THE CONTRIBUTION OF WORLD VISION TO FOOD SECURITY
IN BARINGO DISTRICT - KENYA

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In Partial Fulfillment of the Requirements for the Degree
of Masters of Arts in Conflict Resolution and Peace Building

BY
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September 2010
DECLARATION A

I declare that this thesis is my original work and has not been submitted to any other college or university for academic credit

Signed ___________________________ Date __14/10/2010__________

PHILIP NDEKEI WANGUNYU
DECLARATION B

I confirm that the work reported in this dissertation was carried out by the candidate under my supervision.

Signed ___________________________ Date 15/10/2010

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I thank God Almighty for His provision and blessings. He is surely a rock and a shelter in times of storms.
# LIST OF ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADP</td>
<td>Area Development Program</td>
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<td>ALRMP</td>
<td>Arid Lands Resource Management Project</td>
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<td>ASAL</td>
<td>Arid and Semi Arid Lands</td>
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<td>CBO</td>
<td>Community Based Organization</td>
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<td>CSB</td>
<td>Corn Soya Blend</td>
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<td>CMAM</td>
<td>Community Management of Acute Malnutrition</td>
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<td>DSG</td>
<td>District Steering Group</td>
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<td>DTC</td>
<td>Drought Tolerant Crops</td>
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<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EMOP</td>
<td>Emergency Operations</td>
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<td>FEWSNET</td>
<td>Famine Early Warning Systems Network</td>
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<td>GFD</td>
<td>General Food Distribution</td>
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<td>GoK</td>
<td>Government of Kenya</td>
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<td>KFSSG</td>
<td>Kenya Food Security Steering Group</td>
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<td>LRA</td>
<td>Long Rains Assessment</td>
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<td>MoA</td>
<td>Ministry of Agriculture</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MUAC</td>
<td>Middle Upper arm Circumference</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>SRA</td>
<td>Short Rains Assessment</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDP</td>
<td>United Nations Development Program</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>WFP</td>
<td>World Food Programme</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WRMA</td>
<td>Water Resource Management Authorities</td>
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<td>WUCs</td>
<td>Water User Committees</td>
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<td>WVK</td>
<td>World Vision Kenya</td>
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ABSTRACT

In Baringo District, food insecurity significantly contributes to the never ending conflicts among the communities. The research carried out a study on the contribution of World Vision to food security in Baringo District. The objective of the study was to find out the causes of perennial food insecurity despite efforts employed by World Vision and other stakeholders in Baringo. The technologies promoted by World Vision in Baringo in addressing food insecurity were also identified. The challenges faced by World Vision in promoting food security in Baringo District were examined.

The review of literature indicated that although there are many scholars who have written about food insecurity and how it contributes to conflicts. The contribution of food security projects to conflict resolution had not been documented.

Case study method of descriptive design was used, where both quantitative and qualitative data was collected. The study was carried out on the accessible population of the target population. The sample was selected randomly from the survey population. Questionnaires were administered to 630 respondents. Focus group discussions were held with community members and further interviews carried out on 20 stakeholders in the district undertaking food security initiatives. Data was analyzed by aid of Statistical Packages for Social Scientists (SPSS) computer software. The results were presented in form of tables or bar graphs.

The research revealed that poor rains, drought, cattle rustling combined with high food prices, unstable market supplies, environmental degradation and chronic poverty have deepened food insecurity in Baringo district. Livestock diseases heightened livestock mortalities and led to market closures, subsequently, impacts of drought were accentuated. Conflicts and insecurity arising from severe livestock raiding disrupted the pastoral livelihood; the raids resulted in loss of human life and livestock; closure of markets; massive displacements and creation of ‘no-go’ zones that are inaccessible to pastoralists for inhabitation, grazing or market exchanges. In some of the conflict epicenters a livelihood and humanitarian emergency has occurred.

From the findings the researcher recommended concerted effort in pooling of resources by the stakeholders in the district to address food insecurity. Promotion of rain water harvesting technologies would have a longer lasting effect in crop and livestock production, the backbone of food security in the district, Advocacy on peaceful coexistence is vital. General insecurity in Baringo district is largely contributed by food insecurity.
# TABLE OF CONTENT

DECLARATION A .................................................................................. ii
DECLARATION B .................................................................................. iii
DEDICATION ......................................................................................... v
ACKNOWLEDGEMENT ........................................................................... vi
LIST OF ACRONYMS AND ABBREVIATIONS ........................................ vii
ABSTRACT ........................................................................................... viii
TABLE OF CONTENT ............................................................................ ix

## CHAPTER ONE

Background of the study ........................................................................ 1
Statement of the Problem ....................................................................... 2
Purpose of the Study ............................................................................. 3
Research Objectives ............................................................................ 3
Research Questions .............................................................................. 3
Hypothesis ........................................................................................... 4
Scope of the Study .............................................................................. 4
Significance of the Study ..................................................................... 5
Operational Definition of Key terms ..................................................... 6

## CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction ......................................................................................... 7
Theoretical Perspectives ...................................................................... 16
Conceptual Framework ....................................................................... 17
Related Studies ................................................................................... 18

## CHAPTER THREE

METHODOLOGY

Research Design .................................................................................. 31
Research Population .......................................................................... 32
Sample size ....................................................................................... 32
Sampling Procedure .......................................................................... 32
Research Instrument .......................................................................... 33
Validity and Reliability of the instrument ................................................................. 33
Data Gathering Procedures ......................................................................................... 34
Data Analysis ................................................................................................................ 34
Ethical Considerations ................................................................................................. 34
Researcher Limitations ............................................................................................... 35

CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA
Causes of food insecurity .............................................................................................. 36
Technologies promoted by World Vision ........................................................................ 38
Challenges encountered by World Vision ....................................................................... 42

CHAPTER FIVE
FINDINGS, CONCLUSIONS AND RECOMMENDATIONS
Introduction ..................................................................................................................... 45
Findings .......................................................................................................................... 45
Conclusions .................................................................................................................... 47
Recommendation ........................................................................................................... 47
REFERENCES .................................................................................................................. 49
APPENDIX I .................................................................................................................... 52
BUDGET .......................................................................................................................... 52
APPENDIX II ................................................................................................................... 53
TIME FRAME ................................................................................................................... 53
ME FRAME: APPENDIX III ........................................................................................... 53
APPENDIX III ............................................................................................................... 54
TRANSMITTAL LETTER ............................................................................................... 54
APPENDIX IV ................................................................................................................ 55
RESEARCH INSTRUMENT ............................................................................................. 55
RESEARCHER’S CURRICULUM VITAE ................................................................. 71
CHAPTER ONE

Background of the study

Achieving food security continues to be a challenge not only for the developing nations, but also for the developed world. The difference lies in the magnitude of the problem in terms of its severity and proportion of the population affected. In developed nations the problem is alleviated by providing targeted food security interventions, including food aid in the form of direct food relief, food stamps, or indirectly through subsidized food production to the affected population. According to Mwaniki Angela (2003) these efforts have significantly reduced food insecurity in these regions; similar approaches are employed in developing countries but with less success. The discrepancy in the results may be due to insufficient resource base, shorter duration of intervention, or different systems most of which are inherently heterogeneous among other factors.

The root cause of food insecurity in developing countries is the inability of people to gain access to food due to poverty. FAQ technical interim report (2000) records that; while the rest of the world has made significant progress towards poverty alleviation, Africa, in particular Sub-Saharan Africa continues to lag behind. Projections show that there will be an increase in this tendency unless preventive measures are taken. Many factors have contributed to this tendency including the high prevalence of HIV/AIDS; civil war, strife and poor governance; frequent drought and famine; and agricultural dependency on the climate and environment. Food security on the continent has worsened since 1970 and the proportion of the malnourished population has remained within the 33 to 35 percent range in Sub-Saharan Africa.

The most visible deterioration in food security in Kenya is witnessed in substantial areas of the marginal agricultural lowlands of southeastern Kenya as well as the coastal areas including most parts of Mwingi, Kitui, Makueni, localized areas of Machakos; Tharaka, the central lowlands and Kwale, Kilifi, Malindi, Lamu and Taita Taveta districts, in areas outside the coastal strip.

Baringo is one of the Arid and Semi-Arid Lands (ASAL) districts in Kenya that suffers from food insecurity and high malnutrition rates above the World Health Organization (WHO) alert levels. Based on the Long Rains Assessment report (2009); the food security situation has been gradually declining and has seemed to escape the attention of stakeholders in the district who instead prioritize other interventions.
World Vision, a Christian humanitarian organization serving communities in conditions of poverty, primarily through programmes of transformational development (in the fields of food security, Education, health), emergency relief and promotion of justice, has been implementing food security recovery projects as well as emergency food aid and nutrition interventions within Baringo district over the last seven years (World Vision annual report 2009).

There are reported cases of pastoralists in the district feeding on wild berries (locally known as sorich) that are cooked for over 12 hours to reduce toxicity. Collection of these wild fruits has affected school attendance since pupils join women in the exercise that takes 2-3 days to collect enough berries for an average household. The decline in the food security and negative impact on the nutrition status is evidenced by the reports from the Ministry of Health on the increase in malnutrition. With the presence of aggravating factors including diseases, poor hygiene and sanitation, deteriorating household food security and loss of livelihoods, the nutrition situation has continued to deteriorate.

According to Arid Lands Resource Management (ALRM) Annual reports, majority of the populations inhabiting Baringo district Kenya rely on untreated water sources which compounded with the poor latrine coverage, predispose the community to diseases that further compromise their nutrition status and eventually food security.

The study limited itself to strategies being employed by World Vision in addressing food insecurity in the district. Identifying the gaps and recommending areas of improvement for World Vision and other stakeholders in the district. The study also assessed the role played by other stakeholders in the district to see how effectively they can address the issue of perennial food insecurity.

Statement of the Problem
Over the last eight years there has been increase in conflicts in Baringo attributed to food insecurity, malnutrition and widespread acute water shortage. General insecurity due to cattle rustling and massive loss of assets has been reported as the communities fight over scarce pasture and water for their livestock. The study focused on the contribution of World Vision in addressing the deteriorating food security situation in Baringo district. This was on the basis that conflicts are orchestrated by food insecurity and World Vision has been implementing food security projects in the district for over seven years.

Employing appropriate measures suitable to arid lands by World Vision, the government and other stakeholders involved in food security initiatives seems not to bear fruits. The fact that the organization has been using massive resources in addressing food insecurity in the district for
over seven years and has been working in collaboration with the government and other stakeholders will enable comparison in approaches employed against the desired results. The gaps identified will help draw recommendations to World Vision and other stakeholders implementing food security projects or those planning to implement such projects in the district.

**Purpose of the Study**

Earlier studies on conflicts in Baringo and the neighbouring districts revealed that food insecurity was the main cause of conflicts. The study focused on the contribution of World Vision to food security in Baringo and sought to assess how the organization has addressed conflicts through food insecurity projects in the district. The findings of the study will advise the organization and other stakeholders involved or planning to undertake food security initiatives in the district and other ASAL districts in the country.

**Research Objectives**

The general objective of the study was to examine the contribution of World Vision in improving the food security and nutritional status of people in Baringo District.

Specific objectives of the study include:

1. To find out the causes of perennial food insecurity despite efforts employed by World vision and other stakeholders in Baringo.
2. To identify the technologies promoted by World Vision in Baringo and their implementation in addressing food insecurity in the district.
3. To examine the challenges faced by World Vision in promoting food security in Baringo District.
4. To assess the impact of food security projects on the well being of the community.

**Research Questions**

The following questions provided a basis for this study,

1. What are the perennial causes of food insecurity in Baringo district?
2. What are the technologies put in place by the World Vision to address food insecurity in the district?
3. What difficulties or challenges have the organization encountered in the implementation of food security projects?
4. How has the food security projects impacted on the well being of the community?
Hypothesis

The contribution of World Vision to food security in Baringo district has been through promotion of dry land farming as well as improved goat breeds that are best suited the climatic conditions. However their area of coverage is small compared to the affected areas.

Failure to realize meaningful impact may be attributed to lack of recognition of the key roles of women in agriculture and in assuring household food security, poor soil fertility, underinvestment in agricultural research and development (R&D) and infrastructure, lack of conducive economic and political enabling environments, minimal mechanization and predominance of customary land tenure. Insecurity brought about by cattle rustling and displacement has largely contributed to the overall food insecurity in the district.

The perennial food insecurity can be addressed through a holistic approach to crop and livestock productivity. This can be through advocacy on peaceful coexistence among the resident communities, strengthening of science and technology, building impact-oriented research, knowledge and development institutions and reviving markets and policies to make the poor - income and food secure. There may be untapped production opportunities on the one hand, and unmet needs in overcoming food insecurity on the other.

Scope of the Study

The study was conducted in the larger Baringo district in Rift Valley province Kenya, one of the adversely affected districts by food insecurity. It falls within the agro-pastoral zone and has recently been divided into Central Baringo, North Baringo and Marigat districts. The choice of this district was motivated by the fact that it has a history of conflicts for many years that is associated with food insecurity.

Respondents were drawn from the beneficiaries and non beneficiaries of food security projects implemented by World Vision in the district. Stakeholders in food security within the district were also interviewed; They comprise of other NGOs, CBOs and Government ministries (Agriculture, Water, Livestock, Health, Special Programmes and Arid Lands). Using Raosoft sample size calculator, a minimum sample size of 384 can be used for a population above 20,000 people. However for a higher confidence level a sample size of 650 was used.
Significance of the Study

This study was important in establishing the contribution of World Vision to food security, what has made them successful and the challenges they face in addressing food insecurity in Baringo district. Recommendations focused on the practices and measures that increase the potential of sustainable food security to minimize conflicts in the district and for overall benefit of the communities in Baringo district.

The recommendations and alternative approaches suggested will help World Vision, Kenyan government ministries of Agriculture and Livestock development and other organizations involved in food security projects to diversify their approach with the overall goal of addressing the conflicts in the district through food security projects. The local community will also benefit from the recommendations on areas to put much emphasis in order to improve the food security and leave peacefully with one another. All the stakeholders will benefit from knowing the areas they have not exploited in addressing the never ending conflicts in the district.

The study generated some recommendation which will stimulate further research on this particular area.
Operational Definition of Key terms

**Food Security**- A situation in which 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 healthy life. - Mwaniki A. (2003)

**Food-for-Work**- A program where chronically hungry individuals are paid with food for the work they do in the community projects. Workers assist with projects to improve local infrastructure, such as building roads and ports, repairing dykes, terracing hillsides, replanting forests, and repairing irrigation systems. - FAO technical report (2002)

**Population**- The entire elements of importance from whom the researcher chooses a sample. Mugenda et al (2003)

**Internally Displaced People** - People moving away from their original homes but not crossing international border. - Dixon et al (2001)

**Disaster**- Any catastrophic event accompanied by huge losses. - Dixon et al (2001)
CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The chapter analyses the various literature related to food insecurity, opinion from authors and experts, theoretical perspective on which the study is based and other related studies that have been done in food security.

According to Pinstrup et al (2002), Millions of people worldwide suffer from hunger and under nutrition, a major factor contributing to this international problem is food insecurity. This condition exists when people lack sustainable physical or economic access to enough safe, nutritious, and socially acceptable food for a healthy and productive life. Food insecurity may be chronic, seasonal, or temporary, and it may occur at the household, regional, or national level. The United Nations 2009 annual report estimates that there are 840 million undernourished people in the world. The majority (799 million) reside in developing countries, most of which are on the continents of Africa and Asia. The U.S. Department of Agriculture estimates that nearly 11 percent of U.S. households are food insecure, with approximately one-third of these households experiencing moderate to severe hunger.

Mwaniki (2003) states that in developing countries; the root causes of food insecurity include: poverty, war and civil conflict, corruption, national policies that do not promote equal access to food for all, environmental degradation, barriers to trade, insufficient agricultural development, population growth, low levels of education, social and gender inequality, poor health status, cultural insensitivity, and natural disasters. Globally, certain groups of people are more vulnerable to food insecurity than others. Vulnerable groups include: victims of conflict (e.g., refugees and internally displaced people); migrant workers; marginal populations (e.g., school dropouts, unemployed people, homeless people, and orphans); dependent populations (e.g., elderly people, children under five, and disabled and ill people); women of reproductive age; ethnic minorities; and low literacy households.

For food security to exist at the national, regional, and local levels, food must be available, accessible, and properly utilized. Availability of food means that enough safe and nutritious food is either domestically produced or imported from the international market. However, food availability does not ensure food accessibility. Government policies must also contribute to equal distribution of food within nations, regions, and communities. In addition, for food to be
accessible, individuals and families must be able to afford the food prices on the market. Finally, food must be properly utilized. Proper utilization depends on proper food storage to guard against spoilage, appropriate handling to avoid disease transmission, and proper preparation to ensure nutritiously balanced meals. Individuals need adequate amounts of a variety of quality, safe foods to be healthy and well-nourished. Under nutrition results from insufficient intake or an improper balance of protein, energy, and micronutrients. Nutritional consequences of insufficient food or under nutrition include protein energy malnutrition, anemia, vitamin A deficiency, iodine deficiency, and iron deficiency.

The World Health Organization estimates that approximately 60 percent of all childhood deaths in the developing world are associated with chronic hunger and malnutrition. In developing countries, persistent malnutrition leaves children weak, vulnerable, and less able to fight such common childhood illnesses as diarrhea, acute respiratory infections, malaria, and measles. Even children who are mildly to moderately malnourished are at greater risk of dying from these common diseases. Malnourished children in the United States suffer from poorer health status, compromised immune systems, and higher rates of illnesses such as colds, headaches, and fatigue. Adolescents and adults also suffer adverse consequences of food insecurity and malnutrition. Malnutrition can lead to decreased energy levels, delayed maturation, growth failure, impaired cognitive ability, diminished capacity to learn, decreased ability to resist infections and illnesses, shortened life expectancy, increased maternal mortality, and low birth weight.

Pkalya et al (2005) records that food insecurity may also result in severe social, psychological, and behavioral consequences. Food-insecure individuals are highly engaged in conflicts, manifest feelings of alienation, powerlessness, stress, and anxiety, and they may experience reduced productivity, reduced work and school performance, and reduced income earnings. Household dynamics may become disrupted because of a preoccupation with obtaining food, which may lead to anger, pessimism, and irritability. Adverse consequences for children include: higher levels of aggressive or destructive behavior, hyperactivity, anxiety, difficulty with social interactions (e.g., more withdrawn or socially disruptive), increased passivity, poorer overall school performance, increased school absences, and a greater need for mental health care services (e.g., for depression or suicidal behaviors).

FAO report (1997) indicate that there was worldwide commitment to improve global food insecurity at the 1996 World Food Summit, where 186 countries pledged to reduce the number of hungry, food-insecure people in the world by 50 percent (to 400 million) by the year 2015. Progress toward this goal has been slow, with a decrease of only 2.5 million people a year
since 1992. At the current pace, the goal will be reached more than one hundred years late. Despite slow progress, some innovative programs have been implemented around the globe to combat food insecurity and under nutrition. Examples of innovative program include: community gardens, farmers markets, community-supported sustainable agricultural programs, food for work exchange programs, farm to school initiatives, credit to poor households, income transfer schemes, and agricultural diversification programs.

Food insecurity remains a significant international problem, with developing regions of the world enduring most of the burden. Food insecurity results in considerable health, social, psychological, and behavioral consequences and is undeniably linked to poverty. Despite international commitment, the number of food insecure individuals remains unacceptably high.

According to Kherallah et al. (2002) food insecurity in Africa is directly correlated with poverty, it is necessary to not only alleviate poverty but also create wealth for the target population. The key lies in mutual honest intention from multi-stakeholders to ensure that all is done with the sole purpose of benefiting them. There are seven strategies that when implemented together would hold good prospects for substantially alleviating food insecurity in Africa. These are: nutritional interventions; facilitating market access; capacity building; gender sensitive development; building on coping strategies; creating off- farm opportunities; and good governance. Malnutrition has devastating effects on any population. It increases mortality and morbidity rates, diminishes the cognitive abilities of children and lowers their educational attainment, reduces labour productivity and reduces the quality of life of all affected. In addition to investing short-term interventions, which are vital, African countries should increase their investment in long-term interventions such as dietary diversification, food sufficiency and bio fortification. These have lower maintenance costs, a higher probability of reaching the poor who are vulnerable to food insecurity, and produce sustainable results. Dietary diversification still remains the best way to provide nutritious diets to the sustainability of any population. It is possible to obtain the right mix of food to alleviate malnutrition from that which is locally produced. The probability of so doing is increased with increase in locally produced foods. Africa needs to increase its production of animal products, fruits, pulses and vegetables. Increased production would in part make these foods affordable to the poor and increase their protein, vitamin and mineral intake. One sure way is to revisit the cultivation of traditional fruits and vegetables that are adapted to prevailing environmental conditions. Once produced, there is need for more constringent post harvest loss prevention measures. In addition, East Africa should increase their roots and tuber production so as to reduce their dependency on cereals. This
reduces the risk of crop failure during droughts since tubers like cassava are relatively more drought tolerant. Food insufficiency creates dependency on the supplier and could be used as a weapon to bend preferences to the master’s liking.

About 85 percent of the food consumed in the poor households is in its primary form. This limits the effectiveness of fortification to alleviate micronutrient malnutrition. Research is under way by various institutions to increase the micronutrient density of staple crops, which will sustainably alleviate hidden hunger. One such group is HarvestPlus, which aims at increasing the bioavailability of iron, vitamin A and zinc in crops such as maize, beans, sweet potatoes and cassava. There is need to set up the facilitating tools now; capacity building that will facilitate the adaptation of these crops including developing the agricultural extension sector, the seed industry, research and development institutions that would in addition test the effect on marketability, and infrastructure.

Disease and infection increase the nutritional requirement of the individual affected and may reduce nutrient intake through loss in appetite increasing the risk of malnutrition.

More than half the water consumed in Africa is untreated. This causes water borne diseases, which lead to diarrhoea and thus nutrient loss from the body thus increasing nutrient requirement of the population. Africa continues to loose many children through diarrhoea. There is need to invest in childcare and educate mothers on hygienic practices. For sustainable results, support systems should be put in place. Malaria, tuberculosis, HIV/AIDS and other related diseases continue to plague the continent. There is need to promote prevention practices and find affordable curatives. We need more accessible, affordable and adequately equipped health care centres.

Kherallah et al. (2002) further states that food insecurity is experienced at the household and individual levels in different ways. Individual-level experience relates to issues of food consumption and allocation and includes the physiological sensation of hunger, whereas food supply management and acquisition issues define the household situation.

The experience of food insecurity is not static but dynamic in nature, defined by a temporal sequence of events and experiences that can be considered in terms of frequency, duration, and periodicity.

The sequence of stages that define the experience reflect graded levels of severity, ranging from qualitative compromises in food selection and consumption to quantitative compromises in intake and the attendant physical sensation of hunger, as resources become increasingly depleted.
As its most severe stage, food insecurity is experienced as absolute food deprivation (i.e., individuals not eating at all).

Within households, individuals' experiences of food insecurity differ. In particular, adults appear to compromise their own intakes first in an effort to minimize the extent and nature of compromise experienced by children in the household. This suggests that food insecurity is a managed process in which the sequence of events and severity of experience for different household members is, to some extent, controlled and predictable.

Whereas the qualitative and quantitative dimensions of food insecurity identified by Radimer et al (1991) and others appear to be integral parts of this phenomenon, the social and psychological dimensions of food insecurity have not been as thoroughly or consistently characterized in food security research to date. The tremendous diversity of individuals' perceptions and experiences begs the question of whether any particular aspect of these dimensions is sufficiently common as to be considered an integral or defining feature of the experience of food insecurity. Further, Hamelin et al (1986) have suggested that the social and psychological dimensions of food insecurity might be more accurately understood as consequences of food insecurity. What follows is an examination of key conceptual elements of the experience of food insecurity, as understood from recent research. This examination is organized around the four dimensions of food insecurity originally defined by the Cornell group (1998), but draws upon a broader variety of research to illustrate and substantiate particular dimensions of the experience and highlight potential areas of ambiguity or debate. The managed aspect of food insecurity and its temporal dimensions are examined, providing two different frameworks within which to consider the conditions, behaviours and experiences that characterize food insecurity.

At the individual level, food insecurity is linked to feelings of deprivation or lack of choice expressed as "not according to your own will...that you have to miss or eat only a little because you don't have anything to eat". These kinds of feelings have been repeatedly documented in qualitative studies of individuals' experiences of food insecurity, highlighting individuals' acute awareness of the extent to which their food intakes are compromised by severe financial resource constraints. Fitchen (2001) has written about the preoccupation with food that comes with experiences of deprivation.
Recent work by Hamelin et al (2007) provides further elaboration of the psychological stress associated with household food insecurity. Examples include the loss of interest in food and cooking that accompanies such constrained circumstances and the fear of losing custody of one's child - presumably because of not being able to feed him or her properly. Although psychological dimensions of food insecurity were initially framed as a core component of this phenomenon the only psychological aspect identified as an integral part of the phenomenon in recent quantitative modelling is household-level food anxiety. To date, however, there has been limited research in this area. With further work, it may be possible to delineate other psychological aspects of food insecurity at the individual or household level that also operate as integral or defining features of the phenomenon, at least within some specific population subgroups. The food acquisition, selection, and consumption behaviours characteristic of food insecurity represent deviations from social and cultural. At the individual level, this deviation includes disruptions in the usual pattern of eating and may involve quantitative and/or qualitative departures from societal norms (e.g., not being able to eat three meals/day). At the household level, it includes disruptions in sociofamilial eating patterns, frictions around food in the home, and the inability to participate in meal-based cultural traditions and rituals. Depending on how this component is understood, it can have considerable overlap with the psychological aspects of food insecurity for individuals.

At the household level, the social dimension of food insecurity is also manifested in behaviours to acquire food in ways that deviate from social norms. Sometimes referred to as coping strategies or resource augmentation strategies, these behaviours can include seeking food from charitable food assistance programs, family or friends, and food theft - sources considered outside the normal, socially acceptable routes of food acquisition (i.e., food purchasing). The notion of resource augmentation strategies also encompasses abnormal actions to acquire money for food, such as pawning or selling possessions, buying food on credit and delaying bill payments. Determining which behaviours lie outside social norms or are 'socially unacceptable' is clearly a matter of judgement, depending in part on one's social location. Furthermore, social norms are constantly evolving; what appears to be socially unacceptable changes over time. While the normative aspect of this dimension of food insecurity might seem problematic from a measurement or monitoring perspective e.g. social exclusion appears to be an integral part of the experience of chronic food insecurity. As they work to satisfy their families' food needs on a limited budget, low-income women appear acutely aware of the extent to which their families' food consumption patterns mirror or deviate from social norms. Hamelin et al also documented
alienation in relation to household food insecurity, describing the profound feelings of powerlessness, guilt, and shame associated with this condition. Participants spoke of the need to conceal their lack of control over their food situations, as indicated by comments like "we hide it; we don't know what others would think about us not having enough to eat". The concept of alienation described by Hamelin et al is consistent with the discussions of food insecurity as social exclusion that are prominent in literature.

Rosegrant et al (2001) reiterates that although conceptually food insecurity can be examined as a composite of discrete components and levels, experientially it is a process. The experience comprises a distinct sequence of events; the nature and extent of compromise at each stage in this sequence is, to some extent, controlled. Further, the managed aspect of food insecurity means that individual members of a household experience different components of food insecurity at different times and to different degrees. Household food insecurity has thus come to be understood as a managed process. In describing the experience of food insecurity among low-income women with children, Radimer et al noted that anxiety about the adequacy of household food supplies occurred first, followed by compromises in the quality and then quantity of women's food intakes, perhaps along with a more general deterioration in quality at the household level. Compromises in the quality and quantity of children's intakes did not occur until later, and it was Radimer's observation that children's eating patterns were rarely affected. Importantly, quantity was preserved at the expense of quality, and children were protected from compromise. The differential restrictions of adults' and children's food intakes in the context of severely constrained resources have been described by a number of other authors as well Adults appear quick to differentiate their own experiences of quantitative food deprivation from those of their children (e.g., "I would eat more but I prefer to leave more to my child"). More intensive, quantitative examinations of the differences between reported experiences of food deprivation among adults and children in food insecure households indicate that this 'protection' of children is tempered both by the ages of the children and the ratio of children to adults in the household older children and those in households with a higher children-adult ratio appear more likely than others to share the adult experience of deprivation.

In contrast to the descriptions of food insecurity among families with children, a qualitative study of food insecurity among the elderly revealed a somewhat different progression of events with increasing insecurity. Compromises in dietary quality were found to occur first, followed by food anxiety, socially unacceptable meals, the use of emergency food acquisition and other strategies to augment household food or financial resources, and finally, actual hunger
The authors suggested that the primacy of food quality concerns among the elderly might reflect their greater perceived need for high quality diets; many of those interviewed had health problems for which particular dietary practices had been recommended.

In a 1986 World Bank publication that characterized food insecurity in both developed and developing countries, food insecurity was described as being either chronic or transitory, based on whether there was continuously inadequate food access or a temporary decline in access, respectively. This distinction was also noted in an ethnographic study of the food problems of a small sample of low-income, single-parent families; for these families periodic acute food shortages and deprivation appeared to occur against a backdrop of chronically limited food selection. A similar pattern of food insecurity appeared to characterize the experiences of most households in the recent study by Hamelin et al.

While the conceptualization of household food insecurity as a managed process is helpful in mapping out the probable sequence of events, understanding the frequency and duration of experiences (both at the household and individual levels) at each stage in this sequence is critical to determining the severity of the problem in terms of health or nutrition and understanding its psychological and social implications. Understanding the temporal patterns of food insecurity as it is experienced by households can also yield insight into the causes of this problem and help to elucidate appropriate interventions. As noted earlier, this aspect of food insecurity measurement is currently not well developed.

As per Baringo District Development Plan 2008 – 2009, Malnutrition rates are on upward trend as presented by MUAC and Chanis data from Ministry of Health. Normally, pastoralists take two meals comprising of starch, vitamins and proteins (3 main groups) but currently, the quantities and qualities of meals have reduced as most households skip one meal out of the two normal ones. Cattle milk production in the pastoral and agro-pastoral livelihood zones reduced by 60% in the last three years (0.5 Liters per cow per day down from average 1.2 litres per animal per day). On the other hand cattle milk production in the mixed farming reduced from average 6 litres to 3.5 litres per cow per day. Due to the food insecurity, the coping mechanisms adopted by the community currently include eating of wild berries, reduced quantity of meals, skipping meals and borrowing from neighbouring homes. All these happen despite the efforts by World vision and other stakeholders implementing food security projects in the district. Data from the MoH further indicates an increase in the numbers of malnourished children. The Ministry conducted a nutritional survey in 2008 that estimated the rates of
malnutrition at 15%. However due to challenges in technical expertise in data management, the results were not validated and as such no conclusive status of the situation. Over seventy percent of the food insecure population in Kenya lives in the rural areas. It is evident that food security cannot be significantly and sustainably reduced without transforming the living conditions in these areas. The key lies in increasing the agricultural profitability of smallholder farmers and creating rural off-farm employment opportunities. The objective of this research is to highlight the challenges to food security in Baringo while giving recommendations that would help the stakeholders implementing food security projects in district.

According to the District Agriculture Officer, the main food commodities are Maize and beans. The total maize requirement for the district is about 205,000 bags of 90 Kg. The highest yields realized was 102,690 of 90 kg bags recorded in the early 90’s. Maize deficit was therefore about 100,000 bags of 90 kg in the year. This shortage combined with high demand is key reasons for skyrocketing maize price in the irrigated cropping livelihood zone. Inadequate access to food coupled with high prices contributes to high maize prices in other livelihood zones. Due to poor market access, bean prices are particularly high in the pastoral livelihood zone. Other livelihood zones registered higher prices than the long term average and this is attributed to scarcity of the commodity in the district.

Insecurity, mainly due to cattle rustling and conflict over pasture and water has contributed to food insecurity. About 10,000 people have been displaced due to insecurity and over 3000 livestock stolen. Pastoralists are employing adverse coping strategies like feeding of wild berries and reducing the frequency and quantities of meals. The two main communities (Pokot and Ilchamus) have historically fought over pasture, water resources and cattle; however the conflicts were less fatal initially but in 1998 the first cattle rustling related killing occurred. Since then the incidences have increased in frequency and fatalities. The worst raid was waged by the Pokots in 2005 resulting to killings and mass displacements from Mukutani division, in Baringo district by then (now under Marigat district). Subsequent attacks have led to layers of displacements and complete loss of livelihoods from repeated raids.
Theoretical Perspectives
According to Maslow's hierarchy of needs theory; Food is one of the physiological (basic) needs which needs to be satisfied before pursuing other needs. It was therefore very vital to establish the contribution of World Vision to food security in Baringo district.

As per the food aid theory by UN World Food programme, the problem of food insecurity can be addressed by providing targeted food security interventions, including food aid in the form of direct food relief or indirectly through subsidized food production. These efforts have significantly reduced food insecurity in some areas but also with less success in other areas. The discrepancy in the results may be due to insufficient resource base, shorter duration of intervention, or different systems most of which are inherently heterogeneous among other factors. Other factors that affect food security include; unstable social and political environments that preclude sustainable economic growth, war and civil strive, macroeconomic imbalances in trade, natural resource constraints, poor human resource base, gender inequality, inadequate education, poor health, natural disasters, such as floods and locust infestation, and the absence of good governance. All these factors contribute to either insufficient national food availability or insufficient access to food by households and individuals.
Conceptual Framework

Food security has three aspects; food availability, food access and food adequacy. Food availability has to do with the supply of food; this should be sufficient in quantity and quality and also provide variety. Food access addresses the demand for the food, it is influenced by economic factors, physical infrastructure and consumer preferences, thus, food availability, though elemental in ensuring food security, does not guarantee it. For households and individuals within them to be food secure, food at their access must be adequate not only in quantity but also in quality. It should ensure an adequate consistent and dependable supply of energy and nutrients through sources that are affordable and socio-culturally acceptable to them at all times. Ultimately food security should translate to an active healthy life for every individual. Hence adequate health and care must be provided in addition to adequate food. Food insecurity has the potential to influence food intake and ultimately the health and nutritional status of households. The decline in the food security and nutrition status is evidenced by the reports from the Ministry of Health on the increase in malnutrition. With the presence of aggravating factors like diseases, poor hygiene and sanitation, deteriorating household food security and loss of livelihoods, the nutrition situation has continued to deteriorate.

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<th>Independent Variables</th>
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<td>Contribution of world vision to food security in Baringo</td>
<td>- Causes of food insecurity</td>
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<td>- Technologies promoted by World vision</td>
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<td>- Challenges faced in implementation</td>
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Related Studies
In an effort to know the work done in this field, the researcher visited internet site:
http://www.faqs.org/nutrition/Erg-Foo/Food-Insecurity - consulted on 20/09/2010
The site had the following information relevant to the area of study; Food insecurity in
developing countries; underdeveloped agricultural Sector was found to be the main challenge.
This is characterized by over-reliance on primary agriculture, low fertility soils, minimal use of
external farm inputs, environmental degradation, significant food crop loss both pre- and post-
harvest, minimal value addition and product differentiation, and inadequate food storage an
preservation that result in significant commodity price fluctuation.
Ninety five percent of the food in Sub-Saharan Africa is grown under rain fed agriculture.
Hence food production is vulnerable to adverse weather conditions. There is an overall decline in
farm input investment including fertilizers, seeds, and technology adoption. Access to fertilizer
use is constrained by market liberalization and trade policies that increase fertilizer prices
relative to commodity prices, limited access to markets and infrastructure, limited development
of output, input and credit markets, poverty and cash constraints that limit farmer’s ability to
purchase fertilizer and other inputs. The soils continue to degrade leading to a reduction in the
productivity of the farms. Some of the causes of soil fertility depletion in Africa include the
limited adoption of fertilizer replenishment strategies and soil and water conservation measures;
the decline in the use and length of fallow periods; expansion of agricultural production into
marginal and fragile areas; and the removal of vegetation through overgrazing, logging,
development, and domestic use.
Other causes include rapid population growth, limited access to agriculture-related technical
assistance, and lack of knowledge about profitable soil fertility management practices leading to
expansion into less-favorable lands. A significant amount of the food is lost through pre- and
post-harvest losses. The tropical climate makes foods produced in these regions prone to pests
and diseases. Poor handling and storage further increase the post-harvest losses. Management of
the African agricultural system is further complicated by the existence of diverse heterogeneous
systems.
Access to markets is the second huddle that smallholders have to overcome. The problem is
many- fold: poor infrastructure and barriers in penetrating the market caused by their limited
resource base, lack of information, lack of or inadequate support institutions and poor policies in
place among other factors. Poor infrastructure literally limits the markets to which farmers can
profitably take their produce by increasing the cost of transportation, and hence also acts as a
barrier to market penetration. Other barriers include market standards, limited information,
requirements for large initial capital investments, limited product differentiation, and handicapping policies. While almost any of the farm produce sells at the village level market, consumers are quick to discriminate against produce that is comparatively inferior, hence farmers have, over time, adapted to selling only that which will sell. This is a highly subjective process that has worked traditionally. However, when the same farmer wants to sell the produce to high-end markets, then subjective standards no longer work. The farmer is forced to meet objective standards such as size, quantity, and quality. The other aspect of the problem is the variation in the standards between markets. They are so varied that they necessitate the farmer to identify the market before production. Yet, the markets are not static. The volumes required and sometimes the standards vary. The farmers’ risk is increased. Apart from the fact that standards in themselves provide a bottleneck as to the crop and amount thereof that a farmer can produce, standards also put a strain as to who can produce. Lastly, Africa’s high export costs limit farmer’s access to the international markets. In order to meet the standards there is need for information, capital, technology and expertise that the smallholder farmers have no capacity to meet without external assistance.

Globalization is a concept that allows countries to benefit from capital flows, technology transfer, cheaper imports and larger export markets in the long term. However, the effect of globalization on any country depends on that country’s level of economic development, structures in place during the implementation stage, flexibility of its economy. Globalization has three dimensions. The first refers to the multiplication and intensification of economic, political, social and cultural linkages among people, organizations and countries at the world level. The second dimension is the tendency towards the universal application of economic, institutional, legal, political and cultural practices. This is related to the first dimension in that increased linkages generate a need for common institutions and rules. The third dimension is the emergence of significant spillovers from the behaviour of individuals and societies to the rest of the world. Due to the interrelation of the various dimensions, policies made in one country are bound to have effects on another. With globalization comes liberalization of markets. The food security threat caused by liberalization is due to dumping of heavily subsidized produce in developing countries and premature exposure of upcoming industries to genuine competition from producers in developing and developed countries. In addition, most profits are repatriated by transnational companies reducing the potential for poverty reduction to direct employment alone. In most cases, the pay is low because the national policies do not protect the laborer.
Disease and infection continue to plague the African continent. Diseases such as malaria, tuberculosis and HIV/AIDS not only reduce the man-hours available to agriculture and household food acquisition, but also increase the burden of household in acquiring food. In Sub-Saharan Africa, AIDS is the leading cause of adult mortality and morbidity. The Food and Agriculture Organization of the United Nations (FAO), estimates that by 2020 the epidemic will claim the lives of 20 percent or more of the population working in agriculture in many African countries. More than two thirds of the total population of the 25 most affected countries resides in rural areas, affecting agricultural production as well as farm and domestic labour supplies. Lack of resources also makes it more difficult for HIV-affected households to supplement their diet through the purchase of more nutritious and varied foods. The effect of malnutrition on food security is further exacerbated by the fact that individuals affected by disease and infection, have greater nutritional requirements.

Poor policies have greatly affected the food security in Africa. The problem arises when the focus on policies, structures and institutions is put above that of the people themselves. When policies are not inclusive in their design they tend to handicap the exempted lot by providing barriers. One such way in which this may take place is uneven development within countries where certain regions are preferentially developed for political reasons at the expense of others. Policies that promote monopolistic competition for the large-scale industries hurt the cottage and small industry. When we fail to provide safety nets for vulnerable groups, we doom them to destruction.

While addressing food insecurity in Africa; there are many resources available for the topic, is evidence that multi- stakeholders care about Africa’s food security. For it to become a reality, we should take the cue from NEPAD’s first strategic objective and facilitate African leadership to take ownership of and responsibility for Africa’s development agenda.

The United Nations Food and Agriculture Organization (FAO) has estimated that almost 200 million Africans were undernourished at the dawn of the millennium, compared with 133 million 20 years earlier (FAO, 2000: 20). The rate of increase in undernourishment in Africa vastly exceeds that of other developing regions. Yet West Africa has gone against the trend in the rest of Africa, with its numbers and the prevalence of undernourishment falling dramatically over the period, and this is reason for optimism that trends can be reversed in other parts of Africa (FAO, 2002). Countries that stand out are Benin, Ghana and Nigeria, but they were the only Sub-
Saharan African countries that had consistent declines in both the numbers and the prevalence of undernourished people over the past 20 years.

About 33 percent of people in Sub-Saharan Africa are undernourished, compared to about 6 percent in North Africa and 15 percent in Asia (FAO, 2002). More than 60 percent of the undernourished are in Eastern Africa, with more than half of the populations in Congo Democratic Republic and Mozambique affected, while Angola, Cameroon, Ethiopia, Kenya, Tanzania, and Zambia show prevalence rates between 40 and 50 percent. Nigeria's prevalence rate is low, but its large population means that the country accounts for 22 percent of the food insecure in West and Central Africa.

Achieving food security in Africa is complex. Clearly increased food availability is a necessary component but not a sufficient one. Over the past 20 years, per capita crop and livestock production in Sub-Saharan Africa declined by about 0.2 percent per year (FAO, 2000: 45). In the last 10 years there has been a reversal to an annual per capita increase of 0.3 percent. Hence, while recent production trends per capita have been encouraging, projected aggregate demand growth of 2.8 percent per year to 2015 is likely to exceed projected production growth of 2.6 percent per year over the same period. This will represent a challenge for Africa and implies major food imports in the absence of significant productivity growth.

The 1996 World Food Summit in Rome defined food security as a state 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. People's food and nutrition security needs vary over their life cycles, as do the implications for their physical and mental health and well-being (Figure 2.1). Food security means far more than having sufficient food on a national basis to meet human needs - whether from domestic production (food self-sufficiency) and/or commercial/aid imports (food self-reliance). Food security today is less a problem of general food availability than of access. People must have access to food. Some components of access, Physiological utilization implies that in addition to food access, there are other factors to consider like safe drinking water, primary health care and environmental hygiene to minimize gastro-intestinal infections that can negate the benefits of a nutritious diet. Food security is distinguished from the three forms of hunger - transient, endemic and hidden.

With increasing urbanization in Africa there is a food and nutritional transition underway leading to problems of over nutrition such as increased obesity, diabetes, hypertension and
cardiovascular risks. This is fuelled by supermarkets, new food processing technologies, increased private foreign investment, television and media penetration, and the increasing opportunity costs of time. While this is likely to be a growing problem towards 2015, this report does not address it explicitly. It adopts a narrower definition of food security consistent with its brief to explore the scope for science and technology (S&T) to enhance agricultural productivity, which is much less likely to influence the nutritional transition.

The FAQ (2000: 19-22) uses food balance sheets at national level to assess the extent of undernourishment, as measured by the proportion of the population falling below an Adjusted Average Requirement of 2,600-2,950 kilocalories per person per day, depending on the country and its population structures (age, sex, body weight). Its analysis shows that the incidence of undernourishment in Sub-Saharan Africa has stayed around one-third of the population from the 1970s to the 1990s. In 1995-97 this represented 180 million people. The FAQ predicts a significant decline, to 15 percent towards 2030, but this will still number 165 million (40 percent of all undernourished people in the developing world). Less than 10 percent of the population of the Near East/North Africa is undernourished, and this prevalence rate has stayed the same for the past two decades. It currently represents 33 million people and is projected to grow to 38 million by 2015.

Projections to 2020 from the International Food Policy Research Institute (IFPRI) indicate that, as a consequence of poor growth in incomes, poverty is expected to remain pervasive in Sub-Saharan Africa (Pinstrup-Andersen et al., 1999). Food availability should increase marginally but remain at the unacceptably low average of 2,276 calories per day (compared to 2,633 for South Asia; 3,008 for Latin America and the Caribbean and 2,902 for the world). The situation in many countries in Sub-Saharan Africa will continue to cause concern, with per capita food consumption reaching only marginally acceptable levels. The FAQ predicts that of the 17 countries below the recommended 2,200 kilocalories per person per day in 2015, 12 will be in Sub-Saharan Africa (FAQ, 2000).

Food security, as indicated earlier, is a complex set of factors, and undernourishment alone is not considered an adequate indicator. Some consider that child malnutrition, as measured by the numbers or prevalence of low weight-for-age preschool children is the best available indicator. Low food and nutrient intake, poor care for mothers and children and a poor health environment can lead to low weight-for-age (Smith and Haddad, 2000). As with undernourishment for the whole population of Africa, child undernutrition has been an
increasing trend over the past three decades, with the prevalence of underweight preschool children rising from around 27 percent in the 1970s to more than one-third (33 million) currently. It is the only developing region where the numbers of malnourished children have been rising in recent years and if past trends continue, these numbers will continue to increase by about 10 percent to 36 million by 2025 - the only region where this will occur.

The Hunger Task Force of the United Nations Millennium Development Goals program has identified 342 regions of the developing world with more than 20 percent of underweight preschool children. Of these, 72 percent (245) are in Sub-Saharan Africa. Three-quarters of these underweight children are in smallholder rural households while one-quarter is in urban areas. Benin and Ghana have both reduced the prevalence rates of underweight children in recent years, but in Nigeria these have increased, contrary to the trends in undernutrition for its population as a whole. Of the 25 countries of Sub-Saharan Africa analyzed by the Hunger Task Force, only 10 showed reductions in the prevalence of underweight children, with the rest showing increasing trends. The Hunger Task Force did not find any region in North Africa with more than 20 percent of underweight preschool children. The FAO (2002) estimates that rates are much lower in North Africa (4-12 percent) than in Sub-Saharan Africa (13-47 percent). Food insecurity and child malnutrition are much worse in rural than urban areas of Africa. World Health Organization (WHO, 1997) information from 32 African countries shows that in all but one of these countries, the percentage of the preschool children suffering low height-for-age (stunted) is higher in rural than urban areas. In half of the countries the number of stunted children was more than 50 percent higher in rural than urban areas. Estimates of underweight were very similar, with 30 of the 32 countries having a larger percentage of children in rural areas with low weight-for-age.

More than one-half of the 33 million underweight children in Africa are in five of Africa's 17 farming systems: the cereal/root crop based, maize mixed, highland temperate mixed, agro-pastoral sorghum/millet based and the root-crop based (Table 2.2). It is noteworthy that when the densities of underweight children are mapped, those areas where the densities are highest correspond well with areas that also have the highest population densities (see Chapter 3, Figures 3.9A and 3.9C). This seems intuitively obvious on reflection, and it has implications for S&T strategies that will be discussed in Chapters 3 and 4. The Hunger Task Force of the UN Millennium Development Goals program has decided to focus its attention on the 21 'hunger hot spots' in Africa where the child underweight densities are highest.
The FAO (2002) estimates that 5-10 percent of the global hunger in any given year can be traced to specific shocks like droughts, floods, armed conflict, or political, social and economic disruptions. This is termed transient or acute hunger, and there is little direct contribution from agricultural productivity growth to alleviating this type of hunger - except that its effects will be more severe where productivity growth trends have been lower. The numbers of people affected by conflict in the world have fallen in the 1990s from around 40 million to 20 million. However the numbers affected by natural disasters have risen from 40 million to more than 70 million in the same period (Hoddinott, 2003).

Africa has had a disproportionate share of shocks; however many food insecure countries have been relatively free of them, so the absence of such shocks does not guarantee food security. Indeed food insecurity and conflict derive from a common set of risk factors. These risk factors include poor economic conditions, repressive political systems, weak institutions, natural resource degradation, scarce resources and unequal access to them, productivity declines, rapid poverty growth, social and cultural polarization and large-scale migration. Hence, addressing these risk factors can both prevent conflict and reduce hunger.

Food aid is one of the most effective devices for alleviating transient hunger in such emergencies. It is noteworthy that per capita food aid in conflict countries has risen over the period whereas in natural disaster countries it has fallen (Hoddinott, 2003). Conflict and natural disasters are termed covariant shocks, in that large numbers of households are simultaneously affected. In such situations, food aid is the most effective insurance mechanism to reduce vulnerability to transient hunger and starvation, as households have few options. Other shocks, such as adult illness, are more idiosyncratic to the household, and they do better at offsetting such shocks.

Endemic or chronic hunger is of a more permanent nature, caused by poverty and lack of access to balanced diets including both energy-rich and protein-rich foods, leading to protein-energy malnutrition. Productivity growth can play a major role in alleviating this insidious form of hunger. Billions of people in developing countries also suffer from hidden hunger, caused by a deficiency in micronutrients such as folate, iodine, iron, selenium, and vitamins A and C. After Asia, Africa has the highest prevalence rate of hidden hunger, with pregnant and lactating women and preschool children most at risk (FAO, 2002; CGIAR, 2002; Graham et al., 2001).
Micronutrient malnutrition can damage cognitive development, lower disease resistance in children and reduce the likelihood that mothers survive childbirth. Lack of dietary diversity is a key causal factor. Increasing the amount and variety of micronutrient-dense fruits, vegetables, livestock and fish products in diets can alleviate this form of hunger. Income growth leads to a more diversified diet, and again agricultural productivity growth is the primary ingredient for this in Africa. It can also contribute to lowering the prices of micronutrient-dense foods, thus allowing the malnourished better access to them. Food fortification is another strategy, as in the case of iodized salt. More recently biofortification has become another possibility, by manipulation of the genes controlling micronutrient content in staple foods such as rice.

The nature of farming is changing in many African countries because of demographic changes: the farm population is aging, rural male workers are migrating to urban areas, and many rural areas are becoming urbanized. These changes imply an increasingly diverse clientele for agricultural research and the need to give much more attention to women farmers and older farmers. Moreover, although most rural poor Africans still depend heavily on agriculture for their livelihoods, many also have diversified into non-farm income sources, including own small-scale, rural non-farm enterprises; non-farm employment; and seasonal migration. As a result, many small farms may give lower priority to farming than non-farm activities and may not take up promising new technology options that compete for labour. On the other hand, more diversified households may have more capital of their own to invest in new agricultural technology options and resource improvements and be better able to withstand shocks and risks.

With rapid population growth, the per capita availability of natural resources is declining in rural Africa; and many farms are becoming too small to fully support farm families. At the same time, resources are being degraded, reducing their productivity and the quality of environmental services they provide. In this context, agricultural research must focus on activities that enhance resource productivity and on natural resource management practices that can reverse degradation.

Global and regional climate change could have several important consequences for African agriculture. Growing conditions may deteriorate in some tropical areas and there are likely to be more frequent and severe droughts in many arid and semi-arid areas. Such events will add to the burdens of existing farming systems, reducing their average productivity and resilience, and thus increasing the vulnerability of poor people who depend on these farming systems. Given the long lead times inherent in much agricultural research, these changes need to
be anticipated in setting research priorities for the future. Such priorities should consider both changed crop characteristics and changes in cropping systems.

HIV/AIDS is rampant and spreading in Africa. It is killing large numbers of working adults, reducing the labour available for farming, turning millions of children into orphans, and disrupting the transmission of agricultural knowledge from one generation to the next. Where new technology options are introduced into afflicted areas they will have to contend with increasing labour costs and labour shortages, and farm families will need help with labour-saving technology options (including appropriate mechanization) and nutritionally enhanced foods. HIV/AIDS is also affecting the scientific population of Africa, a resource that is already scarce.

African farmers pursue a wide range of crop and livestock enterprises that vary both across and within the major agro-ecological zones. Food production and food security in Africa depend on many different systems, unlike other regions of the world where the contribution to food production and food security is based on a limited number of systems. For the foreseeable future in Africa a multitude of farming systems need to become more productive and to generate the desired productivity increases outlined in chapter 2. This chapter describes and characterizes the major farming systems, analyses recent trends in productivity and identifies priority systems which offer the best prospects for measurable gains in productivity and food security.

Diversity is the norm in African farming systems. Even at the level of the individual farm unit, farmers typically cultivate 10 or more crops in diverse mixtures that vary across soil type, topographical position and distance from the household compound. Dixon and colleagues (2001) provide the most comprehensive description of farming systems globally. They identify and broadly delimit farming systems based on the (a) natural resource base; (b) dominant livelihoods (main staple and cash income source - a balance between crops, livestock, fishing, forestry and off-farm activities); (c) degree of crop-livestock integration and (d) scale of operation. Analysis of various systems has shown that mixed cropping systems reduce risk, reduce crop losses from pests and diseases and make more efficient use of farm labour. Science and technology (S&T) investments are embodied in these systems' commodities and resource management practices in often complex and interdependent ways.

Farming systems in Sub-Saharan Africa comprise many root crops, especially cassava. Cereals are less important. The main crops are coarse grains like millet and sorghum, followed by maize. The International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT) developed by the International Food Policy Research Institute (IFPRI) to project the
future demand for these commodities, estimated that the per capita demand for cereal crops will increase in Sub-Saharan Africa by some 4.9 percent per year between 1997 and 2020, with the main increase in wheat and rice (Rosegrant et al., 2001). Part of the increase will be due to greater demand for animal feed. The demand for root and tuber crops will increase by about 65 percent, more or less evenly spread over all species.

The farming systems described provide a snapshot of dynamic systems that are constantly evolving. Both endogenous factors (household goals, labour, technologies in use and the resource base) and exogenous factors (market development, shifts in demand, agricultural services and policies, the dissemination of new technologies and the availability of market and policy information) drive the evolution of individual farms and, collectively, the overall farming system.

Farming systems may evolve along several pathways. Population growth combined with new technology options and/or market opportunities can induce farmers to diversify and intensify systems. Depending on the natural resource base and management systems, intensification can either sustain and improve productivity over time, or degrade the natural resource base and therefore lower production potential over time. On the other hand, population growth in the absence of technological or market opportunities can lead to deepening poverty, degradation of the resource base and long-term agricultural involution.

Over decades, farming systems may differentiate into subtypes that continue to evolve along different pathways. For example, in systems under population and market pressure, some farms may successfully intensify and even specialize to produce for the market, whereas others may regress to low-input/low-output systems. Moreover, in any one location within a farming system, different farms are likely to be at different stages of evolution because of differentiated resource bases, household goals, capacity to bear risk or degree of market access. Individual farm systems may also be shifted out of the overall trajectory of system evolution because of shocks - internal (such as family sickness), external (natural disasters) or policy (such as structural adjustment).

Perry et al (2002) discuss the importance of livestock in African farming systems at length. They define animal production systems according to their major characteristics and agro-ecological zoning. Further, they differentiate between these systems in West Africa and in Eastern/Central/Southern Africa. In the mixed crop-livestock systems of the arid/semi-arid
(MRA), humid/subhumid (MRH) and tropical highlands (MRT) of Eastern, Central and Southern Africa, cattle are judged of greatest importance to the poor, followed by sheep and goats, poultry, horses, donkeys and mules, with pigs last. By contrast in the same systems in West Africa, sheep and goats rank highest, followed by poultry and cattle, then horses, donkeys and mules, with pigs again last. In the pastoral rangeland-based systems in Africa, sheep and goats are generally regarded as of highest relevance to the poor, followed by cattle, camels and horses, donkeys and mules.

In Sub-Saharan Africa the total output of animal products is worth most in the pastoral rangeland-based systems in the arid/semi-arid region (LGA), followed by the mixed rainfed crop-livestock systems in the humid/subhumid tropics (MRH) and then the mixed rainfed crop-livestock systems in the arid/semi-arid tropics (MRA) (ILRI 2000). However there are more than twice as many poor people dependent on the mixed rainfed crop-livestock systems in the humid/subhumid tropics (MRH) than depend on the other two systems. In West Asia/North Africa by far the most economically important livestock production system is the mixed rainfed crop-livestock system in the arid/semi-arid tropics (MRA). However it supports less than one-third of the numbers of poor people that are supported by the humid/subhumid system in Sub-Saharan Africa. More than 60 percent of the poor in West Asia/North Africa are in West Asia (Thornton et al., 2002).

The three mixed rainfed crop-livestock systems (MRA, RMH and MRT) represent more than 70 percent of the estimated 280 million poor people in Sub-Saharan Africa (Thornton et al., 2002). The pastoral rangeland-based systems support around 10 percent. In North Africa the mixed irrigated arid/semi-arid crop-livestock system (MIA) comprises 44 percent of the total poor in the region, while the three mixed rainfed crop-livestock systems represent only 25 percent.

Demand for meat and milk is projected to more than double over the next two decades in developing countries. The major factors driving this rising demand are population growth, increased urbanization and higher incomes. Sub-Saharan Africa is projected to have the greatest annual growth in consumption of meat (3.5 percent) of any other region and the second highest growth of milk consumption (3.8 percent). These far exceed growth projections in demand for foodgrains. Because livestock are an important livelihood asset for the poor in Africa, this 'Livestock Revolution' (Delgado et al., 1999) has the potential to provide a platform for the poor in Africa to reap a disproportionate share of the benefits of this demand growth.
If livestock production is to keep pace with demand the imperative is to enhance productivity per animal and reduce wastage. In Sub-Saharan Africa, recent productivity growth per animal has been far less than the projected growth rates of demand for all species. Productivity growth has ranged from -0.5 to 0.6 percent per year while demand growth is projected to be between 2.6 and 4.2 percent per year (ILRI, 2000). In West Asia/North Africa the demand - productivity growth gap is not nearly as large as in Sub-Saharan Africa.

The many African farming systems described highlight the fact that in addressing the diverse problems of African productivity and food security, regionally mediated rather than continent-wide strategies will be needed. Since the top six systems cover 80 percent of Africa's food production, it is extremely difficult to identify one system with the best opportunity to generate impact.

To understand the magnitude of food insecurity, hunger, and malnutrition, one must consider both the continued rapid growth in world population and the number of individuals below the poverty line. The United Nations estimates the world population will exceed 8 billion by 2025. In terms of poverty, the World Bank estimates that nearly 1.2 billion people live on less than one dollar a day, which is the internationally recognized standard for measuring poverty. Another 2.8 billion live on less than two dollars a day. In addition to these progress-slowing conditions, the number of under-nourished people is actually growing in most developing regions. A few large countries have made significant gains, making the global picture appear more promising than it really is. China, Indonesia, Vietnam, Thailand, Nigeria, Ghana, and Peru have all made important gains in reducing food insecurity and hunger. However, in nearly fifty other countries, the number of undernourished people increased by almost 100 million between 1993 and 2003. The absolute numbers continue to rise as a result of rapid population growth, even though the proportion of undernourished people in most developing countries is actually decreasing.

In identifying systems that could potentially contribute most to increased agricultural productivity and improved food security, an assessment of 10 major African farming systems was done. Two main indicators were used - an agricultural value added index and a composite underweight pre-school children index. By plotting the summation of the two indices for all 10 farming systems, four emerged as 'best bets' for productivity gains that would have the potential to deliver most benefits for the most malnourished. The technology options likely to result in the best technical and best ecological outcomes will be described and their functioning illustrated.
Increases in land productivity can in many cases be combined with increases in the productivity of labour and other factors.
CHAPTER THREE

METHODOLOGY

Research Design

Research problem defines the preparation of the design and dictates the most appropriate design(s) to be used according to Mugenda and Mugenda (2003). This study mainly used a case study research designs to avoid unnecessary generalizations. Researcher Robert K. Yin (1984) defines Case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. Case study helps in bringing an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. This qualitative research method is widely used to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods.

Descriptive approach, which used both quantitative and qualitative methods, was also adopted. According to Jankowski & Wester (2006), this is aimed at enabling the researcher gather adequate information and also both methods supplement each other in providing more valid results than a single research strategy. Qualitative research was used to seek answers to questions and systematically use a pre-defined set of procedures to answer the question to site the contribution of World Vision to food security in the district. The qualitative research also helped in understanding deeply the challenges faced by the organization while promoting food security initiatives in the district. Quantitative research method help in gathering information using structured methods such as questionnaires, Focus group discussions and structured observation. For example, how many respondents benefited from food security initiatives promoted by world vision? The quantitative design is also used to present the findings in tables using numerical figures and percentages.

Through Key informant interviews the researcher prepared a semi-structured interview guide that as much as possible helped to capture the broad areas of focus. This helped to facilitate a fairly natural discussion of the issues of interest to the task.

Focus Group Discussions targeted broadly composed community groups segregated according to their age, gender and their areas of interaction with World Vision as was deemed most suitable.
Research Population

The research was based on the larger Baringo district in Rift Valley Province, Kenya. The district has recently been divided into Central Baringo, North Baringo and Marigat districts. The district has a surface area of 8,655 square kilometers which includes 140.5 square kilometers of water surface of Lake Baringo, Bogoria and Kamnarok. The total population of the district is 219,713 people. A sample population of 30,200 beneficiaries was used to sample 630 respondents who were interviewed from the three districts adversely affected by food insecurity. 20 more respondents from NGOs and Government ministries involved in food security activities were interviewed for comprehensive information. In total 650 respondents were interviewed.

Sample size

A sample size was calculated using Raosoft sample size calculator, a technology used in statistics in determining the sample size. At confidence level of 99% the sample size for 30,200 was found to be 650 research respondents. The sample size $n$ and margin of error $E$ are given by:

$$x = Z(c/100)^2 r(100-r)$$

$$n = N x / ((N-1)E^2 + x)$$

$$E = \text{Sqrt} \left( \frac{(N-n)x}{h(N-1)} \right)$$

Where $N$ is the population size, $r$ is the fraction of responses that you are interested in, and $Z(c/100)$ is the critical value for the confidence level $c$.

This calculation is based on the Normal distribution, and assumes you have more than about 30 samples.

Sampling Procedure

The study used quota sampling and simple random sampling. Quota sampling was used to select the community members from different groups as respondents. The group was made up of beneficiaries to the food security projects, non beneficiaries, church leaders, youth leaders, Provincial Administrators and other leaders in the area. They were drawn from the four livelihood zones exhibited in Baringo; mixed farming, agro pastoral, irrigated cropping and pastoral. Simple random sampling was used to select focus group discussions participants and
also individuals were chosen randomly within the area of operation but without considering any characteristic. This ensured equal representation of the respondents and helped in extracting information from the grass root. Key informants were also chosen through simple random sampling.

Research Instrument

The researcher used questionnaires and focus group discussions in collecting data and information to find answers to the problem under investigation. An informed consent will also be prepared to ensure that people understand what it means to participate in the research study. To gain more information about the topic, the researcher used secondary sources that included published and unpublished books. Questionnaire as a tool for study have the advantage of low cost, being free from bias, allowing time for well thought out answers, wide and large access to respondents, and production of dependable and reliable results. However, there are disadvantages of a low rate of return of dully filled questionnaires, limited use i.e. on educated and co-operating respondents, control over questionnaire once sent, inflexibility in terms of difficulty of amending the approach, possibility of ambiguous replies/omissions of reply altogether slowness and difficult. Focus groups is defined by Copper and Schindler (2007) as 'a panel of people (made up of 6-10 participants), led by a trained moderator who uses group dynamics principles to focus or guide the group in an exchange of ideas, feeling and experiences on a specific topic'.

Validity and Reliability of the instrument

Assessment of questions and instruments before the beginning of a study was done in order to improve the quality of the questions before starting the study. Pre-testing of a questionnaire enabled the researcher to ascertain whether it would attract the required responses from the respondents. The questionnaire that was used in this study largely embraced the features required, was valid and its use ensured comparability of studies across findings. According to Mugenda et al (2003) “the number of cases in pretest should not be very large. Normally the pretest sample is between 1% and 10% depending on the research sample”. 30 questionnaires were distributed by the researcher for the purpose of piloting. The subjects were encouraged to make comments and suggestions concerning instructions, clarity of questions and relevance. Corrections and improvement were made on the instrument where necessary.
Data Gathering Procedures

Both structured and semi-structured questionnaires were used to collect data. Most of these questions were based on a Likert scale format. A Likert Scale adds up responses to statements representative of a particular attitude. It is often used in survey design to get around the problem of obtaining meaningful quantitative answers to restricted closed questions. Respondents were asked to indicate their strength of feeling about a particular issue on a 1-5 rating scale. Using this Scale with the closed questions generated statistical measurements of respondents’ rating of a particular item.

Focus group discussion was used as an exploratory technique; the broad topics discussed were developed prior to the discussion by the researcher. Formation of groups was done on the basis of geographical distribution and livelihood zones of the people within the area of study. Discussion points emerge as part of the discussion. The response was documented and later analysed to give qualitative information.

Data Analysis

Data analysis is the process of editing and reducing accumulated data to manageable size, developing summaries, looking for patterns and applying statistical techniques. Data was analyzed as required to meet the objectives of the research. The data was analyzed following the process of data cleaning, organizing, coding, data entry, data processing and interpretation of results. Analysis was done by aid of Statistical Packages for Social Sciences (SPSS) computer software. Data was summarized and presented in of form of percentages, graphs and coefficient scores by aid of SPSS. The results made the base for the conclusion on the contribution of World Vision to food security in Baringo district, help in drawing conclusions on the recommendations to World Vision and other organizations engaged or intending to engage in Food security projects in the district.

Ethical Considerations

During data collection, individual data collected by the researcher for compilation was strictly confidential and used exclusively for statistical purposes. The researcher prepared an informed consent form to ensure respect to the respondents. A clearance letter from Kampala International University for introducing the researcher to the respondents was used. World Vision also gave consent for the research to be done in their area of operation (Baringo)
Researcher Limitations

Rough terrain in the district necessitated the use of four wheel drive vehicles to access the remote parts of the district. Language barrier hinder some respondents from filling the questionnaire. However the research assistants translated for those who were not able to read or understand the questionnaire; also helped those who did not know how to fill in the questionnaire.
CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the results of the data collected. Analysis and discussion of the findings is also presented. Both structured and semi-structured items were used to collect data. Some of the items were based on a Likert scale format.

Causes of food insecurity in Baringo district

<table>
<thead>
<tr>
<th>Cause of Food Insecurity</th>
<th>Percentage of respondents affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor rains / Drought</td>
<td>80</td>
</tr>
<tr>
<td>Cattle rustling and displacement due to insecurity</td>
<td>65.1</td>
</tr>
<tr>
<td>Poverty</td>
<td>50.6</td>
</tr>
<tr>
<td>High food prices</td>
<td>46.9</td>
</tr>
<tr>
<td>Livestock diseases</td>
<td>40.5</td>
</tr>
<tr>
<td>Environmental degradation</td>
<td>30</td>
</tr>
</tbody>
</table>

The poor rains, cattle rustling combined with high food prices, environmental degradation and chronic poverty were found to be endemic and worsened food insecurity in the district. While the worst-affected pastoral areas received less than 50 percent of normal rains and acute water shortages have occurred, drought is not the only factor causing food security to markedly decline in the pastoral areas. High food prices, conflict, especially at the border with Samburu, Laikipia and East Pokots and livestock disease, most notably the *peste de petits ruminants* (PPR) as well as Foot and Mouth Disease and Caprine Pleuro Pneumonia have heightened livestock mortalities and led to market closures. Subsequently, impacts of drought are accentuated and conversely, improvements in food security reversed even in areas where rains were fair.
Conflict and insecurity arising from severe livestock raiding has disrupted the pastoral livelihood. The raids have resulted in loss of human life and livestock; closure of markets; massive displacements and creation of ‘no-go’ zones that are inaccessible to pastoralists for inhabitation, grazing or market exchanges. In some of the conflict epicenters a livelihood and humanitarian emergency has occurred.

On further probing on the issue of cattle rustling and displacement; The respondent presented their views as follows:

14 a) was the household affected by cattle rustling and or displacement due to insecurity

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>yes</td>
<td>393</td>
<td>62.4</td>
<td>65.1</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>211</td>
<td>33.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>604</td>
<td>96.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>26</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>630</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Insecurity mainly due to cattle rustling was found to have affected 65.1% of the respondents. This was one of the root causes of food insecurity especially among the pastoral and mixed farming communities.

b) Has anyone in the household participated in peace building activities?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>yes</td>
<td>310</td>
<td>49.2</td>
<td>55.8</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>246</td>
<td>39.0</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>556</td>
<td>88.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>74</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>630</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

World Vision has been promoting peace building activities for peaceful co-existence in the community. 55.8% of the respondents acknowledged having participated in the activities.
Fig 1: Family participation in peace activities

Youth and fathers formed 73% of those participating in peace activities. Women only made 9% of the participants in peace building. This was found to be a gap that needs to be addressed in order to realize meaningful impact.

Fig 2: Technologies promoted by the World Vision to address food insecurity

Most of the interventions were on water pans where 427 respondents acknowledged World vision support in putting up a waterpan. This can be attributed to the fact that the pastoralists priority is water and pasture. Feeder roads to open up the area to markets had a vote of 345, this was found to have been done through Food for Work intervention done jointly by
World Vision and World food programme. 154 respondents acknowledged putting up of irrigation canals along the irrigated cropping livelihood

In response to the trainings provided to the community by World vision, the respondents presented them as follows:

<table>
<thead>
<tr>
<th>Type of training</th>
<th>Percentage of respondents trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved seeds varieties</td>
<td>81.7</td>
</tr>
<tr>
<td>Galla goat cross breeding</td>
<td>79.6</td>
</tr>
<tr>
<td>Disease surveillance methods of dry land farming</td>
<td>61.9</td>
</tr>
<tr>
<td>Cultivation of drought tolerant crops</td>
<td>57.5</td>
</tr>
<tr>
<td>Organic Farming</td>
<td>41.7</td>
</tr>
<tr>
<td>Post harvest management techniques</td>
<td>38.1</td>
</tr>
<tr>
<td>Improved marketing practices</td>
<td>31</td>
</tr>
<tr>
<td>Management of irrigation canals</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Generally capacity building of communities on food security issues was found to have been done well however the implementation was boosted by Food for work program jointly implemented by World vision and World Food Programme. Those who work get food in return
Q12. Food security projects’ impact on the wellbeing of the community

<table>
<thead>
<tr>
<th>Valid</th>
<th>Improved nutrition</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increased child enrolment in schools</td>
<td>209</td>
<td>33.2</td>
<td>33.2</td>
<td>33.2</td>
</tr>
<tr>
<td></td>
<td>Reduced child absenteeism in schools</td>
<td>140</td>
<td>22.3</td>
<td>22.3</td>
<td>55.5</td>
</tr>
<tr>
<td></td>
<td>Reduced mortality among children</td>
<td>52</td>
<td>8.3</td>
<td>8.3</td>
<td>63.8</td>
</tr>
<tr>
<td></td>
<td>Improved general child health</td>
<td>117</td>
<td>18.5</td>
<td>18.5</td>
<td>82.5</td>
</tr>
<tr>
<td></td>
<td>More food to eat</td>
<td>81</td>
<td>12.8</td>
<td>12.8</td>
<td>95.3</td>
</tr>
<tr>
<td></td>
<td>Family is eating more types of food (more variety)</td>
<td>8</td>
<td>1.3</td>
<td>1.3</td>
<td>96.7</td>
</tr>
<tr>
<td></td>
<td>Do not Know</td>
<td>21</td>
<td>3.3</td>
<td>3.3</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>630</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

33.2% said the food security projects improved nutrition while 22.3% said there was increased school enrolment. 18.5% said they improved the general health of children. The respondents providing key information from the district steering group (made up of food security stakeholders) also noted an increase in school enrolment for schools within World vision area of operation in relation to those where there is no intervention. These achievements cannot entirely be attributed to food security interventions but is as a result of other factors not assessed in this study.
Q13. Rating the performance of World vision by Government and District Steering Group members (Key informant interviews)

In analysis, responses to a single Likert item were treated as *ordinal data* (the assumption was that respondents perceived the difference adjacent level as equidistant). Secondly, responses to several Likert items were summed, and treated as *interval data* measuring a theme.

The respondents’ level of agreement with an item was summed-up for each question with values ranging from 1-5: *Strongly agree* had a value of 5, *agree* 4, *Neither agree nor disagree* 3, *Disagree* 2, and *strongly disagree* 1. To get the average score; the number of respondents is multiplied by the value (5, 4, 3, 2 or 1) then the total is divided by 20 (total number of respondents). This was also illustrated in percentages.

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>Strongly agree</th>
<th>agree</th>
<th>neither agree nor disagree</th>
<th>disagree</th>
<th>strongly disagree</th>
<th>Total</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. WVK has been fully involved in addressing food insecurity in Baringo</td>
<td>10</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>20</td>
<td>4.2 (84%)</td>
</tr>
<tr>
<td>2. Any food related conflict has been satisfactorily handled</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>20</td>
<td>3.65 (73%)</td>
</tr>
<tr>
<td>3. WVK is not partial in implementation of the projects</td>
<td>12</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>20</td>
<td>4.25 (85%)</td>
</tr>
<tr>
<td>4. Fair judgement is given to conflicting parties</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>20</td>
<td>3.75 (75%)</td>
</tr>
<tr>
<td>5. WVK personnel are friendly to the community</td>
<td>13</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>4.4 (88%)</td>
</tr>
<tr>
<td>6. Delay in delivery of inputs and expertise is often experienced</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>20</td>
<td>3.65 (73%)</td>
</tr>
</tbody>
</table>
7. There is political hand in deciding the beneficiaries. The performance of WVK is determined by the govt. If set free, WVK will improve the food security situation in the district.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>10</th>
<th>4</th>
<th>20</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>There is political hand</td>
<td>1</td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td>20</td>
<td>2.3</td>
</tr>
<tr>
<td>in deciding the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(46%)</td>
</tr>
<tr>
<td>beneficiaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The performance of</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td>20</td>
<td>2.45</td>
</tr>
<tr>
<td>WVK is determined by</td>
<td></td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td></td>
<td>(49%)</td>
</tr>
<tr>
<td>the govt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If set free, WVK will</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>20</td>
<td>1.95</td>
</tr>
<tr>
<td>improve the food</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(39%)</td>
</tr>
<tr>
<td>security situation in the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>district</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (theme)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.4</td>
</tr>
</tbody>
</table>

From the analysis it was realized that the strength of World vision in addressing food security interventions were mainly due to having friendly staff (88%), Being non partial in deciding the beneficiaries of the projects (85%) and being fully involved or committed to the work (84%)

The least score (1.95 or 39%) was realized on enquiring if the organization would do better when set free by the government. 46% of the respondents felt that political interference hindered implementation of food security projects in the district while 49% felt that there was no interference by the government in implementation of food security projects.

On the challenges faced by world vision in promoting food security in Baringo district; the following were found to be negative impact of the food aid program

![Fig 3: negative impact of the food aid program](image-url)
The analysis revealed that 39% of respondents felt that intervention by World vision in provision of food aid has increased dependency on handouts, 33% felt that it has increased laziness and 15.4% felt that it further escalate food insecurity. The use of food aid has however been found to address food insecurity in situations of disasters like drought and floods according to other researchers. The analysed data can be explained by the fact that food aid is effective in addressing short CAT III emergencies where if no such intervention is undertaken, deaths will be realized. Such situations are witnessed in times of war or famine. The situation reverses once the normal conditions prevail.

On assessing whether World vision worked in collaboration with the Government and other NGOs, the respondents presented their views as follows:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>368</td>
<td>59.7</td>
</tr>
<tr>
<td>No</td>
<td>162</td>
<td>25.3</td>
</tr>
<tr>
<td>Don't Know</td>
<td>100</td>
<td>15.0</td>
</tr>
<tr>
<td>Total</td>
<td>630</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Most of the respondents (59.7%) acknowledged collaboration between World vision and the government especially ministries of agriculture and livestock development. However, on further probing it was found out that there were no other agencies in the district dealing with food security as illustrated below:

Q9. Other agencies involved in food security initiatives in Baringo

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>None other</td>
<td>570</td>
<td>90.5</td>
</tr>
<tr>
<td>red cross</td>
<td>21</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>591</td>
<td>6.1</td>
</tr>
<tr>
<td>System</td>
<td>39</td>
<td>6.2</td>
</tr>
<tr>
<td>Total</td>
<td>630</td>
<td>100.0</td>
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</tbody>
</table>
Most of the respondents (96.4%) acknowledged lack of other agencies implementing food security initiatives in Baringo. Only 3.6% of the respondents acknowledged Red cross intervention in the district. The finding revealed that concerted effort by the various stakeholders in the district is required in order to address the food insecurity in the vast district. However through interviews with Government personnel, the presence of Red cross was limited to the neighbouring East Pokot district where they were involved in Relief food activities.

Involvement of community members was also assessed.

Are the community members involved in organisation of food security projects?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
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<tr>
<td>Valid</td>
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<td>94.1</td>
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<td></td>
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<tr>
<td>Total</td>
<td></td>
<td>630</td>
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</table>

Community participation and involvement in the organization of food security projects was found to be very high (94.1%). This is important for ownership and sustainability of the food security projects by the community.
CHAPTER FIVE

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter discusses the main findings according to Researcher’s objectives and questions, draws conclusion to the study from the findings and proposes the possible recommendations that will improve food security situation in Baringo. Other areas for research have also been indicated at the end of this chapter.

Findings

The general objective of the study was to examine the contribution of World vision in improving the food security and nutritional status of people in Baringo District.

Specific objectives of the study include:

1. To find out the causes of perennial food insecurity despite efforts employed by World vision and other stakeholders in Baringo.
2. To identify the technologies promoted by World Vision in Baringo and their implementation in addressing food insecurity in the district.
3. To examine the challenges faced by World Vision in promoting food security in Baringo District.
4. To assess the impact of food security projects on the well being of the community.

Poor rains, Drought, cattle rustling combined with high food prices, unstable market supplies, environmental degradation and chronic poverty that is endemic in the marginal agricultural livelihood have deepened food insecurity in Baringo district. Acute water shortage, as a result of drought was not the only factor causing food security to markedly decline; high food prices, conflicts and livestock disease heightened livestock mortalities and led to market closures, subsequently, impacts of drought are accentuated. Conflict and insecurity arising from severe livestock raiding disrupted the pastoral livelihood. The raids resulted in loss of human life and livestock; closure of markets; massive displacements and creation of ‘no-go’ zones that are inaccessible to pastoralists for inhabitation, grazing or market exchanges. In some of the conflict epicenters a livelihood and humanitarian emergency has occurred.
Drought and the dramatic rise in cattle rustling are the two most important factors that have led to severe deterioration in food security. During dry seasons communities conflict over scarce pasture and water, this was confessed by the large number of respondents (65.1%) who had been affected by the vice to a level of not being able to continue with their normal operations.

Another cause of food insecurity in Baringo is the inability of people to gain access to food due to poverty. Through focus group discussions; the respondents showed that there will be an increase in this tendency unless preventive measures are taken. Factors that have contributed to this tendency include; insecurity, poor governance, frequent drought and famine; and agricultural dependency on the climate and environment.

On the food security initiatives promoted by World Vision; it was found out that during periods of drought; the organization has been partnering with World Food Programme to distribute relief food. When drought declines, recovery projects through Food for Work (FFW) are implemented. These projects are geared towards enhancing creation of assets within the community that cushion them against the pangs of drought in future. The technologies used was through making structures like water pans to address the water shortage, feeder roads to enhance access to markets, community farms for crop production and woodlots to reduce environmental degradation. Opening up of irrigation canals was also promoted but limited to the irrigated cropping livelihood near Marigat town however over 60% of the district relies on rainfed agriculture and pastoralism.

On the challenges faced by World Vision while implementing food security projects; Dependency on relief food was found to impact negatively to food security, lack of other agencies to partner with in addressing food insecurity was also another challenge. The fact that the former president Daniel T. Arap Moi came from the area kept off many organizations from intervening due to the belief that all was well.

Vastness of the district necessitated massive resources in order to address food insecurity however due to limited resources the organization was only targeting 30,200 beneficiaries out of the total of 219,713 people.

Short duration of food security interventions was another drawback for World Vision. Through group discussions it was found out that most of the projects last for six months or one year. This duration is very short for any meaningful impact. More often than not sustainable food security measures are long-term strategies that require at least three years.
On the impact of food security projects to the well being of communities; the projects improved nutrition, increased school enrolment and improved the general health of children. The respondents providing key information from the district steering group (made up of food security stakeholders) also noted an increase in school enrolment for schools within World vision area of operation in relation to those where there is no intervention. These achievements cannot entirely be attributed to food security interventions but is as a result of other factors not assessed in this study.

Conclusions

World Vision has greatly contributed to food security in Baringo district through establishment of waterpans for livestock and domestic use, construction of feeder roads to enhance access to market, opening up of irrigation canals, terraces and establishment of community farms. Capacity building of community members in areas of improved seeds, livestock cross breeding, disease surveillance, cultivation of drought tolerant crops and organic farming has also been done. The agency has also collaborated with World Food programme in relief food distribution during droughts. Promotion of peaceful coexistence among the various communities living in Baringo has also been championed by the organization.

The contribution has been watered down by the challenges having short term projects and also being the only organization addressing food security projects in the district. Although there is good collaboration with the government line ministries (Agriculture and Livestock development) the area is vast and thus requires massive resources to address food insecurity. The situation is made worse by the cultural aspects of cattle rustling that has posed livelihoods of the communities at risk.

With enhanced partnership, food insecurity can be tackled through a holistic approach that calls for concerted effort in pooling resources together for meaningful impact. The government should lead in championing for the rights of the poor in Baringo district by bringing together stakeholders and agreeing on a strategy as per the recommendations below.

Recommendation

To world Vision and other organizations intending to implement food security projects in arid and semi arid areas:

a) Continue migration facilitation/peace negotiations/conflict resolution.
b) Support re-stocking activities for those severely affected by drought and cattle rustling

c) Introduce rain water harvesting technologies for dry land farming like zay pits and bunds.

d) Continue supporting livestock disease surveillance

e) Continue advocating for Gender Sensitive Development. Women are important as food producers, managers of natural resources, income earners and caretakers of household food security

f) Initiate longer term development projects which will address food insecurity holistically.

To the District Steering group (Government of Kenya)

a) Identify strategic water sources and ensure they are operating well. This may include support to strategic boreholes to ensure full operations during drought, de-silting of pans if and when seasonal rainfall allows etc.

b) Advocate for and facilitate to ensure that important veterinary routine activities such as vaccination and training Community Animal Health Assistants.

c) Implement our intensive projects related to livestock support such as de-silting of pans

d) Continue migration facilitation/peace negotiations/conflict resolution

e) Support livestock disease surveillance

f) Continue preparedness activities related to water security in strategic locations

g) Facilitate increase of commercial off-take

To Research institutions and Researchers

a) Focus on education, research and development, access to capital and infrastructure development for Arid and Semi Arid Lands (ASAL).

b) Modify available technology to suit community setting. For benefits to be realized in all areas, infrastructure development must be high priority.

c) Building on coping strategies to alleviate food insecurity and poverty

d) Engage in more research on drought, pest and disease tolerance, yield potential and the nutrient content of food crops from plant breeding/molecular biology; Increased nutrient and water use efficiencies from plant breeding/molecular biology

To the community

a) Entrench peaceful co-existence

b) Diversify investments in both crops and livestock production.
REFERENCES:


Inter Academy Council. 2004. Realizing the promise and potential of African Agriculture. Amsterdam


Mugenda, et al (2003), Research Methods Quantitative and Qualitative approaches; Acts Press Hall, Nairobi Kenya


## APPENDIX I

### BUDGET

<table>
<thead>
<tr>
<th>ITEM</th>
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<th>UNIT COST</th>
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<td>$50</td>
<td>$200</td>
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<td>RESEARCH ASSISTANT ALLOWANCES</td>
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<td>$160</td>
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<td>Assorted</td>
<td>$100</td>
<td>$100</td>
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<tr>
<td>SECRETARIAL SERVICES</td>
<td>Assorted</td>
<td>$200</td>
<td>$200</td>
</tr>
<tr>
<td>DATA TREATMENT &amp; ANALYSIS</td>
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<td>$500</td>
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## APPENDIX II
### TIME FRAME

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<th>START DATE</th>
<th>DURATION</th>
<th>PRODUCTS</th>
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<td>Finalization of research proposal</td>
<td>Researcher</td>
<td>1 Month</td>
<td></td>
<td>Project proposal</td>
</tr>
<tr>
<td>Hire the research assistants</td>
<td>Researcher</td>
<td>2 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test survey Instrument (includes focus groups and formal testing of the instrument)</td>
<td>Researcher and Assistants</td>
<td>1 month</td>
<td></td>
<td>Final survey instrument (Questionnaires)</td>
</tr>
<tr>
<td>Data collection (FGD, interviews)</td>
<td>Researcher and Assistants</td>
<td>2 months</td>
<td></td>
<td>Raw data collected</td>
</tr>
<tr>
<td>Data Input</td>
<td>Research Assistants</td>
<td>1 months</td>
<td></td>
<td>Complete and cleaned data</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>Researcher and Assistants</td>
<td>15 days</td>
<td></td>
<td>Initial internal reports</td>
</tr>
<tr>
<td>Report compilation and sending to supervisor</td>
<td>Researcher</td>
<td>2 weeks</td>
<td></td>
<td>Project report sent to supervisor</td>
</tr>
<tr>
<td>Final Project report compilation (to incorporate supervisors comments)</td>
<td>Researcher</td>
<td>2 Weeks</td>
<td></td>
<td>Final project report appropriate for dissemination</td>
</tr>
</tbody>
</table>

53
APPENDIX III
TRANSMITTAL LETTER

Institute of Open and Distance Learning
Office of the Director

2nd July, 2010

To Whom It May Concern:

Dear Sir/Madam,

INTRODUCTION LETTER FOR RESEARCH

I have the pleasure to introduce Philip Ndekei Wangunyui – MCR/10013/81/DF to you. He is a student of Masters Degree in Conflict Resolution and Peace Building at Kampala International University. He is carrying out his research on The Contribution of World Vision to Food Security in Baringo District Kenya. He is at the data collection stage and your Institution / Organization has been identified as her area of study. It will therefore be appreciated if you can give the best assistance to him for a dependable research work.

The university will be counting on your kind cooperation.

Thank you

J.S. Owode, Ph.D.

"Exploring the Heights"
QUESTIONNAIRE

This questionnaire has been designed to assist in collecting data for a study aimed at attaining a master’s degree in Conflict Resolution and Peace Building at Kampala International University. The study is based on the title, ‘The contribution of World Vision to Food security in Baringo District’ The questionnaire will help in gathering information and understanding on the communities perspective as well as other stakeholders in the District. The research will help in identifying and giving possible solutions to organizations when implementing food security projects in the District. You have therefore been chosen to help answer the questionnaire so as to get the grassroot information that will make this study a success. The information given will be treated with a lot of confidentiality and only used for the data relevant to this research.

You can fill the blank spaces or indicate with a tick where applicable.

SECTION A: BACKGROUND INFORMATION:

1. Name

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

a) Sex: □ male □ Female

b) Age (Yrs): □ 15 – 25 □ 26 – 35 □ 36 – 45 □ 46 – 55 □ Above 55

c. Marital status: □ Single □ Married □ divorced □ widowed

d. Occupation:

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

c. Family size:

........................................................................................................................................
2. Education level:

- [ ] Primary
- [ ] Secondary
- [ ] Certificate
- [ ] Diploma
- [ ] Degree
- [ ] Any other

SECTION B: COMMUNITY PERCEPTION:

3. The following factors have been cited as the causes of food insecurity in the district. How you agree with the statement; indicate by ticking the most appropriate response.

<table>
<thead>
<tr>
<th>Cause of food insecurity</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cattle rustling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) drought</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) High food prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Environmental degradation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Livestock diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Do you have the following structures in your area as part of food security interventions implemented in the district?

- [ ] Yes                     - [ ] No
  a) Waterpans
- [ ] Yes                     - [ ] No
  b) Irrigation canals
- [ ] Yes                     - [ ] No
  c) Community woodlots
- [ ] Yes                     - [ ] No
  d) Community farm
- [ ] Yes                     - [ ] No
  e) Terraces
31. What can be done to improve the food security situation in the district putting into consideration what the organizations have been doing?
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

32. Are there instances where Food security projects have caused conflicts in the district?
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

33. Please rate the performance of World Vision by ticking agree, disagree, neither agree or disagree, somewhat agree, somewhat disagree and strongly disagree.

a. World Vision has been fully involved in addressing food insecurity in the area?

☐ Strongly agree

☐ Agree

☐ Neither agree or disagree

☐ Disagree

☐ Strongly disagree

b. Any conflict arising that is food security oriented has been satisfactorily handled.

☐ Strongly agree

☐ Agree

☐ Neither agree nor disagree

☐ Disagree

☐ Strongly disagree
c. The organization is not partial while implementing the projects.

- [ ] Strongly Agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly Disagree

d. Fair judgments are given to the conflicting parties

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree

e. The personnel is friendly to the community

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree
f. Delays in delivery of input and technical expertise is often experienced

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree

g. The government dictates which technologies are to be promoted in the district.

- [ ] Strongly Agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree

h. There is a political hand in the deciding the beneficiaries of the project.

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree

i. The performance of the organization in the area is influenced by the government

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly disagree
j. If set free without any interference, World vision will improve the food security situation in the district.

☐ Strongly agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Strongly disagree
INTERVIEW GUIDE FOR FOCUS GROUP DISCUSSIONS

Name of Site: Name of Division:
Name of center: Date of FGD:
Moderator: Recorders:
No. of Participants: Gender: _______ Men and _______ females

A. Institutional Set Up for Food security projects and Implementation

1. What food security projects have been implemented in this community by World Vision?
2. What structures existed to facilitate food security projects in the area?
3. What are the responsibilities of the above structures and how do they operate?
4. What linkages exist between World Vision, project specific (rehabilitation committees, water committees etc) and wider community structures (CBOs, church structures, government)?
5. How effective are these linkages in facilitating smooth implementation of food security project?
6. What are the observed strengths and weaknesses of the linkages above?
7. What could be done in future to improve structural linkages so as to increase effectiveness in these projects?

B. Livelihood and Livelihoods Protection

8. What type of interventions have you witnessed from the time World vision started the projects? (Please list them)
9. What is the process followed in identifying beneficiaries?
10. Did all people who were registered benefited?
11. If other people did not what was the reason?
12. How was the food security situation before the introduction of food security projects by World vision?
13. How is the food security situation after the introduction of the food security project?
C. Restoration of Livelihoods

14. Prior to introduction of food security projects, what strategies were employed by communities to manage their livelihoods? (Please document each of the common strategies and how they worked.)

15. Is the above trend still continuing? If no please probe how

16. How has food security and related projects helped in enhancing food production in this area?

17. What are people in this community engaged in to enhance and sustain food production?

18. What economic activities are people now engaged in to diversify livelihoods?

D. Impact and Outcomes of the project

19. How has the project improved food security among people in this community?

20. How are Food security projects positively impacting on:

   (a) The lives of children and wider communities?
   (b) Men and women?
   (c) Environment?
   (d) Health?
   (e) Community relations?

21. Who is responsible for maintaining Food security projects?

E. Asset Creation and Sustainability

22. What are the types of assets that you have established and or maintained/rehabilitated through the food security projects? (all)

23. What are the challenges associated with Food security project?

24. How are different community members participating in the project work?

25. How have each of these improved the socio-economic status of people in this area?
F. Sustainability:

26. (a) Are there community committees established to manage assets such as irrigation schemes?
   (b) Have these committees been trained on any areas and if yes what kind of training was provided to the committees?
   (c) How are wider communities participating in the management of the projects?
   (d) Have community based funds such as (irrigation fund) etc been established to support maintenance and or community based loan system to support scheme beneficiaries?

27. a) Are there conflicts witnessed in the communities as a result of these projects?
   b) Who are mostly affected by the conflict?
KEY INFORMANT INTERVIEW GUIDE FOR STAKEHOLDERS

1. Name and designation for the respondent

2. What is the major mandate of you as a stakeholder (DSG/WFP/DMO/NGOs)?

3. What mechanisms do you have in place to ensure that WVK adhere to the results of the assessments when designing food aid programs? DSG, DMO, WFP

4. What has been your linkage with the World Vision food security projects?

5. What do you think about World Vision Operations in relation to the following areas:
   (a) Staffing and systems in food aid distribution (numbers of staff, skills, and effectiveness)?
   (b) Planning and implementation of food aid distribution?
   (c) Adequacy of project scope in Food for Assets and the ability to increase the creation of community assets?
   (d) Quality of Food security projects?
   (e) Financial management, accountability and transparency?
   (f) Relationship building including behaviors of staff?

6. What have been the common conflicts experienced in relation to implementation of food security projects and how were these conflicts resolved?

7. As Food security Committee member, what mechanisms have you put in place to monitor implementation process and ensure that standards are adhered to and that quality is maintained at all times?

8. What have been in general terms the major strengths and weaknesses of the World Vision food Security projects?

9. What major areas should be improved in order to increase effectiveness and impact on the lives of the target communities?
10. What lessons have you learnt in your partnership with World Vision in food security?

11. What are your future plans in relation to the partnership that you have with World Vision food security projects?

Program Impact

12. How has the general food distribution program impacted on its beneficiaries and wider communities?

13. What has been the positive impact of the Food security projects on the beneficiaries and wider community in the district?

14. What do you consider to have been the negative impact of the food security projects?

15. How has the projects positively impacted on the environment and social systems?

16. Why is there no meaningful improvement in food security in the district despite the effort by many stakeholders?

17. What critical issues should be considered in designing food security projects?

18. Is there anything else that you would want to share with me?

THANK YOU SO MUCH FOR YOUR TIME
RESEARCHER’S CURRICULUM VITAE

PHILIP NDEKEI WANGUNYU.
P.O.BOX 289 (20300) NYAHURURU. KENYA
Email: pndekei@yahoo.com or philip_ndekei@wvi.org

PROFILE

An Agricultural Education and Extension graduate, who is keen to train, serve and excel in a dynamic environment; disaster management, research, program planning and implementation field. Currently I am pursuing a Masters in conflict Resolution and peace building. Reliable and self motivated professional with excellent strategic, analytical and organizational skills.

CAREER OBJECTIVE

To build a career in the field of community development and program management with an aim of achieving organizational goals through capacity building, in a challenging and rewarding environment.

PERSONAL DETAILS

Date of Birth: 14th August 1975
Marital Status: Married
Nationality: Kenyan
Languages: English and Swahili (Fluently spoken and written)
Sex: Male
Religion: Christian

EDUCATIONAL BACKGROUND

<table>
<thead>
<tr>
<th>Date</th>
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<th>Examination</th>
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<tr>
<td>2008 to 2010</td>
<td>Kampala International University</td>
<td>M.A in Conflict Resolution And Peace Building</td>
</tr>
<tr>
<td>1995-2000</td>
<td>Egerton University</td>
<td>B.Sc. Agricultural Education AndExtension</td>
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1982-1989  Kipkabus Primary School  K.C.P.E  
P.O. Box 27  Passed: 56 Points  
Kipkabus, Kenya

WORK AND PROFESSIONAL EXPERIENCE

<table>
<thead>
<tr>
<th>Date</th>
<th>Place</th>
<th>Responsibilities</th>
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| a) Jan 2009 to date  World Vision Kenya  Lambwe Integrated Programme Area (IPA)  | Programme Manager  
|              |                         | • Ensuring that all projects within the IPA are designed, implemented and evaluated in accordance with partnership and donor standards;  
|              |                         | • Ensure that sponsorship supported interventions within the IPA meet or exceed Key performance indicators for sponsorship  
|              |                         | • Ensure that all IPA projects and programs achieve acceptable financial and operational audit results by implementing interventions in accordance with established norms and policies  |
| b) June 2007 to Dec 2008  World Vision – Kilifi  | Asst. Food Security Officer/ Food for Work Coordinator  
|              |                         | Coordinating Food for work, Organic farming and rain water harvesting in Kilifi District  
|              |                         | Planning, implementing, monitoring and documenting all the extension activities within the area of operation as per the proposal.  
|              |                         | Providing necessary training, support and guidance to farmers in the area of operation.  
|              |                         | Proposal writing for food security projects.  |
|              |                         | Coordinating Humanitarian Emergency Affairs in Taita Taveta District.  
|              |                         | Maintenance of World Vision’s standards in food aid management  
|              |                         | Networking and liaison with donors and other food program agencies  
|              |                         | Preparing and managing food logistics budget  
|              |                         | Training and develop capacity of commodity staff.  |
d) Nov 2004 to Jan 2005
World Vision - Baringo
Asst. Commodity Officer

Coordinating Emergency Operation in Baringo District
Maintenance of World Vision's standards in food aid management
Networking and liaison with donors and other food program agencies
Preparing and managing food logistics budget
Training and develop capacity of commodity staff.

e) 1st September 2001 to Nov 2004
Mutara Secondary School
P.O. Box 194 Ndaragwa, Kenya
Agriculture and Biology Teacher (Form I – IV)
Head of Science Department
Games Master
Patron – Christian Union

f) 2nd July 2001 to 31st August 2001
Homegrown (K) Ltd.
Sirimon Ibis Farm
Section Supervisor
Supervising Production of Horticultural crops
(Irrigation, Spray, Green House, Integrated Pest Management and Scouting on Pests and diseases)


g) January 2001 to 30th June 2001
World Vision - Laikipia
Relief Field Coordinator
Coordinating Relief activities in Central Division of Laikipia District
Coordinating Unimix distribution in Central and Mukogodo Divisions of Laikipia District

h) July 2000- Dec 2000
World Vision - Laikipia
Relief Food Monitor
Overseeing Relief Food distribution in Central Division of Laikipia District.

i) May- July 2000
World Vision - Doldol A.D.P
Agricultural Extension in the Rural Kenya

j) May- August 1999
Marmanet Sec. School
P.O. Box 43
Marmanet, Kenya
Agriculture and Biology Teacher
form one and two

OTHER SKILLS ACQUIRED

<table>
<thead>
<tr>
<th>Date</th>
<th>Place</th>
<th>Skill</th>
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<tbody>
<tr>
<td>July 2010</td>
<td>Naivasha Kenya</td>
<td>Training in Agriculture Value chains and Links</td>
</tr>
<tr>
<td>16th to 20th July 2007</td>
<td>Kilifi, Kenya</td>
<td>Training in Organic Farming</td>
</tr>
<tr>
<td>14-16th May 2007</td>
<td>Mombasa, Kenya</td>
<td>Participated in workshop on Planning and Implementation of Food For Assets projects</td>
</tr>
</tbody>
</table>
12th to 15th Mar 2007 Kilifi, Kenya Training in Data Management (SPSS and MS ACCESS)

19th to 23rd Feb 2007 Voi, Kenya Participated in Re-design Workshop
Voi Area Development Programme

15th to 19th May 2006 Nairobi, Kenya Training in LEAP, Monitoring & Evaluation and TDI

April 2004 Nyahururu Kenya Certificate in computer application packages
MS-Word, MS-Excel MS-Access and Power Point

July 2001 Homegrown Timau, Kenya Certificate in Safe Handling and Use of Pesticides

5-10 Feb. 2001 Nairobi, Kenya Certificate in Commodity Tracking Systems (CTS)

13-17 Nov 2000 Nairobi, Kenya Certificate in Food Aid Management


June 2000 Nanyuki – Kenya Certificate in Community Based Targeting and Distribution (CBTD)

March 2000 Leopard Driving School
P.O. Box 800
Njoro, Kenya Valid Driving License
Classes BCE,

April 1998 Egerton University
Dept. of Computer Science Certificate in Microcomputer Application packages

EXTRA CURRICULUM ACTIVITIES

<table>
<thead>
<tr>
<th>Date</th>
<th>Place</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 2000</td>
<td>Taita Hills, Kenya</td>
<td>Presidential Award Scheme- Trainee Assessor</td>
</tr>
<tr>
<td>Dec. 1999</td>
<td>Egerton University, Njoro</td>
<td>Participated in Soccer (3rd East African University Games) Certificate Awarded</td>
</tr>
<tr>
<td>Nov. 1999</td>
<td>Egerton University Njoro</td>
<td>Presidential Award Scheme (Silver Award)</td>
</tr>
<tr>
<td>Oct. 1999</td>
<td>Nakuru, Kenya</td>
<td>Presidential Award Scheme (Gold Expedition)</td>
</tr>
<tr>
<td>Sep. 1999</td>
<td>Nairobi, Kenya</td>
<td>Participated in National Youth Conference</td>
</tr>
</tbody>
</table>
July 1999 Marmanet Sec. School Assistant Patron Christian Union
Mar.1999 Nakuru, Kenya Participated in Red Cross Cleaning Day
1997-99 Egerton University, Njoro Organizing Secretary – Laikipia Egerton Student Association
1990-1993 Kipkabus, Kenya Treasurer- Young Farmers Club, Class Prefect, Captain Badminton and Football

HOBBIES
Community Services
Expedition
Reading Magazines and Novels
Sports

REFERENCE
Available upon request

REFEREES

1. Lawrence Kiguro
   Associate Director (Ministry Quality) – World Vision Kenya
   P.O BOX 50816
   Nairobi- 00200
   Tel +254-723-723-176 / +254-20-883-652

2. Kipsang Rotuno
   Food Aid Manager - World Vision Kenya
   P.O BOX 50816
   Nairobi- 00200
   Tel +254-722-598-259 / +254-20-883-652

3. Rev. Peter Njehia
   Africa Inland Church – Nyahururu
   P.O BOX 289
   Nyahururu- 20300
   Tel: +254-722-646-684