pilot projects (Wanjama, 2002; GoK, 2001; 2008). But there is still the

question of how to achieve this. The research described in this thesis contributed by responding to this pertinent question.

In Kenya, food security debate received a boost after the passage of the current Constitution of Kenya 2010, which expressly recognizes the right of every person to be free from hunger, and to have adequate food of acceptable quality as well as the right to clean and safe water in adequate quantities (Article 43(1) (c).

On October 1, 2009, U.S. Ambassador Michael E. Ranneberger renewed the disaster declaration for food insecurity in Kenya for FY 2010. In FY 2009 and to date in FY 2010, the U.S. Government (USG) has provided more than $245 million for humanitarian assistance programs in Kenya, including more than $24 million in USAID/OFDA funding to support nutrition, economic recovery and market systems, health, agriculture and food security, and water, sanitation, and hygiene interventions, as well as local procurement and distribution of food.

In the 2013/2014 financial year, Kenya made substantial allocations towards achievement of food security. Kenya Shillings 2 billion was set aside for Agri-Business Fund, while K.shs 3.6 billion was allocated for the implementation of the first phase of the 1 million acre irrigation and food security project in Galana. This project was expected to, among others: Produce adequate food for the country and supplying to the market at affordable price; creating at least 3 million jobs along the agriculture value-chain, including multiplier effects; and transforming the Galana ranch and, by extension the coastal region, into an economic hub for production, agro-processing, packaging, distribution, exporting and tourism. To deal with the perennial challenges of food insecurity and to reduce cost of living associated with high food prices, the Cabinet Secretary for Agriculture stated that they will implement a comprehensive agricultural revitalization program aimed at expanding, enhancing productivity and transforming agriculture into a business venture. To this day, the country is still struggling with increase in numbers of chronically hungry people, skyrocketing food prices due to lower production of staple food which is basically maize and lack of agricultural inputs. This is despite having put in place several legislation and sectorial policies on agriculture some of which are highlighted herein. It is against this background that there is need to look at factors that contribute to all these initiatives not being sustainable so as to ensure food security in Kenya.

Statement of the problem

A study carried out in 2007 by United Nations Development Programme (UNDP) revealed that all the 15 development partners who operated in Turkana County targeted rural community food security projects. Such donors included community-based organizations, faith-based organizations, financial institutions, the government of Kenya and other private organizations. A total of 536 groups were funded between 2005 and 2009 by various organizations. The report further revealed that some community projects were funded by as many as five donors during the same period. For many decades since independence, the presence of NGOs, CBOs, government agencies and donor agencies have been visible in ASAL areas specifically Turkana County initiating and implementing community food security projects. However, these projects have never achieved the defining objective of sustainability. As a matter of fact, most of these projects have had a short life-span, stalled, never impacted the community or collapsed altogether. This study therefore endeavored to investigate the factors causing the unsustainability of community food projects in ASAL areas in spite of visible stakeholders for many years since independence.

Objectives of the study

Purpose of this study was to determine factors affecting sustainability of community food security projects in ASAL, Kenya. The study was designed specifically for the following objectives; To assess the effect of Community Project

Management training and thoroughness of the needs assessment within communities affects sustainability of food security projects in ASAL, Kenya.

Research Questions

The research sought to answer the following questions

1. What is the effect of Community Project Management training in sustainability of food security projects in ASAL, Kenya?
2. To what extent does thoroughness of needs assessment affect sustainability of food security projects in ASAL, Kenya?

Scope of the study

This study targeted farmer groups involved in food security projects In Turkana County. Turkana County which is the second largest county in Kenya is located in the northern part of the Rift Valley Province. Eighty percent of its land is classified as arid or very arid. The stronghold of Turkana's economy is livestock production. Approximately 62% of individuals in this county are classified as "absolutely poor" (WFP/ALRMP/FEWSNET, 2006).About 20% of the population in Turkana County are Agro-pastoralists KIRA(2014)

LITERATURE REVIEW
Theoretical Framework
a) Theory of Planning

There is a managerial part and an effector part in a project; the primary function of the managerial part is planning, and the primary function of the effector part is to translate the resultant plan into action. Planning helps to know the current state of the world, the desired goal state, and the allowable transformations of state that can be achieved by actions, a series of actions, the plan, can be deduced.

According to Giglioni & Bedeian (2004), the planning processes provide a plan, which is realized by the executing processes, and variances from the baseline or requests for change lead to

corrections in execution or changes in further plans. The planning of projects is thoroughly described from the point of view of different knowledge areas. The planning processes are structured into core processes and facilitating processes. There are ten core processes: scope planning, scope definition, activity definition, resource planning, activity sequencing, activity duration estimating, cost estimating, and schedule development, cost budgeting and project plan development. The output from these processes of the project plans, make up an input to the executing processes.

b) Theory of Execution

Managerially, execution is about dispatching tasks to work stations. When, according to the plan, the time has arrived to begin task execution, it is authorized to start. The underlying theory of execution turns out to be similar to the concept of job dispatching in manufacturing where it provides the interface between plan and work. The basic issue in dispatching is allocating or assignment of tasks or jobs to machines or work crews, usually by a central authority. According to a modern definition, job dispatching is a procedure that uses logical decision rules to select a job for processing on a machine that come available (Forsberg et al, 2006). Obviously, dispatching consists of two elements: decision (for selecting task for a workstation from those predefined tasks that are ready for execution), and communicating the assignment (or authorization) to the workstation. However, in the case of project management, that decision is largely taken care in planning, and thus dispatching is reduced to mere communication: written or oral authorization or notification to start work.
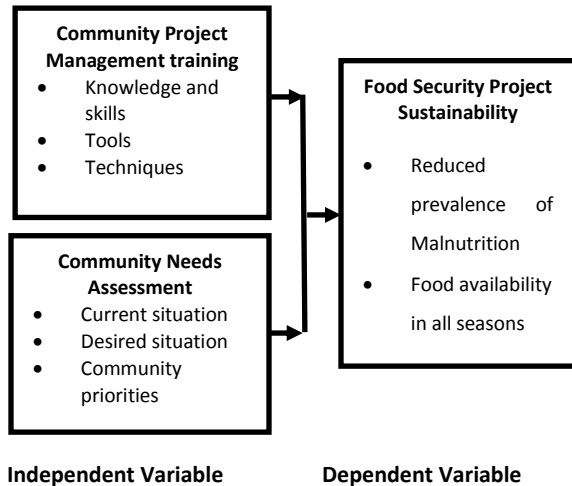
Conceptual framework.

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┌─────────────────────────┐
│  Community Project       │
│  Management training     │
│   • Knowledge and        │
│     skills               │
│   • Tools                │        ┌─────────────────────────┐
│   • Techniques           │───────▶│  Food Security Project   │
└─────────────────────────┘        │  Sustainability          │
                                    │                          │
┌─────────────────────────┐        │   • Reduced              │
│  Community Needs         │        │     prevalence    of     │
│  Assessment              │        │     Malnutrition         │
│   • Current situation    │───────▶│   • Food availability    │
│   • Desired situation    │        │     in all seasons       │
│   • Community            │        └─────────────────────────┘
│     priorities           │
└─────────────────────────┘
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Independent Variable   Dependent Variable

Figure 1: Conceptual Framework.

Project Sustainability

The idea of sustainability came to public attention after a 1972 report, "Limits to Growth," issued by the international think tank Club of Rome. In 1980 the World Conservation Strategy developed by the International Union for Conservation of Nature, in collaboration with the U.N. Environment Programme and World Wildlife Foundation, worked to make sustainability a benchmark of international action. Then the term "sustainable development" achieves international public prominence through the 1987 report of the World Commission on Environment and Development, Our Common Future, often called the "Brundtland Report" after the name of its chair, former Norwegian prime minister Gro Harlem Brundtland. It presented the famous definition: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987, 43).

The concept of sustainability is based on the premise that every human being has the right to live a decent life (WCED 1997, 41). We call this claim the normative principle of justice. Justice is achieved if every person gets the possibility to live according to that right. This is the motivation for

any appeal towards sustainable development as well as the justification of any attempt for sustainability. Simultaneously the realization of justice must be seen as both a part of and the ultimate goal of sustainability and any theory of sustainability has to refer to it. Therefore, theories of sustainability imply a theory of justice that specifies and substantiates this principle as well as the concept of quality of life (Christen, M. (2010). The sustainability problem can be conceptualized as a sort of a developmental dilemma: On the one side there are the goals of development, i.e. a decent quality of life. But on the other side, due to the social and natural structure we are living in, the attempts to achieve these goals may underpin their further realization.

According to Wasileski (2005), sustainability can be defined as the ability of a project to maintain its operations, services and benefits during its projected life time. However, the issue of sustainability is seen within time and changing social, economic and political contexts. A project that is seen as worth sustaining today may not be so in future. For example, in case of Sri Lanka paddy production which formed the mainstay of the agricultural economy only a few years ago, it does not appear to be all that profitable nor is it sustainable, under the current market economic conditions. In general project sustainability is defined as the percentage of project initiated goods and services that are still being delivered and maintained after five years of termination of implementation of the project; the continuation of local action stimulated by the project and generation of successor services and initiatives as a result of project built initiatives (Charvat, 2003). This definition implies that sustainability concerns itself with: Level of continuation of delivery of project goods and services; Changes stimulated / caused by the project and new initiatives caused by the project.

Sustainability means different things to different organizations. For projects sustainability means providing long-term solutions to community

needs that the beneficiaries can maintain after grant funding ends.

Community Project Management training

According to Project Management Institute (2000), project management is the application of knowledge, skills, tools and techniques to a broad range of activities in order to meet the requirements of the particular project. The Institute further notes that project management knowledge and practices are best described in terms of their component processes. These processes can be placed into five Process Groups – Initiating, Planning, Executing, Controlling and Closing – and nine Knowledge Areas – Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, and Project Procurement Management (Project Management Institute, 2006). The term "project management" is sometimes used to describe an organizational approach to the management of on-going operations (Lucia & Richard, 1999). They further note that this approach treats various aspects of on-going operations as projects in order to apply project management techniques to them. Project management focuses critical attention on the interdependent nature of complex tasks – an action, or failure to take action, in one area will usually affect other areas (Lucia & Richard, 1999).

It is generally agreed that the overall scope of training is these three areas: knowledge, skills and attitude. To start with, knowledge is one aspect of training. According to Ireland (2004), knowledge consists of the general and specific project management theory, concepts, practices, procedures, processes, and methodologies that apply to an industry and the complexity of projects being conducted. The project manager must first possess knowledge of the technical aspects of the industry to an extent that he or she understands the product and service being built and delivered.

The second aspect of training is skill. Skills are the application of knowledge to project work that ensures accomplishment of the work in an effective and efficient manner (Ireland, 2004). Katz (2000) proposed that managers need three critical skills in managing: technical, human, and conceptual skills. Technical skills are the job-specific knowledge and techniques needed to proficiently perform work tasks. These skills are very important for community members who are supposed to be part of a food security project.

Attitude as the third aspect of competence is the personal and professional demeanor exhibited by a person while performing his or her work (Ireland, 2004). He notes that attitude includes drive, energy, good instincts, and dedication. In the context of competence, this would be a positive outlook and an ability to not take one's self too seriously. A project manager must demonstrate the correct attitude when working with all the project stakeholders, e.g., project team, senior management, customer, and special interest groups (Ireland, 2004).

Community needs assessment

A needs assessment is a systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions or "wants". The discrepancy between the current condition and wanted condition must be measured to appropriately identify the need. The need can be a desire to improve current performance or to correct a deficiency (Altschuld, 2010)

A needs assessment is a part of planning processes, often used for improvement in individuals, education/training, organizations, or communities. It can refine and improve a product such as training or service a client receives. It can be an effective tool to clarify problems and identify appropriate interventions or solutions. By clearly identifying the problem, finite resources can be directed towards developing and

implementing a feasible and applicable solution (Watkins, 2012).Gathering appropriate and sufficient data informs the process of developing an effective product that will address the group's needs and wants. Needs assessments are only effective when they are ends-focused and provide concrete evidence that can be used to determine which of the possible means-to-the-ends are most effective and efficient for achieving the desired results.

Needs assessments can help improve the quality of policy or program decisions—thus leading to improvements in performance and the accomplishment of desired results. Improving results—that is, moving from current to desired performance— is typically a worthwhile and valuable (and often valiant) effort. The results of a needs assessment will guide subsequent decisions—including the design, implementation, and evaluation of projects and programs that will lead to achieving desired results (Altschuld, *et al* 2010).Altschuld further states there are three perspectives on need in a needs assessment; perceived need which is defined by what people think about their needs and each standard changes with each respondent, expressed need which is defined by the number of people who have sought help and focuses on circumstances where feelings are translated into action. A major weakness of expressed needs assumes that all people with needs seek help and relative need which is concerned with equity and must consider differences in population and social pathology.

Within a performance improvement framework, needs assessments play a critical role in starting the improvement process? Assessments inform future decisions; at the same time, they are informed by the results of past decisions. Needs assessments thereby link together past and future performance, guiding decisions throughout the improvement effort.

When governments want to take action, influence policy, change things around or shake things up, community needs assessment studies are an effective way to find out what people are thinking and how they feel. While information from a needs assessment study is valuable and useful, the process of gathering the information is valuable too. Community groups and interested citizens should be invited and encouraged to participate (Njuguna*et al*, 2004).

In the planning phase of the needs assessment study, broad representation of the community will enhance the credibility of the process, and will contribute to a comprehensive survey questionnaire. In the planning phase, the cardinal rule is, "don't leave anyone out!" If you do, you may hear from them later when they criticize the process or the outcomes.

A community needs assessment is a combination of information gathering, community engagement and focused action with the goal of community improvement (Watkins, 2012). A community needs assessment identifies the strengths and weaknesses (needs) within a community. A community needs assessment is also unique and specific to the needs within a community and is usually an extension of a community's strategic planning process. The community needs assessment places great emphasis on the abilities of the people in the community, and on the agencies and organizations within that community that provides services to the children and families. Community leaders, local government, advocacy groups or a combination of these then address these identified needs through policy change or development.

A community needs assessment can be broadly categorized into three types based on their respective starting points: First, needs assessments which aim to discover weaknesses within the community and create a solution. Second, needs assessments which are structured around and seek to address an already known problem or potential problem facing the community

Third, needs assessments of an organization which serves the community (domestic violence centers, community health clinics etc.)

Community needs assessments are generally executed in four steps: planning and organizing, data collection, coding and summarizing the needs assessment results, and sharing the results with the community to facilitate action planning.

Empirical Review
Projects Sustainability
The empirical evidence by Khan (1993) suggests that sustainable food security projects improvements have a variety of positive effects on people's livelihoods. A selection of the impacts reported in the SAFE-World projects and initiatives include: improvements to natural capital, including increased water retention in soils; improvements in water table (with more drinking water in the dry season); reduced soil erosion combined with improved organic matter in soils, leading to better carbon sequestration; and increased agro-biodiversity; improvements to social capital, including more and stronger social organizations at local level; new rules and norms for managing collective natural resources; and better connectedness to external policy institutions; improvements to human capital, including more local capacity to experiment and solve own problems; reduced incidence of malaria in rice-fish zones; increased self-esteem in formerly marginalized groups; increased status of women; better child health and nutrition, especially from more food in dry seasons; and reversed migration and more local employment.

Sustainable food security projects have the potential directly and indirectly to influence the health of rural people. In the first instance, improved food supply throughout the year has a fundamental impact on health, which in turn allows adults to be more productive, and children to attend school and still be able to concentrate on learning. In many projects, for example, raised beds in kitchen gardens have improved domestic food supply by producing a year-round supply of vegetables – and children are often the main beneficiaries. In some cases, a more sustainable agriculture project can also help to remove threats to health in the environment - such as consumption of mosquito larva by fish in rice fields in China (UNDP, 2010).

Community Project Management training
Project Management training is of high importance for all stakeholders involved in a project (Becker &Huselid, 2006). People in projects are a key asset and require special attention (Adler, Heckscher, & Prusak, 2011; Spalek, 2011). The Project Management training concept is used to measure how good the company is in managing projects (Kerzner, 2004; Spalek, 2014). There are different models of assessing the level of knowledge in various areas of investigation (Cooke-Davies, 2007; Crawford, 2006). However, the vast majority of them assess the Project Management training through the Project Management Maturity (PMM) levels in each area separately, (Pemsel&Wiewiora, 2013). One notable exception is the Organizational PMM Model (OPM3®), which measures maturity against a comprehensive list of best practices (Ghorbanali, Khosravi, Afshari, Borzabadi, &Valipour, 2011).

The concept of assessing PMM was developed based on the Capability Maturity Model (CMM) which was proposed for software development purposes (Twaites, Collofello, &Zenzen, 2004). Then, building on this idea, further PMM models were developed for different purposes (Belt, Oiva-Kess, Harkonen, Mottonen, &Kess, 2009; J. Y. Lee, D. Y. Lee, & Kang, 2007; SCAMPI, 2006; Spalek, 2012). Their applications vary between industries (Khoshgoftar& Osman, 2009). Moreover, their scopes of measurement can be different (Wendler, 2012).

According to OGC, (2006) and PMI (2008) the experience, knowledge, and practical abilities of the community to manage a project are crucial for successful project execution. Therefore, it is desirable that the company possesses a system to measure the performance of project players as part of an overall employee assessment system and operates a formal program of training and development for those taking part in projects (Kuprenas, Madjidi, & Alexander, 1999).

Community needs assessment

There is a substantial body of research which investigates human judgment, decision making and information processing (Kahneman, Slovic, &Tversky, 1990; Mellers, Schwartz, & Cooke, 1998; Plous, 1993).Human decision makers typically violate fundamental precepts of rational choice by taking mental short cuts. Perfectly rational decision making would require consideration of all relevant evidence and stakeholders before reaching a decision. A needs/cost/benefit analysis demonstrates that achieving a correct decision is expensive in both time and effort. Consequently, people prefer to find ways of simplifying reasoning by taking shortcuts. That is, they create rules that reduce difficult judgmental tasks to simpler ones by restricting the amount of information they consider.

Employing shortcuts often minimizes effort and provides satisfying solutions that are "good enough", but not necessarily the best (Mellers et al., 1998). Whilst these rules may suffice in everyday circumstances, they can lead to large and persistent biases with serious implications for decision making in the youth justice system (Hoge, 2002; Kahneman et al., 1990).

According to R. Borum*et al*, 1996; professionals tend to base their decisions on factors that lack empirically-derived predictive power, whereby empirically-supported variables are not factored into decision processes.

According to Wiebushet al,1995 "historically, needs assessment and classification have been informal, highly discretionary procedures carried out by individuals who have varying philosophies and different levels of experience and knowledge, and who use dissimilar criteria in the assessment process".

METHODOLOGY

Research Design

The research adopted the descriptive survey research design. It is a suitable research design for this study because it does not attempt to control or manipulate variables but determine current status of phenomena (Kelly, Clark, Brown & Sitzia, 2003), in this case, factors affecting sustainability of community food security projects in ASAL, Kenya .

Location of the Study

The location of the study was Turkana County. The location was chosen as the area of study because it has a cross- section of various levels of respondents and is a clear representative of the ASAL, Kenya in that the county borders Garissa to the North, Isiolo to the NorthWest, lamu to the Northeast, Kilifi to the Southeast, Taita Taveta to the South and Kitui to the West (KIRA,2014)

Target Population

The population for the study comprised of a total of 4 Food security project groups in Turkana County with a total of 79 members and 10 ten key informants (Development organisations, community-based organizations, and government officials).

Sampling Procedures and Sample Size

This study first adopted the Yamane Taro's formula for computing sample size of residents involved in the implementation of community food security projects for their population is quite high. The number of residents the study needed to participate in the study was calculated using Yamane Taro's (1967) which provided a sample size of 89 respondents. Stratified random sampling was used.

Data Collection procedure

The researcher used direct contact questionnaire to collect information from the project management respondents. A questionnaire is very useful as it eliminates bias since respondents are given the same questions (Burton & Bartlett, 2009). The farmer groups were interviewed using an interview checklist which was filled through focused group discussions.

Data Collection Procedures

The researcher directly delivered the questionnaires to respondents in sampled organization. The questionnaires were issued to sampled respondents in their respective classes and later collected.

Data Analysis

The Statistical Package for Social Sciences (SPSS) was used to code and organize the data. The data was summarized into descriptive statistics of frequencies and percentages. Computation of frequencies was used as a statistical method of organizing raw data into meaningful way to ease interpretation. The obtained data was analyzed using inferential statistics. Carl Pearson's Correlation was used to find the relationship between the different variables. The results were then presented in the form of tables and graphs.

RESEARCH FINDINGS AND DISCUSSIONS

Response rate

The study was conducted with a sample of 89 respondents who included; 80agro-pastrolists involved in Food security projects (picked from 4 farmers groups; (Lokapel Irrigation Scheme,Kaitese Farmers group,Nakawaton farmers scheme and Lokalale farmers), 10 government officials(2 Government officials from MOA,2 from NDMA, 1 from Drought Management initiative,1 from Echo Lanina and 1 from CMDRR (Community-Managed Disaster Risk Reduction))The response rate of all questionnaires returned was 96.6 %. The total number of questionnaires returned fully filled by the respondents was 87 (80 for the farmers, 7 for the government officials.)

Demographic Information

The farmers' respondents were 80 who included 50 males 62.1% and 30 females 37.9%. Out of this, 47.8% were aged 18-35 years while 52.2 % were above 35 years. Most of the agro pastoralists (50.6%) had no education, followed by primary level at 39.5%, secondary level at 9.9% and 0 had

gone beyond secondary level. In regard to participating in food Security Projects 100% of the respondents had been part of a food security project.

The results revealed that majority of respondents were males. This indicates that more men participated in the farming and also in the study than women. This is because farming in the area was viewed as an activity for men more than for women. It was found that 52.2% of the respondents were above 35 years while the rest were below 35 years. From the discussions it was implied that youth were fewer but both young and old participated well in agro-pastoralism.

Majority of the respondents had no education. This is really contributed to by the high Illiteracy levels in the ASAL, Kenya regions. It was evident that all the respondents had at some point participated in a Food Security Project, from the discussions this was mainly because many food Security programs target Agro-Pastoralists.

The Government Officials involved in Food Security Projects that were interviewed were 7.From the results 83.6% were males and 16.4 % females. The study also indicated that 27.3% were aged 18-35 years while 72.7 % were above 35 years. All the Government Officials involved in Food Security Projects had either a college diploma at 35.5% and university degrees were 64.5%. In regard to working period in the area 65 % had been working for 1-5 years, 26% for 6-10 years, and 9% for less than 1 year.

The results revealed that majority of respondents were males 83.6%. This indicates that more men are given the project management positions in the Government.

The study revealed that majority of the respondents had worked in Turkana County in a Food Security Project for some time therefore had experience and adequate information about all issues to do with the Food Security projects in the area.

Kind of Farming Practiced in Turkana County

The study revealed that most Agro Pastoralists (73.6%) practiced a mix of Group and Individual farming, 26.4% practiced group farming while none practiced individual farming.

This is a clear indication that a mix group and individual farming was been practiced in the area among the agro pastoralists mainly focusing on crop farming. Major crops grown in the area were maize, Sorghum, cassava and Cow Peas. Livestock kept are mainly at individual level included cattle, goats, camels and sheep.

Food Security Project Information

The primary results of this study were organized according to research questions and objectives. In the analysis, SA, SOA, NO, SOD and SD will be used to mean Strongly Agree, Somewhat Agree, No Opinion, Somewhat Disagree and Strongly Disagree respectively.

a) Community Project Management training and Sustainability of Food Security Projects

The study revealed that majority 57.1% agreed that community project management training played a major role in the sustainability of food security projects. It was also established that the a big number of the respondents 85.8 % of the respondents agreed that Community project management training would help in the sustainability of the projects.85.7% agreed that the community project management was a need

in project sustainability.71.4% of the respondents strongly agreed that food security projects done where project management training has been done to the farmers perform better.

It was clear that the respondents agreed that Community Management training played a major role in project sustainability however the community was not receiving much of this training.

b) Thoroughness of Needs Assessment and Sustainability of Food Security Projects

The researcher sought to know how the thoroughness of needs assessment affects the sustainability of food security projects. The data obtained showed that majority of the agro pastoralists (85.7%) disagreed that they understand the process of needs assessment. It was also evident that 42.8% of the respondents disagreed that needs assessment was thoroughly done before the commencing of the project.

In regard to stakeholders' involvement in needs assessment, 42.9% of the respondents disagreed that all stakeholders were involved in needs assessment. Majority (71.5%) also disagreed that all issues, problems and opportunities are considered. The figure below shows the summary of the data obtained.
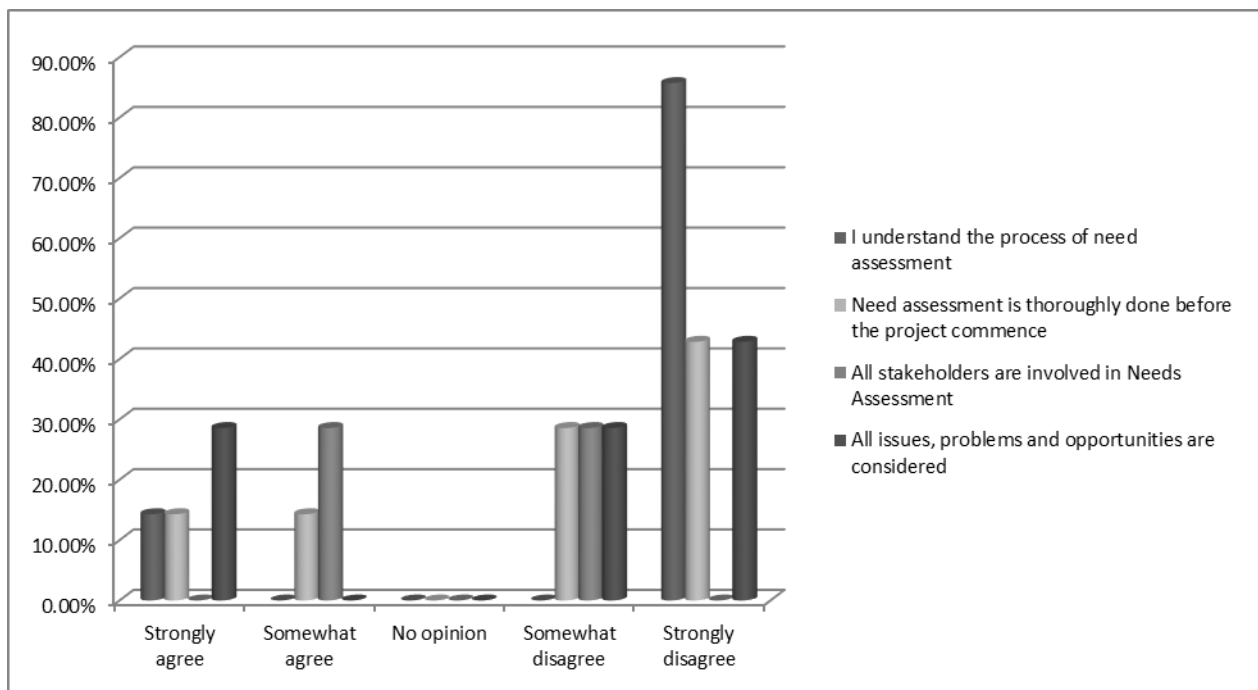
Figure 2: Needs Assessment and Sustainability of Food Security Projects

According to the study findings, it was established that need assessment on food security projects in Turkana County was not thoroughly done. This was clear from how majority of the respondents seemed to know very little about the process involved, stakeholders involved and issue considered during project need assessment. Majority of the agro pastoralists and Government officials also complained that their views were not taken before the projects were initiated. Thoroughness of Needs Assessment was therefore revealed as one of the factor affecting the Sustainability of Food Security Projects in the area.

Njuguna *et al*, (2004), were on the opinion that, while information from a needs assessment study is valuable and useful, the process of gathering the information is valuable too. Community groups and interested citizens should be invited and encouraged to participate. In the planning phase of the needs assessment study, broad representation of the community will enhance the credibility of the process, and will contribute to a comprehensive survey questionnaire. In the

planning phase, the cardinal rule is, "don't leave anyone out!" If you do, you may hear from them later when they criticize the process or the outcomes.

O'Brochta (2002), also stated that need assessment studies allow government or a sponsoring agency to: Gather information about citizen attitudes and opinions regarding precisely defined issues, problems or opportunities; determine how citizens rank issues, problems and opportunities in order of importance and urgency; Give citizens a voice in determining policy, goals and priorities; Determine citizen support for initiatives; Evaluate current projects and policies and to end speculation about "what people is thinking" or "what people really want."

c) Rating of the success of food security projects supervised

It was evident that all the Government officials who participated in the study had worked in a Food security project. The government officials were also asked to rate the potential success of food security projects that they have

managed.26.3% of the project managers said that the food security project success was satisfactory,25.6% said it was good and 48.1% said it was poor.
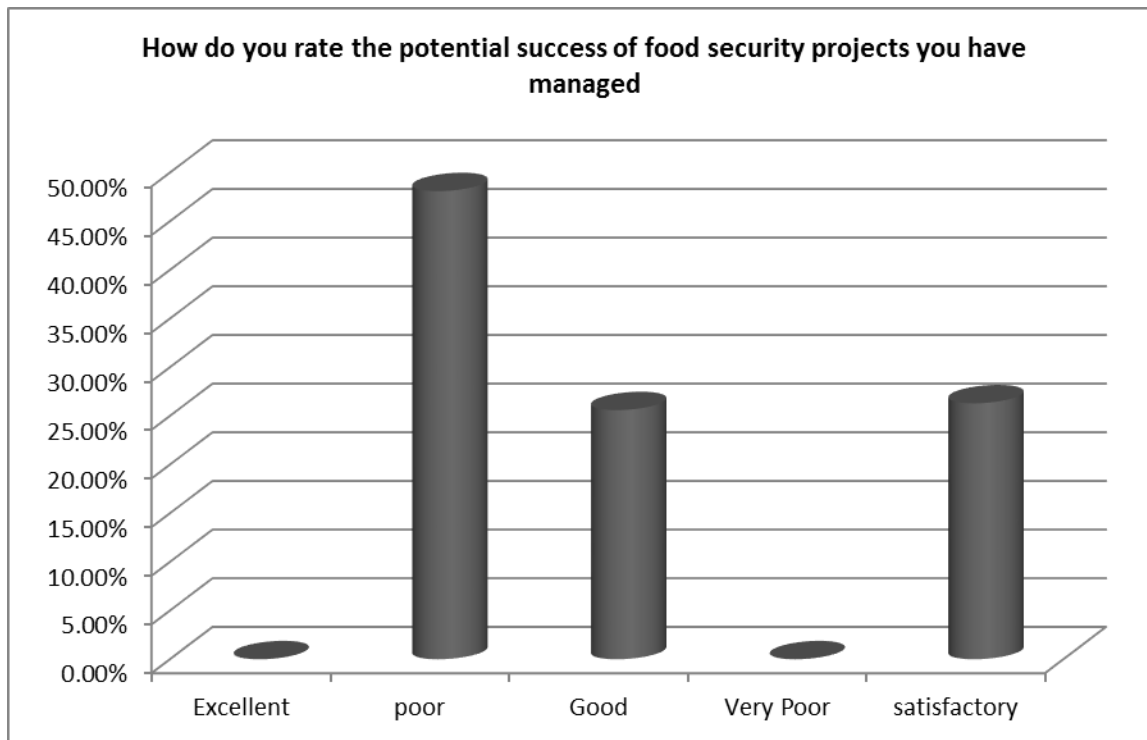

Figure 3: Rating the Success of Projects

The potential success of food security projects that the respondents had supervised had mixed results. The respondents argued that there are a number of factors that affect sustainability of food security projects and this study sought to establish the factors that affect sustainability of food security projects in central Kenya.

SUMMARY OF THE FINDINGS

a) Community Project Management training

According to the study finding, it was established that community project management training played a major role in the sustainability of food security projects. The community beneficiaries participating in Food Security programs did not receive adequate training on how to manage the projects hence when the partners left they were not able to manage the projects to be able to continue over a longer time other than the project timelines.

b) Needs Assessment

According to the study findings, it was established that need assessment on food security projects in Turkana County was not thoroughly done. This was clear from how majority of the respondents seemed to know very little about the process involved, stakeholders involved and issue considered during project need assessment. Majority of the respondents also complained that their views were not taken before the projects were initiated. Thoroughness of Needs Assessment was therefore revealed as one of the factor affecting the Sustainability of Food Security Projects in the area.

Conclusions

The above results bring out the fact that there are a number of factor affecting the Sustainability of Food Security Projects in the ASAL region specifically in Turkana County. The following are the conclusions from the findings;

According to the study it was evident that the communities being involved in Food Security programs were not receiving adequate project management training hence they were not able to manage the projects efficiently when the partners left, the project would therefore fail a few months after the exit of the partner. It was concluded that there is a positive relationship between extent to which Community Project Management training is done to the community and the sustainability of that Food Security project. The positive relationship indicated that there is a correlation r-values of 0.894.

According to the study the extent to which thoroughness of the needs assessment within communities' affects sustainability of food security projects was considered to be positive. It was established that need assessment on food security projects in Turkana County was not thoroughly done. In the planning phase of the needs assessment study, broad representation of the community enhances the credibility of the process, and contributes to a comprehensive project. Need assessment studies allow citizen to give their attitudes and opinions regarding precisely defined issues, problems or opportunities and hence the citizen support the initiatives. It was concluded that there is a positive relationship (r= 0.94) between thoroughness of the needs assessment and the sustainability of that Food Security project.

Recommendations

Based on the findings of the study, the following are the researcher's recommendations:

It is important that at the initial stages of a project the community members be taken through training to ensure they acquire the knowledge and skills needed to run the project. This way a community is empowered to be able to own the project and implement it even in the absence of the experts. The community should be able to gain knowledge, skills on management and also on handling of various tools and equipment.

In needs assessment study, all involved groups including the community members should be invited and encouraged to participate. The broad representation of all members will enhance the credibility of the process, projects support and the success in the outcomes. The thoroughness of the needs assessment also enables the community to be able to identify a problem that actually affects them and not that which is being forced on them.The design of needs assessment tool need to be done with utmost attention to ensure the involvement of the community is central. Needs Assessment should be thoroughly done with all issues, problems and opportunities considered as well as relevant stakeholders. The needs assessment should enable a community to identify their current situation, their desired situation and their priorities.

Suggestions for Further Study/Research

From the findings of this research, the researcher's suggestions for further study are:

i) A similar study can be done in other Counties in Kenya to find out if similar results would be realized. This would facilitate comparison and comprehensive results on the findings.

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