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Topic:

"The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District"

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DECLARATION

I, Simon Muoko, declare that this dissertation is my original work and has not been submitted for a degree in any other University.

Signed _____ Date 12th Nov. 2010.

Simon Muoko

This M.A. project has been submitted for examination with my approval as the University Supervisor.

Signed _____ Date 12/12/2010

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DEDICATION

This study is dedicated to my parents: Benjamin Muoko Musili and Dainah Muunda Muoko who played a significant role in my social and cultural upbringing.

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God bless you all.

Rev. Canon Simon Muoko, 2010

LIST OF ABBREVIATIONS

ASALs – Arid and Semi-Arid Lands

CBOs - Community Based Organizations

CABDA - Community Area Based Development Approach

DAO - District Agricultural Officer

DANIDA – Danish International Development Agency

ESA - Eastern and Southern Africa

FAO – Food and Agriculture Organization

FEWS - Famine Early Warning Systems

FBOs - Faith Based Organizations

FAPs - Food Assistance Programs (as used in the USA)

GoK –Government of Kenya

INGOs – International Nongovernmental Organizations

JICA – Japan International Corporation Agency

MoA – Ministry of Agriculture

NGOs –Nongovernmental Organizations

NMK - Njaa Marufuku Kenya

SADC - Southern African Development Community

SFPs - School Feeding Programmes

UCCS – Ukamba Christian Community Services

UNDP - United Nations Development Programme

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ABSTRACT

Broadly, this research was aimed at examining the role of Nongovernmental Organization in enhancing food security. Specifically, the study explores the role played by Ukamba Christian Community Services in enhancing food security in Mwingi District. Owing to the expanse of Mwingi District, Nzauni Location was studied to represent the whole district. Nzauni Location has got three administrative sub-locations namely, Kikiini, Nzauni and Muviu. Nzauni was chosen because, it is ranked by UCCS to be an area which is more food insecure than the other Locations of Mwingi District.

The study found out that UCCS does not directly work with households in enhancing food security but rather reaches people on the ground through CBOs. In the case of Nzauni Location, UCCS works hand in hand with Nzauni CBO. This CBO organises willing households into both registered and non-registered self-help-groups. Each self-help-group has a unique role to play in fighting famine. So far, the self-help-groups have established a green house, tree nursery, sand dams, earth dam and goat upgrading project. The tree nursery has enabled the households to sell the seedlings and use the money to purchasing food. At the individual level, households are trained in soil and water conservation techniques while individual farmers are advised to grow drought resistant crops.

Although the projects may appear impressive, it was found out that some households are pulling down these efforts through selling the donated dairy goats, planting seeds and fertilizer to cater for their personal needs ranging from paying school fees, buying clothes, beer and electronics among other things. In other incidents, some households cook the donated seeds for planting. This then calls for a need to address poverty. It

was also found that some people are still having the mentality of sitting and waiting for food relief.

Based on the main findings, the researcher recommends that the members of the community should put into practise the learnt capacity building skills like soil and water conservation techniques; grow early maturing maize seeds; growing drought-resistant crops; participate in the construction of more earth dams to enable adequate irrigation and make use of an effective insecticide to get rid of "osama" weevil which up to date is destroying harvested cereals.

The researcher further recommends that Nzauni CBO and UCCS should provide funds for the construction of more household managed greenhouses and water projects as a way of combating challenges associated with rain-fed agriculture. The study as well recommends that both government and NGOs should fund micro-entrepreneurship and skills development of the youth to enable them get jobs to rid poverty which often undermines strategies put in place to fight famine. Above all, UCCS should put in place follow-up mechanisms to ensure proper utilization of resources by both the delegated CBO and the self-help-groups.

CHAPTER ONE: INTRODUCTION

1.1 Background

Food security is an inherently observable phenomenon which draws the attention of the government, NGOs, insurance firms, civil society and scholars among others. Ideally, the government is a major actor in monitoring food outcomes in the country through the stipulated policies. NGOs have growingly become a major player in offering practical solutions to food crisis. The civil society crucially complements the government in ensuring food security at all levels of analysis, individual through national (Barrett, 2002:4). "NGOs–especially those associated with religious organizations – have become the cornerstone of emergency feeding programs worldwide" (Barrett, 2002: 32). Food shortages as well call for a food insurance scheme as a compensatory financial mechanism (Panos, 1978:20-21). This implies that a system provides members with the funds necessary to cover overruns in their cereal import.

1.1.1 Definition of Food Security

According to the 1996 Rome Declaration on World Food Security, "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Shanguhyia, 2008:1). The ability of a country to attain food security entails issues of availability, accessibility and affordability. Food security entails availability of food in the relevant vicinity of a population during a given period or the population's ability to acquire available food during a given period.

Food security is "access by all people at all times to enough and appropriate food to provide the energy and nutrients needed to maintain an active and healthy life…"food

insecurity" reflects uncertain access to enough and appropriate foods" (Barrett, 2002: 4). On the other hand, food insecurity means that an individual or household sometimes or often goes without food. Hunger and food insufficiency imply food insecurity.

There are three central ingredients, or pillars of food security. Such are, food availability, or adequate food production; economic access to available food; and nutritional security which often depends on the availability of non-food resources such as child care, health care, clean water, and sanitation (Quisumbing et al., 1995: 1).

1.1.2 Threats to Food Security

Food security cannot be discussed without looking at the threats to food security, that is, the sources of food insecurity for it will help in coming up with early warning systems and to long-term measures to ensure food security. According to Berret (2002: 16), food insecurity has multiple causes which coexist at the individual, household, community, and national levels.

According to Valdes (1981: 164), food insecurity is attributable to production fluctuations in the affected food and/or non-food sectors and price fluctuations in the affected food and/or non-food commodity. Sudden acute shortages of food may also be the consequence of natural disasters such as floods or political disasters like conflict. However, according to Bender (1995:55), food shortfall due to natural disasters like drought, floods, pests and diseases that cause crop failure animal death have been surpassed by manmade or artificial causes in terms of importance. Oram (1981: 45) argues that deteriorating food situation can also come as a result of population growth, unstable climate, and generally poor production performance.

Moreover, "Micronutrient deficiencies – particularly of iodine, iron, and vitamin A – are increasingly recognized as serious and widespread food security issues..." (Barrett, 2002: 5). This follows that the concept of food security pertains the risk of macronutrient or micronutrient deficiency, which may threaten one's physical well-being.

There are three levels of examining food security: food availability, household access to food and thirdly, the individual behaviour. This framework leads to conceptualization of food security in three generations. According to Barrett (2002: 4), "Thinking about food security has advanced from a first generation focus on aggregate food availability – the supply side – through a second generation emphasizing individual- and household-level access to food – introducing the demand side – toward a nascent third generation conceptualization that places food security in a broader framework of individual behaviour in the face of uncertainty, irreversibilities, and binding constraints on choice".

Chronic food insecurity occurs when the subject is continuously unable to ensure access to sufficient appropriate foods for all time periods. Chronic food insecurity is closely related to structural factors associated with poverty, as people with few productive assets and low expected incomes persistently struggle to access adequate food to remain healthy and active. Regular food insecurity is associated with climatic extremes like drought, flood disease epidemics, and business or electoral cycles. This is because climate variability repeatedly brings about crop failures, death of livestock, (Barrett, 2002: 14).

1.1.3 Food Security Situation in Kenya

The nature and extent of the food insufficiency varies across Kenya. According to Shanguhyia (2008:23), Kenya's agricultural production can be classified into five major categories; cereals, traditional food crops, industrial crops, export crops and livestock. Cereals produced include maize, wheat and rice.

Like many other developing countries, Kenya's food situation has undergone major setbacks in the past three decades leading to over dependence on food aid and substantial increase in food imports (Shanguhyia, 2008: 2-3). Poor and unreliable rains have resulted in a decline of food production, especially maize, the staple food for most Kenyan communities. This mainly affects the communities living in the arid and semi arid lands.

Kenya's Vision 2030 (2007: 46-47) observes that in Kenya "Land remains under-exploited for agricultural production. In the high and medium potential areas, only 31 per cent of the land is under crop production, which represents a mere 5 per cent of the total land in the country ... much of the available cropland remains under-utilised." If the idle land is utilised to grow appropriate crops, this land has the potential to generate approximately KShs. 87 billion, annually.

Between 2003 and 2006, many parts of arid and semi arid lands experienced inadequate rainfall, resulting in serious food insecurity with the number of people affected rising from 1 million in 2003 to 3.5 million in 2005/2006 (Shanguhyia, 2008: 2-3). In July 2000, FEWS reports showed that 3.3 million people were in need of food relief. This number rose to slightly over 4 million in February 2001 but by July 2001 it was reported to have fallen to 1.4 million and may have gone further down even

though there are no figures in any of the documents as to how far down this number went.

With regard to Kenya's food shortage, Shanguhyia (2008:61) observes that in 2005, the number of people who were in need of food aid increased from 1.7 million to 2.5 million. This deplorable situation made the Government of Kenya to issue an appeal for international food aid. Such calls did not improve the situation on the ground as by mid 2006 the number of people in need of food aid rose further to 3.5 million. However, by the end of 2006, highland cropping areas reported favourable harvests and food prices fell in western and South-western Kenya but food security in most pastoral areas remained precarious as pastoralists' food security was sustained by large food intervention.

According to Kenya's Vision 2030 (2007: 3), since 2003, a number of anti-poverty and inequality interventions have been implemented. Part of the implementations is the "various structural reforms in the agriculture sector, including the dairy, sugar, coffee, tea, pyrethrum, and the co-operative sectors to improve productivity and income earnings." But the situation is still wanting.

1.1.4 An Overview of Intervention Measures

Barrett (2002: 4) argues that the continuing, large-scale problem of food insecurity is primarily a distributional issue, a matter of getting available food to people who need it, when they need it, and of ensuring their regular, appropriate, affordable access to food. There is need to come up with mechanisms to enhance food production, processing and distribution so as ensure non-declining per capita food availability. Such can be done by both government and nongovernmental stakeholders.

Food subsidies and food price stabilization schemes have been implemented in most nations of the world at some time. These programs change the food price distributions faced by consumers (and often producers) and thereby influence food security. Such schemes have come under increasingly intense criticism over the past twenty years because most food subsidy programs are regressive – higher-income individuals purchase more food and thereby benefit more. Proponents of food subsidies and food price stabilization frequently remind analysts that removal of food subsidies sometimes leads to riots and even to the fall of ruling governments (Barrett, 2002: 33).

In the USA, there are state-sponsored food assistance programs (FAPs) without which there are commonly large gaps in the social safety net (Barrett, 2002: 33). FAPs are designed to move beneficiaries rightward either by increasing food availability by expanding food entitlements, or by improving the utilization of existing entitlements. Micronutrient fortification, nutrition education, and early warning systems are examples of the latter; consumer food subsidies, food price stabilization, food stamps, food aid, supplementary feeding programs, among others are examples of the former. "In the United States, food stamps are coupons given to eligible persons to use as cash in order to acquire food in regular retail outlets, which then redeem the coupons, like checks, through the banking system" (Barrett, 2002: 33).

1.2 Problem Statement

In the year 2006, the downward trend of real food prices which had lasted for the past 25 years came to an end owing to the rise of world prices. In between January and May 2008, prices of staple foods such as rice and vegetable oil doubled. This coincided with record petroleum and fertilizer prices (Demeke, 2008: 2).

The food crisis has brought a renewed emphasis on domestic food production in many Latin American and Caribbean countries which have been relying heavily on food imports. The risky international environment has made several regions to take steps geared toward improving regional food security through regional cooperation, thus reduce reliance on imports from outside the region. A case in point is SADC which in August 2008 announced that it will establish a Regional Food Reserve Facility and urged member states not to impose export restrictions on maize (Demeke, 2008: 25).

There have been debates over the future of Kenya's food security by the government, churches, religious institutions, the media, NGOs and individuals among others. Food insecurity is among the many problems facing the country such as corruption, poverty, disease, structural conflicts, debt obligations, floods, and environmental degradation among others. The concerned parties have from time to time donated foodstuffs to the afflicted while some have endeavoured in enhancing food security through community based projects.

According to Kenya's Vision 2030 (2007: 43-44), "agriculture is the mainstay of the Kenyan economy and currently represents 24 per cent of GDP. More than one-third of Kenya's agricultural produce is exported, and this accounts for 65 per cent of Kenya's total exports. The agricultural sector accounts for 18 per cent of total formal employment in the country." However, the productivity levels for many crops are below potential and for some agricultural produce, yield and value have either remained constant or are on the decline over a five-year period.

Agricultural productivity in Kenya is constrained by the following factors: high cost of inputs (especially the price of fertilizer and seeds), poor livestock husbandry, limited extension services, over-dependence on rain-fed agriculture, lack of markets,

and limited application of agricultural technology and innovation (Kenya's Vision 2030, 2007: 46).

Although globally aggregate food security has improved markedly over the past half century, hunger, malnutrition, and food insecurity remain widespread in Kenya. Estimates range widely, centring on roughly one billion people suffering undernourishment today, while probably at least one-third of the world's population bears nutritional risk. In an era of ample food availability to provide for sufficient nutrient intake for everyone on earth, the continued suffering of a substantial part of humanity is seen by many as morally repugnant, and finding appropriate distribution mechanisms to resolve the problem is thus considered a political imperative (Shanguhyia, 2008:3).

Growth and development of human beings entails dietary diversity and nutrient adequacy. Widespread climate-related food shortage and malnutrition persist in Ukambani in general despite considerable growth and development of Kenya. Ukambani is a dry-land affected by drought, where smallholder mixed farming is a dominant economic activity. During long periods of drought, animals suffer from overstocking, lack of water, pasture and high diseases prevalence. Livestock farmers are often sell their livestock at low prices because they are emaciated especially during prolonged drought. This calls for a need of rearing manageable number of livestock.

Food related problems in Arid and Semiarid Areas calls for coping strategies from within and without. Coping strategies can be characterized as relating to agricultural and economic production plus social adjustments. "Coping capacity can then be considered to be directly linked to entitlements or the set of commodity bundles that a

person can command, and thus consumption in the face of an adverse event" (Eriksen, 2005: 288). The food insecurity has prompted an evolving conceptualization of food security and of mechanisms to attain and maintain food security by NGOs while having in mind the pillars of food security: food availability, or adequate food production; economic access to available food; and nutritional security such health care and hygiene. It should however be noted that NGO efforts of enhancing food security need not necessarily lead to food security fro it ca as well entrench dependency.

This study sought to investigate food enhancement programs designed by UCCS to respond to threats to food security in Mwingi District. The UCCS programs were preconceived to either bring about food security or create food dependency among the households of Mwingi. This in mind, investigations were done to find out from the households the impact of UCCS' intervention measures on food security in Nzauni Location of the larger Mwingi District. The investigation will help answer the question: is UCCS playing a positive or negative role of enhancing food security? This will in turn help in identifying the gap between the desired and the actual goals of enhancing food security, leading to making practical recommendations.

1.3 Research Questions

This research seeks to answer the following questions:

a) What is the nature and extent of the food insecurity in Nzauni Location of Mwingi District?

b) Which intervention measures have been put in place by UCCS to enhance food security?

c) How effective are the intervention measures by UCCS on food security?

1.4 Objectives of the Study

The broad objective of this study is to find out the role of NGOs in enhancing food security: A Case Study of Ukamba Christian Community Services in Mwingi District.

The specific objectives are:

1) To find out the nature and extent of food insecurity in Nzauni Location of Mwingi District.
2) To find out the intervention measures put in place by UCCS to enhance food security.
3) To asses the impact of the intervention measures by UCCS on food security.

1.5 The Significance of the Study

Widespread hunger and malnutrition persist today despite considerable progress in modern modes of food production and preservation mechanisms. This has prompted an evolving conceptualization of food security and of mechanisms to attain and maintain food security. The community's inability to access enough food for an active and healthy life is a crucial component of their poverty. It then follows that mechanisms have to be put in place by both the government and civil society to salvage the situation.

This research study is relevant to the present Kenya society which is experiencing persistent problem of food insufficiency and mostly affecting the poor rural and urban folk. More critically, this study underscores the need of NGOs role of enhancing availability and accessibility of food needs of the poor, especially those who live in semi arid and arid regions. The study explores the commitment of UCCS in enhancing food security in Nzauni Location of Mwingi District. In so doing, it identifies the gaps

between the desired and actual realization of food security leading to making recommendations for action.

So far, very few researches have done on the role played by NGOs in enhancing food security in Semi Arid areas. This makes this study timely in evaluating the role played by UCCS in enhancing food security in Mwingi District. The study examines ways in which UCCS has empowered households and the community at large in attaining food sustainability and the shortcomings of enhancing food security.

The findings of this research will inform other researchers, scholars, NGO policy makers, and other stakeholders with vested interest in dealing with food security. This study will make academic contributions in the area of food security and food policy. As governments and civil society struggles to pursue a long-term solution to food insufficiency amid the challenges of globalization and climate change, this research study offers policy recommendations which are believed to be of help to the concerned stake holders.

1.6 The Scope and Limitations of the Research

There are various responses to food insecurity in Arid and Semi-Arid regions of Kenya. Such responses are from the GoK, the concerned community itself, individuals, corporations and NGOs with an aim of enhancing food security. Owing to the vastness of the larger Mwingi District, this research study focused on the role played by UCCS in enhancing food security in Nzauni Location. In so doing, it investigated and discusses food enhancement programs designed by UCCS to respond to threats to food security among the households. It as well investigated the food situation on the ground and the extent to which households are involved by UCCS in enhancing food security. The findings are generalised to the rest of Mwingi District.

Unlike the nutritionists who tend to analyse food security issues from the individual level as per the product of food consumption volumes and the nutrient content of those foods, the researcher focused more on strategies for food availability and accessibility to the households as enhanced by UCCS.

The study was limited to the strategies undertaken by UCCS in conjunction with Nzauni CBO to ensure local availability of food in Nzauni Location. The study was faced with financial constraints due to the fact that the research is not funded by any organization.

1.7 Assumptions

This research study will be built on the following assumptions:

a) Food insecurity persists in spite of intervention by NGOs

b) External intervention measures emphasizing community participation and ownership are necessary in boosting internal interventions

c) Food sustainability has been realised in areas where installed projects emphasize community participation and ownership

1.8 Definition of Key Terms

Food security: This is access by all people at all times to enough and appropriate food to provide the energy and nutrients needed to maintain an active and healthy life (Shanguhyia, 2008:1).

Food insecurity: This is uncertain access to enough and appropriate foods for human suvival (Barrett, 2002: 4).

Sustainable development: This is "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (Warhurst, 2001: 60).

Famine: This refers to extreme and general scarcity of food. This phenomenon is usually accompanied by malnutrition, starvation, and increased mortality (Shorter Oxford English Dictionary, 1933).

Drought: This is a period of dryness especially prolonged and causing extensive damage to crops or preventing their successful growth (Shorter Oxford English Dictionary, 1933).

Poverty: This is a state of lack of usual or socially acceptable amount of money or material possessions (Websters Ninth New Collegiate Dictionary, 1985).

Household: This refers to those who dwell under the same roof or rather a social unit comprised of those living together in the same dwelling (Websters Ninth New Collegiate Dictionary, 1985).

Empowerment: In the development context, this refers to the grassroots efforts of poor people to gain power over their situation and meet their basic needs (Goldstein, 2003).

External intervention: These are strategies put in place by other stakeholders other than the community members to enhance food security.

Internal intervention: These are strategies put in place by members of the community to enhance food security or to get rid of food insecurity.

Dependency: Dependency refers to reliance on the support of others in order to exist.

Coping mechanisms: Refers to measures undertaken by a community to survive hardships.

Osama weevil: This is a name coined by the Akamba people to depict a weevil which is immune to a number of insecticides.

CHAPTER TWO: LITERATURE REVIEW

2.1 The Growing Role of NGOs in the Society

This study is done on the assumption that NGOs, especially those with Christian inclination are better placed in enhancing food security in arid areas. Raustlala (1997: 719) notes that NGOs are distinctive entities with important skills and resources to deploy in the process of international environmental cooperation.

NGOs have been formally, but not fully, incorporated into the activities which were previously regarded as "states-only" activities. For instance, they participate in many activities like negotiation, monitoring and implementation processes traditionally reserved for states (Raustlala, 1997: 719).

Ebrahim (2003: 813) observes that the growth of NGOs, especially in the South, has been fuelled by a belief among donors that NGOs are more cost-effective than governments in providing basic social services, are better able to reach the poor, and are key players in democratization processes. He however argues that such arguments are made despite a lack of sufficient empirical evidence to support them. It is against this faith the role of NGOs in enhancing food security will be examined.

2.2 Food Insecurity Concerns in General

According to Mason (2009: 3), the 2007/8 food crisis and the current global financial crisis are straining economies around the world including those in Eastern and Southern Africa (ESA). True it is that world commodity prices began to decline in mid-2008, but, domestic staple food prices in several ESA countries remained high in the year 2009.

Large sectors of people in ESA have experienced both chronic and transitory food insecurity. Some communities in these two regions have been under chronic food insecurity for more than two decades without signs of escaping this trap. The most affected by the decline in food are the rural poor whose vulnerability increased due to crop failure, low producer prices, inefficient delivery systems from crops and inputs (Salih, 1994: 8). In addition, in recent decades the food security of the poor has been the product of two important forces: chronic food insecurity and widespread fluctuations in annual food production.

Salih (1994: 13-15) observes that job losses and unemployment have undermined people's food entitlements. He further observes that for the case of Eritrea, food problems are as a result of the neglect of the traditional farming systems, drought, the impact of war, desertification, poor physical infrastructure, lack of trained manpower, lack of storage, marketing facilities, complex land tenure system which involves land fragmentation and land degradation.

The problem of food insecurity can as well be linked to mushrooming urbanization with hardly any industrialization to absorb the increasing number of destitute citizens. In the past, people in the rural areas had the responsibility of feeding people in urban areas through food crop farming. But agriculture in the rural areas is under pressure to an extent that it is not in the position to feed the rural folk (Salih, 1994: 13-15).

2.3 Agriculture in the Dry-lands

Dry-lands are regions where agricultural productivity is limited by available moisture and may be classified into four zones based on the annual amount of rainfall: hyper-arid zone with less than 100mm annual rainfall; arid-zone with 100-300mm annual rainfall; semi-arid zone with 300-500mm annual rainfall and dry sub-humid zone with

500-800 annual rainfall (Quaye, 1994: 180-186). Quaye notes further that the African dry- lands face a triad of problems, namely, rapid population growth, poor agricultural performance, and increasing environmental degradation, all of which have contributed to the food, fodder, and fuel wood shortages. Population growth leads to an increase in the demand for resources and this will in turn bring about environmental exhaustion. In the long run, environmental degradation can generate scarcity of resources needed for human survival.

Due to the strong influence of poverty experienced by the majority of households within the dry-lands' production systems, it has been proposed that a move towards the attainment of sustainable agriculture in the dry-lands cannot be initiated by a switch from the traditional low in-put to a high-input agriculture. Alternatively, resource-saving innovations need to be introduced into the existing systems. Such innovations should be geared towards the generation of more energy and the improvement of energy transformation mechanisms within the agro-ecosystems in the dry-lands (Quaye, 1994: 180). This argument fails to see the possibility of external holders empowering the poor living in the dry-lands so as to engage in high-input agriculture like green housing, supply of quality seeds and drought resistant crops so as to attain sustainable agriculture.

There is need to reverse the colonially laid down strategies of food importation and exportation. Most African countries have relied on imported food to supplement local production since the period of colonial administrators whose food policies placed emphasis on export crops, such as, cocoa, tea, coffee, and tobacco. This practice has persisted in the post-independence era (Quaye, 1994: 180-81). As for now and for the case of Ukambani which is a dry-land, emphasis should be on enhancing food security

through embracing modern agricultural techniques of food production like green houses and irrigation.

Sub-Sahara Africa is pointed out to be the driest regions of the developing tropics. In most of the countries, the bulk of the land lies in areas with limited amounts of rain and erratic rainfall patterns. These dry-lands constitute the main pasture and range areas in Africa and 80% of these areas are showing signs of environmental damage attributable to environmental growth in most countries. Agricultural stagnation has become a consequence of degradation of the dry-lands. Degradation often comes due to overcrowding. "Overcrowding whenever at the resources of a unit area or volume are unable to support the number of organisms (including man) inhabiting that unit space" (Quaye, 1994: 182-185). This brings about competition between or among organisms.

As Africa's dry-lands struggle to achieve food security, climate change which may come as a result of human or industrial activities is further threatening food security measures. It is not just farmers whose livelihoods are at risk from climate change, but also those whose livelihoods depend on agricultural production. According to Barnett et al (2007: 639-651), climate change is thought to firstly undermine human security by reducing people's access to natural resources that are important to sustain their livelihoods and secondly undermine the capacity of states to protect livelihoods and maintain peace plus provide opportunities and services that help people to sustain their livelihoods. As a way of coping with the undermined livelihoods as a result of climate change people may engage in violence.

Besides environmental change, there are other social factors which undermine human security. Such include, poverty, the degree of support given to communities by the

state, people's access to economic opportunities, the effectiveness of decision making processes and the extent of social cohesion within and surrounding vulnerable groups. The way in which climate change can undermine human security varies across the world because entitlements to natural resources and services vary across space, and the social determinants of adaptive capacity are similarly varied (Barnett et al, 2007: 641).

2.4 Food Security and Environmental Conservation

One can hypothesise that food security is guaranteed through environmental conservation. Food related problems in the dry lands or arid and semiarid zones are further aggravated by burning charcoal as a means of survival. The trees which are often cut take many years to grow and there seems to be no initiative of replanting trees by those who cut them. It is imperative that in the contemporary world the concept of food security can not be discussed without having in mind environmental concerns. Environmental conservation ensures favourable climatic conditions necessary for the survival of animals, food crops, vegetables and fruits.

According to Birnie et al (2002: 545), the survival of humanity depends on the conservation of nature; natural resources in the forms of soil, water, the atmosphere, forests, plants, and life forms that these sustains. They argue further that colossal growth in the world's population and changes in lifestyles brought about by economic growth and technology in the past century have greatly increased demands on natural resources and in turn led to accelerating degradation and loss of nature, natural and biodiversity.

Environmental dilapidation is liable for major climatic changes around the world. Environment related warnings about the ozone puncture and the green house warming

of the planet began to appear as early as 1950s, calling for the cautious conservation of natural resources (Banuri et al, 1993: 47). The degradation and depletion of agricultural land, forests, water, and fish will contribute more to social turmoil in coming decades than will climate change or ozone depletion (Homer-Dixon, 1994: 6-7).

Environmental degradation is not only attributable to people but nature as well. Birnie contends that degradation or destruction of natural resources can be as a result of either natural or human activities (Birnie et al, 2002: 545-546). Human beings have worn-out natural resources while replacing them with limited cultivation and domestication of a few selected species, thus reducing diversity. It is upon human beings to be responsible for the survival of nature, not just to the present and future generations, but also to other existing and potential species. Owing to the fact that poor people overexploit land and forests for survival which in turn undermines the resource base on which their wellbeing and survival depend, they must be aided to climb out of poverty in away that will see them use other resources for survival other than forestry products which will in turn safeguard the interest of future generations.

2.5 National Policies and Food Situation in Kenya

Kenya has been on the spot over food insufficiency to its population. A significant proportion of the population particularly young children are malnourished as a consequence due to seasonal localized food shortages and precisely due to lack of nutritional diversity. More recent, in Kenya, "The March 2010 Short Rains Assessment estimates that 1.6 million people are still in need of food assistance. These are mainly pastoralists and agro-pastoralists and people in marginal agricultural

areas."[1] High food prices are preventing many households from regaining their livelihoods. It is estimated that in many places the market price for maize is 70-80% above the long-term average while in the urban areas around 3.5 million Kenyans are struggling to buy sufficient food on the market. On the other hand, malnutrition levels remain high especially among vulnerable in the pastoral, agro-pastoral and marginal agricultural districts.

Kenya has in the past experienced a number of droughts which saw a fall in the national food production. Such were the droughts of 1980/81, 1984/85 and 1992/93. This was coupled with increase in the prices of major agricultural inputs which led to low production, depletion of maize stocks and significant dependence on imports (Sessional Paper No. 2, 1994: 6).

According to Kenya's Vision 2030 (2007: 46), agricultural productivity in Kenya is constrained by a number of factors among them, high cost of inputs, poor livestock husbandry, limited extension services, over-dependence on rain-fed agriculture, lack of markets, and limited application of agricultural technology and innovation. However, for some crops, the productivity of Kenyan farmers is close to international standards. For example, yields for wheat are only 20% below those in the US. This indicates that it is possible to substantially raise levels of productivity in agriculture.

Sessional Paper No. 4 (1981: 1-2) observes that the expansion of production in the agricultural sector is achieved at the expense of widespread soil erosion, depletion of the nutrient content of the soil and the destruction of indigenous forests. Moreover,

[1] www.wfp.org/countries/kenya. Viewed on September 16, 2010

the population grew rapidly and at an accelerating rate absorbing the increase in food production and preventing a marked improvement in per caput nutritional intake.

According to Sessional Paper No. 4 (1981: 2), rapid expansion of population and a shortage of unexploited arable land are beginning to expose a potentially dangerous imbalance in the relationship between the national supply of and demand for food. It further notes that the nation no longer enjoys the advantage of regular surpluses of foodstuffs to cushion the impact of crop failure.

The government's report of hope contained in Sessional Paper No. 2 of 1994 on National Food Policy sates that, "Since independence, Kenya has realized considerable success in expanding the production of food and has managed to remain approximately self sufficient in food stuffs despite the population increasing from 8.9 million in 1963." This report as well documents frustrations by noting that, "Over the last decade, per capita food availability from domestic sources has declined largely as a result of declining food production and a shift in taste from traditional crops like sorghums and millet to wheat and rice. Over the last two years, rapid increase in food prices has also contributed to reduced availability to low income households" (Sessional Paper No. 2, 1994).

In the year 1994, the government through the Nutrition Policy recognized that increasing production alone will not resolve this problem effectively. In view of that, the government policy is aimed at increasing the production and consumption of more nutritious foods, improve the purchasing power and implement specific market intervention programmes as and when necessary (Sessional Paper No. 2, 1994: 27). The government as well promised to improve nutrition education, give particular emphasis on the production of highly nutritious food crops.

The sessional paper on National Food Policy observes that has it that the production of the given items below will have to be stepped up in order to meet the internal needs for self-sufficiency. Feeding Kenya's growing population requires increasing supplies of staple foods, especially cereals (maize, wheat, sorghum, millet, rice) pulses (peas, grams) roots and tubers (cassava, potatoes), oil seeds (groundnuts, sunflower, simsim), fruits and vegetables, meat and meat products, dairy products, poultry and eggs (Sessional Paper No. 2, 1994: 13).

In the 1990s, it was predicted that in turn of the century the annual demand for food was to significantly rise. While maize output has averaged about 22 million bags in the 1990s, annual demand stands at about 33 million and it is estimated that this will rise further by the turn of the century (Republic of Kenya, 1994-1996: 114). According to government policy, strategic reserves are necessary owing to vagaries of weather. Kenya's current storage capacity fro strategic reserves are estimated at 19.6 million spread over several sites covering production areas and food deficit areas. This has not to a great extent been realized owing to the cost of running the reserves and the high demand due to population growth.

According to Kenya's Vision 2030 (2007: 51), the vision for the agricultural sector is to be innovative, commercially-oriented and engage in modern farm and livestock sector. This is achievable by having a strong focus across five key strategic thrusts namely transforming key organisations, such as cooperatives, regulatory bodies and research institutions into complementary and high-performing entities that facilitate growth in the sector; increasing productivity through provision of widely-accessible inputs and services to farmers and pastoralists; transforming land use to ensure better utilisation of high and medium potential lands; developing arid and semi-arid areas

for both crops and livestock; and increasing market access through value addition by processing, packaging and branding the bulk of agricultural produce.

Part of the projected goals for 2012 by Kenya's Vision 2030 (2007: 52) is increasing productivity by putting in place measures to raise yields of key crops and livestock towards the realisation of levels recommended by the country's agricultural research institutions; transforming land use by putting idle land in existing farming areas into productive agricultural use; and develop ASALs by putting an additional 600,000 – 1.2 million hectares under irrigation.

2.6 External Interventions and Food Shortages

When communities suffer from food insecurity, strategies to combat the situation can either be internal or external. Key to this study is external stakeholders. The following constitute external stakeholders in food security: the Government of Kenya, Foreign Missions, NGOs, CBOs, FBOs, INGOs, the International Community, churches and well-wishers among others. Such stakeholders are involved in supplying affected communities with relief food. However, such efforts do not necessarily bring about food sustainability owing to the fact that in some cases the local communities do not participate in the determining what is best for them.

In the 1970s and 1980s strategies were put in place by the World Bank to combat food crisis in Africa. The strategies were referred to as Integrated Regional Rural Development Programmes (Wardle, 2008: 2). This took place in the mid 1970s to late 1980s with responsibility of providing seeds, fertiliser and credit, support to extension and development of market infrastructure, including feeder roads. However, this had limited success due to a number of reasons among them, lack of participation by intended beneficiaries in programme design; high reliance on inputs such as

agrochemicals which could not be supplied in an affordable way; a tendency to create parallel implementation systems which were not sustainable; and limited attention to underlying problems such as the monocropping of maize and depletion of soils.

Wardle (2008: 2) notes that it is against the background of the failure of the World Bank strategies that Community Area Based Development Approach (CABDA) Programme was started in Ethiopia in the early 1990s, and has since spread to Malawi, Uganda, Eritrea and Kenya. Before CABDA project starts, needs assessment is done in together with farmers and community and a baseline study conducted. Two of CABDA's key principles among others are seeing development as a process requiring farmers and community members to identify the needs and priorities of their area, suggest possible solutions and implement activities. Secondly the interventions must be affordable and manageable by farmers and the wider community, tackling the underlying causes of food insecurity: especially soil degradation and erosion.

As observed by Wardle (2008: 2), the overall aim of CABDA is to increase food production and food security for individual households and for the area as a whole. This is done through a range of interventions such as distribution of the seeds of early-maturing staple crops; diversifying crop production; introduction of drought resistant crops and new methods of food production. He observes further that sustainability is a key priority of CABDA's programs. In order to attain sustainability, firstly farmers are involved in planning and implementation of the project so as to create a sense of ownership. Secondly farmers are introduced to the types of technology that they can afford and manage. Thirdly capacity is built at individual and group levels, fostering collaboration among groups, and the fourthly assisting in building relationships with other institutions that can provide farmers with support

once the project ends (Wardle, 2008: 4). From the look of things, the CABDA programs are aimed at empowering farmers to achieve food stability, but not to spoon-feed them. This approach will be used as assessment scheme on the role played by UCCS in enhancing food security in Mwingi District.

Subsidies are a form of external intervention to enhance food availability, accessibility and affordability. Dorward et al (2004: 1) observe that, "contrary to the thinking that dominates much of current development policy, subsidies need to play a crucial part in 'kick starting' food grain supply chains if increased smallholder productivity is to drive rural non-farm growth." However, there are a number of challenges facing policy makers concerned with reducing poverty in rural areas where most of the world's poorest people live. Such challenges include, establishing the base conditions for subsidies to work, designing and implementing them to be effective, and then phasing them out as soon as they have done their task.

Farmers can be empowered by the agricultural market through buying farm inputs and selling their farm produce (Christoplos 2008: 1). However, a small number of well-off farmers with favourable conditions for production have been the primary beneficiaries of these developments, while small-scale producers, traders and processors have been largely unable to take advantage of available opportunities because they lack the capacity to meet market demands for quality, quantity and timeliness. They also lack adequate access to information, understanding and networks.

According to Edward et al (1998: 38), School Feeding Programmes (SFPs) is a form of intervention which involves distribution of food supplement to primary school children and in some cases it is undertaken in secondary schools, universities and colleges. Besides improving nutritional status, such programmes are as well

concerned with human resource development by improving enrolment and attendances, thus bring academic performance.

Although School Feeding Programmes were negatively evaluated in the 1980s, some agencies and governments have recently been returning to them as a means of promoting sustainable development, largely for two reasons. Firstly by mitigating the negative impacts of structural adjustment programmes on the poor and secondly because the UNDP Human Development Index has re-focussed attention on the role that food aid plays in reaching the poorest and most vulnerable, particularly children (Edward et al, 1998: 38). "School meals remain an important safety net for many communities and WFP is feeding over one million primary school children across Kenya."[2] School feeding programs have been at play in Kenya and have helped to keep students in school. Owing to the persistence of food problems in Kenya, this trend should be replaced by securing sustainable access, availability and affordability of food.

2.7 Intervention Efforts by Various Stakeholders in Kenya

A number of entities have been actively involved in the food intervention efforts in Kenya. They include the Kenya Government, Japan International Corporation Agency, DANIDA and Kitui Integrated Food Programme among others. With regard to hunger in Kitui, the Catholic Relief Services is noted to have played a major role in fighting hunger through the provision of famine relief food (Mutie, 1993: 219). However good this strategy may appear to be, it does not address the root causes of hunger, but rather perpetuate dependency.

[2] www.wfp.org/countries/kenya. Viewed on September 16, 2010

In an effort to get rid of hunger in Kenya, the Ministry of Agriculture started The Njaa Marufuku Kenya (NMK) programme in 2005 with support from FAO and the MDG center, to provide an overall strategic framework for a 10-year action plan for hunger eradication in Kenya. It was formulated to fast track the fulfillment of MDG 1 – reduce by half the number of extremely poor and hungry people in the country by the year 2015.[3]

Kenya's recent policy of revitalizing agriculture known as the Strategy for Revitalizing Agriculture (SRA) is being implemented by the Ministry of Agriculture in recognition of the fact that famine still exists and it is current. The strategy envisages improved standard of living of Kenyans and hopes to reduce substantially the number of people suffering from hunger, famine or starvation. This is actually one of the goals of the Millennium Development Goals pledged to be achieved by countries by the year 2015 (SRA 2004-2014, 2004:1).

On the other hand, the Ministry of State for Special Programmes has so far distributed food to districts covering all the regions of the country, especially areas affected by recent disasters such as droughts and floods. It also launched echo funded drought preparedness programme in Turkana District.[4]

JICA[5] has been supporting various initiatives in Kenya's Agricultural sector with a focus on promotion of market oriented Agricultural development. One of its key

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[3] http:/www.asps-ke.org/ Viewed on September 16, 2010

[4] http://www.sprogrammes.go.ke/index.php? Viewed on September 16, 2010

[5] http://www.jica.go.jp/kenya/english "Agricultural Development" Viewed on September 16, 2010

community empowerment projects in the rural areas is Community Agricultural Development Project in Semi Arid Lands (CADSAL), October 2005- October 2010, TA which is aimed at increasing the agricultural production of targeted farming groups in Keiyo and Marakwet districts. Emphasis is on community ownership of their projects. It is also involved in a project known as Smallholder Horticulture Empowerment Project (SHEP), November 2006- November 2009, TA which is aimed at influencing the livelihoods of the smallholder through improvement of productivity and empowering the farmers to gain access and bargaining power in the market in Trans-nzoia, Bungoma and Nyandarua districts.

Another key external stakeholder in mitigating food shortages in Kenya is The World Food Program which is the food assistance arm of the United Nations. It is working to connect farmers in Kenya to markets through the Purchase for Progress initiative.[6] It is also involved in providing school meals to nearly 1.2 million children in Kenya living in arid and semi-arid lands and urban slums plus it supports supplementary feeding programmes for children under five and pregnant and nursing mothers to improve their nutrition status.

Kenya's Vision 2030 (2007: 57-58) provides for the irrigation intensification and expansion through providing farmers with incentives to invest in energy- and water-efficient irrigation systems and technologies; increase seed quality and seed adoption rates; improving livestock productivity, including increasing the availability of animal feeds among others.

[6] www.wfp.org/countries/kenya. Viewed on September 16, 2010

2.8.1 Theoretical Framework

According to Frankfort-Nachimias et al (1996: 36), a theory is a conceptual framework which helps in explaining and predicting phenomena of interest and there after make intelligent practical decisions. Groom (1990: 71) observes that it is hard to think without a theory because facts do not speak for themselves. A theory enables a researcher to discern patterns or relationships which may seem unconnected. In so doing, it allows the researcher to comprehend rather than merely apprehend.

2.8.2 Dependency Theory

This study will be guided by the Dependency Theory which was developed in the 1960s and 1970s in Latin America and the US. This theory is championed by Raul Prebisch, Gunder and Peter Evans (1979). This theory characterises the international system as comprising two sets of states namely, the core or centre and periphery or dependent or metropolitan or satellite. The core is comprised of the developed or the advanced industrial countries while the dependent is comprised of the developing countries like those of Latin America and Africa. The relationship between the core and the periphery is the one of the latter depending on the former.

When an entity depends on another entity, often perceived to be superior, the former may overtime find it difficult to exist without the latter. In the same way, when a community's food availability depends on external stakeholders, the former may find it difficult to exist without the latter, thus entrench dependency disorder or syndrome. A society suffering from dependency syndrome may have its people find it difficult to escape from the prevailing situation or innovate alternative structures. Individuals existing in such an atmosphere may be unable to develop their talents or pursue their interests independently.

The Dependency Theory is relevant to this study because food security in semiarid areas is dependent on external stakeholders' interventions. The study assumes that the strategies by external stakeholders do not lead to community ownership and deciding on what they think is best for them. Secondly, this study assumes that the strategies by external stakeholders suffocate internal strategies, thus food unsustainability and persistent food insecurity. The dependency disorder should be broken down and replaced by strategies which emphasize on the community's ownership and participation in the strategies aimed at enhancing entrenching food sustainability.

2.8.3 The Theory of Sustainable Development

This theory highlights the importance putting in place long-lasting strategies that involve individuals and groups of people for the purpose of attaining ownership. The original definition coined by the World Commission on Environment and Development defines sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (Warhurst, 2001: 60). This calls for prudence in utilising the resources that sustains human life without compromising the availability of such resources to the future generations. On the same, UNDP describes sustainable development as a process for realising human development "in an inclusive, connected, equitable, prudent and secure manner" (Warhurst, 2001: 60).

According to Ismail (2009: 203-204), community development involves developing active and sustainable communities based on social justice and mutual respect; influence power structures to get rid of the barriers that prevent people from participating in the issues that affect their lives. Alternatively, community development has to do with the initiatives undertaken by a community in partnership

with external organizations or corporation to empower groups of people by providing them with the skills they need to effect change in their own communities. In an attempt to bring about sustainable community development, the skills provided to individuals and groups of people should make use of local resources and building political power through the formation of large social groups working or geared towards a common agenda (Ismail, 2009: 203-204).

This theory is relevant to the undertaken study for it advocates for initiatives undertaken by a community in partnership with external organizations to empower groups of people by providing them with the skills they need to effect change in their own communities. The food security concerns in Mwingi District will be conceptualised within this theory because it entails putting in place long-lasting strategies that involve individuals and groups of people for the purpose of attaining ownership.

2.8.4 Basic Human Needs Theory

This research study as well utilizes the Basic Human Needs Theory championed by Burton (1990) to analyse the role of UCCS in enhancing food security in Mwingi District. This theory endeavours to promote the attainment of Basic Human Needs (Burton, 1990: 152-173). Burton argues that it is important to conceptualise basic human needs and know their essential elements, how they manifest themselves and how they are identified. The basic argument of this theory is that there are needs which if denied can lead to deep rooted conflict. For the purpose of this study, the term conflict will refer to structural conflict or constraints and not manifest or violent conflict.

For the purpose of this study, food which is a central concern is regarded as a basic human need. Burton further argues that the existence of a need cannot be empirically measured, but rather inferred from observable human behaviour. Therefore, the existence of a need can be concluded indirectly by the respective satisfiers that the person uses or strives or from symptoms of frustration caused by caused by any kind of non-satisfaction (Burton, 1990: 164).

A solution to a conflict that does not address the basic human needs is likely to see the conflict re-emerge, (Burton, 1990: 162). According to Burton, (1990: 73-134, protracted conflicts are necessitated by the denial of basic unachievable values or frustration of basic human needs. Unlike interests which can be negotiated, basic human needs are order values that can not be traded. Davies (1986: 35-57) concedes that societal resentment becomes increasingly likely when any kind of basic human need which had become routinely gratified suddenly becomes deprived. On the other hand, Cantril (1970: 14-17) considers the interplay between the individual and society in terms of meeting basic needs. A viable society must provide for survival needs, security and the achievements of satisfactions.

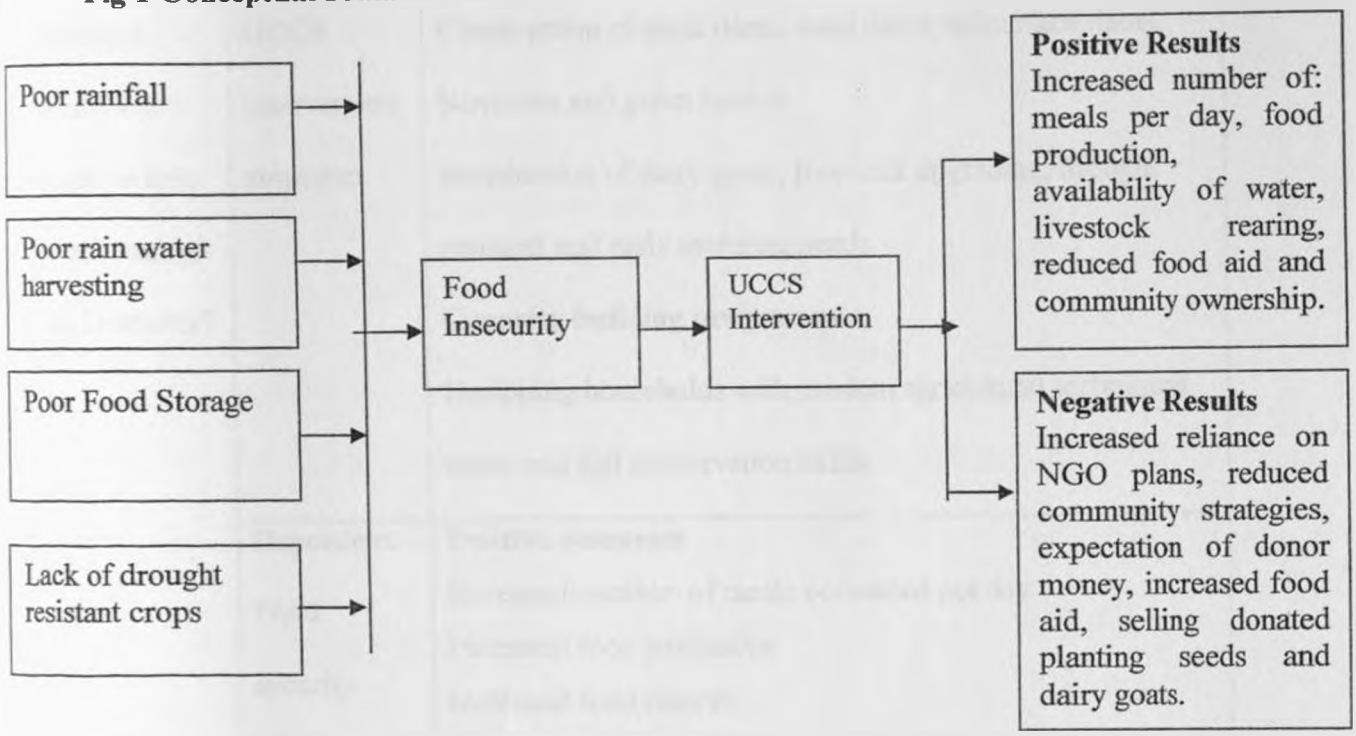
The Theory of Basic Human Needs is relevant to this study in the sense that it endeavours to promote the attainment of Basic Human Needs. This study considers food insecurity in Ukambani as a high priority need that needs to be satisfied among households.

2.8.5 Conceptual Framework

Owing to Ukambani's myriad of food security related problems ranging from famine, drought, unavailability of water and malnutrition among others, many NGOs and for the purpose of this study, UCCS has endeavoured to address these challenges.

Enhancing food security in Mwingi District entails empowerment of the community by an external stakeholder. External intervention strategy form the independent variable while the effects of this intervention forms the dependent variables among them sustainability, participation, ownership, enhanced community strategies and self-reliance.

Fig 1 Conceptual Frame Work



2.8.5 Explanation of the Conceptual Model

The food insecurity in Mwingi District calls for strategies from both within and without to avert the situation. The persistence of hunger in spite of interventions by external stakeholders triggers an investigation into the strategies put in place by UCCS in enhancing food security in the area. This will key in finding out whether UCCS' strategies are enhancing food security or not. The first step involves the identification of the factors responsible for food insecurity followed by evaluating intervention measures by UCCS with a keen interest of finding out if their efforts are

geared towards fighting the causes of food insecurity or their efforts are worsening the situation.

2.9 Operationalization of Variables

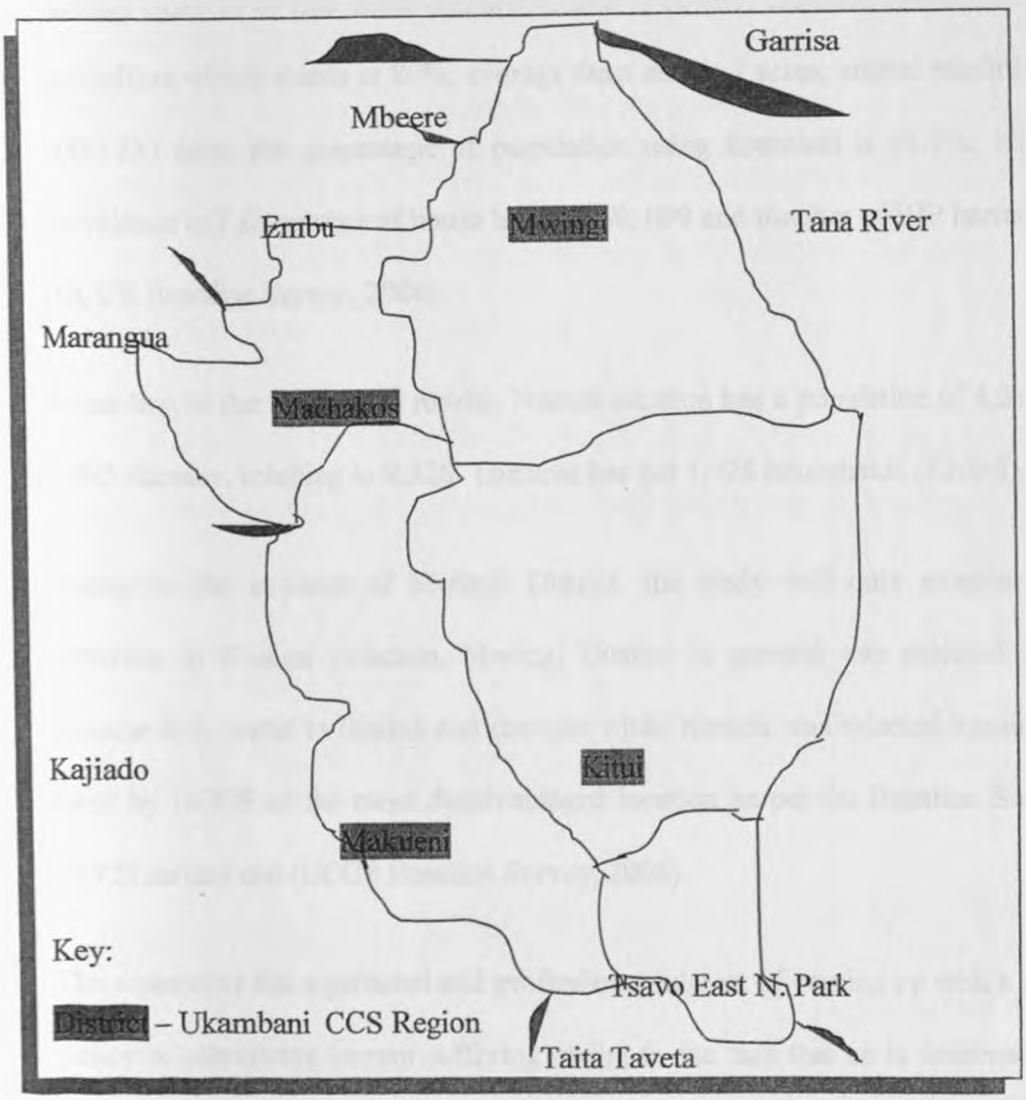
Research Question	Variables	Indicators
Is UCCS playing a positive or negative role of enhancing food security?	Independent: UCCS intervention strategies	**Number of water and food projects** Construction of earth dams, sand dams, subsurface dams, boreholes and green houses Introduction of dairy goats, livestock upgrading, drought resistant and early maturing seeds **Capacity building programmes** Equipping households with modern agricultural techniques, water and soil conservation skills
	Dependent: Food security outcomes	**Positive outcomes** Increased number of meals consumed per day Increased food production Increased food reserve Availability of water Hybrid livestock rearing Reduced food aid Reduced malnutrition cases Community participation and ownership **Negative outcomes** Increased reliance on NGOs, reduced community strategies, expectation of donor money, increased food aid, selling donated planting seeds and dairy goats

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the procedures that were followed in conducting the study. This is basically the steps that were taken in the collection of data in Mwingi District and how this data was analysed for presentation. The chapter is composed of the following sections: site selection and description; unit of observation and analysis sampling; sources and types of data; methods and tools of data collection; and methods of data analysis.

3.2 Physical Profile: A Map of Ukambani (2002)



The sketch map above shows the 4 larger administrative Districts of Ukambani namely Kitui, Machakos, Makueni and Mwingi. Note that NZauni was recently curved out of Mwingi District and became part of the newly created Miwani District. As shown above, the UCCS Integrated Food Security Programs are concentrated in the four Districts of Ukambani.

3.3 Site Selection and Description

The study site is Mwingi District situated in the Eastern part of the Republic of Kenya which is Semi-Arid. This district has the poverty level of 60%; arable land per acreage (KM) is 4513.6 while non-arable land is 5516.7; the main source of income is agriculture which stands at 80%; average farm size is 7 acres, annual rainfall range is 400-1737 mm; the percentage of population using firewood is 95.7%; HIV/AIDS prevalence is 7.6; number of house holds is 60, 099 and number of VIP latrine is 5886 (UCCS Baseline Survey, 2006).

According to the last sensus results, Nzauni location has a population of 4,241 males, 5,085 females, totalling to 9,326. The area has got 1,928 households (KNBS).

Owing to the expanse of Mwingi District, the study will only examine UCCS' activities in Nzauni Location. Mwingi District in general was selected primarily because it is prone to famine and drought while Nzauni was selected because it was rated by UCCS as the most disadvantaged location as per the Baseline Survey that UCCS carried out (UCCS Baseline Survey, 2006).

The researcher has a personal and professional interest of coming up with a grounded policy of alleviating human suffering owing to the fact that he is involved pastoral work. From a personal observation, this area suffers from a history of poor rainfall

which disfavours crop production and meaningful cattle keeping (Muoko, 2010). The reliable short rains begin in October and end in December while the long rains begin in begin in March and end in May. But such rains have been known to fail in the past, thus aggravating food security in the area, making the residents to rely on food relief from the government. Besides drought, the residents have got outdated farming methods and lack of quality seeds.

Lack of water is perceived to be the great cause of poverty in this area. There is a perennial shortage of water due to frequent drought. The average walking distance to the source of portable water is 5-15 km. This makes most families spend much of their time searching for water leaving very little time for other useful ventures. Agricultural production is also greatly affected leading to low yields and perpetual food shortages. Livestock production is also affected since the drought depletes pasture leading to body weight loss as the animals travel long distances to watering points (UCCS Baseline Survey, 2006).

The residents of this area have lived relying on food aid from NGOs, Government of Kenya and Churches. This has had an eventuality of the dependency syndrome. This calls for endeavours to avert the situation by initiating participatory projects guided by Christian principles. According to the Strategic Plan of UCCS (2010-2014:7), the priority areas for Ukambani area are as follows: Institutional Development, Integrated Food Security Programme, Environmental Conservation-climate change Programme, water and Sanitation Programme.

3.4 Unit of Observation and Analysis

According to Singleton et al (1988: 69), units of analysis are entities (objects or events) under study. "The unit is simply what or whom is to be described or analysed"

On the same, Frankfort-Nachimias et al (1996: 53) contend that the unit of analysis is the most elementary part of the phenomenon to be studied. The unit of analysis of this study is the role of NGOs (particularly UCCS) in enhancing food security. According to Mugenda et al (2003:14), the unit of observation is entity from which we measure the characteristics or obtain the data required in the research. In this study, the unit of observation will be the households of Nzauni Location supplemented by key informants.

3.5 Sampling

Sampling is a procedure of data collection where a few units from the whole population of interest are studied and the results obtained are generalized to represent the whole population (Frankfort-Nachimias, 1996:177-78). Sampling enables a researcher to draw conclusions about the entire set based an examination of a subset. In the areas where UCCS operates, random sampling was used to identify the sample population of the household informants.

Purposive sampling was used in identifying key informants who were considered to have the information relevant to the objectives of the study. According to Mugenda et al (2003: 50), "Purposive sampling is a sampling technique that allows a researcher to use cases that have the required information with respect to the objectives of his or her study." Purposive sampling is used in this study because the researcher intends to include people of interest and exclude those who do not suit the purpose.

The researcher interviewed people from 40 households from each of the 3 (three) sub-locations (Mvivu, Kikiini and Nzauni), totalling to 120. Ten (10) households from each of the three sub-locations were people who have not benefited but are aware of the UCCS programmes, totalling to 30. The remaining 90 constitute those who have

benefited from UCCS programmes. Purposive sampling was used in identifying key informants among them, UCCS staff, the District Officer (D.O.), Chief, Sub-chiefs, District Development Officer (D.D.O) and the Agricultural Officer (A.O). In areas where UCCS operates, sampling frames will be obtained from local administrators.

The sample size included 120 households, three (3) Focussed Group Discussions of 10 people each, 3 UCCS staff, 1 District Officer, 1 Chief, 3 Sub-chiefs, 1 District Development Officer (D.D.O) and an Agricultural Officer. The total sample of respondents (N =120).

3.6 Sources and Types of Data

This research study collected data from both primary and secondary sources. Primary data was collected through the conduct of field research targeting the so called beneficiaries of the UCCS projects and workers of UCCS. Face to face interviews, questionnaires and observation was used to collect primary data. Secondary data was sourced from published works in the form of books and journals. Both primary and secondary data constitutes either qualitative or quantitative data. Whereas quantitative data presents research findings in the form of figures or numbers or quantity, qualitative data presents research findings in a descriptive form.

3.7.1 Methods and Tools of Data Collection

3.7.2 Structures Interviews

The researcher collected data from households using questionnaires with both closed-ended and open-ended questions.

3.7.3 Key Informants Interviews

This researcher carried out an in-depth interview to collect data targeting three UCCS staff using a Key Informants Guide.

3.7.4 Focused Group Discussions

The researcher made use of focussed group discussions to gather information from households on the role played by UCCS in enhancing food security. Three (3) focussed group discussions were held in the three sub-locations of Nzauni Location. The researcher used the Focused Group Discussion Guide.

3.7.5 Documentary Review

The collection of secondary data involved reading and analysing relevant written works in the form of books, journals, magazines, newspapers and internet. A documentary checklist was used as the guiding tool.

3.7.6 Observation

Direct observation was utilised by the researcher to collect data. During field research, observed phenomenon relevant to study was recorded using an observation check list.

3.8 Validity of Data Collection Instruments

The validity of an instrument represents the degree to which test measures what it is intended to measure (Borg and Gall, 1989). According to Singleton (1988: 253), a pre-test "consists of trying the out the survey instrument on a small number of persons having characteristics similar to those of the target group of respondents ... to determine whether the instrument serves the purposes for which it was designed." The questionnaire was pre-tested for content validity and reliability. The pilot study was done one week before the actual study to help make correction, adjustments and additions to the research instruments. This had an overall effect of establishing the ability of the instruments to produce accurate findings. The items of the instruments found to be vague were readjusted while others were eliminated.

3.9 Data Collection Procedures

With regard to data collection, the first step entails gaining access to respondents. This is done by "gaining "official" permission or endorsement when needed or useful..." Singleton (1988: 253). The researcher made appointments with the UCCS officials and the residents of Nzauni Location of Mwingi District through the help of village heads and sub-chiefs. Official permission was sought from the local provincial administrators to allow the researcher to meet the households of Nzauni.

On the research day, explanation of the purpose of the study was made to the respondents and they were assured nondisclosure of their identity. The researcher distributed questionnaires to both households and key informants and collected them after one day.

With regard to collecting primary data, the researcher collected information from the selected informants through field research while secondary data was collected from published works in the form of books, journals and the UCCS baseline survaey.

3.9.0 Methods of Data Analysis

Babbie (1995: 104) observes that the final stage of research entails manipulating the collected data for the purpose of drawing conclusions that reflect on the interests, ideas and theories that initiated the inquiry. He further observes that the results of analysis feed back one's initial interests, ideas and theories. This feedback may represent the beginning of another cycle of inquiry.

Whereas qualitative data was analysed descriptively, quantitative data was analysed using SPSS: this involved both statistical inferential analysis.

Data analysis involved reviewing data collected from written works and data generated from field research. Data collected through the conduct of field research was analysed in line with the initial objectives, interests and ideas that triggered the research. The responses given by various informants was categorised into specific themes. The emerging thematic concerns were examined to establish their nexus, leading to making necessary recommendations for action.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This study was geared towards examining the role played by NGOs, more specifically UCCS in enhancing food security in Mwingi District. Owing to the expanse of Mwingi District, focus was on UCCS activities in Nzauni Location. UCCS's sponsored activities targets three sub-locations of Nzauni Location: Kikiini Sub-location, Muivu Sub-location and Nzauni Sub-location. The entire study used a total population sample of 120 household respondents from the three locations of Nzauni location of Mwingi District.

The data in here is presented as per the three objectives of the study which are: to find out the nature and extent of food insecurity in Nzauni Location of Mwingi District, to find out the intervention measures put in place by UCCS to enhance food security and to asses the impact of the intervention measures by UCCS on food security.

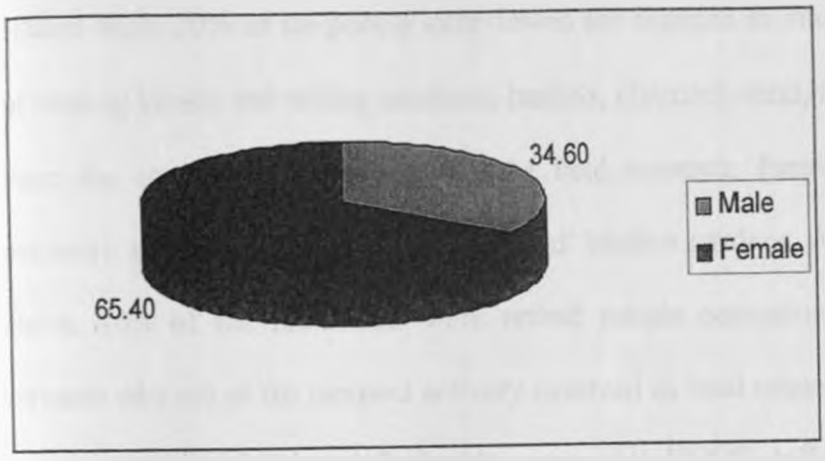
4.2 Demographic Characteristics of the Respondents

The profile of the interviewed respondents involved knowing their age, sex level of education, marital status and occupation. Occupation of the general informants ranged from farmers, business men/women and youthful people who depend on their parents. The youngest informant was 18 years old while the oldest was 72 years old. Some of the informants were heads of households while some were youths.

4.2.1 Sex of the Respondents

The study sought to establish the sex of the respondents. Knowing this was helpful in understanding the bearing of available people (in terms of sex) on the situation of food security.

Chart 1: Sex of the Respondents

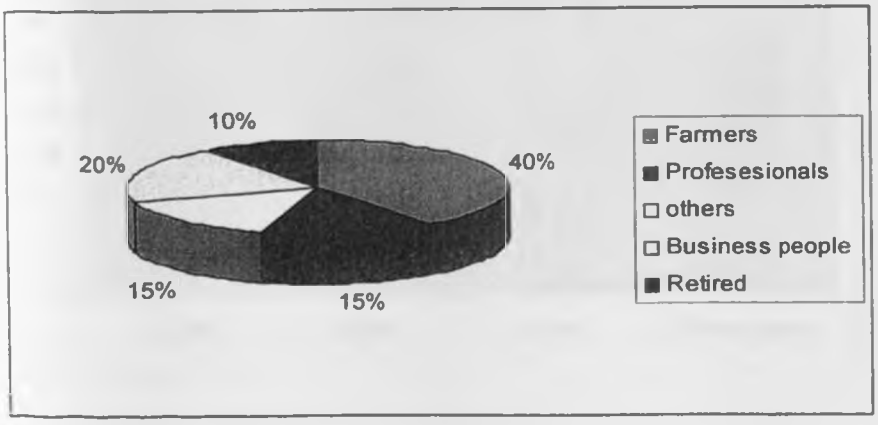


As shown in the figure above, 65.4 percent of those interviewed were women while 34.6 percent are men. The explanation given from the area chief is that majority of the people in the community are women while men are out in towns or elsewhere working or engaged in other income generating activities to feed their families.

4.2.2 Occupation of the Respondents

The study sought to establish the occupation of the respondents. This was helpful in understanding their source of income. It can be hypothesised that all factors held constant, the level of income of a household determines food affordability.

Chart 2: Occupation of the Respondents

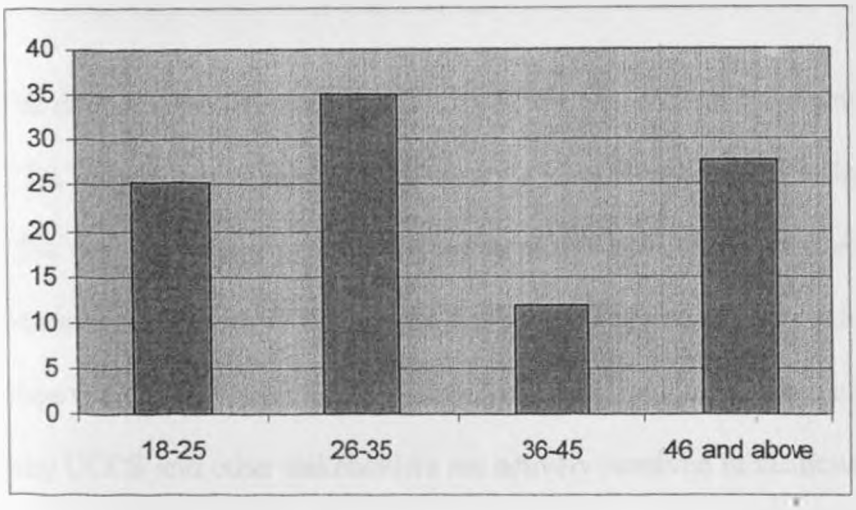


As shown in the figure above, 40% the people interviewed were peasant farmers of Nzauni while 20% of the people interviewed are engaged in micro-business business of running kiosks and selling artefacts, baskets, charcoal, sand, fruits and vegetables. Form the observations made during the field research, farming is predominantly peasantry and rain fed with a few 'irrigated' kitchen gardens. As shown in the chart above, 10% of the informants were retired people comprising teachers and civil servants who are at the moment actively involved in food related projects while 15% of the respondents were professionals comprising UCCS staff. District Agricultural Officer and District Development officer who served as the key informants. Finally, 15% of the respondents have been classified as others constituting the provincial administrators, college going youth and the jobless youth.

4.2.3 Age of the Respondents

The study sought to establish the age of the respondents the age of the respondents and the results are tabulated in the chart below.

Chart 3: Age of the Respondents



As shown in the figure above, 25.4% of the informants were aged between 18 and 25 years; 35% were aged between 26 and 35 years; 12% were aged between 36-45 years and finally 27.6% were aged 46 years and above. Effort was made to ensure inclusion of people of different ages apart from those below 18 years.

4.2.4 Education Level of the Respondents

The study sought to establish the level of education attained by the targeted respondents. The results are illustrated in the table below.

Table 1: Education Level of the Respondents

Education level	**Frequency**	**Percentage**
Primary	72	60
Secondary	14.3	11.88
Tertiary college	4	3.2
University	3	2.3
Never been to school	27	22.5
Total	**120**	**100**

The data analysed showed that 22.5% of the respondents have never been to school, 2.3% have attained university education, 3.2% have attained college education, and 12% are secondary school graduates while 60% have attained primary school education. Majority of the people have only attained primary school education. As observed by the researcher, low levels of education deny people exposure and this is why UCCS and other stakeholders are actively involved in facilitating exposure tours. The tours are aimed at increasing the level of food related awareness of the households.

4.2.5 Marital Status of the Respondents

The researcher sought to establish the marital status of the respondents whose results are illustrated in chart 4 below.

Table 2: Marital Status of the Respondents

Status	Frequency	Percentage
Married	76	63
Single	32	27
Widowed	12	10
Total	**120**	**100**

The figure above shows that 60% of the respondents are married, 27% are single and 10% are widowed. The combined percentage of people who are single and widowed could be having a bearing on the food security situation in Nzauni Location. This triggers an area for further research.

4.3 MAIN FINDINGS

4.4.1 The Situation of Food Security in Nzauni

The first objective of this study sought to find out the nature and extent of food insecurity in Mwingi District. With regard to this, the first part of the main findings explores the food situation. It also notes down the number of meals a household can afford; the amount of food produced in the year 2009 as per the amount harvested, amount sold and amount reserved for future use and finally it examines the perception of the situation of food security before and after the intervention of UCCS.

4.4.2 Number of Meals Taken per Day by Households

The researcher sought to know the number of meals households can afford to consume per day. The responses have been illustrated in the table below.

Table 3: Number of Meals Taken per Day

Number of Meals Taken per Day	Frequency	Percentage
One	27	22.5
Two	41.04	34.2
Three	51.96	43.3
Total	**120**	**100**

The table above shows that only 43.3% of the sample population can afford to take three (3) meals per day while 56.7% of the sample population can afford to take two (2) or less meals per day. The researcher made a step further to probe on the kind of meals the sample population consumes. It was found out that in most cases they consume maize and beans, and occasionally pumpkin, potatoes and some consume avocadoes without any other accompaniment.

From the above analysis, it is clear that the area suffers from lack of dietary diversity leading to malnutrition related ailments. This can be as well qualified by an assertion made by a 62 year old retired teacher interviewed at Kaikungu village that "this area suffers from malnutrition related ailments like kwashiorkor, marasmus, underweight and anaemia." Such diseases further strain the already suffering households.

Generally, the entire area is not productive enough to agriculturally produce enough to feed the residents and majority of the people do not have money to buy food from elsewhere while some sell the little they have to cater for school fees. This brings

about starvation. According to the sample population interviewed, so far, no one has in the recent past died directly due to starvation or famine. However, children and elderly people have succumbed due to malnutrition related illness.

4.4.3 Food Production in 2009

The researcher sought to know the type and amount of food crop produced, sold and amount reserved for future use. The results are illustrated in the table below.

Table 4: Food Production in 2009

Food Crop	Amount harvested 90kg bags	Amount Sold 90 kg bags	Amount Reserved 90 kg bags
Maize	900	200	100
Beans	28	10	0
Sorghum	150	40	0
Peas	100	15.8	22
Avocadoes	1,200	800	0
Mangoes	1,300	1200	0
Pumpkin	100	0	0
Green grams	72	40	22
Pigeon peas	34	4	22

Source: District Agricultural Officer, Mwingi District

As shown in the figure above, household food production in the year 2009 was relatively good. As indicated above mangoes, avocadoes and maize production was the highest compared to other food crops. According to a peasant farmer interviewed at Mavulya, "much of the food produced here is sold away and therefore not eaten locally so as to cater for other needs like paying school fees." Owing to the fact that

majority of the people in the area are poor, they often sell they little they produce at their doorsteps to businessmen who transport the commodities for sale in Nairobi or elsewhere. Whenever there is pumper harvest, a number of businessmen throng into the area to buy for instance mangoes, beans, green grams and pumpkin. This indicates that the persistent trend of food insecurity in the area is poverty. This is a hurdle that should be addressed by both external and internal stakeholders.

This study conceptualized food security as availability, affordability and accessibility of food by a given population. As argued above by the interviewed peasant farmer, although the agricultural produce is evidently available, the produce is not locally available for consumption as much of it is sold at the doorsteps to merchants from Nairobi and the local population do not have the purchasing power for they are poor. There is need to come up with mechanisms to cater for other needs of the local population so as to avoid selling food.

4.4.4 Type of Livestock Reared

The researcher sought to know the type of livestock reared by households. The community rears the following types of livestock: cattle, poultry, goats, rabbits, donkeys and doves. According to a female informant involved in the tree nursery project at Mvulya, "poultry ranks highest because goats are easier to feed than cattle and secondly because a good number of people received dairy goats facilitated by UCCS."

According to a retired teacher, livestock rearing is very strategic in ensuring food security and dietary diversity in the area. Livestock rearing ensures local availability of eggs from poultry, milk from cows and goats which are either consumed or sold to

purchase food for households. Donkeys are used in fetching water and transporting agricultural produce to and from the market.

According to the Sub-chief of Kikiini Sub-location, "Owing to the high levels of poverty in the area, livestock related products are sold by some people not to cater for food needs but rather to buy clothes and pay school fees." This is a clear indication that people do not have alternative means of income which can enable them to buy clothings and the demands of education, say school fees. Luck of sustainable alternative means of income makes the fight against food insecurity far from being over. This then calls for concerted efforts to empower the community members with alternative means of income and as a result spare the meagre livestock related products like eggs and milk for household consumption.

4.5.1 Causes of Food Insecurity

The causes of food insecurity in the area are abject poverty, drought, use of outdated agricultural farming methods, pests, inadequate intervention by external stakeholders, post harvest losses due to improper storage mechanisms and lack of water for irrigation. The three dominant causes of food insecurity in the area are lack of water for irrigation, poverty and farming methods. Efforts towards alleviating food insecurity in Nzauni should address the three dominant causes.

4.5.2 Internal Ways of Coping with Food Insecurity in Nzauni

There are various strategies used by households to cope with food insecurity in the area. A local farmer at Kaikungu village observed that "households of Nzauni cope with food insecurity through: receiving relief food, borrowing food from those who have, eating wild fruits, migrating to towns and buying food using cash gotten from casual employment and charcoal burning."

The study sought to know from the District Agricultural Officer how effective and helpful the above strategies are. The strategies are according to him "helpful in the sense that they ensure survival but they do not offer food sustainability." He further observed that some strategies like charcoal making are causing harm to the soil, people, animals and other living organisms.

According to the Mwingi DAO,

> "charcoal burning is not a popular strategy of fighting famine in the area because it has had an effect of environmental degradation. Hills and other areas have been left bare due to cutting of trees to burn charcoal. The bare soil is subjected to wind and water erosion, mass wasting and occasional landslides. Charcoal burning for livelihood survival has taken the community backwards."

Attempts of addressing food insecurity in the area through charcoal burning have created horrendous environmental problems as noted above. This has called for external intervention. UCCS and its ally CBOs plus the Ministry of Agriculture have sought to address deforestation through training people in soil conservation through planting trees, having tree nursery and terracing.

As observed above, some people migrate to towns with hopes of getting jobs as way of mitigating food insecurity. This has seen many help their families back at home with money to purchases seeds, fertilizer and food. From a critical point of view, this strategy does not address the root causes of famine in the area but rather addresses the symptoms, thus the persistence of hunger.

According to the UCCS program officer in the water docket, households use the following strategies to cope with food security: establishment of kitchen gardens, planting drought tolerant crops like sorghum, maize DHO1 and green grams. Some locals are involved in diverse income generating activities like tree nurseries, poultry keeping, rabbit keeping and growing various fruit trees like mangoes, paw paws, guavas avocadoes and bananas. Ceteris paribus, these strategies will be helpful in the long run for they will ensure local availability of food.

4.6.1 UCCS' Intervention Measures

The second objective sought to find out the intervention measures put in place by UCCS to enhance food security. With regard to addressing this objective, firstly the role of UCCS and how it operates in Nzauni location will be looked into followed by an examination of its installed projects and household participation in the installed projects.

4.6.2 The Role of UCCs in Nzauni Location

According to the chief executive of UCCS, UCCS has been in operation in Nzauni Location since 2007. UCCS has got multiple roles in Nzauni Location. Firstly, it works towards increasing the capacity of CBOs which are concerned with food security. Secondly, UCCS organizes and or institutionalizes CBOs. Thirdly, UCCS links CBOs with other development organizations. The UCCS programme officer in charge of water added that UCCS is involved in resource mobilization for the community besides facilitating the educating of households on various development aspects like livestock keeping; nurturing dairy goats; educating people on soil and water conservation; planting drought tolerant and early maturing crops; building sand dams, earth dams and greenhouse among others.

4.6.3 How UCCS Works

According to the chairperson of Nzauni CBO, UCCS works in collaboration with Nzauni CBO which is in turn in touch with nineteen (19) Self Help Groups of farmers spread across the entire Nzauni Location. UCCS's activities in Nzauni Location target the three sub-locations which forms Nzauni Location namely KIKIINI Sub-location, Muivu Sub-location and Nzauni Sub-location.

UCCS and Nzauni CBO used poverty index Map to move to Mavulya where they have jointly installed projects such as earth dam, green house, tree nursery and dairy goats among others. UCCs ranked the three sub-locations of Nzauni Location and found Nzauni Sub-location to be the most disadvantaged. The next step they took was calling all social groups through the provincial administration to apply for support from UCCS. In response, 19 social groups emerged. UCCS technical staff helped them to come up with a constitution.

The 19 social groups together with UCCS carried out a baseline survey to identify the needs of the community. Through the conducted baseline survey, the following needs were identified; food insecurity, severe water scarcity, human diseases, illiteracy and meagre income. The identified community problems were ranked so as to identify priority needs. As a result, food and water stood as priority needs of the community as shown below.

Table 6: Priorities of the Households

Priority	Frequency	Percentage
Disease	28	18
Income	31	20
Education	26	17
Water	34	22
Food	36	23
Total	**155**	**100**

Source: Research Findings by S. Muoko, 2010 from UCCS Baseline Survey, 2007

From the table above, 23% of the households involved in ranking priorities cited food as their priority followed by water. It was however realised that food insecurity in the area is as a result of severe water scarcity which called for fighting famine by solving water problem in the area.

4.6.4 The Installed Projects

As noted earlier, UCCS links CBOs with other development players. Following the ranking, UCCS linked Nzauni CBO with other development partners like Christian Aid and JOAC. As a result, Nzauni CBO established Mavulya Earth Dam which was opened for use on October 19, 2009.

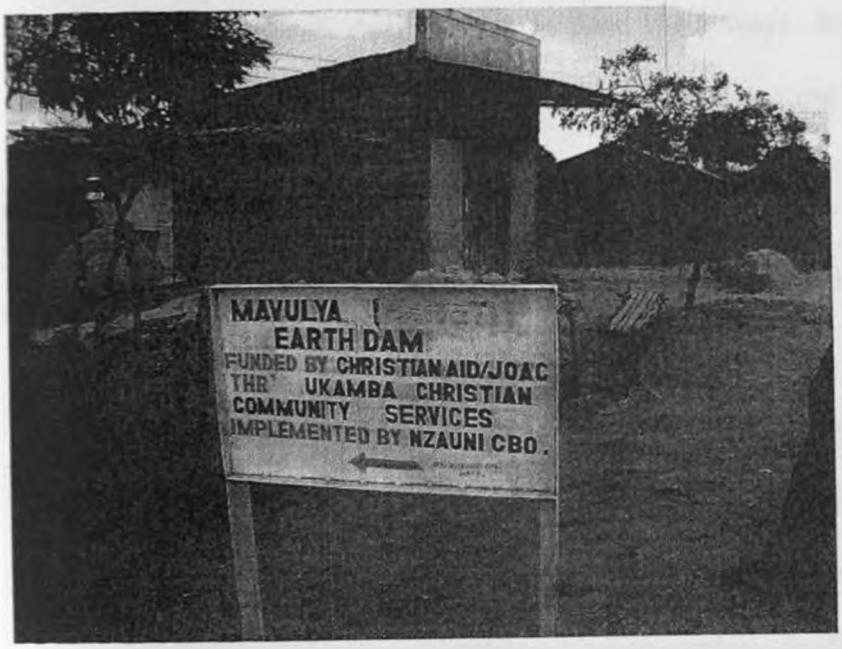


Photo of a board showing the site of the established earth dam and the facilitating organizations. The photo was taken on October 5, 2010 by S. Muoko.

Below is the established Mavulya Earth Dam which has kept water run offs of the May-April long rains.

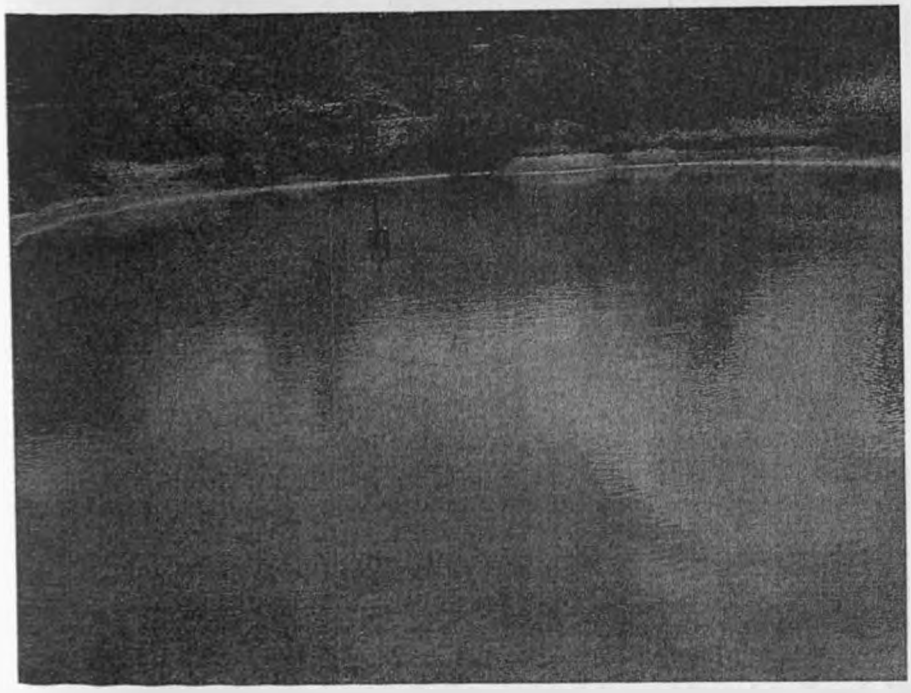


Photo of Mavulya Earth Dam. The photo was taken on October 5, 2010 by S. Muoko

The water from the earth dam is used in three main ways: human consumption, livestock keeping, watering a tree nursery and drip irrigating a greenhouse and checking water runoffs down the hill, thus conserving soil erosion.

The researcher sought to know from households on how helpful the established water project is in solving famine. According to one of the beneficiaries,

> "before the establishment of the Mavulya Earth Dam, women were burdened with going to fetch water 4 kilometres away specifically at Kwa Maondu Shallow Well. Now, the time women used in fetching and queuing for water far away is used in establishing kitchen garden, feeding livestock which supplies them with beef and milk, planting and watering tree nursery and cooking for children among others".

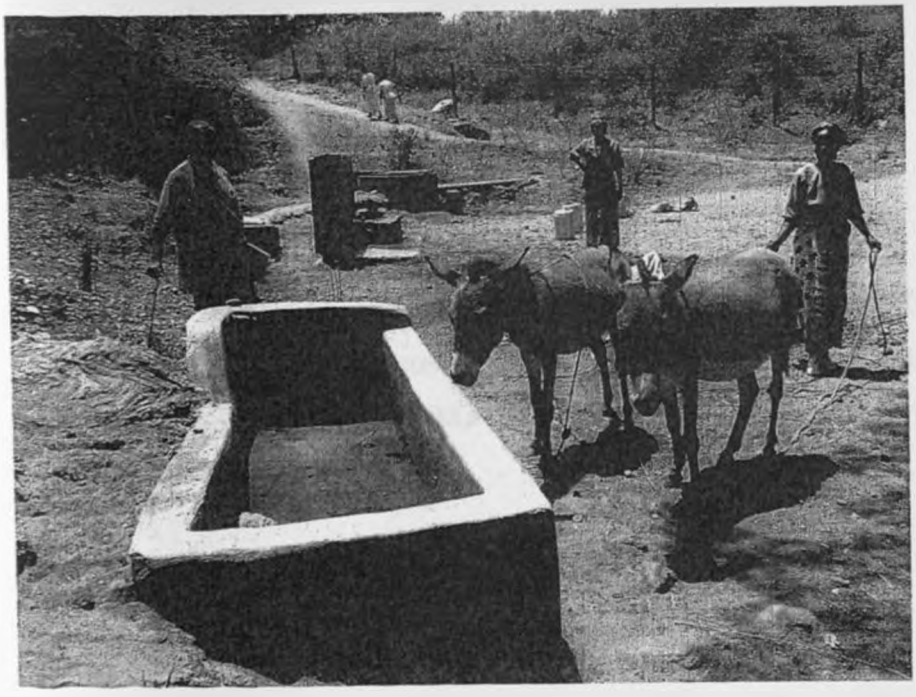


Photo of the cement trough of water piped from Mavulya Earth Dam. The photo was taken on October 5, 2010 by S. Muoko

Maiyuni Bidii Youth Group which a self-help group attached to Nzauni CBO is engaged in making and managing a tree nursery. The Tree nursery grows trees and fruit seedlings which the community hopes to use in catering for fruit needs. The community's priority fruits are mangoes, papaya, Guavas and avocadoes. Below is a photo of an established tree nursery Standing before it are the members of the Maiyuni Bidii Youth Group.

Photo of the tree nursery established by Maiyuni Bidii Youth Group. Posing before the tree nursery are some members of Maiyuni Bidii Youth Group. The nursery receives water from Mavulya Earth Dam. The photo was taken on October 5, 2010 by S. Muoko

The tree seedlings from the tree nursery are planted and the rest sold and the money gotten is used in buying food. The researcher made a step further to know from households on how helpful the tree nursery is in solving famine in the area. According to the informants, the seedlings are sold and the cash is used in buying food. One of the informants was quick to note that, "even if that is the case, it has not fully solved famine in the area because it is only the members of the social group who benefit

from it." There is need to mobilise all people to join these social groups. The impact of planting the trees of the nursery trees has not been realised because the tree nursery was initiated three years ago.

The second active social group is Etambya Self Help Group which is geared towards establishing greenhouses. As found during the field research Etambya Self Help Group has so far established one Green House growing tomatoes that are watered by water pumped from Mavulya Earth Dam. Challenges identified are unique insecticides which are and eventually destroyed the first batch of the greenhouse tomatoes.

Photo of the tree nursery established by Etambya Self Help Group. This nursery receives water from Mavulya Earth Dam. The photo was taken on October 5, 2010 by S. Muoko

Nzauni CBO has established a borehole at Kaikungu Village. However, this borehole did not end up being helpful as thought because it dries up during the dry season

because the engineers did not properly strike the water and there are no follow-ups made to alleviate the situation.

Photo of a borehole at Kaikungu Village. The photo was taken on October 5, 2010 by S. Muoko

UCCS works in conjunction with Nzauni CBO and the Ministry of Agriculture in capacity building in soil and water conservation. This involves teaching the households to check rain water downstream through terracing; construct earth dams, sand dams and subsurface dams. Sand dams for instance at Kaikungu has helped the community to have access to water in their vicinity. However, they completely dry up during the dry season. This means that this strategy is not sustainable and hence need for establishment of sustainable boreholes.

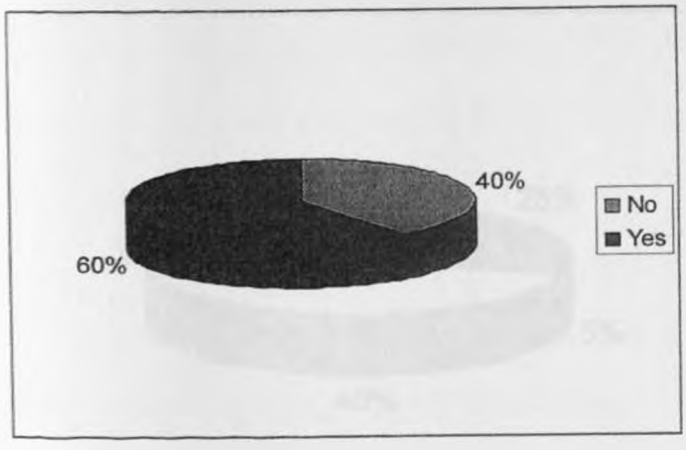
Through livestock improvement project UCCS has engaged itself in goat upgrading to ensure dairy goats. Poultry training, orphan goat support. This has to some extent enhance availability of goat milk eggs, chicken and goat meat. But how many can

afford livestock products in the area? Many households are too poor to buy such livestock products and secondly not every person is a beneficiary of the goat and chicken project. The study recommends for increased outreach programs to cover especially the poor folk.

4.6.5 Households Participation in Enhancing Food Security

The respondents were asked if they are involved in programmes aimed at enhancing food security. Various responses were given as shown below.

Chart 4: Households Participation in Enhancing Food Security



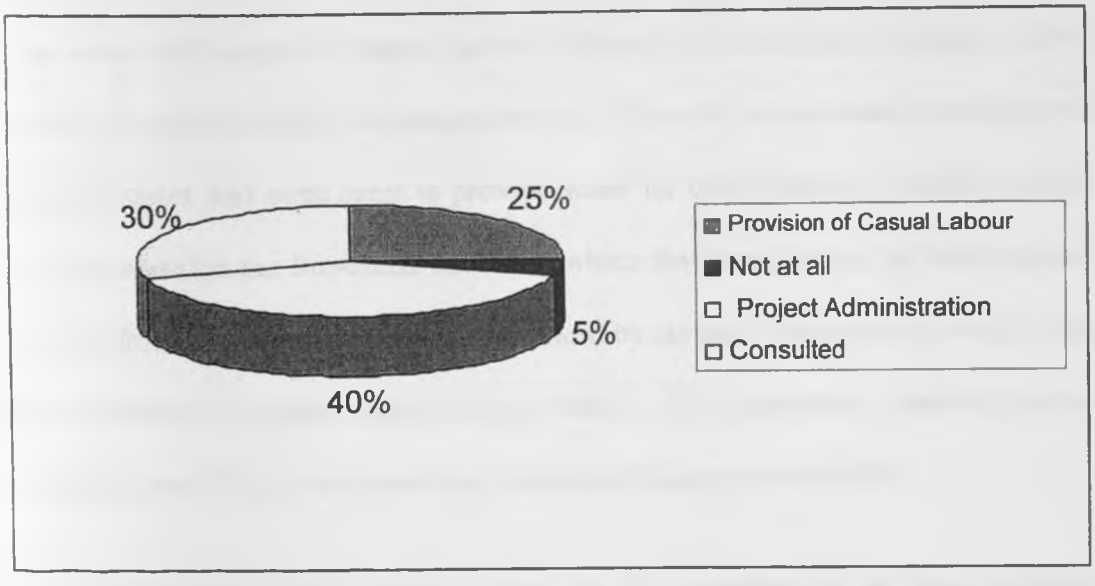
The figure above presents the percentage of those who are involved and those who are not involved. Whereas 60% of the households are involved in projects aimed at enhancing food security, 40% are not involved. Those involved are a majority. From the conducted focused group discussion, it was found out that involvement of households in the fighting hunger in Nzauni location has led to the ownership of the projects initiated. The households were involved in provision of labour needed in building for instance Mavulya Earth dam, Mavulya greenhouse and the Tree nursery. The households are directly involved in the management of upkeep of the established projects under the umbrella of self help groups. Those who are involved include

people who have no interest of joining self help groups, those living in towns and those who are extremely poor to an extent of being a shamed of showing themselves in public owing to the fact that they do not have proper dress.

4.6.6 The Extent to which Households Participate in Food Related Project

The researcher made a step further to find out to what extent the households are involved in projects aimed at enhancing food security. The results are as shown in the figure below.

Chart 5: The Extent to which Households Participate in Food Related Project



As indicated in the figure above, 40% of the households are involved in administration either as group leaders in various capacities or as committee members of the self Help Groups charged withy the responsibility of running the established projects. 25% of the households provide voluntary casual labour for instance in building earth dams, sand dams, green houses, tree nurseries, putting up a fence around the projects and watering seedling among others. 30% percent were consulted in determining what is best for them while 5% were not involved at all.

4.6.7 The Food Situation after External Intervention

The third objective of this study sought to asses the impact of the intervention measures by UCCS on food security. Based on this objective, the researcher sought to know from households the current food situation along with UCCS' intervention.

It was found out that the food security situation before the coming in of UCCS was very unstable for very few people could afford three meals per day. Moreover, a good number of households could not afford a balanced diet. According to the interviewed households, the situation is better than it was but the community is not yet achieved food sustainability because the established projects have not grown to cater the needs of the over 4,000 people of Nzauni Location. Secondly, the prolonged droughts affect the rain fed agriculture that the farmers rely on. This calls for increased establishment of green houses and earth dams to provide water for drip irrigation. Thirdly, people are yet to abandon the free-maize mentality which developed during the Moi regime. An old informant caused amusement and alarm by saying, "I am ready to wedge war against whoever is against Molio (Relief food)." The dependency mentality is far from being over. This is not something which will disappear overnight.

UCCS intervention efforts have improved the food situation but far from realizing food sustainability in the area. According to a UCCS staff, "True it is that we do facilitate the purchase and supply of drought tolerant certified seeds and introduced greenhouse technology, but there is more to be done: people need to be socialized to get rid of sit and wait for government and other stake-holders to bring relief food, seeds and fertilizers." This socialization will make people to work towards self-reliance and thereby rid the dependency syndrome.

UCCS has in the past sourced support from external stakeholders to supply households with maize, pulses, oil and beans in times of severe drought and famines. But UCCS is as for now interested in teaching households strategies aimed at ensuring local availability of food. This is done through teaching households methods of soil and water conservation, organic farming poultry keeping and dairy goats upgrading among others. It was however found out from household's that some people are "working" against the above strategies through selling donated fertilizers, seeds, dairy goats for orphans and poultry to meet their self-interest needs. This leads to the conceptualization of conflict between group needs and individual needs; short term needs and long term needs; the community self and the individual self. What is widely being seen as a community needs like food may not necessarily be a need of an individual.

Owing to the above, UCCS has as a result re-emphasized participatory community approach or people owned process. This makes households to contribute to the laid downs strategies aimed at ensuring local availability of food in the present and future times. UCCS has as well endeavoured in arranging exposure tours and workshops on proper food storage and sourcing for feedbacks from the beneficiaries.

Through livestock improvement project UCCS has engaged itself in goat upgrading to ensure dairy goats. This has helped especially orphans and other vulnerable people. This has to some extent enhance availability of goat milk eggs, chicken and goat meat. This is however challenged by some people's tendency to sell the donated goats to meet their personal needs like buying expensive dress and electronics. An elder present during the focussed group discussions lamented that "The worst experience I have seen is some people selling food to buy expensive clothes, electronics, beer and

woe women among others." This leaves other family members especially children and expectant mothers without food.

Form the above tendency of people selling donated planting seeds, goats and harvested food, the researcher realised that in as much as some people cry for help; they are the source of their food related problems. This calls for a need for people to be socialized to cater for dietary needs first before thinking of luxury needs, which are not sustainable in the long run.

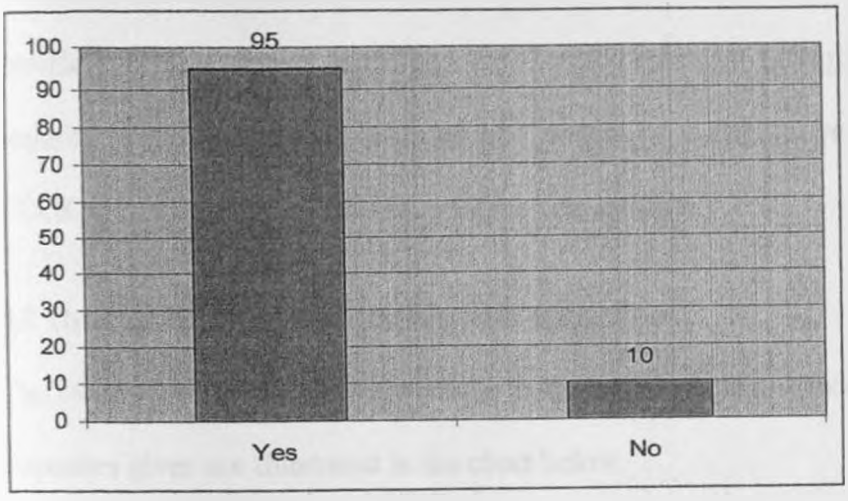
The researcher as well realised that much of what the locals produce is consumed elsewhere. For instance, people produce sorghum, green grams, poultry and fruits which they sell to business men who come from Nairobi. This leaves many households without dietary diversity.

It was also realised that the participatory approach towards solving food insecurity in the area is manifested in households having representatives in CBOs to air their views on what is best for them. This is because as remarked by UCCS director, "the role of UCCS is facilitation and not implementation of food related programmes.'

4.7 Nzauni without UCCS Intervention

The study sought to find out whether the households would be better off without UCCS intervention efforts through Nzauni CBO. Various responses from the respondents are indicated in the figure below.

Chart 6: Nzauni without UCCS Intervention



The data analysed indicates that 90% of the informants expect to be better off without UCCS' facilitation. About 10% of the informants did not expect this. The households were of the idea that once the community is equipped with the necessary knowledge and skills to wrestle with its present and future food needs, household will be better off without external intervention. According to a local businessman, "a community fighting for itself is what is needed and not a community relying on external intervention." The community should be empowered accordingly with modern agricultural skills like greenhouse farming as long as water is made available for irrigation. This will enable the community members to grow various food crops without the worry of being affected by drought.

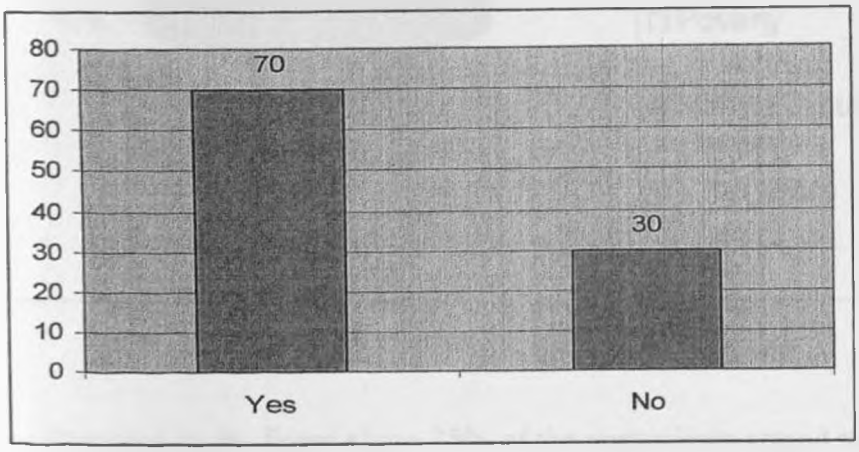
One thing was however clear that first, the locals need external intervention for the purpose of setting a base before they can stand on their feet without anchorage. Part of those who felt that they can do without UCCS were of the idea that part of the food crisis they face is caused by irresponsible behaviour of people selling pumper harvests to indulge in luxurious living without minding their food needs. The 10% of informants who did not expect to be better off without external intervention argued

that external stakeholders are very key in times of persistent drought and crop failure. According to them, external stakeholders should not be wished away because they can provide poor households with food aid during prolonged droughts. As long as the majority of the households are poor and do not have alternative means of income, UCCS and other external stakeholders are very necessary.

4.8 The Possibility of Doing Away with Relief Food

The researcher sought to know if the households can do without relief food. The responses given are illustrated in the chart below.

Chart 7: The Possibility of Doing Away with Relief Food

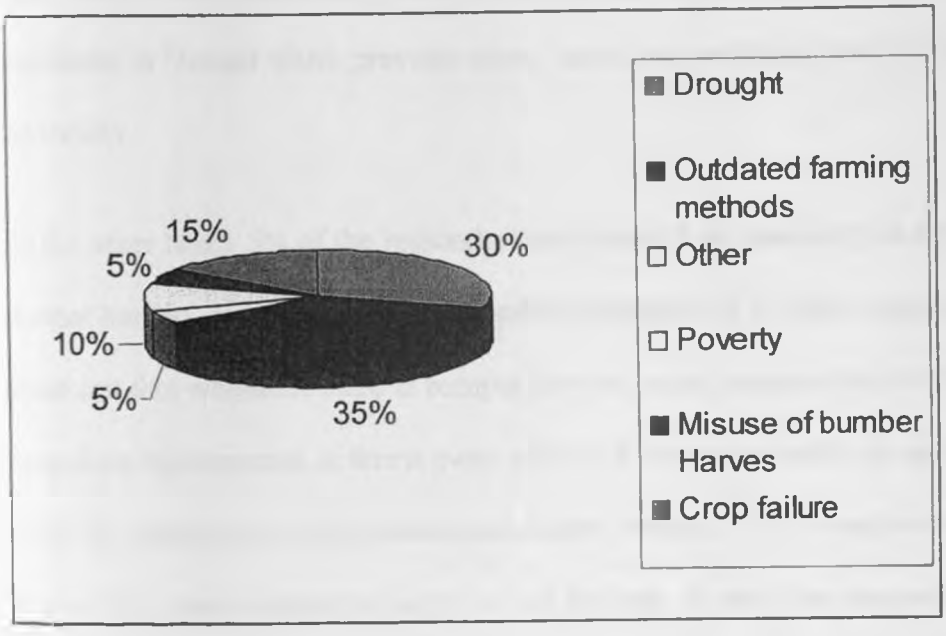


The information sourced from households showed that 70% of the respondents can do away with relief food while 30% said that they cannot wish away relief food. They argued that granted constant supply of water for irrigation and establishment of greenhouses is enough reason to do away with relief food. Secondly they need good roads to access markets to sell their produce at better prices than selling them at a throw away prices at their door steps. Key to food sustainability is mastering the best use of local resources for maximum yield. Those whose answer was no argued that relief food is necessary for people whose land is rocky and for all during prolonged drought that brings about crop failure.

4.9 Why Food Insecurity Inspite of Intervention

The researcher sought to know from the respondents the reasons behind persistent food insecurity in spite of interventions. The various responses are shown in the table below.

Chart 8: Why Food Insecurity Inspite of Intervention



As illustrated in the figure above 35% of the respondents argued that food insecurity is persistent in Nzauni for the simple reasons that they use outdated framing methods of rain fed agriculture, 30% of the respondents attributed persistent of food, insecurity to prolonged drought for instance the last time they had serious rains was in between April and late Many, 15% percent of the respondents attributed persistent food insecurity to crop failure. This argument fails to seek the reasons behind crop failure and 10% of the respondents attributed persistent food insecurity to poverty. Some families are too poor even to afford seeds, fertilizers, tools even proper dress to enable them make public appearance.

As observed by one of the respondents "these poor people often pull out of churches because they feel offended when they hear others sing that the Lord is good to me." It believed that these category of people which community calls group "D" wonder how good God could be and yet they cannot afford decent dressings ad meals. This category of people often sells donated fertilizers and seeds for planning to cater for other needs. They occasionally cook donated seeds for planting. Poverty is structural conditions in Nzauni which prevents some locals from realizing their full potential in the society.

On the other hand, 5% of the respondents attributed food insecurity to the misuse of bumper harvest while 5% of the respondents attributed it to donor mentality. It was found out that whenever there is bumper harvest, some people misuse it by selling it scrupulous businessmen at throw away price and the money gotten is used in buying luxurious things like music systems and decent dressing. A few couple of days down the line the same extravagant begin to cry for help. It was also observed that some people do not mind selling their harvest in the hope of filling the gap with food relief and begging form neighbours.

As observed during the conduct of field research, the effects of the installed projects aimed at enhancing food security have not yet taken root since many of the projects are ongoing while some are too small to enable the community to attain food sustainability.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Research Findings

It was found out that very few people can afford three meals per day and only 80% can afford a balanced diet. Although Nzauni is experiencing famine, so far, no one has in the recent past died directly due to starvation. However, children and elderly people have succumbed due to malnutrition related illness.

The crops grown in this area include pigeon peas, green grams, pumpkin, mangoes, avocadoes, peas, sorghum, beans and maize. The community as well rears the following livestock: goats, rabbits, donkey, poultry and cattle. However the area is not productive enough to produce enough to feed the residents and averagely people do not have money to buy food from elsewhere.

Much of the food produced in Nzauni is sold away at the doorsteps to merchants from Nairobi at throw away prices and the local population do not have the purchasing power for they are poor. This calls for a need by both government and NGOs to address poverty in the area.

It was as well found out that majority of the people in the area have primary school education and without skills that can enable them secure a reasonable job to attract income. This has a negative bearing on food security ain the area. For instance, some people sell the little food they have, donated seeds, fertilizer and dairy goats to cater for school fees, clothing and other needs.

It was found out that households usually consume maize and beans, and occasionally pumpkin, potatoes and some consume avocadoes without any other accompaniment. The community therefore suffers from lack of dietary diversity and this is manifested

in reported cases of malnutrition related ailments like kwashiorkor, marasmus, underweight and anaemia.

Livestock rearing was found to be very strategic in ensuring food security and dietary diversity in the area. Livestock rearing ensures local availability of eggs from poultry, milk from cows and goats which are either consumed or sold to purchase food for households. Donkeys are used in fetching water and transporting agricultural produce to and from the market.

A number of ways are used by the households to cope with food insecurity in the area. Such include receiving relief food, borrowing food from those who have, eating wild fruits, migrating to towns, buying food using cash gotten from casual employment and charcoal burning, establishment of kitchen gardens, planting drought tolerant crops like sorghum, maize DHO1 and green grams. Some locals are involved in diverse income generating activities like tree nurseries, poultry keeping, rabbit keeping and growing various fruit trees like mangoes, paw paws, guavas avocadoes and bananas.

Some of the above strategies are helpful in the sense that they ensure survival but they do not offer food sustainability. However, some strategies like charcoal making are environmentally unfriendly. Charcoal making has caused harm to the soil, people, animals and other living organisms. Hills and other areas have been left bare due to cutting of trees to burn charcoal. The bare soil is subjected to wind and water erosion, mass wasting and occasional landslides. This has called for external intervention. UCCS and its ally CBOs plus the Ministry of Agriculture have sought to address deforestation through training people in soil conservation through planting trees, having tree nursery and terracing.

UCCS works in collaboration with Nzauni CBO which is in turn in touch with nineteen (19) Self Help Groups of farmers spread across the entire Nzauni Location. UCCS's activities in Nzauni Location target the three sub-locations which forms Nzauni Location namely KIKIINI Sub-location. Muivu Sub-location and Nzauni Sub-location.

UCCS works towards increasing the capacity of CBOs which are concerned with food security, organizes and or institutionalizes CBOs. links CBOs with other development organizations, does resource mobilization for the community besides facilitating the educating households on various development aspects like livestock keeping; nurturing dairy goats; educating people on soil and water conservation; planting drought tolerant and early maturing crops; building sand dams, earth dams and greenhouse among others.

UCCS through Nzauni CBO brought together all social groups through the provincial administration and advised them to apply for support from UCCS. In response, 19 social groups emerged. UCCS technical staff helped them to come up with a constitution. UCCS has linked Nzauni CBO with other development partners and as a result, Nzauni CBO established Mavulya Earth Dam which was opened for use on October 19, 2009. The earth dam's water is used in three main ways: human consumption, livestock keeping, watering a tree nursery and drip irrigating an established greenhouse with growing tomatoes. This has saved women from going to fetch water 4 kilometres away. Now, the time women used in fetching and queuing for water far away is used in establishing kitchen garden, feeding livestock which supplies them with beef and milk, planting and watering tree nursery and cooking for children among others.

It was found out that Maiyuni Bidii Youth Group which a self-help group attached to Nzauni CBO is engaged in making and managing a tree nursery. The tree seedlings are sold and use the money gotten to buy food. But it has not fully solved famine in the area because it is only the members of the social group who benefit from it. The impact of planting the trees of the nursery trees and fruit seedlings like mangoes, papaya, Guavas and avocadoes has not been realised because the tree nursery was initiated three years ago.

The study found out that UCCS works in conjunction with Nzauni CBO and the Ministry of Agriculture in capacity building in soil and water conservation. This involves teaching the households to check rain water downstream through terracing; construct earth dams and subsurface dams along valleys to hoard water for future use.

Through livestock improvement project, Nzauni CBO whose projects are facilitated by UCCS has engaged itself in goat upgrading to ensure dairy goats. Poultry training, orphan goat support. This has to some extent enhanced availability of goat milk eggs, chicken and goat meat.

It was found out that involvement of households in the fight against hunger in Nzauni location has led to the ownership of the initiated projects. The households are involved in provision of labour needed in building for instance Mavulya Earth dam, Mavulya greenhouse and the Tree nursery. The households are directly involved in the management of the upkeep of the established projects under the umbrella of self help groups.

The food security situation before the coming in of UCCS was very unstable. According to the interviewed households, the situation is better than it was but people are yet to abandon the free-maize mentality which developed during the Moi regime.

The study found out that some people are "working" against the common will of fighting famine. They do so through selling donated fertilizers, seeds, dairy goats for orphans and poultry to meet their self-interest needs. In as much as some people cry for help; they are the source of their food related problems. This has made UCCS to re-emphasize participatory community approach or people owned process and arranging exposure tours and workshops on proper food storage. Participatory approach towards solving food insecurity in the area is manifested in households having representatives in CBOs to air their views on what is best for them.

Food insecurity is persistent in Nzauni Location in spite of external intervention measures for the simple reason that most farmers still use outdated framing methods of rain fed agriculture. What is required is irrigation fed agriculture and green houses to produce enough food for consumption. Prolonged drought has a great bearing on food insecurity. For instance the last time they had serious rains was in between April and late May, 2010. Persistent food insecurity is also attributed to crop failure and poverty. Some families are too poor even to afford seeds, fertilizers, tools even proper dress to enable them make public appearance. The extremely poor people often sell donated fertilizers and seeds for planning to cater for other needs and they occasionally cook donated seeds for planting. This structural condition prevents the locals from realizing their full potential in the society.

5.2 Conclusion

This study has established that the intervention measures undertaken by UCCS have improved the situation of food security on the ground but more needs to be done. UCCS does not directly work with households in enhancing food security but rather works in conjunction with Nzauni CBO which brings together various self-help-groups in the area. Although, they have established a greenhouse at Mavulya, this has not brought about food availability to satiate the locals. It has however served as a learning spot for the locals that the area can be as agriculturally productive as any other area in Kenya.

The study found that UCCS related projects have enabled local availability of water through the construction of earth dams, sand dams, sub-surface dams, but they are only in three palaces of the three different sub-locations of Nzauni Location. More should be done to have them spread across the entire location and subsequently the entire Mwingi District.

The major challenges found to be facing UCCS in ensuring food security are as follows: low resource base, recurrent droughts, vastness of the regions suffering from food insecurity, some households selling given agricultural inputs such as fertilizer, and seeds. Moreover, the harsh weather conditions in Mwingi District do not favour rearing of many livestock. There is need for UCCS to expand its role of mobilising CBOs and sourcing funds for the CBOs to enable them expand their projects so as to benefit many people in the area.

It is ironical that where as people cry that the area is food insecure, part of the available human resource is used in cutting trees to make charcoal instead of using it

to plant food crops and trees using the available water from the constructed water dam, sand dams and subsurface dams.

A number of measures were suggested by households as appropriate means of solving food insecurity in the area. They included: embracing and practicing the learnt soil and water conservation techniques; growing early maturity maize seeds; increase the substitute of non-drought resistant crops with drought resistant ones; construction of more earth dams to enable adequate irrigation, provision of an effective insecticide to get rid of "osama" weevil, which up to date is destroying harvested cereals; provision of funds to enable households to run greenhouses and fund skills development of the youth of Nzauni residents to enable them get jobs to rid poverty which often undermines strategies put in place to fight famine.

It emerged from the respondents that UCCS should facilitated more water projects because water for them is life. One of the informants argued that she will live to support UCCS related projects by attending their seminars and putting into practice what she will learn like the farming methods and water and soil conservation whereas some people sell food surplus to buy luxury items, some preserve for future use and sometimes sell in order to raise school fees. This then calls for efforts by various players to reduce poverty through supporting micro entrepreneurship and skills development of the youth.

According to UCCS staff interviewed, the way forward with regard to the challenges encountered is to re-emphasize the need of planting drought to resistant crops, proper storage of food surplus for future use and increase fundraising to cater for the food needs of the vast region of Ukambani. Key to success enhancing food security is the households' support of initiatives facilitated by UCCS through Nzauni CBO.

The UCCS director acknowledged UCCS' weakness of not having frequent site visits to ascertain the extent to which Nzauni CBO is mobilizing self help groups to fight food insecurity. This calls for follow-up mechanisms to ensure proper utilization of resources delegated to CBOs.

5.3 Recommendations

Based on the study findings, the following recommendations were made:

1) At the community level, the members of the community should take serious and put into practise the learnt soil and water conservation techniques; grow early maturing maize seeds; substitute non-drought resistant crops with drought resistant ones; participate in the construction of more earth dams to enable adequate irrigation and make use of an effective insecticide to get rid of "osama" weevil which up to date is destroying harvested cereals.

2) The Nzauni CBO and UCCS should provide funds for the construction of more household managed greenhouses as a way of combating challenges associated with rain-fed agriculture. This should be accompanied by constructing more sustainable water projects.

3) Owing to the high levels of poverty in the area due to luck of alternative means of income, some people sell food surplus to buy luxury items while some sell food surplus in order to raise school fees. The study recommends that both government and NGOs should fund micro-entrepreneurship and skills development for the youth to enable them get jobs to rid poverty which often undermines strategies put in place to fight famine.

4) Drought was identified to be one of the major causes of hunger in the area and for this reason the study recommends that the NGOs and GoK should re-emphasize the planting of drought-resistant crops and proper storage of food surplus. Since poverty is prevalent in the area, the stakeholders should facilitate the provision of drought resistant seeds and fertilizer. Due to the fact that some people cook donated planting seeds, the supply of planting seeds should be done alongside food relief to those whose poverty level compels them to cook the seeds.

5) The study recommends follow-up mechanisms by UCCS to ensure proper utilization of resources by both the delegated CBO and the self-help-groups.

6) The concerned stakeholders should socialize households to get rid of the sit-and-wait for government and other stake-holders to bring relief food, seeds and fertilizers. This socialization will make people to work towards self-reliance and thereby rid the dependency syndrome. The people should be given fishing net, shown how to fish and not given fish to eat. This will entail equipping households with the necessary modern agricultural techniques of farming like greenhouses farming to enable them phase out the traditional techniques of farming. This will significantly help the people to own sustainable food production.

Suggestions for Further Research

While this study was focused on the role of NGOs in enhancing food security using UCCS' operations in Mwingi District as a case study, the role of NGOs in enhancing food security can also be done using the same instruments in other drought prone areas in Kenya or in the other UCCS administered areas for the purpose of comparison. The researcher as well recommends a need to carry out research on the role of family ties in fighting famine.

Bibliography

Amissah-Arthur A., Jagtap S., & Rosenzwieg (2002): Spatio-temporal Effects of El Nino Events on Rainfall and Maize Yield in Kenya, International Journal of Climatology. 22 (15): 1849 – 1860

Annual Progress Report of Ukamba Christian Community Services Integrated Food Security Programme January 2008 – December 2008

Barrett C. B., (2002), "Food Security and Food Assistance Programs" in B. Gardner and G. Rausser (Eds), Handbook of Agricultural Economics, Volume 2. Elsevier Science B.V.

Barnett Jon and Adger W. Neil (2007) "Climate Change, Human Security and Violent Conflict" in Political Geography 26

Burton D., (2000), "Questionnaire Design", Dawn Burton (ed), Research Training for Social Scientists. London: Sage Publications

Burton, J., (1990), Conflict: Human Needs Theory. London: Macmillan Publishers

Babbie Earl (1995) The Practice of Social Research. Seventh Edition. California: Wadsworth Publishing Company

Borg, W and Gall, M., (1989, Education Research: An Introduction. New York: Longman

Bender David L. et al., (1995), Hunger: Current Controversies. Greenhaven Press Inc, USA.

Boulding, K. E., (1977), "Twelve Friendly Quarrels with Johan Galtung" in Journal of Peace Research. No.1. Vol. XIV

Birnie, P. W. and Boyle, A. E., (2002), International Law and the Environment. Second Edition. New York: Oxford University Press

Banuri T. and Marglin, F. A., (1993), "The Environmental Crisis and Space Alternatives: India and Maine in Banuri, T and Marglin, F. A. (Eds), Who Will Save the Forests? Knowledge. Power and Environmental Destruction. London: Zed Books

Christoplos Ian, (2008) "Agricultural Advisory Services and the Market" Natural Resource Perspectives 113

Cantril Handley, "A fresh Look at the Human Design," in Bugental J. F. T., Challenges of Humanistic Psychology. New York: McGraw Hill, 1970

Dorward Andrew et al (2004), "Rethinking Agricultural Policies for Pro-poor Growth" Natural Resource Perspectives. Number 94. London: Overseas Development Institute (ODI)

Davies James, (1986) "Aggression Violence" in Margaret G. Hermann (ed.), Political Psychology: Contemporary Problems and Issues. London: Jossey Bass; 1986

Ebrahim Alnoor (2003) "Accountability in Practice: Mechanisms for NGOs" World Development Vol. 31, No. 5

Edward Clay, Nita Pillai, Charlotte Benson (1998), "Food Aid and Food Security in the 1990s: Performance and Effectiveness" Working Paper 113 London: Overseas Development Institute

Eriksen Siri H, Brown Katrina and Kelly P Mick, (December 2005), "The Dynamics of Vulnerability: Locating Coping Strategies in Kenya and Tanzania" The Geographical Journal, Vol. 171 , No. 4

Evans Peter (1979) Dependent Development: The Alliance of Multinational State and Local Capital in Brazil. Princeton University Press: New Jersey

Demeke Mulat, Pangrazio Guendalina and Maetz Materne, (2008) Country Responses to the Food Security Crisis: Nature and Preliminary Implications of the Policies Pursued. FAO of the United Nations

Frankfort-Nachimias. Chava and Nachimias David, (1996) Research Methods in the Social Sciences. Fifth edition. London: St. Martin's Press

Goldstein Joshua, (2003) International Relations Fifth Edition. Delhi: Pearson Education, Inc

Gay, L., (1976), Educational Research Competence for Analysis and Application. Chicago: Bell Howell

Groom, A. J. R., (1990), "Paradigms in Conflict: The Strategist, the Conflict Researcher" in J. Burton and F. Dukes (Eds), Conflict: Readings in Management and Resolution. London: Macmillan

Galtung, J., (1969), "Violence, Peace Research," in Journal of Peace Research. Vol.3

Homer-Dixon T. F., (Summer 1994), "Environmental Scarcities and Violent Conflict: Evidence from Cases." International Security, Vol. 19, No. 1 Published by: The MIT Press

ISMAIL, M., (2009), "Corporate Social Responsibility and its Role in Community Development: an International Perspective" Journal of International Social Research. Volume 2/9

Kothari, C. R. (2004) Research Methodology: Methods and Techniques. New Delhi: New Age International (P) Limited

Kothari, C., (1985), Research Methodology: Methods and Techniques. New Delhi: Willey Eastern Ltd

Kahl Colin H., (1998), "Population Growth, Environmental Degradation, and State-Sponsored Violence: The Case of Kenya, 1991-93" in International Security, Vol. 23, No. 2

Mutie Pius Mutuku (1993) The Problem of Drought in Kitui District, Kenya: Contributions of the Catholic Development Unit in Response to the Recurrent Food and Water Shortages. Unpublished M.A. Thesis, University of Nairobi

Mugenda Olive M. and Mugenda Abel G. (2003) Research Methods: Quantitative and Qualitative Approaches. Nairobi: Acts Press

Mwagiru M., (2004), "Towards a Security Architecture in the IGAD Region" in Makumi Mwagiru (Ed), African Regional Security in the Age of Globalization. Nairobi: Heinrich Boll Foundation

Ministry of Agriculture, (2004), Strategies for Revitalizing Agriculture (2004-2014). MoA, MLFD, MCDM

Mason N, Jayne T.S., Donovan C. and Chapoto A., (2009) "Food and Financial Crises and their Impacts on Achievement of the Millennium Development Goals in Africa" Are Staple Foods Becoming More Expensive for Urban Consumers in Eastern and Southern Africa? Trends in Food Prices, Marketing Margins, and Wage Rates in Kenya, Malawi, Mozambique, and Zambia. Paper presented at the Institute for African Development Conference May 1-2, Cornell University, New York

Mulat D., Guendalina P. and Materne M, (2008) Country Responses to the Food Security Crisis: Nature and Preliminary Implications of the Policies Pursued. (FAO)

Oram Peter A., (February 9-11,1981), "Production Potentials in Africa: Issues and Strategies" in Food Policy Issues and Concerns in Sub-Sahara Africa. Papers prepared by researchers at the International Food Policy Research Institute and discussed with colleagues in Ibadan, Nigeria

Panos, Huddleston Barbara and Ramangkura Virabongsa, (1978), "Food Security: An Insuarance Approach" in Research Report 4, of International Food Policy Research Institute

Quisumbing Agnes R. et. al., (1995), "Women: The Key to Food Security" in Food Policy Report of the International Food Policy Research Institute. Washington D.C.

Quaye, E. C., (1994), "Towards Sustainable Agriculture in Africa Drylands and Integrated Agro-Ecosystems" in Salih, M. A. Mohamed (Ed), Inducing Food Insecurity: Perspectives on Food Policies in Eastern and Southern Africa. Seminar Proceedings No. 30. Uppsala: Nordiska Afrkainstitutet

Raustlala Kal, (1997) "States, NGOs, and International Environmental Institutions" International Studies Quarterly 41

Republic of Kenya, (October 2007), Kenya Vision 2030: A Globally Competitive and Prosperous Kenya Nairobi: Government Printer

Republic of Kenya, Sessional Paper No. 2 of 1994 on National Food Policy. Nairobi: Government Printer

Republic of Kenya, Sessional Paper No. 4 of 1981 on National Food Policy. Nairobi: Government Printer

Republic of Kenya, Kenya National Development Plan 1994-1996. Nairobi: Government Printer

Shanguhyia Naomi, (2008), State, Policy and Food Insecurity in Kenya's Arid and Semi-Arid Land (ASAL) Regions. Thesis submitted to the Eberly College of Arts and Sciences at West Virginia University in partial fulfillment of the requirements for the degree of Master of Arts in Geography. (Morgantown, West Virginia)

Salih, M. A. Mohamed, (1994), "Food Insecurity Inducing Policies: Eastern and Southern African Perspectives, An Introduction" in Salih, M. A. Mohamed (Ed), Inducing Food Insecurity: Perspectives on Food Policies in Eastern and Southern Africa. Seminar Proceedings No. 30. Uppsala: Nordiska Afrkainstitutet

Singleton Royce, Straits Bruce C. and Straits Margaret M. (1988) Approaches to Social Research. New York: Oxford University Press

Valdes Alberto, (February 9-11, 1981), "Issues of Food Security in Developing Countries" in Food Policy Issues and Concerns in Sub-Sahara Africa. Papers prepared by researchers at the International Food Policy Research Institute and discussed with colleagues in Ibadan, Nigeria

Walker P. (2006) "Political Ecology: Where is the Policy" Progress in Human Geography 30 (3)

Webb, Patrick and Beatrice Rogers. (2003), Addressing the "In" in Food Insecurity. Washington, DC: Food and Nutrition Technical Assistance Project, Academy for Educational Development

Warhurst, A., (Spring 2001) "Corporate Citizenship and Corporate Social Investment: Drivers of Tri-Sector Partnerships" in JCC 1 (Greenleaf Publishing)

Wardle Chris (2008) "Community Area Based Development Approach (CABDA) Programme: An Alternative way to Address the Current African Food Crisis?" Natural Resource Perspectives 119, London: Overseas Development Institute (ODI)

Dictionaries

Shorter Oxford English Dictionary, (1933) London: Oxford University Press

Websters Ninth New Collegiate Dictionary, (1985) Merriam-Webster, Inc

Internet Sources

http://www.jica.go.jp/kenya/english "Agricultural Development" Viewed on September 16, 2010

http://www.wfp.org/countries/kenya? Viewed on September 16, 2010

http:/www.asps-ke.org/ Viewed on September 16, 2010

http://www.sprogrammes.go.ke/index.php? Viewed on September 16, 2010

APPENDICES

APPENDIX 1: Questionnaire for Households

The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District

Introduction

I am Rev. Simon Muoko, a post graduate student at the University of Nairobi. I am conducting a research on The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District for my Master Arts degree in Rural Sociology and Community Development. I kindly request you to inform my research questions. Please note that your responses will be treated with confidentiality and will only be used for the purposes intended.

Background Information

Division_____

Location_____

Sub-location_____

Date_____

Personal Information

1) Sex: Male [ ] Female [ ]
2) Age:_____
3) Marital status: a) Married [ ] b) Single [ ] c) Divorced [ ] d) Separated [ ]
4) Level of education: Primary [ ] Secondary [ ] Vocational training [ ] College [ ] University [ ] Others (specify)_____
5) Occupation: _____

6) Household position: a) Father [ ] b) Mother c) Son d) Daughter e) Others (specify)_____

Section A: The Food Situation in Nzauni Location

1) How many meals do you have per day? a) One [ ] b) Two [ ] c) Three [ ] d) Other (Specify) _____

2) How many livestock (cows, goats, sheep, donkey and poultry) do you own?

Goats _____ Cows _____ Sheep _____ Donkeys _____ Poultry _____

3) Do you grow fruits? a) Yes [ ] b) No [ ]

If yes, which ones?

_____

4) Do you grow vegetables? a) Yes [ ] b) No [ ]

If yes, which ones? _____

5) How much food do you harvest, sell or reserve for future use?

Food crop	A/Harvested (Kg)	A/Sold (Kg)	A/Reserved (Kg)
Maize	[ ]	[ ]	[ ]
Beans	[ ]	[ ]	[ ]
Sorghum	[ ]	[ ]	[ ]
Millet	[ ]	[ ]	[ ]
Peas	[ ]	[ ]	[ ]
Avocadoes	[ ]	[ ]	[ ]
Mangoes	[ ]	[ ]	[ ]
Other (Specify)	[ ]	[ ]	[ ]
	[ ]	[ ]	[ ]

6) What do you do with food surplus whenever there is bumper harvest?

_____

7) How do you cope with crop failure?

_____

8) Do you receive any help from NGOs during crop failure? a) Yes [ ] b) No [ ]

If yes, which one? _____

9) Does your household receive relief food? a) Yes [ ] b) No [ ]

If yes, how often and how much? _____

10) Is it possible to do away with relief food? a) Yes [ ] b) No [ ]

If yes, how?

_____

11) Has any member of your household died due to hunger? a) Yes [ ] b) No [ ]

If yes, in which year? _____

12) Do you have malnutrition problems in your household or in your neighbourhood?

a) Yes [ ] b) No [ ]

If yes, which ones? _____

13) What causes food insecurity in your locality? a) Drought [ ] b) Dependency on GoK and NGOs [ ] c) crop failure [ ] c) Misuse of bumper harvest [ ] d) Use of outdated farming methods [ ] e) Poverty [ ]

Other (specify) _____

Section B: Nzauni Households' Perceptions of the Role of UCCS in Enhancing Food Security

14) For how long has UCCS been operating in Nzauni Location? _____

15) Are you aware of UCCS' programs aimed at enhancing food security? a) Yes [ ]

b) No [ ]

If yes, name them _____

16) Are you or any member of your household involved in UCCS' programs aimed at enhancing food security? a) Yes [ ] b) No [ ]

If yes, in what capacity? _____

17) In what ways does UCCS involve the locals in enhancing food insecurity?

_____

18) Does UCCS incorporate the views of the local residents in enhancing food insecurity? Yes [ ] b) No [ ]

19) Have you been involved in decision-making process? Yes [ ] b) No [ ]

If yes, how? _____

If no, why? _____

20) How was the food situation before UCCS's intervention measures?

a) Stable [ ] b) Unstable [ ] c) Very unstable [ ]

21) How is the food situation as for now?

a) Stable [ ] b) Unstable [ ] c) Very unstable [ ]

22) In what ways does UCCS enhance agriculture in Nzauni Location?

a) Provision of quality seeds [ ] b) Teaching the locals better farming methods [ ]

c) Emphasizing early maturing and drought resistant crops [ ] Other (Specify)

23) Does UCCS encourage people to grow drought resistant crops? Yes [ ] b) No [ ]

If yes, which ones? _____

24) Is UCCS involved in livestock improvement projects? a) Yes [ ] No [ ] If yes, in what ways? _____

25) Which strategies have been put in place by UCCS to ensure availability of water?

a) Making dams [ ] b) Sinking boreholes [ ] c) Construction of wells [ ] d) pipeline distributions [ ] e) Spring protection [ ] f) Other (Specify)

26) Does UCCS give relief food? Yes [ ] b) No [ ]

If yes, which food and how often? _____

27) Does UCCS teach you methods of self sustenance projects?

28) Does UCCS work with other stakeholders in enhancing food security? Yes [ ] b) No [ ] If yes, in what ways? _____

29) How effective are UCCS strategies in ensuring local availability of food?

_____

30) Has UCCS's presence affected you negatively in any way? Yes [ ] b) No [ ]

If yes, how? _____

31) Are there certain things that UCCS should do differently? Yes [ ] b) No [ ]

If yes, which ones and why?

32) Which are the major challenges that UCCS projects pose to the community?

_____

33) What should UCCS do to deal with the challenges stated above?

_____

34) How supportive are you to UCCS projects that are aimed at ensuring food security? _____

35) Is UCCS involved in environmental conservation? Yes [ ] b) No [ ]

If yes, in what ways?

36) Has there been hunger in Nzauni location regardless of UCCS's intervention efforts? Yes [ ] b) No [ ] If yes, to what extent?

37) Would you be better off without UCCS? a) Yes [ ] b) No [ ]

If yes, why? _____

If no, why? _____

38) Any other observations?

Thank you for your Cooperation

APPENDIX 2: Key Informant Guide

The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District

Introduction

I am Rev. Simon Muoko, a post graduate student at the University of Nairobi. I am conducting a research on The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District for my Master Arts degree in Rural Sociology and Community Development. I kindly request you to inform my research questions. Please note that your responses will be treated with confidentiality and will only be used for the purposes intended.

Background Information

1) Sex: Male [ ] Female [ ]

2) Level of education: Primary [ ] Secondary [ ] Vocational training [ ] College [ ] University [ ] Others (specify) _____

3) Position held _____

---

1) What are the objectives of UCCS in Nzauni Location?

2) For how long has UCCS been operating in Nzauni Location?

3) How was the food situation before UCCS's intervention measures?

4) Which strategies do households use to cope with food insecurity?

5) To what extent are those strategies helpful and popular?

6) Have people in the past died in the recent past due to famine? if yes, how many?

7) How is the food situation after the intervention of UCCS?

8) Which help do you offer to the locals whenever there is famine?

9) Does UCCS give relief food? If yes, which food and how often?

10) Do UCCS teach households strategies aimed at ensuring local availability of food?

11) How effective are UCCS strategies in ensuring local availability of food?

12) Which strategies have been put in place by UCCS to ensure availability of water?

13) How effective are the above strategies?

14) To what extent does UCCS teach the local farmers better farming methods?

15) List the various agricultural technical input offered by UCCS to the community aimed at ensuring food security?

16) In what ways does UCCS enhance agricultural production in Nzauni Location?

17) Does UCCS encourage people to grow drought resistant crops? If yes, which ones?

18) Is UCCS involved in livestock improvement projects? If yes, in what ways?

19) Is UCCS involved in environmental conservation? If yes, in what ways?

20) Do you involve households in UCCS' programs aimed at enhancing food security? If yes, in what capacity?

21) Do you incorporate the views of the local households in you programs aimed at enhancing food insecurity? If yes, how? If no, why?

22) Does UCCS work with other stakeholders in enhancing food security? If yes, in what ways?

23) To what extent does the above joint efforts, if any, successful?

24) Which are the major challenges facing UCCS in ensuring food security in Nzauni Location?

25) How can UCCS deal with the challenges stated above?

26) How supportive are the households to UCCS' projects that are aimed at ensuring food security?

27) Are there certain things that UCCS does which affect households negatively? If yes, which ones and why?

28) What should UCCS do to do away with the challenges stated above?

29) Has been there hunger in Nzauni location regardless of UCCS's intervention efforts? If yes, to what extent?

30) Would be the households be better off without UCCS? If yes, why? If no, why?

31 Any other observations?

Thank you for your Cooperation

APPENDIX 3: Focused Group Discussion Guide

The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District

Introduction

I am Rev. Simon Muoko, a post graduate student at the University of Nairobi. I am conducting a research on The Role of NGOs in Enhancing Food Security: A Case Study of Ukamba Christian Community Services in Mwingi District for my Master Arts degree in Rural Sociology and Community Development. I kindly request you to inform my research questions. Please note that your responses will be treated with strict confidentiality and will only be used for the purposes intended.

Section A: The Nzauni Resident's food situation

1) How many meals do you have per day?

2) How much food do you harvest, sell or reserve for future use?

3) Do you experience lose food? If yes, how?

4) How many livestock (cows, goats, sheep, donkey and poultry) do you own?

5) Do you grow fruits? If yes, which ones?

6) Do you grow vegetables? If yes, which ones?

7) Have people in the past died due to hunger?

8) Do you have malnutrition problems in the area?

9) Do you often receive relief food?

10) Is it possible to do away with relief food and NGOs?

Section B: The Role of UCCS in Enhancing Food Security

1) For how long has UCCS been operating in Nzauni Location?

2) Are you aware of UCCS' programs aimed at enhancing food security? If yes, name them

3) Is any one of you involved in UCCS' programs aimed at enhancing food security? If yes, in what capacity?

4) In what ways does UCCS involve the locals in enhancing food insecurity?

5) Does UCCS incorporate the views of the local residents in enhancing food insecurity?

6) Has any one you been involved in UCCS' decision-making process? If yes, how? If no, why?

7) How was the food situation before UCCS's intervention measures?

8) How is the food situation as for now?

9) In what ways does UCCS enhance agriculture in Nzauni Location?

10) Does UCCS encourage people to grow drought resistant crops? If yes, which ones?

11) Is UCCS involved in livestock improvement projects? If yes, in what ways?

12) Which strategies have been put in place by UCCS to ensure availability of water?

13) How effective are the above strategies?

14) Does UCCS give relief food? If yes, which one and how often?

15) Does UCCS teach you methods of food-self sustenance?

16) Does UCCS work with other stakeholders in enhancing food security? If yes, in what ways?

17) How effective are UCCS strategies in ensuring local availability of food?

18) Has UCCS's presence affected the community negatively in any way? If yes, how?

19) Are there certain things that UCCS should do differently? If yes, which ones and why?

20) Which are the major challenges that UCCS projects pose to the community?

21) What should UCCS do to deal with the challenges stated above?

22) How supportive is the community to UCCS' projects that are aimed at ensuring food security?

23) Is UCCS involved in environmental conservation? If yes, in what ways?

24) Has there been hunger in Nzauni location regardless of UCCS' intervention efforts? If yes, to what extent?

25) To what extent does UCCS perpetuate food dependency?

26) Would you be better off without UCCS? a) If yes, why? If no, why?

27) Any other observations?

Thank you for your Cooperation