THE ROLE OF NGOs IN ALLEVIATING FOOD INSECURITY IN MAKINDU AND KIBWEZI DIVISIONS, MAKUENI DISTRICT- KENYA.

BY

IRENE K NYAMU

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION IN HOME ECONOMICS OF KENYATTA UNIVERSITY.

AUGUST 2003
DECLARATION

This thesis is my original work and has not been presented for a degree award in any other university or institution of Higher Learning.

-----------------------------------------------------------------

IRENE K. NYAMU

This thesis has been submitted for examination to the Faculty of Education, Kenyatta University, with our approval as university supervisors.

-----------------------------------------------------------------

DR. RICHARD N.O. K'OKUL.
Senior Lecturer
Department of Foods, Nutrition and Dietetics.
Kenyatta University

-----------------------------------------------------------------

PROFESSOR JUDITH WAUDO.
Senior Lecturer, Department of Foods, Nutrition and Dietetics.
Kenyatta University
DEDICATION

To all who labour to put food on the table for their families; To all the individuals working to improve living standards of the impoverished in our society. May their struggles always come to fruition.
ACKNOWLEDGEMENT

Several people contributed immensely to the successful completion of this work. I wish to sincerely thank my Supervisors, Dr. J. Waudo and Dr. R.N. K'Okul for their invaluable comments and scholarly guidance, and especially for their patience. I am greatly indebted to them.

My heartfelt gratitude to my family, especially Celestine, Mwamisi, Sammy, Mum and Dad, and the rest of the family for their continued support and encouragement, believing that I could make it. Without their support, it would have been extremely difficult for me. To them I say “Thank you very much!”

I am also grateful to Maria, Naomi, Alice, Maureen, Gladys, as well as Vudembu and Esther and many others not mentioned. Thank you so much for the moral and spiritual support you gave me during this time.

I sincerely thank all my respondents in Makindu and Kibwezi divisions for taking time to answer questions. Special thanks to Damaris Mutheci and Gorretta Mutisya for facilitating my fieldwork.

To you all I say, "Thank you so much and may God bless you all". Finally I owe everything to God the Almighty for the far He has brought me. Indeed, His Grace was sufficient!
ABSTRACT

The purpose of this study was to investigate the role of NGOs in alleviation of food insecurity in selected divisions of Makueni District, which have been identified by UNICEF to be food insecure. A cross-sectional descriptive survey was conducted. Ninety-two (92) household heads, six government and seven NGO officers were interviewed. Two focus group discussions were also held with beneficiaries. Both qualitative and quantitative data were collected on food availability, NGO activities and strategies, land utilisation, coping mechanisms and other socio-economic indicators of food security. These were then analysed accordingly. Statistical analyses were carried out using simple descriptive statistics, mainly, means, frequencies, and percentages for demographic data. The various NGO activities were analysed for any relationships with household food supply. Qualitative data analysis involved development of field notes, which were then coded and grouped, leading to identification of thematic issues.

Findings revealed that NGOs play a facilitating role in the fight against hunger by providing technical support and building the capacity of the affected communities to take charge of their food production resources. This is a very crucial role given the community's limited resource base and the marked shift in development approaches. Whereas previously traditional solution to food insecurity tended to be mainly relief-oriented, the current approach is integrated development. The approach takes into account the multi-faceted nature of the food insecurity. Their role was found to be mainly that of technical backstopping both the communities either directly, by offering certified seed and other farm inputs for higher yields and offering farmer's training as examples. Their support was also indirect in some cases where they supported
government personnel or departments offering services to the community. However, for the NGOs, strategies did not vary considerably from one to another.

The respondents reported chronic inability of the NGOs to resolve the serious water problem, limiting agricultural production in the area. This is because there is over-dependence on rain-fed farming. Domestic water sources are inadequate. Women and children have to spend a significant amount of their already over-stretched time looking for water and are therefore unable to make a maximum contribution in their farms. Given the significant contribution of women in food production, the community's livelihood is seriously threatened. The situation worsens during the dry season, when most households usually have exhausted their food reserves. With more than 60% of the respondents depending on the agriculture for their livelihood, fluctuations in yields and other resources make households extremely vulnerable to food insecurity. Consequently, the community has developed a variety of coping mechanisms during food stress, some of which are extreme. These sale of livestock and labour by some of the household members, hunting wildlife, petty trade, urban migration and prostitution. In very severe cases, sale of land which compromises further the resource base of the households, and abandoning of homesteads or families by the household heads.

Clearly, there is still a challenge to both the government and NGOs to support the communities to diversify their incomes since there is over reliance on agriculture inspite of an erratic rainfall pattern in the area. Sustainable income-generating projects seem not to have taken off well and where initiated, results in the sector have not been impressive. Sustainability still remains a challenge in attaining food security. More needs to be done if sustained community development is to be attained, which will translate to better lives.
# TABLE OF CONTENTS

Acknowledgements ................................................................. iv  
Abstract................................................................................... v  
List of Tables............................................................................ v  
List of Figures, Maps and Boxes............................................... x  
List of Abbreviations............................................................... xi  

## CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND INFORMATION .............................................. 1  
1.2 STATEMENT OF THE PROBLEM .......................................... 4  
1.3 PURPOSE OF THE STUDY .................................................. 6  
1.4 RESEARCH OBJECTIVES .................................................. 6  
1.5 SIGNIFICANCE OF THE STUDY .......................................... 6  
1.6 ASSUMPTIONS OF THE STUDY .......................................... 7  
1.7 SCOPE OF THE STUDY .................................................... 7  
1.8 DEFINITION OF TERMS ................................................... 7  
1.9 CONCEPTUAL FRAMEWORK ............................................. 8  

## CHAPTER TWO: LITERATURE REVIEW

2.0 INTRODUCTION .............................................................. 13  
2.1 GLOBAL FOOD SITUATION .............................................. 13  
2.1.1 CAUSES OF FOOD INSECURITY ................................... 15  
2.2 FOOD SECURITY IN KENYA .............................................. 18  
2.2.1 EFFORTS TO INCREASE FOOD AVAILABILITY ................. 22  
2.3 NGOs AND DEVELOPMENT ............................................. 25  
2.3.1 HEALTH SECTOR .................................................... 27  
2.3.2 AGRICULTURAL SECTOR ........................................... 27  
2.3.3 WATER SECTOR ..................................................... 28  
2.3.4 INCOME-GENERATING ACTIVITIES ................................ 28  
2.3.5 EMERGENCY WORK ................................................ 28  
2.4 FOOD AVAILABILITY IN MAKUENI DISTRICT ....................... 29  
2.5 SUMMARY ................................................................ 30  

## CHAPTER THREE: METHODOLOGY

3.0 INTRODUCTION .............................................................. 33  
3.1 RESEARCH DESIGN ....................................................... 33  
3.2 THE STUDY AREA ......................................................... 33  
3.3 THE SAMPLE ............................................................... 35  
3.4.1 SAMPLING ............................................................. 36  
3.4 DATA COLLECTION TOOLS ............................................ 37  
3.5 PRE-TESTING ............................................................... 37  
3.6 DATA COLLECTION PROCEDURES ................................... 37  
3.7 DATA ANALYSIS .......................................................... 38  
3.8 MEASUREMENT OF VARIABLES ...................................... 39  
3.9 VALIDITY AND RELIABILITY ........................................... 39  

## CHAPTER FOUR: DATA ANALYSIS, INTERPRETATION AND FINDINGS

4.0 INTRODUCTION .............................................................. 40  
4.1 DEMOGRAPHIC DATA ..................................................... 40  
4.1.1 DISTRIBUTION OF RESPONDENTS BY SEX AND REGION ....... 40  
4.1.2 DISTRIBUTION OF RESPONDENTS BY AGE .................... 41  
4.1.3 EDUCATION LEVEL OF RESPONDENTS ......................... 42  
4.1.4 OCCUPATION OF RESPONDENTS .................................. 45  
4.1.5 MONTHLY INCOME OF HOUSEHOLDS ............................ 47  
4.1.6 HOUSEHOLD COMPOSITION ...................................... 49  
4.2 LAND AND AGRICULTURE ............................................. 52  
4.2.1 LAND OWNERSHIP AND NATURE OF LAND HOLDING ....... 52  
4.2.2 SIZE OF LAND AVAILABLE TO HOUSEHOLDS ................ 52  
4.2.3 LAND UTILISATION ................................................ 54
List of Tables

Table 1: Food (maize) availability in Makueni District (1993-96) .......................... 29
Table 2: Distribution of respondents by sex and region ........................................... 40
Table 3: Age of Respondents by Gender ................................................................. 42
Table 4: Occupation of respondents ........................................................................ 56
Table 5: Households' Monthly income of the households ......................................... 48
Table 6: Household Composition and Size ............................................................. 50
Table 7: Household Composition by Gender .......................................................... 50
Table 8: Farm Activities undertaken by Households ............................................... 54
Table 9: Crop production methods practiced in Kibwezi and Makindu ..................... 55
Table 10: Land Acreage under river irrigation ....................................................... 57
Table 11: Land Acreage under rainfall-dependent crop production ......................... 58
Table 12: Livestock production ................................................................................ 59
Table 13: Other land uses ....................................................................................... 59
Table 14: Other food sources other than own production ....................................... 63
Table 15: Respondents' Reason for not having enough food in households .......... 68
Table 16: Reasons why some Households are able to produce enough food ...... 72
Table 17: Periods when households begin experiencing hunger .......................... 74
Table 18: Selection of target groups and food security policies of NGOS ............... 102
Table 19: Community needs identification process ............................................... 104
Table 20: Community involvement in deciding on NGOS' intervention ............... 105
Table 21: Organisations the community perceives as helpful ............................... 107
Table 22: Community views on sustainability of NGO projects ............................ 109
Table 23: Community needs that NGOs should address ...................................... 110
LIST OF FIGURES

Figure 1: Conceptual framework on NGO activities and food security ............ 12
Figure 2: Education Level of respondents by gender .................................... 43
Figure 3: Highest level of educational attainment in households .................. 45
Figure 4: Nature of Land holdings ............................................................ 52
Figure 5: Land size available to households ............................................. 54
Figure 6: Sufficiency of food produced by households .............................. 61
Figure 7: Farm activity calendar .............................................................. 76

MAPS

Map 1: The Study Area ........................................................................... 34

LIST OF BOXES

Box 1: Public opinion on relief food .................................................... 62
Box 2: Rainfall and crop production trends (1992) ................................. 75
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAK</td>
<td>Action Aid Kenya</td>
</tr>
<tr>
<td>AMREF</td>
<td>African Medical Research Foundation</td>
</tr>
<tr>
<td>ANP</td>
<td>Applied Nutrition Unit</td>
</tr>
<tr>
<td>ASAL</td>
<td>Arid and Semi Arid Lands</td>
</tr>
<tr>
<td>CAP</td>
<td>Community Action Plan</td>
</tr>
<tr>
<td>CBD</td>
<td>Community Based Distributors of Contraceptives</td>
</tr>
<tr>
<td>CBRD</td>
<td>Community Based Rehabilitation of the Disabled</td>
</tr>
<tr>
<td>CHW</td>
<td>Community Health Worker</td>
</tr>
<tr>
<td>CORP</td>
<td>Community Resource Person</td>
</tr>
<tr>
<td>DANIDA</td>
<td>Danish Development Agency</td>
</tr>
<tr>
<td>DDP</td>
<td>District Development Plan</td>
</tr>
<tr>
<td>DLT</td>
<td>Dry Land Composite</td>
</tr>
<tr>
<td>DWA</td>
<td>Sisal Estate</td>
</tr>
<tr>
<td>FFW</td>
<td>Food for Work</td>
</tr>
<tr>
<td>CRS</td>
<td>Catholic Relief Services</td>
</tr>
<tr>
<td>GAA</td>
<td>German Agro-Action</td>
</tr>
<tr>
<td>GTZ</td>
<td>German Technical Co-operation</td>
</tr>
<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>KARI</td>
<td>Kenya Agricultural Research Institute</td>
</tr>
<tr>
<td>KIP</td>
<td>Kibwezi Irrigation Project</td>
</tr>
<tr>
<td>KRHS</td>
<td>Kibwezi Rural Health Scheme</td>
</tr>
<tr>
<td>MACOSUD</td>
<td>Masongaleni Community Organisation for Sustainable Development</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-governmental Organisations</td>
</tr>
<tr>
<td>PRA</td>
<td>Participatory Rural Appraisal</td>
</tr>
<tr>
<td>ToF</td>
<td>Trainer of Facilitators</td>
</tr>
<tr>
<td>ToT</td>
<td>Trainer of Trainers</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Education Fund</td>
</tr>
</tbody>
</table>
CHAPTER ONE

1.0 INTRODUCTION

This chapter provides a background to the study. The chapter discusses the research problem, purpose as well as the rationale for the study. It also discusses the conceptual framework and propositions on which the entire study rests.

BACKGROUND INFORMATION

Non-governmental organisations (NGOs) are slowly emerging as the third sector of the economy, working in collaboration with the government and the private sectors (Farrington et. al, 1992). In developing countries, the number of NGOs has been on the increase. These greatly supplement government efforts to ensure efficient delivery of services to the people. Unlike before when NGOs focused on relief work, provision of free medical services, family planning, road construction and literacy, their work has evolved tremendously to embrace development issues especially in the rural areas. The International Fund for Agricultural Development (IFAD, 1992) notes that many NGOs are now using participatory methodologies not only to ensure acceptance, ownership and sustainability of projects by the communities, but also to reduce costs so that the local community enjoy the services they would otherwise not easily afford. This means that their approaches are people-centred and that people are more involved in issues and events that shape their lives, moving from dependency to a state of self-reliance. Consequently, as pointed out by Farrington et.al (1992), and IFAD (1992), it is assumed that these organisations have the potential to reach the poorest in the community due to their grassroots approach, which gives them a higher awareness
of the local conditions. They are thus better placed to design and implement
effective intervention programmes. It is these same arguments that make NGOs
popular, particularly in the developing countries, where hunger continues to
ravage thousands of people in spite of food having been declared a basic need for
all individuals. Current estimates show that close to 800 million people in the world
are chronically undernourished (200 million of whom are children) and others suffer
from debilitating diseases relating to malnutrition (K'Okul, 1998; UNICEF, 1998;
Abbot, 1992). In Sub-Saharan Africa, one out of every five people lacks enough food
to meet their dietary needs. In addition, 41 out of 53 countries experience acute food

NGOs are therefore seen as vital in the fight against hunger, supplementing
government efforts, especially with the recent reduction on public expenditure,
reduced foreign aid and slowed down economic growth, which only serve to
exacerbate the situation. These organisations concentrate their efforts mainly on
agriculture and livestock, water provision, health services, education, technical
assistance, promotion of rural industrial development as well as other income-
generating activities and more recently in policy advocacy. Their initiatives especially
in agriculture and food production have won them the most credit.

In Kenya, most NGOs' coverage has been the arid and semi-arid lands (ASAL), that
occupy 75% of the country. These regions, which include districts in Eastern and
North-eastern Provinces, experience low rainfall that is usually erratic and is poorly
distributed leading to low levels of food production and massive crop failures.
The fluctuating climatic conditions in the regions hinder efficient agricultural
production. In a country where agriculture is the mainstay of the economy, these
translate into food insecurity, low-income levels, and increased incidences of poverty. The resulting food shortages predispose the regions to heavy reliance on relief food supplies provided by the government and voluntary organisations, to offset their huge food deficits (GOK, 1997a: 42).

In famine situations, many of the ASAL districts remain relief food recipients even long after such disasters. During the drought period of 1994 alone, two million people in sixteen of these districts were under the famine relief programme. Further, at the height of the food shortages of 1993 up to 5.4 million Kenyans were affected, many of these being inhabitants of the ASAL regions (UNICEF/GoK, 1998). Usually, NGOs, bilateral and multi-lateral agencies provide most of the food required.

Although food aid should provide a short-term solution to food insecurity, most African countries are becoming increasingly dependent on it, unlike in Asia and Latin America, where it has been declining in the last three decades (IFAD, 1992). Regardless of these glaring differences, food aid seems to have become an important feature in Kenya's effort to reduce hunger. The food rations provided to each household are usually way below the demand, regardless of the already eroded purchasing power of the households, given that in the ASAL districts the poor account for 80% of the districts' populations (GOK, 1999). Ultimately, relief agencies have become an integral part of the solution to hunger in Kenya. There appears not to be any particular strategies or minimum standards of performance enforced or put in place by government, with regard to minimum achievements that any food security oriented NGO should fulfil to ensure that their efforts have a meaningful impact.
It is this oversight that may have led to the existence of so many NGOs in the country, many of which duplicate each other’s efforts. Currently, there are over 1000 NGOs and 20,000 community based organisations (CBOs) working in Kenya. While there is no doubt that NGOs have been instrumental in rural development and that they have had some results in fighting hunger in general, it is necessary to find out exactly how they are making their contribution. Needless to say, most of the positive statements attributed to their successes are usually one-sided, coming from the NGOs themselves. IFAD (1992) recommends that; “there should be an in-depth assessment of their ability to reach the poor, to promote participation and sustainability, as well as their own accountability”.

1.2 STATEMENT OF THE PROBLEM

In spite of the assumption that NGOs have an important contribution to make in the improvement of food security in Kenya, citizens as well as the government are beginning to question the exact contributions these organisations are making in development. Whereas public opinion is often mixed regarding the effectiveness of these organisations (Laurent, 1995), large sums of money continue to be invested by NGOs to improve living standards, while hunger continues to ravage the inhabitants of the districts where most of these funds are pumped. Some of the NGOs have been operational in their project areas for over 15 years; a period in which their impact should be felt and their role made clear. This has been the case in Makindu and Kibwezi divisions of Makueni district. Regrettably, hunger still persists in the district, with the malnutrition level consistently remaining as high as 30% among children less than five years, and the poverty incidences are not declining either (GoK, 1997b; Ayoko and Katumanga, 1997).
National malnutrition averages stand at 34% for stunting, 6% for wasting and 23% underweight among children under five years of age (UNICEF/GoK, 1998).

Available research reports on NGOs are limited and most of these are commissioned by the NGOs themselves, with the exception of a few (e.g. Copestake & Willard, 1991; Farrington et al, 1993; IFAD, 1992). These three reports focus mainly on the NGO-state relationships, NGOs and agricultural technology as well as general issues on NGOs. However, there is one case study of a Zambian NGO focusing on agricultural technology that was carried out by Copestake (1991). This research showed that it was possible for communities in semi-arid areas to spearhead their own development visions with the right facilitation from development agencies.

Sixty per cent of the residents of Gwembe Valley in Zambia now benefit from diverse projects initiated by the Gwembe Valley Agricultural Mission (GVAM) that started out as small volunteer organisation, in an area where the Zambian government had withdrawn its staff and social services. In Kenya, no research has focused specifically on NGOs and food security issues, leading to a gap in this area. This study addressed the contributions of NGOs in mitigating food insecurity in Kenya, and especially how they tackle the various issues that give rise to the problem in first place. It raised pertinent questions on exactly what NGOs are doing to mitigate the problem; the strategies used and their viability, acceptability and sustainability under the prevailing local conditions. The study also sought to describe the region's food patterns, establish community's coping strategies in times of famine and if NGOs take these into consideration when designing their projects.

The proposition, that certain minimum standards are expected for any food security-serving project to be effective have been advanced. Thus, for any NGO to be effective in this endeavour, certain criteria must be used, and the study
advocated for a holistic approach in dealing with food insecurity. In this regard, strategies used must reflect integration of the relevant sectors and involvement of all stakeholders. This way, people can understand the roles and are better able to make demands and also expect accountability from these organisations. The above arguments present a strong case for this work, necessitating the study.

1.3 PURPOSE OF THE STUDY

The purpose of this study was to assess the contribution of NGOs in combating food insecurity in selected divisions of Makueni District.

1.4 RESEARCH OBJECTIVES

The following objectives guided the study.

1. To establish the main food sources throughout the year in the community.
2. To find out the causes of food insecurity in the two divisions.
3. To determine the activities the NGOs undertake to improve food security and how they relate to the causes of food insecurity in the two divisions.
4. To assess the strengths and weaknesses of NGOs approaches to mitigating food insecurity.
5. To examine the suitability and sustainability of food security-related activities by NGOs in the area.
6. To establish the community's coping mechanisms during food stress periods.

1.5 SIGNIFICANCE OF THE STUDY

The study was timely, having been executed at a time when both the public and the government had begun to re-evaluate the place of NGOs in development. The study findings may help to avert future drastic measures such as those taken after bombing of the American Embassy in Kenya in August 1998, where five NGOs were
de-registered because of inconsistencies between the stated objectives and the activities on the ground. The study findings could be used to form a basis for the formulation of policies and operational guidelines for NGOs, thus minimize wastage of resources and duplication of efforts. Second, food supply and nutrition education are among the elements of primary health care (PHC) which the Ministry of Health has been pursuing its efforts to ensure health for all by the year 2000 and beyond. Findings of this study will be useful in evaluating how far this objective was achieved through NGOs’ efforts and to redirect efforts. Finally, NGOs could also utilise the findings to triangulate their internal reports on performance and take corrective measures if necessary.

1.6 ASSUMPTIONS OF THE STUDY
It was assumed that NGOs are important in the fight against food insecurity. Second, that food insecurity still persists in the study area due to inappropriate strategies and third, that there are certain measures that would yield positive results in the fight against food insecurity, if put in place.

1.7 SCOPE OF THE STUDY
The study was carried out in Kibwezi and Makindu divisions of Makueni District, where many NGOs have concentrated efforts on the food security situation. The study targeted households in villages where NGOs had on-going food security programmes at the time of the research. The budgetary allocations for various NGO programmes were outside the scope of this study as the research aimed mainly at exploring perceptions of the community, as well as NGOs and government officers.

1.8 DEFINITIONS OF TERMS

Food: These are all those substances, whether traditional, indigenous or exotic food plants eaten to provide energy and nutrients that maintain body processes.
Food insecurity: Lack of access to adequate food by all members of a household at all times both in quantity and quality.

Household: Group of people with shared living quarters and a common dietary pot. They may or may not be related by blood, marriage or other ties.

Non-governmental Organisations (NGOs): Organisations not affiliated to the government, set up through either local or foreign initiative, with the aim of addressing certain concerns in the community as their objectives may stipulate.

Malnutrition: A pathological condition resulting from inadequate or excess intake of one or more of the essential nutrients in comparison to the physiological requirement of the body.

Sustainability: The ability of a community to use locally available resources that are affordable to them to continue running and reaping the benefits of an intervention programme even after donors have pulled out.

Suitability: The usefulness of a project in meeting the community's felt needs as well as their priorities.

1.9 CONCEPTUAL FRAMEWORK

The study took a holistic approach to understanding the relationship between food security and the work of NGOs. This was based on the premise that for meaningful improvement of food security situations, a holistic approach is imperative. It calls for the concerns to go beyond providing basic food alone and embrace issues of food acquisition procedures such as production, storage, preservation, the quality of seeds and livestock breeds. These factors impact directly on availability and quality of the food as well as utilisation and sustainability of the production process. This is because the success of food
security programs largely depends on the type of interventions put in place in all the sectors that have an interactive relationship with food production and access, as well as consideration for those factors that affect proper food utilisation by individuals. One cannot therefore talk of improving food security at the household level without dealing with core issues of water, health, nutrition, income, and the environment. Improving these sectors will lead to improvement of socio-economic status, which translates to better health, increased food production and availability and eventually, increased household food security.

In the study, NGOs' activities are therefore best understood in the light of the concepts that constitute the conceptual framework of this study as shown in figure 1. It was developed by borrowing from the basic assumptions made on NGOs by Farrington, (1993) and from the SPEC complex model by K’Okul (1991). The first assumption is that in bridging the gap between communities and the government, NGOs' strength lies in the use of participatory approaches in needs assessment; Holistic approach to issues beyond the agricultural activities, to embrace support services such as health, nutrition, education, water and income-generating activities; Their focus on livelihood enhancement among the rural poor; Concern with exercising a “demand pull” on government services by strengthening the capacity of local institutions.

It is further assumed that NGOs work with, and promote low external input, low risk and environmentally friendly technologies that are developed and
disseminated in such a way as to reinforce indigenous knowledge systems and local institutions (Farrington, 1993).

Although over time there has emerged a dichotomised way of viewing developmental approaches, in terms of strategies, most agencies are now advocating for the use of a grassroots approach as opposed to the bottom-up approach that the government tended and still tends to favour. Community participation has therefore become mandatory, and several participatory methodologies (e.g. PRA) can now be utilised throughout the project cycle. This calls for all the needs assessment, implementation, monitoring and evaluation procedures to be participatory. Pertinent to the issue of participation is gender issues. The social relationships between men, women, boys and girls, and how these relations define peoples' roles, tasks and decision-making processes within the given socio-cultural context may have a serious impact on food security programs and should be considered if they are to succeed.

The above issues should feed on six very closely intertwined factors that exert pressure on the household to influence the household's food security status. The six factors are the local ecology, farm, health and water sectors, income-generating activities and emergency work. The local ecology for instance determines agricultural activities and whether a household will depend on food aid for a better part of the year to meet their food needs. In the same way, water relates very closely to the farm sector and the health. If the individuals have health problems, they can neither effectively exploit resources within their local ecology to meet their food needs, nor reap the full benefits of the nutrients in their food. When the local ecology affects farm productivity, then the people should have safety nets
in the form of income generating activities to meet the deficit. Consequently, the six areas must form the core of any meaningful food security programme, which should be designed either to encompass all of them or with a consideration for each so that a nutrition project for instance does not overlook the issue of water, health or income-generation. A program that incorporates all the above should result in sustainable food availability; better health care and an overall improvement of other socio-economic conditions. The framework therefore formed an important tool for analysing data as well as guiding the study.
Figure 1: Conceptual framework on NGO activities and food security

NGOs' Activities

Strategies

• Appropriate Technology suited for local needs.
• Participatory methodologies to assess community needs.
• Capacity building
• Gender considerations

Emergency Work

Local Ecology and the Farm

Water and Health

Income generation

Sustainability

• Improved food availability
• Better health
• Overall improvement of socio-economic conditions

Food secure households and better living standards (Poverty alleviation)

Adopted from SPEC complex by K'Okul (1991)
CHAPTER TWO
LITERATURE REVIEW

2.0 INTRODUCTION

This chapter highlights the central issues in the food security debate, showing the complex nature of food security issues. It focuses on prevalence and causes of food insecurity globally and in Kenya. It also discusses efforts made by the Kenya government as well as other key players in this field. Specifically, the chapter covers the global food situation; causes of food insecurity; food security in Kenya; and Non-governmental organisations efforts to increase food availability and promote development. Research relevant to this study has also been reviewed and in the summary section, gaps necessitating this study are identified.

2.1 GLOBAL FOOD SITUATION

The body requires food in the form of different nutrients to sustain life and perform activities for daily life. It is therefore imperative that the food provided not only be in adequate amounts but also of the right quality. There are both physical and economic factors that imply access to food. In the world today, millions of people continue to be chronically undernourished and many more suffer from various forms of malnutrition (UNICEF, 1998; Abbot, 1992; K’Okul, 1998). Ironically, whereas in developing countries, this problem manifests itself in conditions such as kwashiorkor and marasmus, which result from such deprivation, in developed countries, over-nutrition in the form of over-consumption leading to obesity and related complications prevails.

In the case of developing countries, a myriad of factors gives rise to this situation. Usually, demand for food is high, whereas the supply is often limited. This is in spite
of food production having increased over the years, but it is constantly outpaced by high population growth rate, which leads to annual food deficits. For example, it has been projected that the world population will have grown to 8.5 billion people by the year 2025 (UNICEF, 1998). Of these, seven billion are in developing countries. In the same year, the cereal demand will be 2.4 billion tons, but the expected production will be 1.7 billion tons, creating a deficit of 0.7 billion tons (Daily Nation, January 29th 1998; East African Standard, February 10th 1998;). Undoubtedly, this serves to point to more serious problems relating to the broader economic as well as political concerns of a country’s development policies, which have implications for the above situation.

In Sub-Saharan Africa, 41 out of 53 countries experience acute food insecurity. In addition, one in every five people lacks enough food to meet the recommended dietary intake (WHO, 1993; WHO, 1998; Munya; 1997). According to Unklesbay (1992) and UNICEF & GoK (1998), estimates show that food consumption in Sub-Saharan Africa is about 85% of the internationally recommended requirement for a healthy and active life. The WHO and the Food and Agriculture Organisation (FAO) recommend an intake of not less than 2250 kcal per day. This means that for most people in Africa, 15% of the daily energy requirement is often unmet.

Apart from poor nutritional status and malnutrition that result from food deprivation (FAO, 1997), reduced performance, low cognitive ability, poor school performance in children, reduced income and increased susceptibility to diseases are other outcomes (FAO & WHO, 1992). When people’s productivity is reduced, the agricultural and economic output will be reflective of this and consequently,
their access to food will be compromised. There will also be limited access to other resources for production as general resource bases are eroded.

It is interesting to note that in spite of the difficulties, some African countries such as Libya, Gabon, Mauritania, South Africa and Benin have managed to maintain levels of daily per capita caloric supply higher than those recommended by World Bank and other international bodies. Although these economic differences prevail among countries, with the right strategies, food security can also be achieved in the rest of the Africa. Identification of the core issues that would form a basis for effective interventions; emphasis on appropriate technologies; participation by all; sustainability of the process; and a stronger commitment to the course, as well as political will to implement policies that favour food production and economic growth would be necessary.

2.1.1 CAUSES OF FOOD INSECURITY
Several factors give rise to food insecurity. However, several studies and reports (Ayoko & Katumanga, 1997; Orodho, 1998; UNICEF, 1998; UNICEF/GOK, 1998; Macro Int. Inc/ GoK & UoN, 1996; Unkelsbay, 1992) have shown that poverty is the root cause of hunger and malnutrition. In fact, a World Bank report (1992) indicates that 85-90% of the hunger in third world countries is borne of poverty. It is for this same reason that a billion or more of the world population, most of whom are in developing countries spend 70% of their income on food alone. Any slight change in food prices can therefore drive consumption below the survival level for the poor (Unklesbay, 1992). Coupled with the constantly fluctuating levels of production, these trends denote the challenges of both physical as well as economic access and availability of food in developing countries.
It is difficult for people living in an impoverished state to adequately access basic necessities such as health, education, shelter and food and neither can they effectively engage in gainful economic activities. Such people are poor and they become more vulnerable to any unstable conditions that further predispose them to food insecurity. It is the interaction between such other conditions and poverty that worsen the food situation but they do not necessarily cause it independently. These other factors include; unfavourable weather conditions leading to prolonged drought and crop failures; lack of appropriate technology in food production and processing; post harvest losses during processing and storage; neglect of traditional food crops which are drought resistant; export-oriented agricultural policies that emphasise cash-crop production at the expense of food crops; civil strife; disasters such as storms, earthquakes, floods; and, increased susceptibility to diseases.

According to Abbot, (1992), crippling trade deficits, unplanned settlements which take up a lot of land that in most cases could support productive agricultural activities, wide spread unemployment and citizen-unfriendly policies in tune with the structural adjustment programs (SAPs) also have far reaching consequences on food security. In addition, the food distribution patterns as well as the land tenure systems and policies also have serious implications for food security in a country. Indeed, as pointed out in the 1998 Situation Analysis of Women & Children in Kenya (UNICEF/GoK, 1998), imbalances in the distribution patterns do occur in countries like Kenya. These imbalances result from infrastructural impediments (e.g. poor road networks and limited access to agricultural extension services) and financial difficulties at the household levels, among other factors.
Another reason that has been advanced to explain food shortages is population growth. According to Orodho (1998), Unklesbay (1992), and UNICEF (1998), food supply is still lower than the demand (and the demand continues to increase) due to the population growth. This seems to imply that food shortages are simply because the world's food production resources have been stretched beyond limit. It would be a fallacy to blame such a grave problem on just one cause. In any case shouldn't the problem then have been resolved given the recent slow-down in the growth rate in many developing countries? To discredit the population explosion theory, Lappé et al (1998) argue that the world today produces enough grain to provide every person on the planet 3,500 calories per day, which is more than the required amount on average. Further still, they point out that the industrialised countries import US$ 60 billion worth of food from third world countries a year. This means that contrary to popular view, population growth on its own does not lead to food insecurity. Granted that in the 1960s and 1970s Africa was a major food exporter, population alone cannot therefore be responsible for this drastic drop in food production levels. Other more serious factors are involved and as such, population should not be singled out as the cause of food insecurity in developing countries.

From the above arguments, it is apparent that food security is a serious yet very complex issue, owing to the multi-faceted nature of the causes. Any meaningful efforts to tackle it will have to be comprehensive enough. Undoubtedly, solutions to the problem lie in the stakeholders' ability to recognise each of the causes and treat each not as mutually exclusive but rather, to put them in perspective within the context of inclusiveness. Such a holistic approach which not only addresses the different facets of the problem, but also one that will deal with both the immediate and underlying causes becomes essential. According to UNICEF/GoK (1992),
underlying causes have political and economic implications and all these must be considered. A narrow view to the problem leads to shallow interventions that lack seriousness, depth and sustainability. In my view, this has been the impediment in finding lasting solutions to food insecurity in many developing countries.

2.2 FOOD SECURITY IN KENYA

Most of the causes mentioned in the previous section have also been found to affect food supply in Kenya (Orodho, 1998, UNICEF/GOK, 1998), especially poverty, which is the root cause although other factors combine with it. According to GoK (2000a), the prevalence of absolute poverty is 52%, denoting unmet needs. Hardcore poverty on the other hand stands at 59%, meaning even if this proportion of Kenyans were to spend all their income on food alone, they would still not meet their recommended dietary allowances (RDA). This implies an income of an average of Kshs. 927.00 and 1,254.00 in rural and urban areas respectively.

Over-dependence on one sector of the economy also has serious repercussions for a country like Kenya. Agriculture is the backbone of the Kenyan economy. It accounts for about 25% of the Gross Domestic Product (GDP), while manufacturing accounts for 13% (GoK, Development Plan 1995-1997). This is in spite of the fact that only about 20% of the total land in Kenya is arable. Agriculture provides a livelihood for 80% of the total population living in the rural areas. Of this proportion, 90% are small-holder farmers producing at a small scale, but produce 70% of the country's staple food (Ibid. FAO, 1993). Although the government indicates that overall food production has expanded over the years, overall, the country's total capacity to produce has dropped by 7% over the last 20 years. This is attributed to land over utilisation, clearing of agricultural land for human settlement among other reasons.
Production of food for domestic consumption has therefore not kept pace with the country's demand. For example, in 1993 alone, the grain production was estimated at 2.2 million tons (MT) with an unequalled demand of 3.9 MT. This points to a state of food insecurity. When the climatic conditions fail, the results are often calamitous for household members, who have to find other alternative food sources.

The country experiences food insecurity from time to time (K'Okul, 1991; UNICEF, 1998; UNICEF/GoK, 1998; Orodho, 1998; GoK/ Micro Int. Inc /UoN, 1996). Kenya is ranked 31st among 41 Sub-Saharan countries that experience food shortages whether there is a famine or not (Munya, 1997). The effect has been that like in many other Sub-Saharan countries, caloric intake per capita in Kenya has been on the decline since the mid-1970s (World Bank, 1990), and has persistently remained below the 2250 Kcal recommended by international bodies such as WHO and FAO (GoK, 1994; Unklesbay, 1992). Although wasting, stunting and under-weight are common problems among vulnerable groups such as children, pregnant and lactating mothers, and the urban poor as verified by the national figures, the situation is much more serious in the rural areas and arid and semi-arid lands (ASAL).

To bridge the gap between low food production and increased demands, the government relies on commercial imports and food aid. In 1993 alone, food aid provided approximately 50% of the much needed 1.7 MT, which was the food deficit for that year. The other 50% came from commercial sources (Macro Int. Inc./CBS/UON, 1996). The international communities through bilateral agencies,
international bodies (multi-lateral), regional institutions, NGOs and/or other voluntary groups provide the much-needed food-aid. It may be given in form of loans, credits, as sales below normal market prices or as free gifts (IFAD, 1992). It is often provided under three broad categories namely;

✓ *food for life*, given as emergency rations for victims of natural and man-made disasters;

✓ *food for growth* which is distributed through health clinics, schools and other community centres to vulnerable groups to ensure good nutrition; and,

✓ *food for work*, where food rations are given to community members who participate in development projects to ensure that development efforts continue even in times of hunger (UNICEF, 1998).

If the increasing demand for and reliance on food aid are anything to go by, it would then appear that the government obviously considers food aid as major solution to the food shortages in the country. In two government food and nutrition policy documents (GoK, 1994a; GoK, 1994b), the government identified emergency relief and food-for-work programmes as strategies in combating food insecurity. It is no wonder then that following the droughts that have continued to be experienced since the 1990s, food aid levels have continued to grow at an average of 33% (UNICEF, 1998). Although food aid continues to meet the country’s food deficits, there is controversy about the impact of such a strategy. Critics argue that it creates dependency and in the long run can impact negatively on the local food production initiatives. K’Okul (1998) adds that food aid cannot and should not be seen as a solution to food insecurity, especially now when many NGOs are becoming increasingly sceptic about food aid to Africa. Food aid is as temporal as donor aid in
developing countries and should not be seen as the solution, especially in view of its long-term impact and the current concerns over donor fatigue.

Generally, the causes centre around the agricultural sector (crop and livestock, food processing and preservation); economic and political issues; the ecological conditions, appropriate technology, the health sector and targeting of vulnerable groups. The Kenyan government identifies vulnerable groups as, the landless, handicapped, female-headed households and households headed by people without formal education, unskilled and semi-skilled labourers, pastoralists in ASAL districts in addition to children, pregnant and lactating mothers, and the urban poor (GoK, 1999). To support this, findings of a research conducted on food security and women in Vihiga District reported over dependence on the female population as producers as another cause of food insecurity. This is a factor that has received little attention until recently (Orodho, 1998). This group lacks skills, the necessary appropriate technology and collateral to secure loans from financial institutions for development projects.

Clearly, efforts need to be stepped up if food security is to be attained. The challenge lies squarely with the government first and its partners to seek more serious and permanent solutions to this widespread problem. Indicators with which citizens can evaluate initiatives aimed at increasing food supply by both the government and its partners too, may be required. Barraclough (1991) for instance proposed that a food secure country should have:

- Capacity to produce, store and purchase sufficient food to meet the basic needs of all groups;
• Maximum autonomy and self-determination, which reduces vulnerability to international market fluctuations and political pressures. Many developing countries still remain subject to this due to political manipulations;
• Reliability, such that seasonal, cyclical and other variations in access to food are minimal;
• Sustainability such that the ecological system is protected and improved over time, and;
• Equity, where there is access to adequate food supply to all social groups.

Indicators such as these offer a challenge and can form a basis for formulating workable strategies that would help Kenya fight the problem.

2.2.1 EFFORTS TO INCREASE FOOD AVAILABILITY

Every government has a responsibility of ensuring that its citizens' food needs are met. Previously, the government supported food production through provision of various agricultural services at subsidised rates. These included extension, veterinary services, seed multiplication, artificial insemination, marketing boards and rural access roads. These services helped to make Kenya self-sufficient in food production in the 1960s and 1970s. Unfortunately, mismanagement of both financial and human resources of these government services has resulted in their decline and ineffectiveness in reaching small-scale farmers. In fact, most extension services are mainly accessible to the well-off farmers. The poor ones who need them most lack the financial resources with which to access them.

At another level, the government is party to several international conventions that commit it to fulfilling the broad goal of ensuring food security. One such convention is the United Nations Charter on Human Rights, which recognises food as a basic
right. At the national level, there are several policy documents touching on food security issues. They include:

- **GoK, (1965), Sessional Paper No. 10 of 1965 on African Socialism and its Application to Planning in Kenya.** This document focuses on provision of basic needs.

- **GoK (1981), Sessional Paper no. 4 of 1981 on National Food Policy.** The main focus is ensuring adequate supply of nutritionally balanced foods in all parts of the country at all times.

- **GoK (1986), Sessional paper No.1 of 1986 on Economic Management for Renewed Growth.** It emphasises on industrialisation by the year 2000 and says that Agriculture will form the basis for the industrialisation process.

- **GoK (1994a), Sessional paper No. 2 of 1994 on National Food Policy.** This is similar to the one of 1981 although it goes on to outline strategies to be used to ensure food security. The main strategies listed are; emergency relief food programs; Food for work programs in rural areas; and programs that target the vulnerable groups

- **Various national and district development plans.**

Following the International conference on Nutrition in Rome, the Kenyan government developed a more comprehensive document aimed at eliminating hunger and malnutrition. The document (GoK, 1994b) outlines the various themes guiding these efforts. One of the themes is improving household food security. To meet this broad goal the main objectives are to;

a) Enhance food production in the country especially the staple foods to meet the country's demands.
b) Strengthen research and extension services thus ensuring proper and efficient utilisation of agricultural land.

c) Promote the production and consumption of indigenous and drought resistant food crops.

d) Develop early warning systems for use by the relevant bodies e.g. NGOs and the government.

e) Reduce post-harvest losses.

f) Ensure that implementation of structural adjustment programs (SAPs) has a social dimension (SDD) to cushion socio-economically-vulnerable groups to maintain or improve their access to adequate diets. (This has since been implemented at the district level under the SDD program)

g) Promote education in population and development.

h) Promote policies aimed at reducing inequalities in the distribution of income to mitigate household food insecurity and nutritional problems.

The extent to which the above goals are being met remains unclear. Most of these goals are quite broad and the government documents do not outline the key players in each case, nor what their roles in the implementation process are or how success will be measured. No substantial efforts are made to put plans to action or even monitor programs that address these objectives. Interpretation and implementation of the policies may however, lead to different results. In spite of this fact, some considerable efforts have been made by some government institutions to improve food security. The Kenya Agricultural Research Institute (KARI), for example, has been carrying out extensive research on drought resistant food crops such as millet, sorghum, cowpeas pigeon peas, cassava and sweet potatoes.
The KARI-Katumani station and its sub-station in Kiboko (Makueni District) have been involved in dissemination of some of their research findings in the district. The tested varieties are distributed to the farmers either directly by purchase or through NGOs. Government documents do not provide substantial information on effectiveness of the dissemination process and adoption of new technologies.

Despite of the government’s efforts, many people still go hungry. Worse still, data on how the food insecure deal with food stress are scanty in Kenya (UNICEF/GoK (1998). When roles of the various all stakeholders are defined, it is easier to design and implement meaningful projects because the limited resources can be planned for more efficiently, minimising duplication and wastage.

2.3 NGOs AND DEVELOPMENT

NGOs are registered, private, independent and non-profit organisations (Wellard and Copestake, 1991:5). Currently, there are over ten thousand (10,000) NGOs and more than 200,000 community based-organisations (CBOs) (UNICEF / GoK; 1998) in Kenya. The CBOs emerge as local initiatives by the community members to meet certain objectives or deal with a specific felt need in the area. Over time, NGOs have increasingly become instrumental in development especially in the developing countries. They are perceived as partners with the government in efforts to increase food productivity. Their efforts have been directed to food-for-work programmes, improved agriculture, soil conservation, improving health care services which leads to higher productivity, safe water, promoting use of cheaper and more efficient sources of fuel, reducing on hours spent on such activities, which then translate to more farm-productive hours. They also take special interest in policy issues and their implementation and social welfare as long-term goals toward Self-development.
According to Wandera and Omoto (1991), whatever their origin, policy or philosophy, most NGOs will generally aim at; fostering people's self-reliance, developing human resources, including local leadership and organisation, developing the quality of life of the people, increasing the local people's incomes, and increasing productivity. These organisations have been known to advocate for grassroot-based approaches to development with maximum participation by community members. This is directly the opposite of the top-down approach the government takes, assuming that benefits will 'trickle' down to the communities over time. The NGOs have increased tremendously over time with varying activities and budgetary allocations. Some of these agencies often do not have clear objectives or their operation may not be clear, although the government expects NGOs to report on their areas of operation, activities and sources of funding over a period of 5 years. A survey on the agricultural activities of government and non-governmental organisations in Siaya District (Achieng and Wellard, 1991) shows that although there was a comprehensive list of NGOs in the district, quite a number of them were missing on the ground. Others were very reluctant to give information even from already published reports. This confirms the allegations often levelled on these agencies as being suspicious.

The same survey also shows that all NGOs in the district had a similar overall objective of poverty eradication and the improvement of the socio-economic status. It also confirmed that there is actually a marked shift from the traditional relief operations of the 1970s and early 1980s to an integrated approach to development as observed by IFAD (1992) and Farrington, et al, (1993).
Due to their varying policy frameworks, NGOs will operate differently with varying budgetary allocations. A survey of 65 of the estimated 291 development oriented NGOs in 1987 showed that two thirds of them had an annual budget in excess of US$ 1,000,000. The two largest, (the Catholic Secretariat and The National Council of Churches) spent US $ 75 million and 50 million respectively on various development projects (Fowler; 1988). In total, the survey estimated that the total NGOs' expenditure in 1987 was approximately US $ 225 million. This amount was almost equal to the gross national income from coffee and nearly 50% of official development assistance to the country at that time. Among the 267 NGOs surveyed, the two most important programme activities were education (54%) and health (34%). Only 18% and 17% cited agriculture and environment protection respectively. 11% were involved in development of appropriate technology. Generally, NGO activities fall into the following sectors:

2.3.1 HEALTH SECTOR
Here, they are concerned with reduction of mortality and morbidity rates. This has been through repairing, expansion and provision of equipment for the run-down government health facilities, construction of new health centres, lowering population growth rate by promoting knowledge and use of modern family planning methods. community health workers are trained to educate others in the community.

2.3.2 AGRICULTURAL SECTOR
Following the food shortages experienced in 1980 in the country, many NGOs resolved to undertake agriculture and livestock production programs in a bid to increase food availability (Wandera & Omoto, 1991). The interest has been in nutritionally vulnerable small holders. They therefore provide technical assistance and are instrumental in disseminating and promoting use of new technologies for efficiency and effective utilisation of resources.
2.3.3 WATER SECTOR
Many NGOs have singled out water as a big causal factor of a host of rural problems and especially food insecurity (Wandera & Omoto, 1991). Lack of access to safe water exposes people to diseases and poor living conditions. It also means that people spend a lot of time searching for water instead of engaging in productive work. In Western Kenya, the Kenya -Finland Water Supply (KEFINCO) was involved in water provision through construction of boreholes, protection of springs, provision of roof catchments and also had a primary health care programme (K'Okul, 1991).

2.3.4 INCOME-GENERATING ACTIVITIES
This is an initiative aimed at promoting food security at the household level by increasing households' purchasing power as well as improving the living standards. Such initiatives in the past have included chicken, goat rearing, providing loans for cottage industries etc.

2.3.5 EMERGENCY WORK
This is in form of food aid, which is distributed when the need arises e.g. during times of both natural and man-made disasters. It may be offered either as food-for-health to nutritionally vulnerable groups, as food for work to accelerate completion of development projects or as food- for -life in disaster situations. One problem frequently reported about this intervention from time to time is the gross abuse by administrators, who either sell it or distribute it unprocedurally. In the long run, it affects food production negatively as it creates dependency (IFAD, 1992).

In spite of the foregoing report, there has been indication that there are some positive changes in most of the areas where these NGOs have operated, especially if the projects initiated are sustainable. The impact is said to be even more significant where they collaborate with government departments by providing transport to extension workers training, advisory services on technical issues among others.
2.4 FOOD AVAILABILITY IN MAKUENI DISTRICT

This study was conducted in Makueni District, one of the districts in Kenya that lie in the arid and semi-arid lands (ASAL). Other ASAL districts are shown in map 1. These districts are characterised by very high poverty incidences (Ayoko and Katumanga, 1997) and the inhabitants are particularly vulnerable to food shortages and malnutrition. The average annual rainfall in Makueni District is about 500mm and varies considerably both in amount and intensity. The recurrent crop failures experienced in the district are therefore a consequence of unreliable rainfall. This has seriously constrained food production, leading to huge demand deficits.

Sometimes food deficits in Makueni are so severe and very large amounts of relief are required to offset them. Table 1 below shows the amount of maize produced in the district and the demand in the period 1993-1996. It is quite apparent that the demand is far beyond the supply.

Table 1: Food (maize) availability in Makueni District (1993-96)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FOOD REQUIREMENTS (Kgs)</th>
<th>AMOUNT AVAILABLE (Kgs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>122,400,000</td>
<td>80,196,000</td>
</tr>
<tr>
<td>1994</td>
<td>127,800,000</td>
<td>81,042,000</td>
</tr>
<tr>
<td>1995</td>
<td>134,280</td>
<td>21,050,000</td>
</tr>
<tr>
<td>1996</td>
<td>141,937,000</td>
<td>16,950,000</td>
</tr>
</tbody>
</table>


NGO and government reports show Kibwezi, Makindu, Nguu, Mtito Andei, and Kathonzweni divisions as the worst affected. A collaborative food situation survey in the former three by some of the NGOs at the beginning of 1999 revealed
that 56.6% of the households had no food by February that year. Another 28.7% had food to last them until May of the same year, whereas only 15.8% of the households had food up to July 1999 (AMREF/GAA/AAK, 1999). Consequently, this area constantly requires intervention programmes. The NGOs currently working in the district include; Action Aid Kenya (AAK); Care International; African Medical Research Foundation (AMREF); German Agro-Action (GAA) and Danish International Agency (DANIDA), distributed in the divisions (GoK, 1997). With so many organisations working in the same district, co-ordination is required and it is only possible if the role of these organisations is first defined, therefore the purpose of this study.

2.5 SUMMARY

The foregoing discussion centred mainly on; global food security, the causes of food insecurity, government's initiatives in combating food insecurity, NGOs in development and food insecurity in Makueni District. Although every government has a responsibility to respond to the food needs of its citizens, it is a fact that Kenya is food insecure and local food production cannot meet the demand. This has mainly been due to increasing poverty, declining economy, corruption, wrong approaches and a reduction in public expenditure, making government initiatives to have minimal or no effects at all. This has seen the gradual emergence of NGOs as a very important, third sector of the economy, working either in collaboration with the government or in some places “replacing” the government as far as service delivery is concerned.

The government has come to rely on NGOs and other agencies not only to meet the immediate food deficits but also to increase food availability in the long run. These organisations spend a lot of money in development, especially in the agricultural
sector, health and education. Although the government has outlined its plan to fight hunger and malnutrition, food policy documents are not very specific on the roles of other stakeholders in this fight, nor does it provide any benchmarks that would show if a food security programme was effective or not, and yet money continues to be invested and the problem still persists. It is often assumed that NGOs are effective, simply because they work with "the poorest of the poor" and have a heavy presence in the field. Most of the positive remarks on NGOs are one-sided and often go unquestioned. These are assumptions that may have some truth in them but an empirical research generates more tangible data to support, substantiate or refute such claims. In any case, if NGOs are more effective, there should be tangible results such as less dependence on relief food, minimal effects on household food security wrought by fluctuations in climatic conditions and increased income levels etc.

Evidently, a problem lies with the approaches so far used by both the government and the NGOs, otherwise the problem should have been long resolved, given the colossal sums of money that go into food security related projects every year. An appreciation of the complex nature of food insecurity leads to well-designed interventions. Though evidence shows that poverty is the underlying cause of food insecurity, other factors combine with poverty to exacerbate the situation. In designing interventions that are effective, all these factors need to be considered. A holistic approach to understanding and mitigating the problem becomes essential. This is especially the case in the arid and semi-arid lands where many NGOs have initiated food security programmes. The sectors that should be the basic concern of any such project include water, health, agriculture, emergency and improvement of incomes as these, have been found to impede any other development efforts.
Impoverished people are not able to participate effectively in other issues that affect them.

There is need to develop certain indicators, which would guide formulation of effective food security programmes, and be used to evaluate effectiveness. This can be done if information on the interventions and roles of different stakeholders (e.g. NGOs) is available.
CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

This chapter covers the techniques and procedures that were used to collect data in the study. These include research design, area of study, population size, sampling techniques, data collection techniques, research instruments as well as the data analysis process.

3.1 RESEARCH DESIGN

The descriptive survey method was selected for use in this study. Aspects of both qualitative and quantitative modes of inquiry were employed in the survey. A qualitative approach was necessary to unearth details from the community members, which may otherwise not be adequately captured by a purely quantitative study. This is uniquely suited to uncovering the unexpected and exploring new avenues (Marshalls and Rorsman, 1995). This approach is useful in understanding groups, organisations and individuals in the natural setting within which they belong and function (Strauss and Corbin, 1990). By combining qualitative and the quantitative modes of inquiry, views of information-rich respondents in a cross-section of the population were captured. This was useful to understand how the community interprets or defines its situation.

3.2 THE STUDY AREA

The study covered Kibwezi and Makindu divisions of Makueni District. The district is one of the 12 in Eastern Province (map 1) and was carved out of Machakos District in 1992. It covers an area of 7440 square kilometres (km²), with 14 administrative divisions and 52 locations. The 14 divisions are shown in map 2. It has a population of 636,994, and was estimated to rise to 922,902 by the year 2000.
Map 1: Map of Makueni District Showing Makindu and Kibwezi Divisions
Kibwezi and Makindu cover an area of 1399 and 1202 square kilometres respectively, with a population density of 92 persons per square kilometre for Kibwezi and 37 for Makindu (DDP, 1997-2001). The two divisions are low lying areas (about 600m above sea level), experiencing an average annual rainfall of 200 mm-900 mm received in two seasons. They also experience hot and dry weather conditions. Though the area has potential for ranching, many people rely on rain-fed crops for food and income. The rainfall patterns vary widely within the district itself and even in the divisions, causing massive crop failures. The crops grown include maize, cow peas, beans, cotton, pigeon peas, sunflower seed and cassava. Livestock keeping is also practised. According to a GTZ / IFSPE report of 1996, agricultural activities are supplemented by bee keeping and charcoal burning as other sources of income.

The area was selected for study because first, it has been established to be food insecure, and second, many NGOs are already working in these two divisions to alleviate hunger and poverty.

3.3 THE SAMPLE

The target population of this study were mainly officers working in NGOs dealing with food security either directly or indirectly through agricultural activities and promotion of improved health practices, as well as some of the divisional government officers collaborating with these agencies. Community members within the two divisions who are direct participants and beneficiaries of the NGO activities were also targeted. In the community and household members were interviewed as well as members of organised groups such as women and men groups.
3.3.1 SAMPLING

A list of all the NGOs operating in the two divisions was obtained from the divisional offices. From this list, NGOs dealing with food security related issues were selected for the study. Depending on the NGO’s level of involvement in food security, officers from each of the organisations were selected for interviews. Where an organisation’s involvement was multi-sectoral, an officer from each of the relevant sectors was interviewed. This was the case with German Agro-Action, which had an integrated food security programme. Government officers from the various ministries working closely with any of the selected NGOs were also interviewed.

To identify respondents, who were NGO beneficiaries, multi-stage cluster sampling was used. At the initial stage Makueni was purposively selected from a number of ASAL districts. Within the district, two southern divisions where NGOs work were then selected. Finally, villages in Makindu and Kibwezi divisions were identified and grouped based on locations to form clusters. This was because NGOs work in different villages scattered within the divisions and since their activities differ, it was necessary to have clusters. Out of all the clusters identified, three were randomly selected from each of the two divisions, yielding six clusters. It is within these six clusters that 92 households were randomly selected. Each household head was thus a respondent. A sample size of 92 households was selected because first, study was more of a qualitative inquiry, where the quality and depth of information are more important than the total number of people interviewed. Second, the study area is sparsely populated and a large sample would not have been practical due to the vast distances, a rough terrain and a poor communication network. To triangulate the household information, the researcher also interviewed NGO and government
officers, who provided rich and useful information that may not have been obtained even if the household sample had been larger.

For focus group discussions, two self-help groups were purposively selected. Members of the selected groups that benefited from NGOs were contacted and requested to participate in the group discussions.

3.4 DATA COLLECTION TOOLS

Three main instruments were used for data collection. These were;

a) A survey questionnaire was the main tool. The researcher administered it to household heads. This instrument collected demographic information, attitudes of people towards NGOs as well as food availability in the region.

b) A semi-structured interview guide was used to obtain information from the key informants who included NGO and government officials. Information on the origin, type of organisation and activities of the organisation was sought.

c) A focus group discussion guide, which was useful in guiding focused discussions with the women and men groups, to verify information given in the main survey questionnaire.

3.5 PRE-TESTING

The semi-structured interview guide and the structured questionnaire were pre-tested in one of the villages with one of the selected NGOs. This was not included in the final sample. The necessary corrections were done on the instruments before actual fieldwork began.

3.6 DATA COLLECTION PROCEDURES

1. Ninety-two (92) questionnaires were administered to the selected household heads in their local language. NGO and government officers were approached for
2. Interview appointments at their own convenient time. During the face-to-face interviews, accurate field notes were taken and developed into full reports (narratives) for analysis.

3. With the help of an officer in the Ministry of Agriculture, Livestock Development, Marketing and Rural Development, two self-help groups of men and women were identified for focus group discussions. Consent was sought from the participants to audio tape the interviews.

From the interview schedule, more specific questions were generated as participants shared their experiences. Where necessary, the researcher probed participants for details. The focus group results became useful in supplementing and triangulating information obtained through structured questionnaires, in addition to secondary data (such as NGO reports) collected where possible to crosscheck information.

3.7 DATA ANALYSIS

Qualitative Data

The focus group discussions and personal interviews generated data both in form of field notes and tape recordings. These were transcribed and then used for an in-depth analysis. Guidelines on analysis of qualitative data outlined by Miles and Huberman (1994) helped to guide the researcher in analysing these data. These included open coding, where the narratives (raw data) were analysed line-by-line and emerging concepts that appeared to matter in the study were identified. Labels were then assigned to words, phrases and paragraphs that were either similar or related.

A further analysis was done to identify patterns (Pattern coding) and connections between the various categories identified. To make sense of the data, related information was then grouped together to form more meaningful units of analysis.

The last stage involved memoing or synthesising. Here different pieces of
information were then tied together into thematic issues to show any relationships that may exist among the various categories developed. At this point, it was possible to show how concepts interrelated. After this, quantitative findings of the study were either used to support the qualitative findings or in some cases to form part of the major findings of the study.

Quantitative Data

The quantitative data were analysed using the SPSS for Windows (Version 8.4). Frequencies, tables and percentages were used to summarise demographic data. The various NGO activities were also critically examined in relation to household food supply.

3.8 MEASUREMENT OF VARIABLES

Role of NGOs: This was measured by the activities these agencies are involved in, to increase food availability whether directly or indirectly.

Household Food security: The ability of a household to produce or purchase enough food to last all year round or from one harvest season to the next.

3.9 VALIDITY AND RELIABILITY

To ensure validity, the data collection tools were pre-tested using a group with characteristics similar to those of the study group. In addition, use of more than one instrument to triangulate information increased validity of the study findings well as their reliability. This is especially significant for a qualitative study such as this one.
CHAPTER FOUR
DATA ANALYSIS, INTERPRETATION AND FINDINGS

4.0 INTRODUCTION

This chapter focuses on the findings the study unearthed. In the chapter, an attempt is made to use the data collected to meet the objectives of the study. The study was a cross-sectional survey design that incorporated both qualitative and quantitative approaches. It examined the role of NGOs in combating food insecurity in Kibwezi and Makindu Divisions. Data were gathered through formal interviews and focus group discussions. The qualitative data were analysed using descriptive statistics. Data from open-ended questions in the main questionnaire, field notes from interviews (NGO and government officers) and the focus group narratives were analysed qualitatively. In the chapter, tables, percentages, graphs and charts are used to present data. For qualitative data, texts have been used, and where possible verbatim quotes have been used to enrich the texts. Demographic characteristics of the household respondents are summarised, after which issues pertinent to the study objectives are discussed in detail.

4.1 DEMOGRAPHIC DATA

4.1.1 DISTRIBUTION OF RESPONDENTS BY SEX AND REGION

Demographic data of the respondents are important because they provides information that describe the sample and help to explain why certain phenomena occur the way they do. In this study, there were a total of 92 respondents drawn from the two divisions as shown in Table 1 below. Close to fifty per cent (48.9%) were from Makindu, whereas the remaining 51.1% was from Kibwezi.
Table 2: Distribution of respondents by sex and region

<table>
<thead>
<tr>
<th>Division /Location</th>
<th>SEX</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (%)</td>
<td>Female (%)</td>
<td>Total (%)</td>
<td></td>
</tr>
<tr>
<td>Makindu</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nguumo</td>
<td>3 (3.3%)</td>
<td>11 (12%)</td>
<td>14 (15.2%)</td>
<td></td>
</tr>
<tr>
<td>Twaandu</td>
<td>7 (7.6%)</td>
<td>8 (8.7%)</td>
<td>15 (16.3%)</td>
<td></td>
</tr>
<tr>
<td>Kiboko</td>
<td>6 (6.5%)</td>
<td>10 (10.9%)</td>
<td>16 (17.4%)</td>
<td></td>
</tr>
<tr>
<td>Kibwezi</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kikumbulyu</td>
<td>5 (5.4%)</td>
<td>13 (14.1%)</td>
<td>18 (19.6%)</td>
<td></td>
</tr>
<tr>
<td>Masongaleni</td>
<td>3 (3.3%)</td>
<td>11 (12%)</td>
<td>14 (15.2%)</td>
<td></td>
</tr>
<tr>
<td>Utithi</td>
<td>6 (6.5%)</td>
<td>9 (9.8%)</td>
<td>15 (16.3%)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>n₁=30 (32.6%)</td>
<td>n₂=62 (67.4%)</td>
<td>N=92 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

It was not surprising that majority of respondents were female, constituting 67.4% of respondents, given that the study dealt with food production issues. It therefore involved more women because they are more involved in the day-to-day farm activities, men were not available for interviews. Most of them were away either at work or not at home. Additionally, research has shown that women are the major subsistence food producers (Orodho, 1998). Only 32.6% of the respondents were male.

4.1.2 DISTRIBUTION OF RESPONDENTS BY AGE
Age is an important indicator, which can be used to gauge the percentages of dependants and non-dependants. In this study, the respondents' ages varied considerably. The mean age of the respondents was found to be 46 years and the respondents' age ranged from early 20s to well over 55 years. This meant that many were still the income earners in the family. In fact, all the respondents were income earners although some had many dependants.
The table below presents information on the age distribution of respondents by gender.

Table 3: Age of respondents by gender

<table>
<thead>
<tr>
<th>No</th>
<th>Age Distribution</th>
<th>SEX</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1</td>
<td>20 -25</td>
<td>0</td>
<td>1 (1.1%)</td>
</tr>
<tr>
<td>2</td>
<td>26 -30</td>
<td>0</td>
<td>2 (2.2%)</td>
</tr>
<tr>
<td>3</td>
<td>31 -35</td>
<td>1 (1.1%)</td>
<td>5 (5.4%)</td>
</tr>
<tr>
<td>4</td>
<td>36 -40</td>
<td>5 (6.5%)</td>
<td>11 (12.9%)</td>
</tr>
<tr>
<td>5</td>
<td>41 -45</td>
<td>4 (4.3%)</td>
<td>11 (12.9%)</td>
</tr>
<tr>
<td>6</td>
<td>46 -50</td>
<td>14 (15.2%)</td>
<td>10 (10.9%)</td>
</tr>
<tr>
<td>7</td>
<td>51 -55</td>
<td>4 (4.3%)</td>
<td>10 (10.9%)</td>
</tr>
<tr>
<td>8</td>
<td>Above 55</td>
<td>2 (2.2%)</td>
<td>12 (13.1%)</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>30 (32.6%)</td>
<td>62 (67.4%)</td>
</tr>
</tbody>
</table>

4.1.3 EDUCATION LEVEL OF THE RESPONDENTS

The level of education has been found to influence the income level of households and is therefore, a useful proxy indicator as far as food insecurity is concerned. Households with limited access to education are more vulnerable to food scarcity and situations of food stress. In the two divisions, most of the respondents had only attained basic education (primary school education). A relatively small percentage had been able to proceed beyond this level. None of the respondents had attained university level of education. This was not just the case with the household heads, but also with other household members. Such low literacy levels are most likely an outcome of the food security situation in the region as well as the cause of food insecurity due to the low incomes generally associated with low
education levels. There is likelihood that pupils drop out from school to look for employment so as to provide for the food requirements of the household. Figure 2 below shows the distribution of female and male respondents by education levels.

Findings show that the female respondents were generally less educated compared to their male counterparts. Only of a small number (6.5%) had acquired basic literacy skills by attending adult literacy classes. Although the size was relatively small, it was surprising that only females reported all such cases. No male respondent had attended any adult literacy classes. Other disparities observed were in terms of levels of education attained.

Figure 2: Education Level of Respondents by Gender

Whereas there were 21.8% females who had dropped out of school at between classes 4 - 6, only 9.7 % of the men had dropped out at this level. Of all the
female respondents, only one had college education and even then, she did not sit the examinations so she had no certificate. This was an expected finding. In general, men had slightly higher levels of education compared to the women.

It was not surprising that similar trends were also observed among the household member as shown in table 4. Majority of the household members had only attained basic education, with 40.2% of the total males had basic primary education, a third with secondary education (form 3-4), and a small minority having attained university education. By contrast, among the females, slightly over a third (39.1%) had basic education, a fifth had secondary education and surprisingly, a tenth (9.8%) had college education as opposed to only 3.3% males. In addition, more females (3.3%) had university education than males (2.2%) as shown in figure 3 below.

It was noted that many people dropped out of school immediately, upon completion of primary school to seek employment. Few took their children to secondary school, citing the high cost of secondary school education and the dropout rates are very high.

Generally, men were found to be more educated than the females. This is an expected characteristic since even the national figures reflect this kind of a pattern. School enrolment figures indicate there are more males than females enrolled.
4.1.4 OCCUPATION OF RESPONDENTS

Most of the respondents (43.5%) were found to be dependent entirely on agriculture for their livelihood while 20.7% relied on farming combined with either small businesses or salaried employment. This means that at least 64.2% of the respondents relied on farming to meet their food and other domestic needs. With such a majority of people in the community relying on farming, it follows then that any failures in the agricultural sector are likely to cause serious imbalances in the food supply in the community, and the household members bear the brunt of these failures. In the absence of physical access through own-production, availability and security of employment are essential to guarantee income with which to purchase food. Table 4 shows different forms of occupation by the households.
Table 4: Occupation of respondents

<table>
<thead>
<tr>
<th>Occupation / Source of income</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Farming only</td>
<td>40</td>
<td>43.5</td>
</tr>
<tr>
<td>2. Subsisting on pension</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td>3. Formal employment (Salaried)</td>
<td>12</td>
<td>13.1</td>
</tr>
<tr>
<td>4. Self employment</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td>5. Casual Employment</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td>6. Salaried employment and farming</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>7. Farming and small business</td>
<td>17</td>
<td>18.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>N = 92</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

It was observed that even where a respondent had indicated a different occupation other than farming, all the households visited were practising subsistence farming on a small or medium scale.

In a research conducted in Ethiopia, McCAnn (1987) found that, in drought affected areas, resources, which were necessary for use both in own production and purchase of food, were more easily available to households with cash. By contrast, the same resources were usually well beyond the capacity of households without cash, and whose income was purely dependent on agriculture. Consequently, due to the frequent climatic fluctuations in the region, it can be argued that households with other sources of income, other than the farms are less vulnerable to drought and famine. According to one of the agricultural officers who has been working in one of the divisions for over six years, crop failures are "very common" and many households remain food insecure for very long periods.
In addition to the farm sector, off-farm employment is also available. This was found to include casual jobs (5.4%), such as working in the irrigation farms (in Kibwezi), clearing farms for "the rich people" within the community, working in the DWA sisal company plantation in Kibwezi, laying terraces, digging pit latrines, quarrying volcanic rock ("kivuthi") for construction and burning charcoal. These off-farm jobs were said to be very rare in the rainy season. Some of the respondents complained that in the dry season labour usually became abundant and extremely cheap. Small-scale businesses also increased considerably, according to the NGO officers. One charcoal trader said that he knew it was illegal to cut down trees without a permit but he still "does it for survival because off-farm employment is also limited, especially in the dry season." He cuts trees in the DWA sisal plantation, which has several acres of land in Kibwezi, Kikumbulyu Location and in the Kibwezi Irrigation Project (KIP), a bilateral project between the University of Nairobi and the Israeli government that also owns a large proportion of land in this area.

The tracts of land owned by these two organisations are very large and run parallel to the Kibwezi River, which is one of the permanent rivers in the district, with its source in the Kyulu hills springs. These land parcels have a high agricultural potential and if they were utilised for active food production, it would greatly reduce food insecurity in the division.

### 4.1.5 MONTHLY INCOME OF THE HOUSEHOLDS

Access to food is a function of the disposable income especially where own production is not possible or has failed to sustain the household. Income has been identified as an important factor among the main indicators used to determine if a
household is food secure or not. Table 5 shows the income distribution.

Of the total 92 respondents in the study, 44.6% earned less than Kshs. 2,000.00 per month, 40.2% earned between Kshs 2,000-5,999 (an average of about Kshs. 4,000.00), and only 2.2% earned above Kshs. 20,000.00. Consequently, 84.8% of the respondents earned less than or slightly more than Kshs. 4,000. In an area where most people (64.2%) depend on agriculture, and where incomes are greatly influenced by the climatic conditions, it is likely that a good proportion of the income is spent on food alone. To meet other needs, food may be sold at the expense of the household's food security. It is not surprising therefore that the district is ranked top among those that have the highest food poverty levels, registering a high figure of 71.7%.

With such low incomes, majority of the inhabitants of this region cannot meet the minimum energy requirement of 2,250 calories per day recommended by WHO/FAO.

Table 5: Households monthly income in Makindu and Kibwezi Divisions

<table>
<thead>
<tr>
<th>No</th>
<th>Income Bracket in Kenya shillings</th>
<th>Number of Households</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Below 2,000</td>
<td>41</td>
<td>44.6%</td>
</tr>
<tr>
<td>2</td>
<td>2,000 – 5,999</td>
<td>37</td>
<td>40.2%</td>
</tr>
<tr>
<td>3</td>
<td>6,000 – 10,999</td>
<td>9</td>
<td>9.9%</td>
</tr>
<tr>
<td>4</td>
<td>11,000-15,999</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>5</td>
<td>16,000-19,999</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>6</td>
<td>Above 20,000</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td></td>
<td>Total N=92</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
4.1.6 HOUSEHOLD COMPOSITION

The food security of a household is greatly influenced by the household size. This factor determines and affects the amount of food required per household as well as labour available to the family, depending on composition of each household. When households are too large, it is difficult to adequately meet the food needs of individuals, particularly where the ages of members vary considerably. The average number of children per household was seven. Only nine out of the 92 households were found to have between two to four children. All the others had more than four. In some cases, households had more than three grandchildren staying with them. Table 8 below shows the household sizes of the different respondents in the two divisions, whereas table 9 gives gender-desegregated data on household composition.

The average number of household members was nine. Only 12% of the 92 households had 1-6 members in total. The rest (56.5%) had 7-10 members and 31.5% had over 10 members each. By modern standards, a family that consists of more than six members in total is too large. According to the KHDS (1999), a Kenyan woman will bare 4.7 children in her life. Since there are variations in the setting, a rural woman has potential for 5.2 whereas an urban one can expect to have 3. Thus a household with more than 5 children is beyond the expected potential. Based on this logical thinking, it means that 88% of the respondents had very large families.
Large families not only put pressure on the dietary pot, but also pose considerable difficulties in accessing other essential services such as education and health facilities. This situation is widespread in this area as people totally depend on farms for food and the erratic rainfall patterns lead to gross fluctuations in food production. This compromises both health and food security status of 88% of the households in the long run. In an area where it is the general norm for most of the men to leave their families behind to go and look for more gainful employment, it was also necessary to look at the household composition by gender.

Table 7: Household Composition by Gender

<table>
<thead>
<tr>
<th>Number of people per household</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1 (1.1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>1 - 2</td>
<td>11 (12)</td>
<td>15 (16.3)</td>
</tr>
<tr>
<td>3 - 4</td>
<td>34 (37)</td>
<td>33 (35.9)</td>
</tr>
<tr>
<td>5 - 6</td>
<td>31 (33.7)</td>
<td>35 (38.0)</td>
</tr>
<tr>
<td>7 - 10</td>
<td>13 (14.1)</td>
<td>9 (9.8)</td>
</tr>
<tr>
<td>Above 10</td>
<td>1 (1.1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Total</td>
<td>n₁=92 100%</td>
<td>n₂=92 100%</td>
</tr>
</tbody>
</table>
In general, most of the households were female-dominated, with 37% of the households having an average of 3-4 males, whereas 38% had 5-6 female members. This may have several implications on food security. First, this suggests that the women contribute a large percentage of the farm labour. Women are known to contribute 80% of the labour in many developing countries, especially where farm work is concerned. Second, although many households have more women, it is likely that they are still male-controlled, limiting women's access and control to basic resources especially land, with which to generate income or food for the family. Third, if these women's education level is minimal, as was found to be the case in this region, the situation is exacerbated, putting them in the food vulnerability bracket.

4.2 LAND AND AGRICULTURE

4.2.1 LAND OWNERSHIP AND NATURE OF LAND HOLDING

Among the factors that influence household food security, lack of, or inadequate access to arable land has been the greatest constraint. Many researches on food security have shown that those most susceptible to food insecurity include among others, the landless (e.g. Kigutha, 1995; Raikes, 1988). Households are most likely to have stable access to food if they have viable means for procuring food. It was found that 97.8% of the households own land and only 2.2% did not. However, the nature of land holding varied considerably. Of the 97.8% who owned land, 79.3% of them had purchased or had been resettled by the government, and 18.5% had inherited ancestral land from their parents. On the other hand, although 2.2% reported not owning any land, they had access to land for crop cultivation. This was possible by leasing a few acres so that they still were able to produce food for household use. Figure 4 shows the percentages and
This study established that, to meet their food needs, all the households relied on agriculture to a large extent. Land, being the main resource in food production, was available to the people in the two divisions. The more important issue that is of greater concern is the amount of land owned and the farming activities carried out on the available land. Too much sub-division of land leads to uneconomical sizes, which cannot support any meaningful food production.

4.2.2 SIZE OF LAND AVAILABLE TO HOUSEHOLDS
Although 97.8% had reported to own land, the amount of land available to the households varied considerably from one household to another. Out of the total number interviewed, only 17.4% had less than 5 acres, 32.6% had between 6-10 acres, and 18.5% had between 11-20 acres, whereas 31.5% had above 20 acres. Figure 5 provides this information. Since land in the irrigation scheme is viewed as
very precious and only a minority is in possession of it, people from other areas and even divisions also come to hire land in the irrigation schemes, in the hope of eking out a living for themselves. The prospects are believed to be higher here than on the rain-fed farms.

Figure 5: Land Size Available to Households

It was noted that in nearly all cases, 2-3 households shared the land, especially where it had been inherited. The amount of land available to a household has great implications for food security. Land size has also been highly correlated to family employment, satisfaction of nutritional requirements as well as providing a basis for household income. According to FAO (1986), the minimum land holding required for subsistence in Kenya is 12 acres, which is equivalent to 5 hectares. This is crucial for sufficient household food security, especially among small holder families.
Kibwezi, as shown in table 11, only 50% of the households meet this criterion. Since all the respondents were found to rely heavily on the farm sector for their food and 64.2% for cash needs as well, it can be concluded that inspite of the productive resource (land) is accessible to the households, the size may not be adequate to meet household needs and create a desirable food security level in the two divisions. This leaves many households vulnerable, a situation that only gets worse in the event of crop/weather failures in the farm sector.

4.2.3 LAND UTILISATION
The main forms of land utilisation in the two divisions were crop production as well as livestock rearing. Many farmers in the area combine both, hence mixed farming was practised. Whereas a few farmers (5.4%) were involved purely in crop production, the largest proportion (94.6%) combined both livestock rearing and crop production. None of the respondents reported livestock rearing entirely. Table 8 below presents this finding. Ways of crop production also ranged from rain-fed crop production to irrigation.

Table 8: Farm activities undertaken by households

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number of Households</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Crop production only</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td>2 Livestock rearing only</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 Both 1 &amp; 2</td>
<td>87</td>
<td>94.6</td>
</tr>
<tr>
<td>Total</td>
<td>N = 92</td>
<td>100%</td>
</tr>
</tbody>
</table>

Among those interviewed, 82.6% relied entirely on rainfall. In Makindu Division, none of the farmers was irrigating their farms (Table 9). They depended entirely on the rains. It was only in Kibwezi where, 5.4% of the farmers interviewed were entirely dependent on irrigation and 12% on both rainfall and irrigation of their farms.
for crop production. Where irrigation is carried out, higher farm yields are expected, with resulting higher incomes being expected.

Table 9: Crop Production Methods Practiced in Kibwezi and Makindu

<table>
<thead>
<tr>
<th>Type</th>
<th>Divisions</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Makindu</td>
<td>Kibwezi</td>
<td></td>
</tr>
<tr>
<td>1. Rain-fed</td>
<td>45 (48.9%)</td>
<td>31 (33.6%)</td>
<td>76</td>
</tr>
<tr>
<td>2. Irrigation</td>
<td>0 (0%)</td>
<td>5 (5.4%)</td>
<td>5</td>
</tr>
<tr>
<td>3. Both 1 &amp; 2</td>
<td>0 (0%)</td>
<td>11 (12%)</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>45 (48.9%)</td>
<td>47 (51.1%)</td>
<td>N=92</td>
</tr>
</tbody>
</table>

Most (82.5%) of the farmers rely entirely on the rainfall for agriculture. When it does not rain or the rainfall is inadequate to support plant growth, these farmers are most affected. In areas where there is a permanent river some river-irrigation farming is practised. This is, however, confined to established irrigation scheme areas found mainly in Kibwezi division along the Kibwezi River flowing from the Kyulu Hills. Some of the farmers who are lucky to have irrigation plots and pieces of land elsewhere are able to practise both forms of crop production on a seasonal basis. In the wet season they abandon irrigation to concentrate on rain-fed farming, then in the dry season they migrate back to the irrigation plots.

4.2.4 LAND SIZE AND CROP PRODUCTION

The amount of land apportioned to crop production out of the total amount that a farmer holds is an important factor in food security attainment. This is especially true in arid and semi-arid areas where land is not productive and therefore people tend to require more land for cultivation. An interesting phenomenon was observed among the irrigation farmers, especially those who relied on both rainfall and river-irrigation. Whereas they carried out irrigation, this was done intensively on very small irrigation
permanent rivers in the district. Of the 16.3% who were involved in irrigation, half of them (7.6%) had less than one acre, another 7.6% had 1-3 acres irrigated and only 1.1% had 7 and above acres under irrigation. Except for those with bigger irrigation plots, most of the other farmers only carried out irrigation during the dry season when there were no farm activities in their other bigger farms (*miunda ya utumoni*) which depended on the rainfall. There was thus a frequent movement of farmers in and out of the irrigation scheme. Depending on the rainfall patterns in the dry season, there was more concentration of farming activities in the irrigation plots and people from the drier parts migrated to these plots in search of employment. This particular phenomenon was underscored during the focus group discussion with women farmers in *Kwa Kyai* Village.

Although most of the land held by the irrigation farmers was small (Table 10), it would appear that they definitely have more alternatives compared to the non-irrigation farm families, as they can still produce during the dry season. Irrigation for some of these farmers is thus not only a viable option for generating and supplementing household income but also a coping strategy during times of food stress. In fact, it is believed by the rest of the community that farmers in the irrigation scheme are more food secure. They are normally excluded from the list of relief food recipients. This was found to be the case in *Kwa Kyai* Village, where water from the river has been diverted for irrigation purposes by use of a large irrigation canal, which serves over 100 farmers. The respondents admitted that they do not receive any relief food from the government or NGOs.
Table 10: Land acreage under river Irrigation in the two divisions

<table>
<thead>
<tr>
<th>Division</th>
<th>Land size</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Makindu</td>
<td>None</td>
<td>45</td>
<td>48.9</td>
</tr>
<tr>
<td></td>
<td>1 acre</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1 – 3 acres</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7 and above</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Kibwezi</td>
<td>None</td>
<td>32</td>
<td>34.8</td>
</tr>
<tr>
<td></td>
<td>&lt; 1 acre</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>1 – 3 acres</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>7 and above</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>3. Both Divisions</td>
<td>None</td>
<td>77</td>
<td>83.7</td>
</tr>
<tr>
<td></td>
<td>&lt; 1 acre</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>1 – 3 acres</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>7 and above</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>N = 92</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

In addition, although it was reported that 50% of the population had 11 acres of land and above available, the amount of acres apportioned for active crop cultivation was not comparable. Only 20.7% of the entire population had 10 acres and above for rain-fed crop cultivation. Approximately sixteen per cent (16.3%) had 7 acres and the rest (59.8%) had between 1-6 acres for rain-fed cultivation.

It was observed that although there were villages where irrigation was viable, the land available had been extensively subdivided to uneconomical sizes due to the high demand for it. Indeed, where irrigation was practiced, some of the farmers held as little as only 1/4 or 1/8 of an acre. On enquiring on cash crops, all reported
their households—mainly maize. All reported that only small amounts of crops such as tomatoes and aubergine were consumed at the household level.

### Table 11: Land acreage under rainfall-fed crop production

<table>
<thead>
<tr>
<th>Land size</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- 3 acres</td>
<td>18</td>
<td>19.6</td>
</tr>
<tr>
<td>4 - 6 acres</td>
<td>37</td>
<td>40.2</td>
</tr>
<tr>
<td>7-9 acres</td>
<td>15</td>
<td>16.3</td>
</tr>
<tr>
<td>Above10 acres</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>None</td>
<td>19</td>
<td>20.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>N = 92</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Data in Table 11 above attests to the fact that the size of land for commercial use is too small to make an impact in the whole division although it may have an impact on food security at the household level. To have a regional impact, larger pieces of land would need to be cultivated through irrigation and the canal would therefore need to be expanded further and widened to carry large volumes of water for this purpose.

#### 4.2.5 OTHER LAND USES

As previously reported in section 4.2.3, most farmers practiced both crop and livestock production. Although many had small areas of land for crop cultivation, the researcher observed that relatively large proportions of land were designated for livestock production while the rest was then used for other purposes such as leasing and charcoal burning. During the interviews with government and NGO officers, it was observed that livestock was not kept for food as such, except in cases where the goats and cows supplied milk. Most of the animals kept were considered as wealth, to be sold only when it was absolutely necessary so that food could be purchased. The main types of livestock kept by most of the farmers
include a combination of goats, cows and poultry, with 5.4% not having any form of livestock and only 2.2% had poultry only as indicated in Table 12.

Table 12: Livestock Production in Kibwezi and Makindu divisions

<table>
<thead>
<tr>
<th>Type of Livestock reared</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cows, goats and poultry</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td>2. Goats and poultry only</td>
<td>24</td>
<td>26.1</td>
</tr>
<tr>
<td>3. Poultry only</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>4. Goats only</td>
<td>9</td>
<td>9.8</td>
</tr>
<tr>
<td>5. Cows, goats, poultry &amp; sheep</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td>6. Cows and goats only</td>
<td>10</td>
<td>10.9</td>
</tr>
<tr>
<td>7. none</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>N = 92</td>
<td>100%</td>
</tr>
</tbody>
</table>

To further supplement income from the farms 5.4% of the respondents cut down the trees on their land to burn charcoal for sale. Others (7.6%) leased out parts of their land to their neighbours who had money but had limited land of their own for farming. Table 13 and indicate these other uses of land in the two divisions.

Table 13: Other Land Uses in Kibwezi and Makindu

<table>
<thead>
<tr>
<th>Land use</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trees used for charcoal burning for sale or firewood (fuel)</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td>2. Brick-making for construction and sale</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>3. Land leasing (renting out) form time to time</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td>4. Land selling in small portions</td>
<td>4</td>
<td>4.3</td>
</tr>
<tr>
<td>5. Land leasing as well as charcoal burning</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>6. No other use except farming</td>
<td>73</td>
<td>79.3</td>
</tr>
<tr>
<td>7. Growing of Fruit trees</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td>N = 92</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.3 MAIN HOUSEHOLD FOOD SOURCES

All the respondents interviewed came from farm-families and produced their own food, while 64.2% of them depended on the agricultural sector for their incomes as
well. Since all respondents had access to land (leased or purchased), they all produced some food for their own consumption, even where the household head was a salaried worker. It was therefore established that the main food sources are the farms. Most people only bought food when their reserves were depleted.

When asked if the food produced in the farm was sufficient to meet the food needs of the household, the respondents provided very interesting responses, but one definite outcome was that the food was not sufficient due to various reasons which were outlined. The graph below shows only 18.5% of the total sample thought that the food they produced in the farm was enough to meet the food needs of household members. The rest, who constituted 81.5%, said they did not produce enough food from their farms to feed their families (figure 6).

It should be noted that even among households where food was sufficient, the respondents were quick to qualify their statements. Due to recurrent crop failures in the region, as was experienced at the time of carrying out the research, most of the households experienced severe food shortages, especially if there were 2-3 subsequent failures. In such cases, even those who would ordinarily produced or have sufficient amounts of food would be affected. Community members are forced to purchase food from the market, and only those with resources are then able to adequately access food.
4.3.1 ALTERNATIVE HOUSEHOLD FOOD SOURCES APART FROM OWN–PRODUCTION

Other food sources cited especially by those who did not produce enough varied from relief to purchasing. Most of the households had more than three sources of food, including off-farm employment, sale of livestock, exchanging labour for food, food for work and even relief food, although many would only admit to receiving relief food on further probing. It was apparent that the respondents did not consider this alternative seriously as expressed in the text box below.
BOX 1: PUBLIC OPINION ON RELIEF FOOD

- One of the prominent community leaders in Makindu said, "relief food cannot help much because we usually get about 1/2 kg per head and this is given only once a month. My family can only make one meal out of it and even then it is not enough since we are a large family."

- A lady in Kangii Village: "It comes by luck. My family gets about 4 kgs, because I have 3 married sons whose families are counted as independent households and so the amount is slightly more. In addition, I also get some more since I am aged. This is enough for just one meal. I had 7 goats before the rains failed, now there are only three left. We sold some for food."

- A community member in Wingiti Village: "in our village, mwolyo is given only to those who are extremely poor, who have "nothing", and are unable to work."

- Local leader, (Kyale Village) "It is given once after several months and only 2 Kgs per family. As a village elder, I am given two 90kgs (180 kgs) sacks to be distributed to about 80 families. How do I do this? I am expected to give all families equal amounts regardless of their economic conditions."

- Leader (local leader, Wingiti Village): "As a leader, I give about 2 kgs per household in this village. We get 20 bags per sub-location, and each sub-location has close to or slightly more than 1000 households."

- A male respondent (Makuluni village): "I get 2kgs per month because I have a disabled child."

- A community member in Usalama Village in Kibwezi says "the food is too little and people waste a whole day waiting for it at the delivery centres (or the chief's camp), only to go home with 2kgs or less. Our chief gets about 40 bags, with about 80 people sharing one bag."

- A women's leader who sits in some of the forums that make decisions in the division acknowledges;"I know for sure that usually Kibwezi is allocated 140 bags of maize for the whole division, which has very high populations. The food is not useful"

- One of the people in the irrigation scheme: "it is very rare that we get it. They say we are "well off"."

(Informants' voices, Kibwezi and Makindu, February, 1999)

Although table 14 indicates there were 21.7% relief food recipients in Kibwezi and 31.7% in Makindu, one household head in Makindu said: "tukekwatya mwolyo nye na andu makwa niukwa" ("if my family and I were to depend on relief food we would definitely die"). He added, "Whatever is given is too little to make any meaningful difference in our lives. It is also irregularly given". In most cases, it was only the needy households that were given, and included households
with old people, orphans and those too poor to purchase food. In Kibwezi the needy were identified by community members in conjunction with village elders, while in Makindu, the criteria differed slightly. For example, in Kanyonyo and Kyale villages, all community members got relief of 1-2 Kgs per household, depending on how much food the whole division received. After the distribution, those who were willing would then give their share to the needy.

Table 14: Other Food Sources other than Own Production

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Means of acquisition</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makindu</td>
<td>1. Relief</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>2. Off-farm employment</td>
<td>20</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>3. Selling livestock</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>4. Food for work</td>
<td>12</td>
<td>13.7</td>
</tr>
<tr>
<td></td>
<td>5. Exchange of food for labour</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td></td>
<td>6. Support from children, husbands relatives &amp; neighbours</td>
<td>10</td>
<td>10.9</td>
</tr>
<tr>
<td></td>
<td>7. Selling charcoal, firewood, bricks and other small enterprises</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td></td>
<td>8. Supplementary feeding program</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>9. Farming entirely</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Kibwezi</td>
<td>1. Relief</td>
<td>20</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>2. Off – farm employment</td>
<td>25</td>
<td>27.2</td>
</tr>
<tr>
<td></td>
<td>3. Selling livestock</td>
<td>24</td>
<td>26.1</td>
</tr>
<tr>
<td></td>
<td>4. Food for work</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>5. Exchange of food for labour</td>
<td>4</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>6. Support from children, husbands, other alternative</td>
<td>14</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>7. Selling charcoal, water &amp; fire wood, bricks and other small enterprises</td>
<td>13</td>
<td>14.1</td>
</tr>
</tbody>
</table>

* Multiple responses were allowed.
From the findings, it appears that, contrary to popular belief that a community that is always receiving relief food becomes completely dependent on it, the people here seem not to attach a lot of significance to relief food as a solution in to their hunger. In the first instance, they argue the amounts are too minimal to warrant any attention or have any impact, regardless of one's family size. Second, the criteria for selection as well as the distribution procedures are often not clear to the community members, lead to time wasting and have led to accusations and counter accusations among leaders and community members. Third, the food timings and delivery are usually so irregular that it may not come when it is most required.

Logistics for delivery of relief food have in the past been very poorly coordinated, leading to unnecessary delays and losses, which further reduce the amounts, each household eventually gets. The concerns raised here point to a more serious problem, where the distribution of relief is purely at the discretion of the government officers, so that the criteria used in one village/ sub-location may not necessarily hold in another, within the same division. It is these issues among others, which prompted the government to review relief food procedures and policy, with a view to increasing efficiency and ensuring timeliness of this intervention. Currently one NGO per district is selected to co-ordinate relief activities in each recipient district. In Makueni AMREF is in charge. Box 1 below shows some of the sentiments that the respondents expressed regarding relief food.
4.4 CAUSES OF FOOD INSECURITY IN MAKINDU AND KIBWEZI

4.4.1 FOOD SITUATION IN THE REGION

The food situation in the two divisions is quite unstable. There are times of severe to moderate drought and other times have good or bumper harvests. A crops' officer in one of the divisions responded that since he came to work in the division six years ago, he has only witnessed three good farm yields. Two were in 1997 – during both the long and short rains of El Nino. The second time in the current season of short rains in the year 2000 (Nov 1999 – March 2000). In between these intervals, only individual farmers and pockets of the division got some produce. Such trends, which respondents say are common in the division, have led to food insecurity in the region.

4.4.2 CAUSES OF FOOD INSECURITY

From Table 18, it is apparent that 81.5% of the respondents never produce enough for their household needs. No single respondent attributed just one factor to his or her food insufficiency. However, majority (63%) of respondents attributed their food insufficiency mainly to the rainfall pattern in the region. This was also the main reason cited by both the government and NGO officers who were interviewed. According to all NGO and government officers interviewed, rainfall in the region is poorly distributed and limited in amounts. It is inadequate to support crop growth to maturity in most cases. To counter this, the strategy has been to encourage farmers to plant early (dry planting), thus taking advantage of all the moisture. However, the officers say; "There is a tendency by farmers to plant quite late, though the NGOs and government staff have taught on the advantages of early planting and usually carry out intensive campaigns throughout." Another officer adds; "One reason for the late planting has been..."
problems with procurement of seed. Many times some farmers have no seed or they lack the correct seed. Those who have not stored seed start searching after the rains have come. They may take about two weeks after the rains come, just looking for seed. Coupled with this is the fear of the risk involved. Farmers in the area have survived several massive crop failures and by the admission of many (and confirmed by the officers), they have learnt to be cautious, should one plant and the rainfall is inadequate. "This makes many farmers wait to observe the rainfall pattern before they plant the little seed they may have gathered. This delay is reflected in the delay of all other procedures and farm activities such as tussling, flowering periods and weeding. Consequently, the quantity of yields is drastically reduced." Another officer added, "Farmers do not use certified seed because they are not informed on the benefits, the seeds are not easily available and they are too expensive".

A number of researchers in Kenya have identified some of the factors that cause food insecurity in various parts of the country (e.g. Kigutha, 1995; Orodho, 1998). The climate has been a major factor in both the ASAL and high potential zones. Kigutha (1995) found that one of the main challenges in increased food production was climatic fluctuation, which adversely affected smallholder farmers. This was due to the unreliability of the rains in terms of both the timing as well as the precipitation. In addition, where the rainfall pattern was uni-modal, farmers concentrated farming activities within a short period. This period is also characterised by a 2-10 % body weight loss, increased sicknesses compared to the dry spell and minimal or no food reserves at the household level (Ochere & Sahoof, 1981; Neimejer & Klaver, 1990), as quoted by Kigutha, (1995). It is not surprising therefore that the respondents are quick to identify this problem.
An unprecedented sale of almost all food after harvesting is also associated with food insufficiency at the household level. This was a concern raised both by the community members and the officers. An agricultural officer says in frustration: 

After each harvest, whether bumper or not, one notices a shamba-to-market trend. Food is sold as soon as it is harvested and transported to Mombasa. “If this food was stored well, there would be enough food for the whole year.” Worse still, the sales do not usually yield as much as would be expected. For instance, following the El-Nino rains, all the households admitted to have had plenty of maize and other produce such that a kilogram of maize sold for as little as Kshs. 5. Ironically in the just ended drought, of 1999/2000 (as in many other drought periods) the community had to buy the same kilo of maize at between Kshs. 17 and 18. It is possible that, since majority of the families (64.2%) mainly depend on their farm produce to generate both food and an income, then such sales become inevitable. The crop officer (Makindu), is convinced that this rapid sale of yields soon after harvesting may be forced or voluntary. He also points out "incidentally, in many cases, when the harvest is good, disease outbreaks increase tremendously (hospital records at the AMREF clinic in Kibwezi prove this) and people are forced to sell their food for medical services. This has been a big challenge in the fight against hunger here." At least 50% of the respondents said that by selling their food, they become food insufficient at a later period in the year.

The lack of alternative sources of income either due to lack of diversified income sources or limited cash crops has posed a serious challenge to farmers in the area. Maize is seen as a food and a cash crop too. The crop officer in Makindu explains that: "There are two cash crops with potential here, and that are planted on a very low-scale basis, namely cotton and castor oil seed. They are however not planted, as
there is no market for them. KENSICA – a castor oil seed company that was providing a ready market withdrew from the division. Private enterprises in the cotton industry are not very reliable as the government was – Cotton Board of Kenya no longer purchases our produce."

Further to the challenges above, both the respondents and officers pointed out additional factors, which are summarised in Table 19.

**Table 15: Respondents Reason for not Having Enough Food in Households**

<table>
<thead>
<tr>
<th>Reason given</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Poor rainfall</td>
<td>58</td>
<td>63%</td>
</tr>
<tr>
<td>2 Selling food harvested for other needs</td>
<td>46</td>
<td>50%</td>
</tr>
<tr>
<td>3 No farm inputs or limited</td>
<td>35</td>
<td>38%</td>
</tr>
<tr>
<td>4 Small farms (shambas)</td>
<td>25</td>
<td>27.2%</td>
</tr>
<tr>
<td>5 Attack by pests, wild animals</td>
<td>12</td>
<td>13%</td>
</tr>
<tr>
<td>6 Lack of appropriate seed to plant early</td>
<td>25</td>
<td>27.2 %</td>
</tr>
<tr>
<td>7 Large families</td>
<td>4</td>
<td>4.3%</td>
</tr>
<tr>
<td>8 Sickness reducing labour available</td>
<td>4</td>
<td>4.3%</td>
</tr>
<tr>
<td>9 Lack of market/poor marketing</td>
<td>3</td>
<td>3.3%</td>
</tr>
<tr>
<td>10 Don’t know</td>
<td>2</td>
<td>2.2 %</td>
</tr>
</tbody>
</table>

- Multiple responses

Other causes related to poor agronomic practices such as poor, limited or no land preparation prior to planting, poor spacing and limited or no manure/fertiliser applications. Apparently, there was course to worry since the agricultural officers reiterated that; “Farmers in the division do very little weeding or no weeding at all. ------ there is also low usage of farm inputs. Kibwezi farmers rarely use
fertilisers – they fear the risk of planting and loosing their seeds and fertiliser. We train them to use manure and although there is approximately 70% adoption of training skills, this is usually abandoned after a while too”. For 38% of the respondents, inadequate or complete lack of access to farm inputs greatly disadvantaged them. Many farmers were late in planting because they either lacked the ox-drawn ploughs or the hand hoes. Where farmers had large pieces of farmland, they took too long to plant or would end up planting on very small pieces. They could not take advantage of the first rains.

Because of the poor agronomic practices, certain important aspects of environmental practices were disregarded. Terracing is one procedure that farmers in the region would benefit immensely from. According to the officers, the lack of it led to poor soils. “Some areas have been seriously eroded. In addition, some are not water-retentive, leading to rapid moisture loss, as well as fertility degradation. Accordingly, the main cause of this is inadequate soil conservation measures in the farms”. A livestock officer added, “The size of land (land holding) has reduced drastically such that people cannot keep as many animals as they used to keep before or cultivate large tracts of land. This exerted pressure on the limited land available for crop cultivation. This was confirmed by the fact that 27.2% of the food insufficient households generally felt that the size of land available was not sufficient to produce enough food for their needs.

Officers also identified large family sizes as a cause of food insufficiency at the household level. Looking at the demographic characteristics of the households interviewed (section 4.2.6), this may be a genuine problem. On average, 56.6%
had between 7-10 members and 31.5% had over 10 members. By drawing inferences from the KDHS (1999) survey, it was concluded that these figures would actually constitute a large family, meaning that pressure is exerted on the dietary pot.

Pests and diseases continue to ravage crops in Kibwezi and Makindu and they vary from season to season. In the last season, according to the DIVISCO, there was an infestation by the hairy caterpillars, the American ball worms as well as the *Ouelea quelea* birds, which attacked sorghum and millet. Squirrels were a nuisance in the area. These attacks usually do affect the yields, reducing them drastically and this can be debilitating in a place where farmers rarely use pesticides and other chemical applications. Poor post-harvest management practices of the people are also influenced by this attitude. At post harvest, other problems such as moulds and weevils especially the greater grain borer (GGB), which contribute to further loss of yields set in. Use of wrong or ineffective pesticides led to heavy loss of produce harvested after the *El-Nino* rains. "The Super Actellic pesticide sold to farmers around that time was not effective—it was fake. Many farmers also find the chemicals and opt to use other traditional preparations like red chillies"

Livestock, which form a significant resource base for household food security, are also affected. Animal diseases preclude reaping benefits of rearing livestock in the area. "Diseases such as those caused by the tsetse fly are very common in Kibwezi because the area was settled in fairly recently, and large parts of it (Masongaleni)
was a game reserve. Many people lost their cattle when they were resettled here and have not been able to recover." Says the livestock officer in Kibwezi. In addition, "in 1999, between July and October, a lot of chicken died of New Castle disease and CCPP, a contagious disease, which affects goats. If livestock are not vaccinated against it, they die soon as their lungs are affected." As it is, most farmers say they usually fall back on their livestock during the drought periods to get money for food. The timing of when to sell is not well calculated, leading to poor prices. To reap greater benefits, the farmers will have to invest more heavily.

According to the livestock officer in Kibwezi, the type of livestock is traditional and their production potential is very low. As far as utilisation of livestock products is concerned, he says; "many people see livestock as "banks" and only utilise milk. People hardly ever, slaughter the animals for meat and will only sell the animals when the need is enormous, especially during famine times (around then, prices are pathetic) or to pay school fees for their children. The officer concludes that the farmers never see livestock as sources of food supply but as "wealth". The discussion with the livestock officer brought to the fore another concern both in livestock production as well as crop production. Poor marketing and/or lack of it especially for livestock and horticultural crops for the farmers in the irrigation schemes leads to fluctuations in the income of farmers. There is no organised or co-ordinated marketing of farm produce so farmers do not get maximum benefits. The area also has potential for bee keeping but this has not yet been fully exploited. There are very few farmers interested in this venture on a large and economic scale.
Finally, it was pointed out that farmers do not grow drought resistant crops. Instead, they grow a maize variety called "Kinyanya", which takes 120 days to reach maturity. On the other hand, DLT (Dryland Composite) and Katumani composite developed by KARI – Machakos are the ones recommended for the area due to its erratic rainfall pattern. The two varieties take 115 days. In addition to this two, sorghum, millets and cowpeas have also been recommended.

From Table 16, 18.5% of the respondents said they managed to produce enough food to meet their household food needs. When asked to explain how this was possible in a situation where many were food insecure, many attributed their success to either not selling their food, having some farm input or resources or being in possession of larger pieces of land. The main reasons given for success were that; they do not sell (6.5%); having a large farm (8.7%), being able to afford farm inputs (7.6%) and proper planning. The table below shows these and other reasons for food sufficiency.

Table 16: Reasons Why Some are Able to Produce Enough Food for Their Households

<table>
<thead>
<tr>
<th>Reasons for success</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Do not sell their food</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>2  Have labourers for farm work</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>3  Have large farms</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td>4  Can afford/have farm inputs</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td>5  Irrigate their farms</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>6  Have some training in Agriculture</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>7  Proper planning/resource management</td>
<td>7</td>
<td>7.6</td>
</tr>
</tbody>
</table>

*Multiple responses
It was noted that even where a respondent said they were able to produce enough, on probing, they qualified the situation saying that this was the case, as long as the rainfall was sufficient and crop failures did not occur. It then emerged that only 10 out of the 17 who never experience food shortfalls at any one given time. Findings from the focus group discussion indicated that during such times, the food stores became the next main food source. For this, one required substantial amounts of money, mostly provided by working household members.

4.4.3 FOOD TRENDS AND THE FOOD CALENDAR
To understand the food situation and variation in food sources, it was necessary to consider the annual farm activities and foods available at every given season in the year. This helped to show the months when most households begin to experience hunger as their food reserves are depleted by this time. Storage estimates during critical times in the year have been used to determine household's food security status. Asking respondents to give a specific period within which their food reserves would be depleted made it possible to do this.

The storage estimates revealed that for about 19.6% of the households, the food reserves begin to dwindle in May, just 1-2 months after harvests from the short rains, and the situation persists till February. Another 45.7%, which is close to half the number of respondents, begin experiencing hunger in early July, extending to December or early January of the following year when they are likely to harvest, if the long rains are prompt. By September, very few households have food in their granaries and most people rely on food in the market to meet their family food needs. It was reported that only the "well to-do" farmers have food around this time of the year. Table 17 shows the months in which different households begin to experience food shortages in the year.
Table 17: Periods When Households Begin Experiencing Hunger

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of households</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 July – December or January of the following year</td>
<td>42</td>
<td>45.7%</td>
</tr>
<tr>
<td>2 May – February</td>
<td>18</td>
<td>19.6%</td>
</tr>
<tr>
<td>3 August to February</td>
<td>13</td>
<td>14.7%</td>
</tr>
<tr>
<td>4 September – December or until it rains again</td>
<td>19</td>
<td>20.7%</td>
</tr>
<tr>
<td>Total</td>
<td>N = 92</td>
<td>100%</td>
</tr>
</tbody>
</table>

The above trends were said to occur when the long rains (March -April) failed, by which time many households would have exhausted what had been harvested in the previous season. They depend on food from the market until when it rains again. Within the first month after the rains, the community is then able to consume cowpeas leaves with maize. Around this time, legumes were said to be either too rare or too expensive. Many times the rainfall patterns are very unpredictable, leading to gross variations in farm produce. The region has two rainy seasons, November to December (short rains) and March to April (long rains). The short rains season is the main season when farmers expect high yields compared to the March-April season when very little is expected and many do not even bother to plant. It also has one long dry spell. This long dry spell is usually experienced for about six months, between June and October/November under normal circumstances. However, when the short rains fail in late October/early November, then the drought is prolonged to the following year in February. Another short dry spell, experienced between February and March. Figure 7 gives a summary of significant information on farm activities and food production in the area. In the wet seasons farmers grow maize, sorghum, millet, cowpeas and some limited amounts of beans. Pigeon peas are grown only once in a year, during the
long rains as it is a perennial crop. Box 2 below presents a summary of the rainfall pattern and harvests in the divisions as reported by the agricultural extension workers in the last eight years.


<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>Good harvest experienced during only one planting season (short rains), but nothing was realised in the subsequent long rain season. From this period, there followed a drought for about two years (up to around December 1994)</td>
</tr>
<tr>
<td>1993</td>
<td>Massive crop failure but there was some little harvest for early planters (dry Planting), but the majority of households were hungry.</td>
</tr>
<tr>
<td>1994</td>
<td>Some good harvest for a small group of farmers but not all got food because the rains were concentrated over a short period.</td>
</tr>
<tr>
<td>1995</td>
<td>Drought due to poor rainfall, with massive crop failure</td>
</tr>
<tr>
<td>1996</td>
<td>Drought due to poor rainfall that caused massive crop failure.</td>
</tr>
<tr>
<td>1997</td>
<td>April rains – a few people harvested well but the majority had nothing completely.</td>
</tr>
<tr>
<td>1997/98</td>
<td>El Nino rainfall, which led to a bumper harvest.</td>
</tr>
<tr>
<td>1999/2000</td>
<td>Limited yields from the December rains, hunger predicted</td>
</tr>
</tbody>
</table>

According to the crops officers interviewed, farmers in the two divisions no longer depend on the long rains as they have been failing in the last couple of years. Many farmers will hardly plant during this season because the rainfall is concentrated within a short period of time and they are mostly slow to take advantage of it. On the other hand farmers fear losing their seed should the amount of rainfall be too limited to support plant growth, so they may prefer to first observe. In most cases, they have just have harvested some food from the previous season by then. Figure 9 below was used to summarise the seasonal trends in the two divisions as well as the farm activities, both of which influence food security.
Figure 7: Farm Activity Calendar for Makindu and Kibwezi Divisions

November
- Clearing of farmland
- Farm manuring
- Terracing
- Opening of new fields for cultivation

- Mainly pigeon peas harvesting
- Threshing of pigeon peas
- Soil and water conservation activities (terracing)
- Post harvest management practices

December
- Late planting
- Pre-planting preparation
- Land preparation
- Chemical dressing of pulses

January
- Weeding
- Post management practices (cow peas)
- Harvesting pulses and millet

February
- Land preparation for long rain
- Harvesting of cereals
- Planting of cereals

March
- Late planting
- Weeding for early planters
- Shelling of harvested maize
- Post harvest management of maize

April
- Pre-planting preparation
- Land preparation
- Chemical treatment of pulses

May
- Weeding
- Post control practices especially for cow peas

June
- Harvesting of pigeon peas
- Harvesting of maize and other cereals
- Soil and water conservation activities

July
- Wet Season

August
- Dry Season

September
- Clearing of farmland
- Farm manuring
- Terracing
- Opening of new fields for cultivation

October
- Mainly pigeon peas harvesting
- Threshing of pigeon peas
- Soil and water conservation activities (terracing)
- Post harvest management practices

Legend
4.4.4 COPING MECHANISMS

Longhurst (1986), Corbett (1988) as cited in Maxwell and Frankenberg (1988) argue that people who live in circumstances that put their main source of income at recurrent risk develop self-insurance coping strategies to minimise risks to their household food security and livelihood. The strategies adopted will usually vary from one region, country, social class, ethnic group, household gender, age and season to another. To cope in times of stress, the community has over time developed and utilises several coping mechanisms. Both NGO and government officers have over time observed the following coping strategies in the community.

(a) Hunting dik-diks, buffaloes and antelopes in the game reserves of Kyulu Hills and Kiboko game reserves.

(b) There is usually a marked migration from the villages to urban and local trading centres to look for casual jobs.

(c) Some people migrate to the Makindu Sheikh Temple and Jamia Mosque where free meals are offered. The later (mosque) gives raw food whereas the former (Temple) offers cooked food.

(d) Prostitution both in urban trading centres and the highway (Nairobi-Mombasa) increases tremendously.

(e) Sale of livestock and livestock produce such as honey and eggs etc. The livestock officer qualified that only small stock such as goats, hens and sheep were sold. Cattle are only sold if the situation got worse, as it is viewed as security.

(f) Food for work is also given by NGOs.

(g) Relief food distributed by both the government and NGOs.

(h) Supplementary feeding especially carried out by AMREF and school feeding
Programs, which are currently being run by GAA. The supplementary feeding program targets the malnourished children less than 5 years of age as well as pregnant and lactating mothers. About 4 kgs of unimix are given per child per month, providing approximately 410 kcal. The nutritionist feel that the amounts should be adequate, assuming each child takes what is given, without sharing.

(i) Migration to the irrigation schemes to seek employment. Exchange of labour for food is not uncommon. Some hire the plots while others are employed.

(j) Support from salaried family members (especially those working outside the division) and some assistance from neighbours who have some food.

(k) Mushrooming of petty trade in the villages as well as town centres. It was said that most of them would close down as soon as it rains. Some of trades cited were Charcoal burning, brick making, Sale of firewood and water in the market centres and increased woodcarving.

(l) Women support groups—commonly known, as *Nzangule* are very popular with women and were said to be very active especially during the dry season.

(m) Abandoning of homes by men who purportedly go away in search of employment and never return until it rains again.

Most of the coping mechanisms identified in this study were found to be similar to those observed earlier by Chambers (1989), and Thomas *et al* (1989). However, some of the extremes that Chambers (1989) found such as sale of personal effect (e.g. Jewellery) and increased use of credit from merchants and money-lenders were not reported in this region. In addition to the above, 13% of the respondents reported eating fewer meals per day. Ten per cent reported that they also depended on donations from relatives and neighbours and only one respondent cited change of
feeding patterns as a coping strategy.

4.5 PROFILES OF NGOs WORKING TO ALLEVIATE FOOD INSECURITY IN THE TWO DIVISIONS

It was found that a total of four NGOs interested in food security issues are currently working in the two divisions. In addition to these, there are several bilateral agencies such as ARIDSAK (Belgium), KIP (Israel), Map-DANIDA (Denmark) and FARD (Foundation Agency for Rural Development), which is a local CBO. Although bilateral agencies differ substantially from NGOs, community members perceived them as NGOs. Some of the bilateral agencies had worked in the area for long and had begun withdrawing their services, e.g. DANIDA. These bilateral agencies were outside the scope of the study, with the exception of GTZ, which in practice operated as an NGO although technically it was a bilateral agency. The study mainly concentrated on those NGOs still in the area, except for areas where a certain NGO had just wound up its activities. This again was the case with GTZ hence it was documented. A profile of each NGO is provided below.

a) The German Agro-Action (GAA)

Operations of this agency started with GTZ- Integrated Food Security Program-Eastern (IFSPE) program in 1995. GTZ wound up in 1998 and GAA took over in 1999-both are German-based. Previously, GTZ only operated in one division (Makindu) and in Mwingi District. GAA on the other hand, was operating in small sections of Mwingi district, and Kathonzweni Division (Makueni). Since both were funded by the German Ministry for Development (GTZ). At the beginning of 1998, a review commission
beginning of 1998, a review commission recommended that GAA should operate in one district and GTZ-IFSPE the other. Since GTZ-IFSPE in Makindu was a subsidiary of the one in Mwingi, which was the project headquarters, running the Makindu project from 300kms away was not cost-effective and nor logical in the sense that the two were very far apart, with the Makindu project covering just a location. With the entrance of GAA, it was necessary to expand the area of operation from one division to four and phase out the health sector. GAA is using a different approach, e.g. for natural resource management (NRM) they identify the catchment areas where the government is also working so that there is concentrated effort by all community members rather than working with a small group that may not necessarily impact on the larger community. GAA is currently working in four divisions of Makueni District, namely, Makindu, Mtito Andei, Nguu and Kibwezi.

GAA Food Security Policy and Community Expectations.

The overall objective of this NGO with regard to food security is to improve food security among households in the selected divisions in Makueni District, rather than provide food aid/relief. To this end, several outputs are in place and they include:

- Increased food production
- Improved livestock production
- Improved animal health services
- Improved soil and water
- Improved availability and accessibility to water
- Collection and dissemination of marketing information and knowledge
Drought monitoring

For each of these areas, several activities are outlined to meet each of the goals. The activities are discussed further under the section on NGO activities.

Generally, this NGO uses an integrated approach to development, by tackling issues in the above-mentioned sectors. These fit in with the conceptual framework developed for this study. Income generation improvement is not a direct intervention of this organisation, although it is hoped that by increasing livestock and food production, the incomes of the households are significantly improved. In addition, group approach to target beneficiaries is common with the agency, as well as cost sharing. To identify community needs, several participatory methods are used including needs assessment, problem ranking and prioritisation and development of community action plans.

Interestingly, although this organisation was using an integrated approach to food security, they left out a very important sector, the health sector. They argued that AMREF, which specialised in health issues, would be allowed to carry out health activities in the GAA project areas. Whereas this move may curtail duplication, it may be counter-productive to GAA efforts, especially if the other organisation does not view GAA’s other efforts in totality, where household food security is improved. Second, if the other organisation uses a different approach, then there may be conflicts and confusion among community members.

It was also noted that although the NGO was addressing issues pertinent to community needs, their approach to food security was not always according to the
community expectations. One officer pointed out that “the community would like to have the easy way out, through food aid or complete gift of structures such as those in water projects, with minimal community contributions”. This may indicate lack of community ownership of the problem hence their lack of an awareness of their contribution to finding solutions to food insecurity.

Strengths of GAA/GTZ’S Interventions as Perceived by The Community

- There is a clear handing-over procedure as was seen when GZT had to wind up their projects. The community was informed of this change and knew that GAA would be taking over the activities of GTZ
- Training of community members on various issues-mainly CHWs, crop production and livestock rearing
- Soil conservation efforts, which have been quite intense. This was mainly done through terrace-laying campaigns initiated by GTZ and GAA has continued to sustain them. Community members feel that this effort has had a great impact on increased food production.
- Timeliness of interventions especially seeds distribution and supplementary feeding during the very difficult times that follow crop/ rainfall failures in the division. This could be attributed to the NGO’s constant monitoring of the food and market conditions, which allows for quick detection of food fluctuations.
- Working with groups rather than working with individuals.

This helped to multiply the benefits to more community members either directly or indirectly. Where NGOs worked with individual farmers, there were covert ill-feelings.
• Frequent meetings with the community members/groups to review and discuss progress of projects. This is a crucial activity in project monitoring and evaluation. It also shows the officers', commitment and seriousness about their work.

• Campaigns for growing of drought resistant crops. Some of the respondents reported that the community now sees the sense in growing drought resistant crops. This is because when there is limited rainfall, only those who plant these crops are able to harvest something. Those who plant maize will rarely get anything from their farms.

Weaknesses of GAA/GTZ's Interventions as Perceived by The Community

• GTZ wound up before it could solve the water problem that the community faces. GAA is still trying to tackle this problem, with limited success as the community feels that NGOs have so far been unable to alleviate it and consequently, the food problem too. Water still ranks first among those issues that the community feels NGOs should tackle effectively (table 23). The community members expressed disappointment in the way water projects have so far been carried out. They accuse the NGOs of inconsistency. In some cases, they will put up roof catchment structures (tanks) and in another area tell the community that such a project is not viable. In some instances, the researcher encountered half-completed water projects e.g. shallow wells, or complete projects that had been abandoned because the community could not sustain them or it was not functional. At times the community has had to abandon projects that have already gone a long way, either because a technical
team brought in by the NGO finds the site inappropriate or simply not viable.

A good example of this was *Mitendeu Water Catchment Project (initiated by GTZ)* and *Shallow Well Project in Kanyonyo Village, both in Makindu Division*. This shows that NGOs sometimes employ poor project assessment methods that have negative influence on the community.

- Although previously GTZ staff would make many visits to the project areas, the community noted that with the inception of GAA, the visits have reduced tremendously. This could be explained by the fact that GAA has a larger area of coverage than GTZ which only had one location (Kiboko), and later the division (Makindu).

- Inability of GAA to give food for work (FFW) as its predecessor did. GTZ would provide food to community members if they carried out work on a communal development project. Some of the projects that warranted FFW were: road construction, laying of terraces in the farms, excavating soil at the communal dam sites, digging shallow well, etc. The object of this strategy was reducing labour migration, which becomes very common in the divisions during famines.

In addition to GAA not providing food for work, the new NGO expects the community to make a meaningful contribution to all the projects the NGO initiates in the community, either in cash form or in kind, e.g. labour and local resources. The NGO insists that this is to enhance community ownership and sustainability of the projects. The move has not augured well with majority of the community members who feel that the NGO has money for projects and
should not therefore make such demands on the community as they are “poor” and after all, it is “mbesa situ” (our money). This feeling has contributed to late implementation of projects among other effects.

- Making promises and not keeping them, especially where material goods are concerned. One community group was quite bitter with GZT for “using” them and hoodwinking them with FFW. The villagers, using hand tools mainly constructed the Kyanda earthdam. The organisation at first had promised to provide the community with a tractor to excavate the soil. Later on, the program manager rescinded this decision and told the community the organisation would provide hand tools and that FFW would be used to ensure the project continued even during the drought period. Some admitted that the only reason why many stayed in the project was because there was food.

b) Action Aid Kenya (AAK)

AAK set up office in Kibwezi in 1982, although between 1978-1982, they operated isolated activities in Kibwezi from Mutomo in Kitui District. In 1982, two locations (Ngwata and Kikumbulyu) were picked for operation and the Kibwezi office became fully operational. Around this time, AAK intervention focussed on district benefits through school construction, 4-K clubs in school where they distributed livestock and farm implements (e.g. ploughs), payment of school fees, giving of school uniforms, lunches etc through the Salvation Army.

Over time, and especially at the beginning of 1990, AAK became committed to a transition, from district benefits, towards community-based development, which
according to an AAK phase-out document (1996) was aimed at increasing productivity as well as addressing basic human needs and stabilise the local resource base. The broad goal of this organisation is "poverty alleviation among the poor".

This has been done through the expansion of assistance from material inputs to training, technical assistance, credit and linking communities to government services or resources. AAK operates in Kibwezi Division, which is its rural development area (RDA). The area was chosen based on:

1. Poverty indicators: the district had high poverty levels as indicated by the government documents.
2. Food insecurity.
3. Poor or limited access to health services.

AAK carried out independent surveys to establish that the above situations do exist.

Strengths of AAK's Interventions as Perceived by the Community

◊ The greatest strength that the community observes with AAK is that when it was being phased out, they encouraged the formation of local CBOs (some of which eventually became NGOs in their own rights) and other institutionalised structures e.g. co-operative societies. The NGO invested money to train people to run these organisations.

◊ AAK has also been lauded for its close monitoring and evaluation of its projects.

◊ Provision of loans to self-help and other welfare groups to boost their income
• AAK was said to have good project management strategies.

• Where AAK had to give FFW, the rations were said to be quite substantial.

• Their interventions are timely. This was noted during the re-settling of the Masongaleni community, after being squatters for a very long time. By the time they were resettled, most of them had lost all their livestock and material belongings. AAK provided the group food and farm tools until they were able to produce their own food (close to a year). They also gave them medical services in collaboration with AMREF.

• AAK considers all proposals carefully before deciding to fund a community proposed project.

• According to the community observations, the NGO seems to have a steady flow of funds and is quite stable.

Weaknesses of AAK’s Interventions as Perceived by the Community

• The main weakness with this organisation is that the community feels it took too long to realise the importance of training and other more useful development strategies, rather than providing material things. For example in one of the villages in Nguumo location, the organisation gave the community 300 goats to be managed through the local primary school, to assist destitute children. Within a short time the project collapsed, as there was no follow up, nobody was held accountable to whatever happened to the goats. At the end, the project benefited a few people in the community, while leaving the majority unaffected in any way by it. In fact, many community members up to now do not understand what happened to the goats. There were many other similar cases cited in Kibwezi division. Indeed, in retrospect, one senior officer
commenting on the shift in strategy said, “we realised that providing the structures without developing the capacity of the people does not work”. In line with this has been a shift from individual benefits to community based benefits, targeting larger groups.

Some people accused the organisation of creating dependency, especially due to their previous strategy where they supplied food, school uniform etc, without giving them skills especially those relating to agriculture. To the contrary, GTZ's priority immediately upon entry was training and using an integrated approach to development. It is for this same reason that many community members ranked GTZ as the first as far as NGOs and food security activities go. Currently, as cited by one of the officers in another organisation, the NGOs are experiencing difficulties introducing the concept of cost sharing because previously the community received assistance with no input at all on their part. They continue to expect the same, even though times have changed as indicated in the section on Challenges faced by NGOs in Makindu and Kibwezi.

Repayment of loans taken by groups leaves many impoverished, since the grace period for repayment is usually too short or the groups have not made any profits.

Not very open on budget allocation, expenditure and procurement of materials for community projects. On education projects, they are most unwilling to allow for direct correspondence between the sponsors and beneficiaries.

Too many seminars that force community leaders to be away from their farm work.
In general, the organisation now concentrates its efforts in health, water, credit, and food security, gender, education and community organisation. Importance has been placed on exploring alternatives to meet dietary needs, apart from the farming. This saw the introduction of fish farming. This project did not, however, take-off well due to no-fish eating culture of the community. The emphasis largely remains on diversification of income to guarantee food availability. Participatory approaches are also used for community needs identification, monitoring and evaluation. Building the capacity of the locals seems to be a driving force for this organisation.

However, there seems to be a general reluctance of the NGO to be involved in land issues that are of great concern to the community that they serve, especially the Masongaleni community, where land has been a contentious issue between them and the government. Since land is a capital resource in food production and poverty alleviation, this organisation should be on the forefront fighting for the people of Masongaleni to get land surveyed and registered. As it stands now, they are unsure whether they were to pay the government for land or if it was given to them for free. The community would have to push the NGOs to commit themselves to issues of advocacy and lobbying for people’s rights such as land ownership.

c) Masongaleni Community Organisation for Sustainable Development (MACOSUD)

MACOSUD was founded in 1996 in Masongaleni resettlement scheme in Masongaleni location. It was founded by community members who had been trained by various NGOs and bilateral agencies in Primary Health Care (PHC);
soil and water conservation efforts; Participatory Rural Appraisal (PRA) etc. Interested professionals who shared concerns of community development in Kibwezi supported these groups.

The reasons why it started are:

1. Between 1992-1993, the government settled people in Masongaleni area. These people had limited resources as they had lived in squatters for long before they were allocated the land in Masongaleni. Most had been living and farming in Kyulu game reserve before eviction by the government. AAK with the government and AMREF assisted in settling them by providing tools for farm cleaning and cultivation, food etc. The NGOs generally provided emergency services until around 1995.

2. Since most of the agencies had to phase out, these people were left worse off than they were. There was fear that other different organisations would come with all sorts of ideas and uncoordinated activities. To ensure the co-ordination, MACOSUD was formed. It was meant to ensure long-term service deliveries and is opposed to short-term emergencies.

3. MACOSUD aims at developing and building the capacity of the local people, from what already exists e.g. PTA groups and other such groups, which are institutions mandated to deliver services to the community. Trained personnel in such institutions form a very important resource.

MACOSUD is operating in three sub-locations of Masongaleni location, namely Masimbani, Masongaleni sub-location and Kyanguli sub-locations.
These three constitute the resettlement scheme. It is hoped that the organisation will expand to a forth sub-location, *Ulinzi* sub-location. This organization has been heavily funded by Action aid Kenya.

**Policy on Food Security**

The organisation sees food security as a policy issue, which can only be solved if the community understands their role. For one to increase food production they need to understand the intricate network of issues such as health, water, education and market policies and how these affect food security. MACOSUD thus discusses perceptions and policies with the community members. By drawing on their historical trends and coping strategies, the agency attempts to sensitise the community on its role in improving food security.

**Strengths of MACOSUD's Interventions as Perceived by the Community**

- This organisation is lauded by the Masongaleni community for its efforts, because of thinking of the long-term food supply solutions.
- The organisation has been on the forefront, helping people to interpret government policies, economic and social changes and how these affect the grassroots people.
- MACOSUD has been the only NGO interested in the land issue. Land to this day remains a contentious issue in Masongaleni. How is the community expected to increase their food supply if their main source of livelihood is so threatened and politicised?
- In thinking towards long-term solutions, the organisation is negotiating for an irrigation water project. This project warrants special attention because of its
significance to the people of Masongaleni. For a long time, the community has been trying to broker a deal between them and a neighbouring sisal estate, which has been utilising the Kibwezi River for irrigation and industrial purposes. This being a permanent river, the community insists they also have a right to enjoy the natural resource. The complication was in diverting some of the water through an irrigation canal to Masongaleni. The sisal company was completely adamant to allow the canal to be dug through its land. This led to a serious stand off between the Masongaleni community and the DWA Sisal Estate. Upon its formation MACOSUD, is now faced with the challenge of brokering a deal that leaves both parties satisfied, yet the community objective is met, by having some land agreements drafted. By the time of the research, these agreements were yet to be signed and in the meantime the community is hopeful that this irrigation project will be one of the most successful projects, if it goes through.

- Having started as a community based organisation, MAOSUD is seen as the community’s own initiative in the fight against poverty and hunger, thus have support at this level.

**Weaknesses of MACOSUD’s Interventions as Perceived by the Community**

- In some places visited within the Msongaleni area, the community felt disappointed, accusing the organisation for not being as active as they had thought. This may be because the community expected instant solutions to their problems. Since the agency is more interested in policy issues, their presence may not be as much as that of a well-established NGO, thus, the community may interpret this as inactivity. This means that their strategy is still not clear to
majority of the community members.

• Following severe famine situations, the agency is forced to distribute seeds to farmers for planting. Their aim is to increase food supply and so they promote drought resistance crops, whose seeds they distribute and therefore do not give maize seeds. Some community members feel it is unfair since maize forms the staple diet. This problem was also encountered by other organisations, as it has taken long for the community to see sense in the growth of drought tolerant crops. Maize is still grown to a large extent in spite of its, rate of failure in limited rainfalls as is common in the divisions.

   

d) Africa Medical Research Foundation (AMREF)

The Ministry of Health invited AMREF in 1979. A study was carried out to study the area and identify problems requiring interventions. The main problems identified were:

1. Poor access to health. There was only one health centre in Mtito Andei then.
2. Malnutrition and food insecurity.
3. Lack of access to water for domestic use.
4. Low incomes.
5. Disabilities - both congenital and also due to poor nutrition

Kibwezi Rural Health Scheme (KRHS) was initiated. KRHS is the joint program between AMREF and the Ministry of Health that started in 1979. KRHS integrated primary health care program aims at enhancing community support systems to improve and sustain health, well being and overall development. It has four main areas, which include:
1. Kibwezi Health Centre
2. Community-Based Rehabilitation of the Disabled (CBR)
3. Women's Reproductive Health
4. Applied Nutrition Unit.

AMREF put up a health centre, which was constructed between 1980-1981. Up until 1986, AMREF ran this facility but in 1987, it was given to the government to run fully. The need to develop a long-term integrated approach to food insecurity and other problems was realised in 1986, following the 1984 famine, which forced AMREF to implement a 9-month emergency supplementary feeding program for children under five years. Although this significantly reduced malnutrition levels from 39% to 29% among two to three year olds, there was need for long-term interventions to be in place. The Applied Nutrition Project (ANP) was thus initiated in 1986, to respond to this concern. It focussed on:

1. Institutional rehabilitation of severely malnourished children aged below five years.
2. Nutrition education
3. Food production
4. Income generation
5. Curative health care- mobile clinics, which were unsustainable.

The institutional rehabilitation program ran until 1989 after which it was closed because the three to four weeks' stay in the centre was putting pressure on women, especially as far as other household and family chores went. Food used in the centre, which is what mothers were advised to use back at home were not locally
available. In addition, since medical attention was given to mothers, it was difficult for them to appreciate that improved nutrition alone could be responsible for a child's recovery from malnutrition. The program was also expensive to run and therefore not sustainable.

**Food security Policy**

Overtime, the focus of the project has changed to community-based rehabilitation preventive health and food security. AMREF aims at making communities in Makindu and Mtito Andei food secure at household level, using appropriate technologies. Currently, the focus is on institutional and local capacity building. Through these efforts, the ANP tries to address both immediate and underlying causes of malnutrition at individual and household as well as community levels.

AMREF's mission is to improve health care for the under-served in Africa through training, research and service delivery, in partnership with communities, governments and donors. Their main areas of operation include Makindu and Mtito Andei divisions. Kibwezi was left to AAK. The CBR project, which is part of the larger project of Kibwezi Rural Health Scheme (KRHS) is covering Makindu, Kibwezi, Mtito Andei, Wote and Kathonzweni.

**Strengths of AMREF's Interventions as Perceived by the Community**

- Efforts in emergency work have been crucial to the community in both divisions, especially with the under-fives. Following a drought period, the malnutrition levels in this region rise very rapidly, requiring supplementary feeding interventions and AMREF has risen to this challenge very effectively.

- AMREF takes time to plan and co-ordinate their activities well.
Weaknesses of AMREF's Interventions as Perceived by the Community

- A majority of the respondents feel that AMREF, just like AAK spent a lot of time and money in Kibwezi doing emergency work, without necessarily addressing serious issues in the community (e.g. agriculture, water and livestock), that would root out poverty, and consequently hunger in Kibwezi and Makindu.

AMREF is now pursuing a new way of mitigating food insecurity, through interventions such as nutrition education, building the capacity of the local resource persons (e.g. CHWs, TBAs, CBDs), preventive health care which is sustainable, promotion of drought tolerant crops for increased food production and income generation (micro-financing).

4.5.1 SUMMARY OF THE PERCEIVED STRENGTH AND WEAKNESSES OF NGOS

To appreciate the importance of NGOs in the community, an objective appraisal is necessary and it should encompass all aspects of their work including their strengths and weaknesses.

Strengths

Respondents were requested to enumerate some of the areas, which they thought made different NGOs operate the way they did. Some of the issues raised were specific to one NGO and others were generalised. All the emerging issues were put together under different themes.

First, the community members alleged that a major strength of NGOs is that these organisations are in touch with the people and are therefore better able "to bring
development closer to the people than any other organisation. By supporting income-generating activities, which helps to diversify the income sources, NGOs have been able to do this, and secondly, in supporting education through school development projects as exemplified by AAK. Efforts mainly in the agricultural sector have most been associated with NGO work. Such activities as training in organic farming, distribution of recommended seeds, which specifically suit the area, capacity building through training of leaders, training in sound agricultural practices and livestock rearing. Training was found to be common with MACOSUD, and GAA.

Another strength lies in their area of coverage. An NGO like AAK was said to have strengths in the wide area of coverage in one of the divisions. Thirdly, the community acknowledged the advantages of a multi-sectoral approach to problems especially noted with GAA, MACOSUD and with AAK as well. The fact that most of the NGOs recognise that the most serious problem of the people is food security, and, that one particular organisation has been involved in canal extension for irrigation, is seen as a more permanent solution to the water and food shortages problem in the divisions.

Involving of women in the development projects, especially in agriculture and water related projects have also been lauded as well as constant monitoring and evaluation of projects, which guarantees proper resource management. In relation to sustainability of the projects, handing over of projects before one NGO leaves so that an in-coming NGO completes a previous project is neccessary. This was done by GTZ alone, which handed over their projects to GAA and the community was happy they did not just pull out. Other organisations that had wound up just left projects
with communities that were never completed, or due to lack of the sustainability concept stalled after a while upon their departure.

**Weaknesses.**

1. Both the community members as well as the GoK staff observed weaknesses discussed below. The respondents raised concern over the numerous seminars they have to attend. One lady who is a local leader said; "*there are too many seminars and workshops for leaders and self help group members to attend. We end up spending very little time on our farms.*" This may be a very serious issue that may have gone unnoticed, yet could be one of the causes of household food insecurity. Since there are different organisations running different projects in the same villages, it is very likely that they often end in working with the same people. In an area where rainfall periods are short and planting early makes all the difference, loss of time could mean the difference between being food secure or insecure in a household. Therefore, although organisations presumably do commendable work for the community, over time, when they all concentrate efforts in one area they end in exacerbating the very problem they set out to mitigate.

2. The community accuses NGOs of making promises to them and never keeping some of these promises. One prominent women's leader cited an example where one of the NGOs had promised to give grants to the savings and credit co-operative (SACCO) to manage as loans for many self-help groups. When the money was finally given, the NGO had reduced the number of beneficiaries tremendously. Other promises have
been made with regard to water and the community continues to watch helplessly as NGO after NGO come and go and they still remain food insecure. They say all they need is water for irrigation and domestic use.

3. Providing skills and not facilitating the use of these skills. In one of the villages in Kibwezi, NGO came and conducted training in organic farming. Since this type of farming does require some water, the group requested for some assistance to obtain water for this purpose. The NGO officer in charge of this project went ahead and put up a roof catchment structure in the nearby school. The headmaster denied them access to the water saying that the in and out flow of community members was disrupting learning in the school. Now they cannot fetch any water although there had been an understanding right from the beginning. The community members now feel cheated. Such misunderstanding should not occur if the NGOs actually use the participatory methodologies that they all purport to use in needs identification and planning for projects. The core of participatory methodology is involvement and embracing of community views, on the premise that the community best understands its problems and they also have the solutions.

4. There are some NGOs which give loans directly to community members to invest and repay the money later. However, the community feels that the grace periods before repayments are just too short and hardly have the investments started paying-off. In one of the focus group discussions, it was revealed that many lost their property including land because the loans had to be repaid either way. Either the community did not understand the
concept behind the loans, or they had hoped they would never had to repay, after all they had become accustomed to receiving "free things" from the numerous NGOs who had been in the division for over 15 years. There is no time when there has not been more than one NGO in Kibwezi since the early 70s.

5. GoK staff and some community members feel NGOs are never open with their budgets and material procurement procedures for community projects. GoK staff feels the NGO staff do not trust them whereas some of the community members feel "their money" is being misused. At the time of conducting this research, there was a very serious scandal involving one of the NGOs and the community over a certain school construction project. It was believed that the officer in charge of this project was misappropriating the funds allocated and the community got the information from the grapevine. This led to interdicted of several officers over the issue. If the community is made part of the procurement committee members, such incidences could be reduced.

6. Poor relationships with the GoK staff, which does affect the projects initiated. One GoK staff said; "stop misusing GoK staff. They expect a lot of work from GoK – especially in report writing and do not recognise the GoK staff by acknowledging their contribution, when publishing reports and project update reports". Very often, the misunderstandings are also over allowances. The allowances are not standard so that some NGOs pay more than others. In such a case, one may be reluctant to work with the organisations that underpay. However, one GoK staff was quick to add
that the relationship between NGOs and other interested parties largely depends on the person running the project at any given time. "This I have found to be the case with GAA. Our relationship with them is just good".

7. Some of these organisations begin projects that are expensive and non-viable. In one village in Makindu, one NGO sank a borehole but they did not train the community members on repair and maintenance. In addition, there was no consideration for the affordability of the fuel used. The borehole was worth Kshs. 1.5 million. After the project was handed over to the community members, they were unable to purchase the fuel to run the generator for water pumping. In 2 years' time, the project was grounded and vandalism saw the loss of some of the parts. Another instance previously cited is the goats' project where community members got some goats from the organisation to help them boost their incomes and thus maintain their children in school.

The most serious problem that has been observed by almost all the respondents was that no serious efforts to alleviate the water problem have been made. They say that the food security problem can be easily solved if there was water to carry out irrigation. The Kibwezi Irrigation Project (KIP) is a living proof of this. The University of Nairobi in conjunction with the Israeli government started this project on dry land research and farming. This project has effectively utilised water from the Kibwezi River for irrigation and exporting of horticultural produce has become possible. Irrigation is therefore a big possibility that needs to be explored seriously although huge sums of money may be required.
4.5.2 NGOs’ TARGET GROUP SELECTION CRITERIA AND FOOD SECURITY POLICIES

The table below is a summary of NGO food security policies and community-targeting procedures as explained by NGO officers. These data were compared to the community's perceptions of how selection was done. This was done with the aim of establishing if there is a common understanding on how the agencies work, and more significantly, find out if the community members appreciate the participatory approach that all the agencies purportedly use to select beneficiaries.
Table 18: Selection of Target Groups and Food Security Policies of NGOs

<table>
<thead>
<tr>
<th>Agency</th>
<th>Selection Procedure</th>
<th>Objectives &amp; Goals</th>
<th>Policy on Food Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAK</td>
<td>Wealth ranking exercise with the community members to come up &quot;poorest of the poor&quot;</td>
<td>To facilitate processes that are aimed at eradicating poverty by addressing the basic human needs such as food security, health, education, water and microfinance.</td>
<td>To ensure food availability at the household level by exploring new opportunities such as irrigation, growth of drought tolerant crops, fish farming, development of small stock for both food and, bee keeping and the establishment of village grain stores.</td>
</tr>
<tr>
<td>MACOSUD</td>
<td>Women, youth &amp; children who were found to be marginalized and poor.</td>
<td>Building the capacity of the local people by supporting growth of institutions.</td>
<td>Acknowledges that food is a basic right. The food policy practice is thus in line with the government policy on food security.</td>
</tr>
<tr>
<td>AMREF</td>
<td>Children under 5 years, mothers of child bearing age</td>
<td>Improve the health status of the under-served in Africa through research, training and service delivery in collaboration with others and donors.</td>
<td>That food provision is basic for improved health and it cannot therefore be separated from health issues.</td>
</tr>
<tr>
<td>GAA</td>
<td>Participatory project ranking and prioritisation to identify needs</td>
<td>Improve food security among the insecure households in the project area.</td>
<td>Integrated development to enhance food security in the area, using the respective government policies on water, agriculture, etc.</td>
</tr>
</tbody>
</table>

**Community Needs Identification Process**

The main methods used by various organisations to identify community needs are:

1. Participatory Rural Appraisals (PRA), where both the community members and the concerned NGOs would be actively involved. This method has become popular with GTZ, G.A.A, MACOSUD, AMREF (currently) and Action Aid, which uses some of the tools e.g. wealth
ranking to identify their target groups. This was the method they used in 
Makuluni village and mobilised villagers to form self-help groups, which 
they then started working with.

2. On other occasions, local leaders such as the chiefs and assistant chiefs 
call for barazas and invite officials from any in-coming NGOs to tell 
community members what their objectives and intentions are.

3. There are several leaders' forums in which community needs are 
articulated e.g. community health workers meetings, SDD meetings where 
different sectors of government departments are represented as well as NGOs. From these meetings, leaders make recommendations to NGOs.

4. Village development committees are usually formed after the PRA 
workshops have been conducted. These committees are mandated to 
spearhead development in the villages and can make proposals for 
development projects and present them to NGOs. This case was also 
applicable where there were welfare societies.

5. Self-help groups could also identify a need in their community and 
approach an NGO directly or channel them through their leaders, village 
meetings and meetings with local leaders to deliberate on village issues. 
From such a meeting, leaders can approach an organisation for necessary 
assistance.

6. Community needs are also identified and channelled through a 
community-based organisation (CBO). This was the case with 
communities in Masongaleni Location, where a local initiative called the 
Masongaleni Community Organisation for Sustainable Development
(MACOSUD) is based. This organisation started as a CBO but has now been registered as an NGO and is funded and supported heavily by Action Aid- Kenya. Community members run it together with some of the staff that were laid off as Action Aid Kenya started phasing out gradually.

7. In some cases, to identify the needs of the community, NGOs conduct surveys or random observations. The respondents said observations and surveys were very common during famine times.

8. In identifying the community needs, new NGOs network with those already in the area to find out which areas to focus on. G.A.A came in as a new NGO and took over most of the activities that GTZ had been carrying out.

Table 19: Community Needs Identification Process

<table>
<thead>
<tr>
<th>Mode of identification</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaders meetings (e.g. SDDC, LDCs, DDCs)</td>
<td>17</td>
<td>(18.5%)</td>
</tr>
<tr>
<td>Chief's Barazas and village meetings, VDCs and Welfare Societies</td>
<td>35</td>
<td>(38%)</td>
</tr>
<tr>
<td>PRA Process</td>
<td>10</td>
<td>(10.9%)</td>
</tr>
<tr>
<td>Self Help groups meetings</td>
<td>11</td>
<td>(12%)</td>
</tr>
<tr>
<td>NGO surveys &amp; observations &amp;</td>
<td>14</td>
<td>(15.2%)</td>
</tr>
<tr>
<td>Networking</td>
<td>5</td>
<td>(5.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>N = 92</td>
<td>100%</td>
</tr>
</tbody>
</table>

Since all the NGOs said they used the participatory approach, it was important to find out from the community the extent to which they felt involved in NGO projects. The majority felt involved through either writing proposal after they had
identified projects (40.2%), problem ranking (10.9%), involvement of community leaders and other community resource persons (13.0%). The table below summarises their views on how they are involved.

Table 20: Community Involvement in Decision-making on NGO Intervention Programs.

<table>
<thead>
<tr>
<th>Involvement</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing proposals (e.g. through VDCs, SHGs)</td>
<td>37</td>
<td>(40.2%)</td>
</tr>
<tr>
<td>NGOs pick from community's list of needs</td>
<td>10</td>
<td>(10.9%)</td>
</tr>
<tr>
<td>Problem ranking and planning together (NGOs + Community)</td>
<td>8</td>
<td>(8.7%)</td>
</tr>
<tr>
<td>PRA + CAP</td>
<td>7</td>
<td>(7.6%)</td>
</tr>
<tr>
<td>Work directly with self-help groups</td>
<td>3</td>
<td>(3.3%)</td>
</tr>
<tr>
<td>CORPS + leaders asked about community needs</td>
<td>12</td>
<td>(13.0%)</td>
</tr>
<tr>
<td>Negotiations, exchange of ideas, suggestions between local leaders and NGOs</td>
<td>3</td>
<td>(3.3%)</td>
</tr>
<tr>
<td>NGOs just hand-over projects to new NGOs</td>
<td>2</td>
<td>(2.2%)</td>
</tr>
<tr>
<td>No involvement</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td></td>
</tr>
</tbody>
</table>

4.5.3 MAJOR ACTIVITIES OF THE NGOs

The main activities that the NGOs undertake were analysed and grouped into five major areas in line with the conceptual framework that guided the study.

The main areas were found to be;

1. Improvement and management of the natural resources. This was mainly through tree planting activities, terracing and other soil and water conservation measures.

   This was meant to protect the local ecology and consequently improve yields in
2. Activities targeting the farm sector. Recognising that most households depend on this sector for livelihood, NGOs had several interventions in this sector.

These included supply of seeds, training on the various agronomic practices, improving the livestock breeds, developing seed banks which guarantee minimal movement of locally produced food.

3. The health sector. Here, nutrition has been a great concern and particularly applied nutrition. Growth monitoring, supplementary feeding as well as drug supply and rehabilitation of the physically disabled persons in the community are therefore a priority.

4. Income-generating activities by providing alternative sources of income or providing loans and credit facilities for improved farming etc

5. The water sector. Providing water for both domestic and agricultural use has been the greatest challenge for these organisations.

Embedded in these five was the effort made to incorporate the youth, men and women in the development projects by some of the NGOs e.g. GAA, AMREF and AAK. Table 21 gives a summary of the main NGOs in the two divisions. However, an interesting observation was made about some of the agencies, which is also pointed out. It was noted that;

- Some bilateral agencies work directly with communities and groups as an NGO rather than a bilateral agency, where the collaborating ministry should be on the ground. Good examples are GTZ and ARIDSAK.
- Some NGOs operate within an area with breaks in between the end of one project
term and the commencement of the next project period. Efforts are concentrated in one or two villages at a time. AMREF for instance was found to have operated in some villages only in times of famine, while Care International operated for a period between 1983–1992, wound up and came back in 1993–1997. When the researcher was leaving the field in March 2000, Care International was looking for offices in Kibwezi town to start projects.

Below is a summary of those organisations that the community perceived as useful to them in the fight against hunger.

Table 21: Organisations the Community Perceives as Helpful in Combating Food Insecurity

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Order of priority</th>
<th>Length of operation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAKINDU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. GTZ</td>
<td>✓✓</td>
<td>May 1996 – Nov 98</td>
</tr>
<tr>
<td>2. AMREF</td>
<td>✓✓</td>
<td>1985 – 1995</td>
</tr>
<tr>
<td>3. GAA</td>
<td>✓✓</td>
<td>Jan 1999 – present</td>
</tr>
<tr>
<td><strong>KIBWEZI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Action Aid Kenya</td>
<td>✓✓</td>
<td>1982 – current</td>
</tr>
<tr>
<td>2. GAA</td>
<td>✓✓</td>
<td>Sept 1999 - present</td>
</tr>
<tr>
<td>3. MACOSUD</td>
<td>✓✓</td>
<td>1996 – present</td>
</tr>
<tr>
<td>5. AMREF</td>
<td>✓✓</td>
<td>1983 – 1997</td>
</tr>
<tr>
<td>6. ARIDSAK</td>
<td>✓✓</td>
<td>August 1998 - present</td>
</tr>
</tbody>
</table>
Community members were asked to rank the NGOs, depending on their perceived role in combating hunger, with the number one (1) carrying the highest importance. In Makindu, GZT, which had just wound up its activities, was perceived by a majority of the community members to have made the most significant contribution. In Kibwezi, AAK had made the most significant effort. Ironically, GTZ had only been in Makindu for just 4 years, whereas AAK had been in Kibwezi for over 15 years and had also done some considerable amount of work in Makindu in its earlier years. GTZ's predecessor has now moved to Kibwezi and in less than two years, it is being ranked second. This can only mean that strategies used by the different organisations have an effect on their overall success. Clearly, it seems that it is not the project period that is of relevance for the success of NGOs, but other factors are involved, which have far-reaching consequences on the projects these agencies implement. Thus, their strategies, strengths and weaknesses were critically analysed for differences and similarities.

4.5.4 SUSTAINABILITY OF NGOs FOOD SECURITY RELATED ACTIVITIES

For a long time people have taken for granted that the projects initiated by NGOs can be sustained. For any NGO project to be sustainable, the community members should be able to continue benefiting from the project even long after the organisation has left. The table below shows views expressed by community members on sustainability. Of the respondents, 6.5 % felt there is no sustainability of projects at all. They felt that the community is not prepared adequately to take over the various projects, once NGOs have served their project phases.
Table 22: Community Views on Sustainability of NGO Projects.

<table>
<thead>
<tr>
<th>Sustainability options</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Training community resource person (CORPS)</td>
<td>30</td>
<td>32.6</td>
</tr>
<tr>
<td>2 Encouraging and training on proper resource and project management</td>
<td>17</td>
<td>18.5</td>
</tr>
<tr>
<td>3 Using group approach</td>
<td>14</td>
<td>15.2</td>
</tr>
<tr>
<td>4 Cost sharing</td>
<td>11</td>
<td>12.0</td>
</tr>
<tr>
<td>5 Facilitating formation of community based organisations</td>
<td>14</td>
<td>15.2</td>
</tr>
<tr>
<td>(CBOs) local NGOs savings and credit welfare societies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(SACCOs). They also provide grants to the SACCOs, SHGSs etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 No sustainability or community preparation for take-over</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>N= 92</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

It would appear that those projects with a capacity building component (e.g. through training) are perceived to be more sustainable as the relevant skills are transmitted to the community who are then in turn able to make use of them to improve their situation. Projects where such an approach has worked well were cited by GoK and community members to include; training of community health workers (CHWs), traditional birth attendants (TBAs), community paraveterinary officers (wasaidizi), soil conservation assistants and other community resource persons (CORPS).

The use of group approach as opposed to working through individuals also seems to be more receptive to the community as well as encouraging formation of both local NGOs and community based organisations. Such bodies oversee the completion and management of both new and old projects that other NGOs had initiated.
Donors can also channel their funds more effectively through such bodies. MACOSUD is a good example of a local initiative, which has been able to take over AAK projects in Masongaleni area.

4.5.5 ISSUES THAT STILL NEED TO BE ADDRESSED

Although a majority of the community members were happy with the way NGOs have been working, they still feel there are certain areas that have either not been addressed effectively or have not been dealt with completely (Table 23).

Table 23: Community Needs that NGOs Should Address

<table>
<thead>
<tr>
<th>Needs</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing of farm produce</td>
<td>8</td>
<td>8.7%</td>
</tr>
<tr>
<td>Provide permanent solution to water problems</td>
<td>34</td>
<td>37%</td>
</tr>
<tr>
<td>Agricultural input (implements + training and technical assistance)</td>
<td>7</td>
<td>7.6%</td>
</tr>
<tr>
<td>Diversification of Income generating activities</td>
<td>22</td>
<td>23.9%</td>
</tr>
<tr>
<td>Infrastructural development/Technical assistance</td>
<td>4</td>
<td>4.3%</td>
</tr>
<tr>
<td>Facilitate the work of community resource persons</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Provide food aid/food for work</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Honouring pledges made for various projects</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>Intervention in land issues</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>None</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>N=92</td>
<td>100%</td>
</tr>
</tbody>
</table>

Many farmers in the irrigation schemes had one major problem with regard to marketing of their farm produce. From the focus group discussions with farmers in Kwa Kyei Village, this is a problem they have expressed many times to several NGOs
but according to them "no serious action has been taken. We have even held discussions with MAP- DANIDA, AAK-Kibwezi, CARE-International in collaboration with the managers of Kibwezi Irrigation Scheme (KIP), so that we can market our produce with them. They invited the main buyers in Nairobi for a day's seminar. After that the prices improved for a while but then now the situation is back to what it was before. There are also many middlemen who ensure we get very little for the produce. If you refuse to sell to them they simply move on to the next person who is willing to sell. Because you need the money to buy food and other commodities, you are just forced to sell. If these organisations were serious about helping us to improve our lives, they would help us find markets for our commodities by linking us up with people or companies that can give us tenders and we get paid at the end of the month."

4.5.6 CHALLENGES IN MITIGATING HUNGER IN MAKINDU AND KIBWEZI DIVISIONS

NGOs working in the two divisions reported that they face serious challenges, especially those related to climatic conditions. Due to recurrent droughts, NGOs face frustrations in implementing new ideas. One project officer contends that NGOs efforts to supply the community with drought tolerant seeds, farm inputs and training on good agronomic practices are pointless as long as the rains fail because then nothing is achieved. Second, where many NGOs are working, as is the case in the two divisions, the agencies use different approaches and/or policies from those of another agency. In such a case, it was reported that implementing certain policies that are not shared by all the NGOs e.g. cost-sharing becomes difficult especially when one of the other NGOs are giving free "hand-outs" to the community.
In the same way, some NGOs reported difficulty in mobilising community members in areas where another NGO abandoned a project. The community members may have lost faith in NGOs.

Another serious challenge faced is that different agencies will work with different GoK service delivery structures. In many cases, the same GoK staff result to working with almost all the NGOs in the area. Each of these NGOs will have different rates and allowances and this often serves as an incentive or disincentive for the government staff. This can be detrimental to the project.

Community response has also been reported to be slow sometimes, either due to food stress situations, causing delays in projects, or simply a slow response to adapt to new technologies. The community has been very slow in appropriating drought resistant crops, yet they have been shown to do well in these areas. Water projects on the other hand have been known to take long in some instances because although the community appreciates the project, they have to walk for very long distances to fetch not only water for their own domestic consumption but also for construction purposes. Given a choice between the two, the water for domestic purposes comes first.

Mainstreaming gender has also been a serious challenge for some of the NGOs. It was realised that although women participated mainly in the development efforts, and especially training, they did not have direct access and control of production resources. The challenge is to now capture the attention of men, by inviting both groups for seminars, workshops, and barazaas.
4.6 SUMMARY

Based on the objectives of the study, the following conclusions were reached:

Most households in the community relied on the farm sector as the main source of food. In Kenya generally, own-production is said to meet only 30% of the household food needs and the rest has to be met through other sources (GoK, 2000). In Makindu and Kibwezi, there are serious fluctuations in farm produce due to the weather conditions, which leaves households extremely vulnerable. To meet their food needs, the community has to rely on other means some of which tended to be risky especially during the drought periods. Clearly points to a serious need for the community to diversify its income, thereby reducing the impact of crop failures. It would also forestall the observed "farm-to-market" trends, which usually exacerbate food insecurity by depleting food reserves too early in the season.

Interestingly, contrary to widespread assertions, relief food was not considered a major food source for the community nor did the community deem it as an important alternative food source.

Land is a capital resource for food production. Although households had access to land for food production whether owned/inherited (97.8%) or leased (2.2%), land ownership is still a very sensitive issue in an area like Masongaleni, yet only one NGO -MACOSUD had attempted to address this issue. For effective food production, 50% of the households would need additional land since what they hold currently is less than what is considered sufficient in Kenya- approximately 12 acres. The situation is worse of in the irrigation schemes where land has been sub-divided to uneconomical portions as small as 1/8 to 1/4 of an acre. Higher yields would probably
accrue if the land were less subdivided.

The main causes of food insecurity were found to be quite inter-linked so that an isolated intervention that does not look at the six key issues pointed out in the study model are bound to fail. Although the weather was blamed as the main factor, other causes pointed out by all the respondents are: poverty; sale of almost all food after harvesting to meet other family needs even when prices are at their lowest; tendency by farmers to plant quite late, though the NGOs and government staff have advised on the advantages of early planting. Part of the reason for the late planting has been lack of seed as well as poor and/or lack of farm implements such as ox-drawn ploughs or even the hand hoes. After prolonged drought periods, many farmers lacked certified seeds, which would give superior yields. Community members also felt that large family sizes affect household food security; the soils in some areas are also seriously eroded. Pests and diseases, which vary from season to season also, hamper crop and livestock production, causing food insecurity. Poor agronomic practices such as lack of weeding, poor application of manure and fertilisers, unwillingness by farmers to plant drought tolerant crops that suit the local climatic conditions are among some of the problems that are said to exacerbate food insecurity. Extension officers reported that farmers in Kibwezi and Makindu hardly use any fertilisers, or manure, and in the same way, poor post-harvest. Organised or co-marketing of farm produce where farmers can get maximum benefits from co-ordinated marketing has not been effective. A holistic approach to mitigating the problem was found to be crucial to address the problem. NGOs have come up with a combination of activities, which are achieved through various strategies. However, the main
strategy was capacity building and the use of participatory methodologies for sustainable development. Although many of the NGOs started out by giving relief aid, they have over the years evolved and revised their strategy and now tend to favour participation by the community, focusing on development rather than meeting the immediate needs by giving "free" items. The change came about upon realisation that a lot of money had been spent yet the community remained impoverished. Among those NGOs that have changed their approach is AMREF and AAK. In addition to participation, new technologies are advanced e.g. the best seeds developed by KARI are usually distributed by GAA and its predecessor GTZ. Although gender was often cited as an important consideration for most projects, it would appear that what the agencies considered to be gender is the involvement of women in their projects. It is mainly women groups that seem to have benefited the most form the NGOs. There is need for more involvement in projects by the men.

The main areas addressed are crop and livestock production, soil conservation efforts, animal health care, improved access to water, drought monitoring, marketing information, maternal and child health as well as income generation. However, not all NGOs are involved in all the areas enumerated, so that there is a failure in their systems, which a holistic approach would remedy. In dealing with food security issues, the issue of health and nutrition can not be ignored. This has led to collaboration between the NGOs for effective programming in the area.

The main NGO activities that community members associated with improved food security were mainly the training received in agricultural technologies and
practice, soil conservation efforts, seed distribution and seed bulking, facilitating extension of irrigation which was seen as the best and long-term solution to food insecurity in the two divisions.

The main strength of NGOs was noted in their ability to bring development closer to the people, which the community appreciated. They also address themselves to several development areas, and have a strong motivation to build the capacity of the local people through training and improving their resource base. The tendency for NGOs to work with groups rather than individual was lauded as very important to gain the multiplier effect.
CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter provides conclusions arrived at from the study as well as recommendations for further research and policy implications.

5.1 PURPOSE OF THE STUDY

The purpose of the study was to determine the role of NGOs in combating food insecurity in selected divisions of Makueni District. It was carried out in Makindu and Kibwezi divisions.

5.2 STUDY OBJECTIVES

The study sought to achieve the following objectives:

To establish the main food sources throughout the year in the community

➢ To find out the causes of food insecurity in the two divisions.

➢ To determine the activities the NGOs undertake to improve food security and how they relate to the causes of food insecurity in the two divisions.

➢ To assess the strengths and weaknesses of NGOs approaches to mitigating food insecurity.

➢ To examine the suitability and sustainability of food security-related activities by NGOs in the area.

➢ To establish the community's coping mechanisms during food stress periods.
5.3 MATERIALS AND METHOD

The study was conducted in two of the largest divisions of Makueni District. Six locations were included in the sample, from which a sample of 92 households was selected. To triangulate information, two focus group discussions were held. One group consisted of women and the other was made up of men considered to be opinion leaders in one of the locations. In addition, NGO and government officers in related ministries were also interviewed. Among those interviewed included: the Makindu sub-district hospital nutritionist; the Divisional Agriculture and Livestock Extension Co-ordinators (DALEC) in both Kibwezi and Makindu; the Makindu Divisional Soil and Water Conservation Officer (DIVISCO); the District officer in Kibwezi; the Divisional crops officer-Kibwezi; Home Economics extension officer, Kibwezi; Wikwatyo wa Kangii self-help group; Kwa kyei women group and various NGO officers.

The instruments used were designed to elicit responses pertaining to the objectives of the study and they included a structured questionnaire designed for household heads; semi-structured interview guides for both the NGO and government officers; and a focus group discussion guide.

Data were analysed by use of both descriptive statistics. Analysis of the audiotaped focus group discussions as well as the field notes developed from the interviews was done qualitatively. Common themes were grouped together and developed into logical arguments. The main descriptive statistics were means, frequencies and percentages, which were then presented in the form of graphs, tables and charts.
5.4 SUMMARY OF FINDINGS

5.4.1 Community Food Sources.

a) The farm Sector.

The farm sector was found to be the main food sources. All the respondents depended heavily on their farms to meet their food needs. And 64.7% relied on the sector for income as well. However, 81.5% of the respondents said that they do not produce enough, to meet their food requirements. Although such a large number of the inhabitants rely on the farm sector, only 18.5% said the food they produced in their farms was enough to meet the needs of their families all year round. There is need therefore to diversify both incomes and food sources to guarantee food security in this region. In this regard issues of irrigation and land ownership were found to be pertinent.

b) Land Ownership

Land has been identified as a key factor for increased food production in the fight against food insecurity. It has been found that households are most likely to have stable access to food if they have viable means of procuring the food. Land is one of those means. In the study area, 98.7% of the households owned land. However, for the land to support viable subsistence (non-irrigation) farming, the minimum size of land held should be 12 acres (5 hectares) Out of all the respondents, only 50% met this basic criteria. Although some had quite large pieces of land, only a small section was demarcated for active crop production. It was therefore concluded that although land is available in the study area for food production, the sizes are too small to support household food needs and still generate income. The situation is only exacerbated by the erratic weather.
c) Irrigation

Irrigation may well hold the key to food security in the study region. The joint Israel and University of Nairobi dry land farming research project has proved beyond any reasonable doubt that with irrigation, the region could become the bread basket of the entire district and even beyond. Many respondents pointed out that the main form of assistance they require is water for irrigation.

It was also found that communities in the irrigation scheme areas do not depend on the government for relief food at all. In fact, they are excluded from the distribution list because it is believed their incomes are relatively higher. Demand for land in the irrigation areas is so high such that in some cases people were found to own or hire as little as 1/8-1/4 of an acre. Employment opportunities are also increased for some.

The desperation with which the farmers seek these plots can only mean that irrigation considerably eases the food pressures in the divisions. If larger pieces of land can be freed for irrigation or the already existing canals extended, food deficits would be easily met.

d) Relief Food

It was also found that contrary to popular belief, the community does not actually rely on relief food as a source of food for the family. This was just a nominal food source. It was argued that the amounts are too minimal to be of any significant value regardless of the family size. The amount given cannot even sustain one person for a prolonged period of time. Second, there were too many political issues tied to it, the distribution process was also criticised as irregular, time consuming and there is always a case of poor timing of the intervention. Community members felt the time
spent waiting to receive only 1-2 kgs of relief food can be better utilised productively in their farms. The agricultural sector is therefore very important in these two divisions and holds the key to improved food security. As far as the community is concerned, relief food is not the solution and does not make any significant contribution either.

5.4.2 Causes of Food Insecurity in Makindu and Kibwezi

The main causes of food insecurity in the divisions are related to poor weather conditions and poverty. They included; unprecedented sale of almost all food after harvesting to meet other family needs, among them school fees, which took a major part of the income from sale of food. Ironically, the food is sold at throwaway prices. For instance, in the just ended drought, the community had to buy a kilogram of maize at between Kshs. 17-18, and when they sell, the highest price a kilo fetches is Kshs.7/. According to the crop officer (Makindu), this sale of yields soon after harvesting may be either forced or voluntary.

The rainfall amounts are inadequate to support crop growth to maturity in most cases. There is a tendency by farmers to plant quite late, though the NGOs and government staff have advised on the advantages of early planting. Part of the reason for the late planting has been lack of seed as well as poor and/or lack of farm implements such as ox-drawn ploughs or even the hand hoes. After prolonged drought periods, many farmers lack certified seeds, which would give superior yields.

In addition, large family sizes affect household food security; the soils in some areas are seriously eroded. In addition, some are not water-retentive, leading to
rapid moisture loss, as well as fertility degradation mainly caused by inadequate soil conservation measures in the farms. Pests and diseases, which vary from season to season also, hamper crop and livestock production, causing food insecurity.

Poor farm practices among farmers, such as lack of weeding, poor application of manure and fertilisers are among some of the problems that are said to exacerbate food insecurity. Extension officers reported that farmers in Kibwezi and Makindu hardly use any fertilisers, or manure and although they are trained on their application. Coupled with these are poor post-harvest management practices, contributing to loss of yields. Use of wrong or ineffective pesticides leads to heavy loss of produce.

Since most of the households were purely dependent on the agricultural sector, they lacked alternative sources of income. This situation was been attributed to limited cash crops grown in the area, which makes maize, which traditionally is a food crop, a substitute for cash crops. Even where good yields are realised, farmers have to still deal with the challenges of poor marketing. Organised or co-marketing of farm produce where farmers can get maximum benefits from co-ordinated marketing has not been effective.

By not growing drought resistant/tolerant crops that suit the local climatic conditions, farmers risk total crop failures. Most farmers prefer to grow a maize variety called "Kinyanya", which takes longer to mature compared to DLT
(Dryland Composite) and *Katumani composite* developed by KARI – Machakos. These two maize varieties as well as sorghum, millets, and cowpeas are recommended for this agro-ecological zone as they take shorter periods to mature.

5.5 NGO ACTIVITIES AND STRATEGIES

Most NGO efforts concentrate on the areas of micro-financing of income-generating activities, crop and livestock development and production, provision of water for both domestic and agricultural purposes, health and nutrition.

It was also found that all the NGOs in this area have shifted from a largely emergency/relief operation to development efforts. This confirms Farrington et al. (1992) assertion that NGOs have shifted focus from relief work to more meaningful efforts for community development. However, although the NGOs had several components to their project, many lacked one or two of the basic mixes that the study proposes are necessary for any comprehensive food security program based on the conceptual framework.

One NGO that carries out an integrated food security program lacked a vital component - the health and Nutrition sector, which they said, was left to a different NGO. Although such a move would seem to eliminate duplication, it may be counter-productive to other sectors, especially if the other NGO operates on a different approach or policy. On the other hand, micro-financing projects seemed not to have an impact on this community. Maybe this was due to the low purchasing power of the community due to poverty, such that businesses did not thrive. The fact that many farmers who took loans had to sell their property to repay loans indicates a failure by the NGOs to provide sufficient training on
investment and management or, that they need to seriously re-think on how micro-
financing can better benefit the people.

Participatory methodologies are now the main driving force for development. This
approach was found to be in use among all the NGOs in the two divisions. Some
utilised all the PRA tools, whereas others used just some of the tools to develop
their projects with the community. The main tools used were problem ranking and
prioritisation, trend-lines and historical profiles.

To build-in sustainability of projects, NGOs built the capacity of the community
by training community based resource persons (CORPS). Such resource persons
in the past have included community health workers (CHWs), traditional birth
attendants (TBAs), community-based distributors of contraceptives (CBDs),
wasaidis who act as community paraveterinary officers, persons to lay terraces,
technicians to maintain water projects among others.

In addition to this, cost sharing has been said to increase community ownership and
participation in projects. It is argued that since the community has input in the project,
they feel a stronger attachment for it and it is therefore less likely to collapse, should
the NGO pull out. The only problem would seem to be the added burden on a
community that is already impoverished, although the gains far outweigh the loss.

5.6 CONCLUSIONS

There is no doubt that NGO have a very crucial role to play development in Makindu
and Kibwezi. As far as food security is concerned, these organisations are acting as
facilitators in the development process. By providing basic services to the people, training community based resource persons, offering advice on the best suited seeds and breeds for the area, etc., NGOs are "bringing development" closer to the people.

However, in appreciating that they intervene in areas crucial for people's livelihood (agriculture especially), they have not emphasised the need to diversify incomes as the people are over dependent on agriculture and so will remain vulnerable when the weather fails.

Although NGOs have tried to address some of the main causes of food insecurity in the region, the community feels there is lack of serious commitment, in the sense that their greatest hope lies in finding a permanent solution to the water problem. One way they feel strongly about is through river the irrigation, but only AAK has made any serious efforts to make this a reality for the community. The major success in mitigating hunger in this area will depend a lot first, on how the NGOs will handle the whole issue of water for both domestic and agriculture use. This would partly resolve health-related issues, increase incomes of the people, open opportunities for employment and introduce new agricultural technologies. Second, involvement of the community right from the beginning will ensure ownership and sustainability of the projects. Quite a number of the earlier projects have stalled or failed due to non-participation of the community. Sustainability thus remains one of the major challenges that the NGOs will have to deal with. One way of ensuring this would probably be to allow the community an upper hand in the designing, budgetary decisions and management of projects. Planning the design with them would help them to envision the projects' sustainability and in-built this right from the outset.
5.8 RECOMMENDATIONS

Food insecurity in the area is definitely impacting on education outcomes. Research is needed to establish the extent of the problem, and also come up with better strategies to promote education in the region.

Since income levels are still low and quite dependent on the agricultural sector, the NGOs and other stakeholders need to look into other options of income generation for the community. Research needs to be conducted on viable micro-financing options suited to the divisions, otherwise money will continue to be poured into projects with poor results.

Good and long-term strategies for harnessing water for both domestic and agricultural use would need to be worked out. This can only be done through participatory action research with the community. The outcomes of this research could be used for strategic planning and the community would drive their development process and needs with the help of NGOs rather than the NGOs predetermining their areas of intervention at the outset.
BIBLIOGRAPHY


Harworth Press Inc.


### APPENDIX A: BUDGET

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY &amp; UNIT COST</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>2 @2,500.00</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Typing of proposal</td>
<td>46 @ 25.00 (4)</td>
<td>4,600.00</td>
</tr>
<tr>
<td>Binding of proposal</td>
<td>15 @80.00</td>
<td>1,200.00</td>
</tr>
<tr>
<td>Photocopying proposal</td>
<td>15 @ 70.00</td>
<td>1,050.00</td>
</tr>
<tr>
<td>Production of questionnaires</td>
<td>140 @ 175.00</td>
<td>23,100.00</td>
</tr>
<tr>
<td>Piloting of Instruments</td>
<td></td>
<td>1,500.00</td>
</tr>
<tr>
<td>Data coding and Analysis (computer use)</td>
<td></td>
<td>9,000.00</td>
</tr>
<tr>
<td>Typing and photocopying</td>
<td></td>
<td>10,000.00</td>
</tr>
<tr>
<td>Binding of Thesis (copies of draft and final thesis)</td>
<td></td>
<td>25,000.00</td>
</tr>
<tr>
<td>Fieldwork stationery -note books, pens, 4 tapes, tape recorder</td>
<td></td>
<td>4,000.00</td>
</tr>
<tr>
<td>Accommodation</td>
<td>300.00 @6 weeks</td>
<td>12,600.00</td>
</tr>
<tr>
<td>Food</td>
<td>300.00 @6 weeks</td>
<td>12,560.00</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>109,800.00</strong></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous (5% of total cost)</td>
<td></td>
<td>5,490.00</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>Kshs.114,290.00</strong></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B: HOUSEHOLD INTERVIEW SCHEDULE

Dear respondent, I wish to enlist your support in carrying out my research entitled "The Role of NGOs In Combating Food Insecurity in Makindu and Kibwezi Divisions of Makueni District-Kenya".

The purpose of this questionnaire is to obtain information from you on what NGOs are doing to ensure food security in this area. The information you will provide will be treated as confidential and will only be used in combination with that of other respondents.

INSTRUCTIONS: Fill in the appropriate response that applies to you.

Questionaire No. (code). DIVISION LOCATION VILLAGE

SECTION A: Demographic Information.

(1) Sex of respondent

1) Male 2) Female

(2) What is your age? 

1) Describe the type of your household, including family size and composition and educational attainment of each family member.

<table>
<thead>
<tr>
<th>Name of household member</th>
<th>Sex</th>
<th>Age</th>
<th>Relationship to household head</th>
<th>Level of education</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(4) What is the monthly household income level?
1) Below KShs. 2,000  
2) 2,000 - 5,999  
3) 6,000-10,999  
4) 11,000 - 15,999  
5) 16,000 - 19999  
6) Above 20,000

SECTION B

(5) Land use

a) Do you own land?  
   YES / NO/ (ANCESTRAL or SHARED?)

b) What is the size of your land?

a) Describe the farming activities you undertake.

LAND UTILIZATION

<table>
<thead>
<tr>
<th>ACREAGE</th>
<th>Crop-product.</th>
<th>Livestock</th>
<th>Other Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Rain-fed</td>
<td>1. Yes (namely?)</td>
<td>(specify)</td>
</tr>
<tr>
<td></td>
<td>2. Irrigation.</td>
<td>2. No</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 and above</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6) Crop production

a) What crops are grown and what proportion of land is used for each?

<table>
<thead>
<tr>
<th>Crops grown</th>
<th>Use of Crop</th>
<th>Proportion of land in use</th>
<th>Reasons for success or failure</th>
<th>Enough for Family?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cash crop</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>2. Food</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
a) If no cash crops are grown, state why not?

(7) In which months do you experience severe food shortfalls in the community?

(8) Where there are shortfalls, how do you meet your food requirements?

(9) Apart from farming, in what other ways do you acquire food for family consumption?

1. Relief  
2. Food for work  
3. Off-farm employment.  
4. Selling of Livestock  
5. Exchange of labour for food  
6. Others (specify)

10) Which NGOs work in this Division and how long have they been in operation?

(Use the table below to fill in your response)

<table>
<thead>
<tr>
<th>Name of organisation</th>
<th>A description of activities</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11) How have you benefited from these organisations as; a) A household?

b) A community?

12) In your opinion, which of these Organisations are helping you to increase food
13) Exactly which activities do you see as useful in achieving food security?

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Useful Activities</th>
<th>Remarks in support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14) How are community members involved in these activities?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

15) Which activities are in line with the community expectations?

16) Are there other ways in which the community feels that NGOs should assist them?

17) How are the community needs identified?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
18) How are community members involved in the determination of what activities NGOs will undertake?

19) How are community members prepared to take over and continue with the projects initiated should the NGOs pull out?

20) Based on your own assessment, how effective are the projects that NGOs initiate in this area?

21) Rank all the NGOs working in your area in order of best performance and give reasons.

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>RANK</th>
<th>WHY/REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22) What do you think are the strengths of each of these NGOs?

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>STRENGTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23) List some of the weaknesses of these organisations.

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24) What lessons have you learnt in working with the NGOs in your village?

25) Any other comment?

THANK YOU FOR YOUR CO-OPERATION
APPENDIX C: INTERVIEW SCHEDULE FOR NON-GOVERNMENTAL OFFICERS

This interview guide is intended for the officers working for NGOs. The purpose of the guide is to collect information on food security -relate Non-governmental organisations working in Makindu and Kibwezi Divisions of Makueni District. The researcher will interview the concerned officers.

1. Name of organisation and officer's designation

2. Background information (Probe for the following).
   - Give a brief history of entry into the area
   - What is the organisation's area of operation in the District?
   - What criteria are used in choosing target groups?

3. What is the overall objective (goal/purpose) of the organisation?

4. What is the organisation's policy on food security?

5. Is this policy in line with community expectations on food security?

6. What are the major activities of the organisation?

STRATEGY

7. In the process of project implementation, how does the organisation do the following?
   a) Assessing their needs and planning
   b) Implementing the intervention.
   c) Monitoring and Evaluation.
   d) Enhancing sustainability of projects initiated

8. Who are the key players in each of the above mentioned stages?

9. What benefits do you think your program has had to the community as far as food security is concerned?
10. How have these benefits improved the nutritional status of the target groups you are working with?

1. What challenges have you faced in trying to increase food supply in the project area?

2. How have you dealt with the challenges?

3. What lessons have you learnt about combating food insecurity in this region?

4. What lessons have you learnt in working with the local community?

15. Based on these lessons how can you improve your performance in this project in the future?

5. Any other comments?

(Remember to thank the interviewee for his/her time)
APPENDIX D: INTERVIEW GUIDE FOR GOVERNMENT OFFICERS WORKING IN COLLABORATION WITH NGOs

This interview guide is intended for government officers working in collaboration with NGOs. The purpose of the guide is to collect information on food security issues in Makindu and Kibwezi Divisions of Makueni District. The researcher will administer this instrument.

1.a) Designation of the officer

1.b) Qualification

c) How long have you worked in the division? What is the food security situation in the division?

2. What factors contribute to this food security situation in the region?

3. How do community members cope in times of food scarcity?

4. Which NGO do you work with closely and what activities are you involved in?

4.b) How well do you work with the NGOs?

5. Do you feel that these activities effectively address food insecurity?

6. How long have you collaborated with this organisation?

7. Are you involved in decision-making concerning community projects where you are collaborators with the NGO?

7.b) How are you involved?

8. Do you think NGOs have a role to play in improving food security in the area?

9. Which NGOs in your opinion are crucial to the improvement of food security in the region?

9.b) Why?
10. How is the working relationship between;
   a. NGO and government officers
   b. NGO and community
   c. NGO and other groups

11. Sustainability. Are community members prepared to take over projects if the
    NGOs pulled out?

12. How and in which areas would you like to see NGOs improve their performance,
    TO attain their goals better?

13. Any other comment?
APPENDIX E: FOCUS GROUP DISCUSSION GUIDE (WOMEN & MEN GROUPS)

(Please remember to get the participants' consent to take notes and audio-tape the discussions)

1. Group composition, group objectives and manner of attainment
2. Group's view of the food security in the division.
3. Description of farming practices in the area and seasonal trends that may affect food availability
4. Coping strategies in times of famine
5. Government initiatives to improve the food situation?
6. NGOs initiatives
7. Usefulness of these activities (supported by the NGOs) as assessed by the group members.
9. What is the Group's view of the role of the NGO that they work with?
10. Has the group encountered any difficulties with the agencies?
   a) Nature of the problem(s) b) Why is it a problem? c) How is it being resolved?
11. Which NGOs would you say have been of importance to your village?
12. Why?
13. What would you say has been the greatest contribution of the NGOs since entry into the division?
14. What would you like to see change as far as NGO operations in your village are concerned?
15. Any other comments?

(Remember to thank the participants for their time)