

**THE OPEN UNIVERSITY OF TANZANIA**  
**&**  
**SOUTHERN NEW HAMPSHIRE UNIVERSITY**

**MASTERS OF SCIENCE IN COMMUNITY ECONOMIC  
DEVELOPMENT  
(2005)**

**FOOD SECURITY SURVEY RESEARCH**

**MAKUPA FRANK FRED**

FOOD SECURITY SURVEY RESEARCH DONE IN MOMBO DIVISION TANGA  
REGION IN COLLABORATION WITH MUVIMAMO (CBO)

MAKUPA FRANK FRED

MAY 2005

A STUDY DOCUMENT PRESENTED TO THE SOUTHERN NEW HAMPSHIRE UNIVERSITY & OPEN UNIVERSITY OF  
TANZANIA IN FULFILLMENT OF THE REQUIREMENT FOR A DEGREE OF MASTERS OF SCIENCE IN COMMUNITY  
ECONOMIC DEVELOPMENT

**ABSTRACT:**

Despite the fact that agriculture is the Major means of livelihood for most people in Mombo Division the food security situation at the household level is still unsatisfactory. To find out the courses of food insecurity, the survey was carried out to 300 households, focus group discussion, documentary review and field visit using both qualitative and quantitative research methodology. The approach that was applied was participatory action research involving host organization leaders' village leaders, District community development officers and agricultural extension officers. Quantitative data were collected using semi-structured questionnaire and focus group discussion, documentary review, direct observation and secondary data studies were used to compliment the information collected by quantitative method. The information from questionnaire was analyzed by using Epi-info statistical package. The results revealed that during acute food shortage which takes place from January to June 126(50%) according to respondents interviewed consume only 1 meal that means they forego two of the 3 meals (lunch, dinner or breakfast) while at normal situation 210 respondent equivalent to 85% consume 3 meals. About 112 respond equivalent to 47% during the survey had no enough food. The main reason according to 231 (92%) was drought, poor harvest, and storage and poor crop production skills. The survey team suggests development of food security proposal that may check food insecurity in the area.

**CANDIDATE DECLARATION:**

The content of this report is of candidate original works necessary quotation/citation have indicate Authors reference name. This work/material has not been submitted for the similar degree in any other university.

MR FRANK MAKUPA.  .....

### **STATEMENT OF COPYRIGHT:**

The views, interpretations and recommendations expressed in this report are those of the authors "No part of this Project may be reproduced, stored in any retrieval system, or transmitted in any form by any means electronic, mechanical, photocopying recording or otherwise without prior written permission of the author or the Open University of Tanzania / Southern New Hampshire University in that behalf

## **ACKNOWLEDGEMENT:**

The survey study presented in this report was the organizations choice decided during the first meeting between the MUVIMAMO Leaders and Frank Makupa CED student 2004/05. It is important to acknowledge here the support provided to the survey team, many people involved in the survey include; Mombo Division leaders, MUVIMAMO Leaders, data collectors and communities. Many people provided an extremely high level of commitment and cooperation, too long a list to report here. Special mention must be made, however of some. At MUVIMAMO office I would like to acknowledge Mr. Said Chanyegela (MUVIMAMO chairperson), Mrs Magret Muya (MUVIMAMO Secretary), Mrs Lucy Mushi (Korogwe District Community Development Officer) whose cooperation and enthusiastic support were vital. I would like to thank Mr. Nzinyangwa Ezekieli Kiario (Supervisor) who provided much of his expertise to make my work success; his contribution was of great help.

I express my sincere and thanks to my wife Sarah Makupa, my son Joshua and daughter Deborah who prayerfully encouraged and gave me moral support during that busy time of undertaking this study. Much gratitude is to my wife Sarah for shouldering family responsibility during my 18 months of study, me and survey team wishes to appreciate a special note of thanks to all data collectors. The quality and content of the information in this report is due to their extremely high level of commitment to participate in the survey exercise.

Lastly, but most important I express my sincere gratitude to all village leaders, community members in the village visited during the survey, who on the days of the survey abandoned their usual duties and agreed to provide information through interview, meetings and focus group discussions at extremely short notice.

### **CANDIDATE DEDICATION.**

This work is dedicated to my wife Sarah my two kids Joshua and Deborah because of the moral and inspirational supports they gave me during the busy period of undertaking my studies. May this work be a motivation for them to work harder in their academics and may the Almighty God bless their future.

## TABLE OF CONTENTS

	PAGE
• Abstract	i
• Declaration	ii
• Copyright	iii
• Acknowledgement	iv
• Dedication	v
• Supervisors Declaration	xiii
• Table of content	vii-x
• List of acronym's	xi-xii
 1 CHAPTER I INTRODUCTION:	
1:0 BACKGROUND OF THE ORGANIZATION (MUVIMAMO)...	1
1:1 Vision of the Organization .....	1
1:2 Mission of the organization .....	1
1:3 Description of organization .....	2
1:4 The organization structure.....	3
1:5 The organization objectives and activities.....	4-5
1:6 The Description of members .....	6
 2:0 THE ASSINGMENT.....	7
3:0 THE SURVEY OBJECTIVES .....	7-8
4:0 CHAPTER II LITERATURE REVIEW.....	9
4:1 THEORETICAL.....	9
4:2 FOOD SECURITY POLICIES.....	12-16
4:2:1 Agriculture and livestock policy (1997).....	12
4:2:2 Sector and sub-sector policies with direct impact on food security .....	12
4:2:3 Other Cross – Cutting policies  impacting on Food Security .....	13
4:2:3:1 Rural Development (2003).....	14
4:2:3:2 Cooperative Development Policy (1997) update in 2002.....	14
4:2:3:3 National Micro – finance Policy (2003).....	14
4:2:3:4 National Environmental Policy 1997.....	15
4:2:3:5 Gender Policy.....	15
4:2:3:6 HIV and AIDS Policy 2001.....	15
4:2:3:7 The wildlife Policy of Tanzania 1998.....	15
4:2:3:8 Trade organization (WTO), that inflame food Security.....	15



4:3	EMPIRICAL:.....	17
4:3:1	FOOD SECURITY SITUATION IN TANZANIA .....	17
4:3:1:1	Assessment of food security .....	17-22
4:3:1:3	Availability of food.....	22-25
4:3:1:4	Accessibility to food .....	25-26
4:3:1:4	Food utilization .....	26-27
4:3:1:5	Vulnerability to food insecurity.....	27-28
4:3:2	Past efforts to Address food security.....	28-30
4:3:2:1	Tanzania Agriculture Development strategies as a Measure to check food Insecurity .....	30
4:3:2:2	Livestock and food security .....	30
4:3:2:3	The performance of the Agriculture and food Sector.....	34
4:3:2:4	Agriculture and food security strength and Opportunities .....	36-38
4:3:2:5	Agriculture sector weakness and threats .....	38-39
4:4	PRIVATE SECTOR ORGANIZATIONS AND FOOD SECURITY .....	40
4:4:1	Farmers .....	40
4:4:2	Farmers organization .....	40-41
4:4:3	Agribusiness .....	42-43
4:4:4	Financial Institutions .....	43
4:4:5	Civil Society Organizations (CSOS).....	44
4:4:6	Other service Providers .....	44
4:5	Creating a favorable climate to foster commercial activities	45
4:5:1	Sustainable macroeconomic stability.....	45
4:5:2	Taxes, levies and fees on the sector.....	46
4:5:3	Energy Tariffs and Prices on the sector.....	46
4:5:4	Reviewing, Harmonizing and Publicizing Agriculture sector Legislation .....	46-47
4:5:5	Provider regal Empowerments for stake holders to Control commodity Board .....	47
4:5:6	Legalizing and Promoting Border Trade.....	47
5.0	CHAPTER METHODOLOGY.....	48
5:1	Research Design.....	48
5:2	Sampling Technique procedure .....	49
5:3	Sample size .....	49
5:4	Data collection .....	49
5:5:1	Primary Data Collection .....	50
5:4:1:1	Quantitative method .....	50
5:4:1:2	Qualitative methods .....	50
5:4:1:3	House hold observations .....	50
5:4:2	Secondary Data Collection .....	51

5:4:2:1	Review of relevant documents regarding food Security .....	51
5:4:2:1	Recall Periods .....	51
5:4:2:3	Document of the experiences from farmers and agriculture extensions .....	51
6:0	SURVEY TEAM TRAINING.....	52
6:1	Aim and objectives of the survey .....	52
6:2	Listening interviewing technique .....	53
6:3	Data collection tools.....	53
6:4	Pre testing of Questionnaire.....	53
6:5	Data collection .....	53
6:6	Information compilations.....	53
7:0	Data analysis .....	55
7:1	Primary Data analysis .....	55
7:2	Secondary data analysis.....	55
8:0	CHAPTER IV FINDINGS.....	56
8:1	Community composition.....	56
8:2	House hold composition .....	57
8:3	House holds Individuals structure .....	57
8:4	Current house holds Foods Security situation.....	57
8:5	HOUSE HOLD FOOD SECURITY .....	57
8:5:1	Crop Production .....	58
8:5:2	Food consumption at house hold.....	59
8:5:3	Food storage.....	60
8:5:4	Livestock Production .....	60-61
8:5:5	Marketing .....	61-62
8:5:6	Use of farm Inputs.....	62
8:6	TEAM OBSERVETIONS ON REASONS FOR LOW CROP PRODUCTION PER ACRE.....	62
8:6:1	UN timely planting .....	63
8:6:2	Low plant populations .....	63
8:6:3	Use of local seeds .....	63
8:6:4	Poor farm Implements .....	63
8:6:5	Lack of input utilization by farmers.....	63
8:6:6	Pest .....	64
9:0	CHAPTER V: RECOMMENDATIONS AND IMPLEMENTATION	
9:1	Crop production .....	65
9:2	Food storage.....	65

9:3	Livestock production .....	65
9:4	Marketing .....	66-67
9:5	Introduction of Micro Irrigation schemes.....	67
10:0	CONCLUSION .....	68
10:0	EXECUTIVE SUMMARY OUTLINE OF PROPOSAL.....	68
10:1	The Project Titles.....	68
10:2	Executive summary .....	68
10:3	Contact person.....	68
	Proposal submitted by .....	69
10:4	Problem statement.....	69
10:5	Mission statement .....	70
10:6	Target Group.....	70
10:7	Project activities .....	70
10:8	Project out put.....	71
10:9	Project outcome (medium term) .....	71
10:10	Project out come long term results).....	71
10:11	Project input /Resources required .....	71
10:11:1	Budget requested for year one.....	72
10:11:2	Our Contribution .....	72
10:12	Project monitoring and evaluation.....	72
12:12:1	Monitoring .....	72
12:12:2	Evaluation .....	72
12:13	REPORTING .....	72
Appendix 1	- Questionnaire .....	73-77
Appendix 2	- Schedule for food security survey.....	78
Appendix 3	- Project title selection .....	79
Appendix 4	- Budget Description.....	80-81
Appendix 5	- Project logical frame work .....	82-84
Appendix 6	- Detailed Implementation plan.....	85-86
Appendix 7	- Tables of Results .....	87
Appendix 8	- Literatures References.....	88-89
Appendix 9	- Letters of introduction .....	90-93
Appendix 10	- Various Picture During the survey exercise ...	94-96

#### **LIST OF ABBREVIATION AND ACRONYMES:**

ACP	Africa Caribbean Pacific
ADP	Area Development Program
ASDP	Agriculture Sector Development Program
ASDS	Agriculture sector Development strategy.
BMI	Body mass Index
BOT	Bank of Tanzania.
CBO	Community Based Organization
CAADP	Comprehensive African Agriculture Development Program
CED	Community Economic Development
CHAMITAMO	Chama cha Akiba na Mikopo Tarafa Mombo (Mombo division credit and savings society)
CSOs	Civil society Organizations.
EAC	East Africa Community.
ERP	Economic Recovery Program
EU	European Union.
FAO	Food and Agriculture Organization
FSD	Food Security Department
GDP	Gross Domestic Product.
HDR	Human Development Report.
ICESCR	International Covenant on Economic, Social and Cultural Right
LGA	Local government Authority.
MAFS	Ministry of Agriculture and food security.
MDG's	Millennium Development Goals

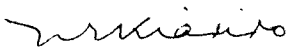
MF	Ministry of Finance.
MFI	Micro finance Institution.
MNR	Ministry of Natural Resource.
MUVIMAMO:	Muungano wa Vikundi vya Maendeleo Mombo (Affiliation of development Societies groups in Mombo)
NMC	National Milling Cooperation
NSGRP	National Strategy for Growth and Reduction of Poverty
PAR	Participatory Action Research
PC	Planning Commission.
PRSP	Poverty Reduction Strategy Paper
SACA	Savings and Credit Associations.
SACCOS	Savings and Credit Cooperative Societies.
SADC	Southern Africa Development Community
SAPs	Structural Adjustment Programs
SGR	Strategic Grain Reserve
SSR	Self Sufficient Ratio
TANESCO	Tanzania Electrical Supply Company.
TCAL	Tanzania chamber of Agriculture and Livestock.
TCCIA	Tanzania Chamber of Commerce Industry and Agriculture.
TDHS	Tanzania Demographic and Health Survey
TDV	Tanzania Development Vision
TPRI	Tanzania Pesticides Research Institute.
TRA	Tanzania Revenue Authority.

URT	United Republic of Tanzania
WFP	World Food Program.

# SUPERVISOR’S DECLARATION

This is to declare that as a supervisor I have given enough support to the student during the whole period of undertaking his study as per the supervision guideline requirement.

The material in this document is now acceptable for review.

Mr. Nzinyangwa Ezekiel Kiario.....

## **CHAPTER I INTRODUCTION:**

### **1:0 BACKGROUND OF THE ORGANIZATION (MUVIMAMO):**

<sup>1</sup>MUVIMAMO, stands for Swahili (Muungano wa Vikundi vya Maendeleo Tarafa ya Mombo). English Translation is affiliation of development society groups of Mombo Division. The organization is based in Tanga Region Korogwe District at Mombo Division. Currently the organization has its office at the ADP building Mwisho wa Shamba village. MUVIMAMO started in 2001 with the objective of supporting community Development initiatives in 44 villages of Mombo Division.

### **1:1 VISION OF THE ORGANIZATION:**

Members of the organization will own their development process; will be able to meet their basic needs like foods, clothes, shelter, social services like school for their children, health, clean water, women having equal say on household income and children accessing development opportunities to their full potential.

### **1:2 MISSION OF THE ORGANIZATION:**

To support groups, individual members to initiate and run income generation activities via functional cooperative groups through accessed soft loans, trainings, consultancy, markets for member's products and acquisition of farm inputs.

---

<sup>1</sup> Muvimamo constitution in page 1



### **1:3 DESCRIPTION OF ORGANIZATION (MUVIMAMO)**

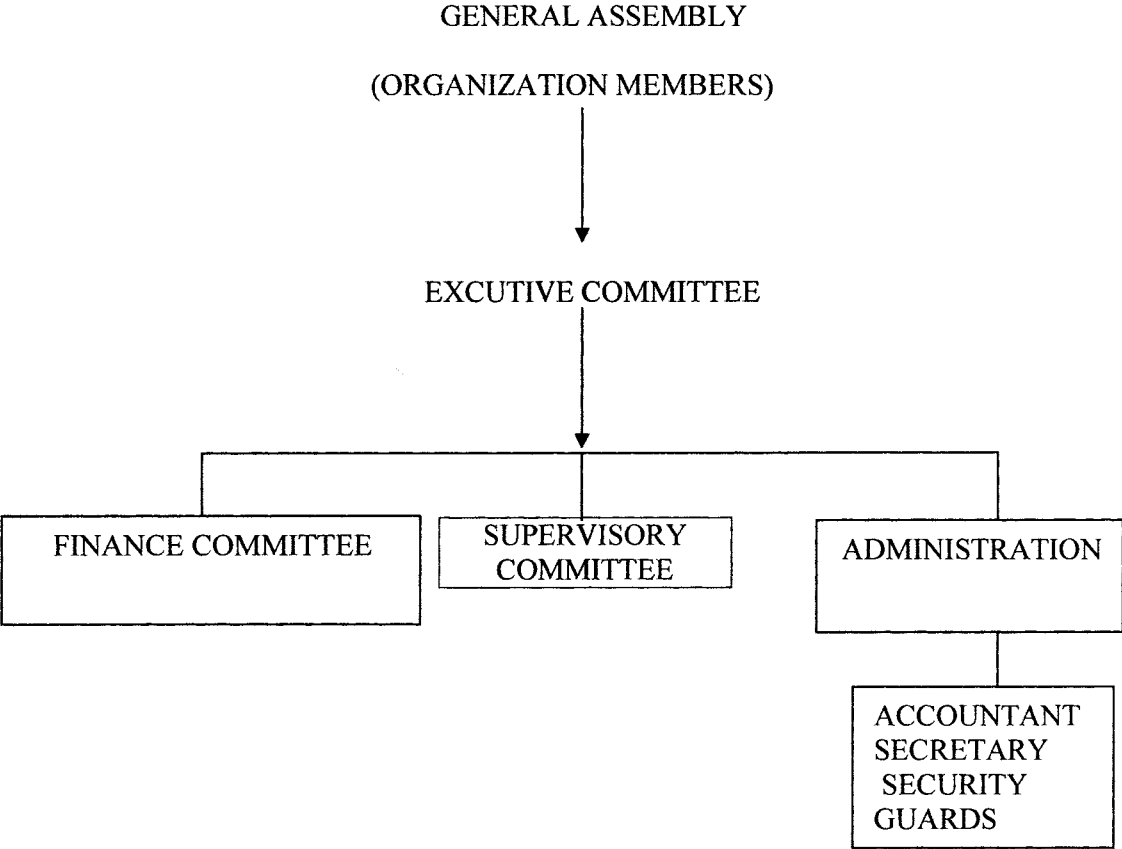
MUVIMAMO is a community-based organization formed in 2000. The organization intends to cover the whole area and Mombo Division with 44 villages. Currently organization has 55 registered groups and each group has up to 90 members. Formation of organization was a community initiative to coordinate their resources for sustainable development. Initially they started with 50 members where they formed interim committee in 2000. Organization established a constitution that was adopted in August the same year.

#### **MEMBERSHIP TO THE ORGANIZATION:**

Membership to the organization according to the constitution is voluntary and each group member pay registration of 20,000 Tsh. and annual fee of 10,000 Tsh. The organization is in the process of recruiting an accountant, coordinator and selecting 5 board members.

**1:4 THE ORGANIZATION STRUCTURE:**

The organization structure is formed by members’ general assembly, executive committee that is formed by finance committee, supervisor committee and administration. Accountant/treasurer, secretary and security guards forms Administration



## **1:5 THE ORGANIZATION OBJECTIVES AND ACTIVITIES:**

**OBJECTIVE:** 1 Micro enterprise development:

### **ACTIVITIES FOR THE ABOVE OBJECTIVE:**

- (a) Support individual and groups to access loans for income generation activities. The organization has already started the initiatives for the above objective by establishing the credit and saving society called CHAMITAMO (chama cha akiba na mikopo Tarafa ya Mombo) by the time of the survey the society had a turn over of<sup>2</sup>twenty million Tanzania shillings.
- (b) Improved skills on micro enterprises development for members through training. The members have acquired several training on micro business skills on how to start and propagate small business.<sup>3</sup> There area about 25 group and 130 individuals who have benefited from the training facilities offered by MUVIMAMO.
- (c) Handcraft development and marketing. Several groups (about 10 with 5 to 10 members) and individual have been trained on how to make batik clothes through tie and dye and embroidery skills, by the time of the survey they were in a process of initiating hand loam training focusing community youth group.

---

<sup>2</sup> Chamitamo progress report of September 2004 page 6

**OBJECTIVE:** 2 Food security; to increase food availability at the household level.

**ACTIVITIES FOR THE ABOVE OBJECTIVES:**

- (a) Supporting member's efforts on food sufficiency through access to improved seeds and farm implements. The organization has been able to support formation of farmers' shop where members can get various farm inputs like seeds, pesticides, equipments etc though by the time of survey the leaders of the shop said the quality of services was low because of small capital. But they were in a process of accessing some stocks in form of credit from the banks.
- (b) Supports of trainings, the members and farmer's groups have been accessing training on various farming practices like use of animal drought power in farm activities, production of vegetables and fruits, dairy goat and dairy cow husbandry and processing of fruits to increase shelf life.
- (c) Support to Micro irrigation activities. The organization has been able to mobilize members and farmer's groups to make irrigation canals for irrigating farms. The farmers in this category faced many challenges of poor irrigation systems because many have no concrete at times they get washed away by floods during heavy raining seasons. However little have been done to exploit the water resource for irrigation as rivers pass across the fertile farmland of the area.

---

<sup>3</sup> Training reports and progress reports of Muvimamo

## **1:6THE DESCRIPTIONS OF MEMBERS**

### **Beneficiaries Population:**

MUVIMAMO intends to cover the whole division of Mombo, which has a population of about 469,047 people, of which 21,305 are male, 26,235 female and 21,057 are children.

Administratively the Division area is divided into 6 wards with number of villages and households as follows:

	<b>Ward</b>	<b># Of villages</b>	<b># Of households</b>
1	Chekelei	6	1,132
2	Makuyuni	13	5,189
3	Mazinde	9	3,328
4	Mkalamo	8	2,131
5	Mkomazi	4	1239
6	Mombo	4	2,328
	<b>Total</b>	<b>44</b>	<b>15,347</b>

### **LOCATION OF ORGANIZATION AND POPULATION.**

Member of the organization are located on the west of Korogwe District Tanga region. It covers an area of 1987 square kms. Mombo is the largest Division compared with 3 other Divisions that form Korogwe District. It shares the boundary with Same District of Kilimanjaro region on the north, Lushoto District on the west, Korogwe Township on the south and Handeni district and Arusha region on the west. The division lies in the low land area that extends over Pangani and Mkomazi river basins.

### **3:0 THE ASSINGMENT.**

Despite the fact that agriculture is the major means of livelihood for most people in the area where the members of organization lives, food security situation at the household level is still unsatisfactory. Average production per household was 3.5 bags of 100 kg to 5.2 bags of 100 kg for maize per acre, 4 bags of 100 kg to 6 bags of 100 kg for paddy. While the <sup>5</sup>required quantities per average household of 7 persons are 21 bags of maize and 19 bags of paddy per year. Food insecurity has consequently results in children malnutrition, poor health for adults, and low schools attendance for children, increased poverty and incapacitation for people to produce effectively. The situation has been worsening for the past 3 years due to unreliable rainfall; poor means of agricultural production for majority of the farmers and limited access to agricultural inputs were preliminarily cited as the reasons for this situation. This necessitated the survey of food security status upon which will give direction on how to address the situation.

### **4:0 THE SURVEY OBJECTIVES.**

The objective of food security survey on the area is to get the real picture of food security situation in the area, to accomplish this it was necessary to get information on the following aspects.

- Households composition and their capacity to meet food needs
- Identify a gap between food production and food needs at the household level.

---

<sup>4</sup> Muvimamo development strategy page 11

<sup>5</sup> Korogwe District food security requirement page 36

- Constraints to food production at the household level
- Mitigation mechanism during food insecurity months and its consequences to development at the household and community levels.
- To suggest and propose recommendations to check food security constraints as a means to improve food security (proposal).

## **CHAPTER II: LITERATURE REVIEW:**

### **5:1 THEORETICAL**

“If one is discussing the issue of food security he/she needs to define what “food” means. In its simple term “food” is any substance with the required nutrients taken into the body to sustain life and maintain growth. However, culture is usually used to determine ones perception on what food means to a given social groups. In Tanzania for instance where there are more than 120 ethnic groups. “Food” entails different substances to different social groups. For the Hayas of Kagera region food means bananas (plantains) cooked with beans, fish, meat and or green vegetables, on the other hand for the Sukuma of Shinyanga and Mwanza food means stiff porridge made from maize flour and eaten with relishes prepared from beans green vegetables, meat or milk. These are just a few examples that demonstrate what it may be conceived as food in one place may not necessarily be accepted as food in other places. Therefore when discussing issues of food security in Tanzania or a region one need to be cautious of these cultural differences.

“Food Security” means more than food availability as it touches a wide range of aspects. <sup>6</sup>For instance articulate food security from a multi dimensional angle, where food security is defined as inclusive of adequacy food supply both (quality and quantity) stable and sustainable food supply and accessibility to food for all and at all times. This implies that all people regardless of sex, age, class and race / ethnicity are all times guaranteed of physical, economic and psychological access

---

<sup>6</sup> FAO food security review Journal of 1983 page 105



to quality food to meet both physiological and nutrient requirement. <sup>7</sup>World Bank (1986) defines food security as access to enough food by all people at all times for ensuring a health and active life style. <sup>8</sup>The Rural food security Research and Policy Group added a human right element to the definition of Food security. Its supporting argument is based on the fact that food security is a matter of human right. As a human right issue, food security has three minimum requirements i.e. production of adequate food supply, maximizing stability in the flow of supplies and accessing available supplies.

<sup>9</sup>World Vision Tanzania defines food security as “the state at which a household is able to sustain ably meets its own food need”. It has four components, which are:-

(i) Food availability

This relates to sufficient quantities of food produced by the households themselves, to ensure an adequate food supply. It can best be achieved by improving agriculture production.

(ii) Food accessibility

This component relates to households meeting their food needs through financial ability and stable income to purchase their food. This can be achieved if the household raises their income through engaging in income generating activities.

(iii) Food utilization

This is referred to the ability of the household to appropriately use the available food. Prepare and consume their food in sanitary and nutritionally balanced manner. The role of safe adequate and clean water and sanitation comes to play

---

<sup>7</sup> World Bank report of 1986 page 125

<sup>8</sup> The rural food security research (kihacha) group report of 2002 page 204

<sup>9</sup> World visions food security training manual of 1999 page 12

in this component. Nutrition and health knowledge and practice are part of this component. Practices of food storage preparations and issues of intra-house resource sharing are also part of this component.

#### (iv) Asset Creation

This is referred to the ability of the household to have enough resources that can enable them to acquire their food needs over time and in the events of crisis affecting their food security system.

<sup>10</sup>Food security exists when all people at all times have physical, social and economic access, to sufficient and safe food to meet their nutritional needs and cultural preferences for an active and healthy life. On the other hand food insecurity exists when people are undernourished as a result of the physical unavailability of food, their lack of social or economic access to adequate food and/or inadequate food consumption and/or utilization. Food availability, accessibility and utilization constitute a necessary condition for food security. Improved food security (and therefore improved nutritional status) leads to improved human capital that in turn leads to higher agricultural productivity and wages in the labor market. This is necessary for increased total volume of goods and services or Gross National Product (GNP). Food security is therefore a development issue and must be mainstreamed in the development agenda.

Food insecurity is still a global problem especially in developing countries, and the situation is more critical in Sub – Saharan Africa. The food and agricultural Organization (FAO) of the United Nations Report of 2004, identifies about 852 million people worldwide was undernourished between year 2000 and 2002. Out

---

<sup>10</sup> Final Draft of National food security page 1

of these, 815 million people were in developing countries, 28 million in the countries in transition and 9 million in the industrialized countries. During the same period the number for Sub-Saharan Africa were 203.5 million out of a total population of 620.0 million equivalent to 33 percent of the total population of 217.7 million equivalent to 40 per cent. In Tanzania there are no comprehensive statistics covering the undernourished population. However, taking undernourishment among children as a proxy, 44 per cent of children under the age of five are malnourished indicates chronic food insecurity.

## **5:2 FOOD SECURITY POLICIES:**

The government of Tanzania has not published the sole food security policy but currently there are Sectoral Policies which bearing on Food Security. The government is in the process of publishing its food security policy, which is in the final draft but not yet approved by the minister but the content in the draft are still valid as the document is a final draft. The sector policies are:

### **5:2:1 Agricultural and Livestock Policy (1997)**

In 1997 the Government formulated the National Agricultural and Livestock Policy, which is being implemented within the framework as ASDS and ASDP. Government efforts in this area include:

- Promoting use of improved agricultural technologies and food crop and livestock husbandry through strengthening research, extension, training and other technical services so as to increase crop and livestock productivity and production.

- Promoting irrigated agriculture including Implementation of smallholder irrigation schemes through participatory approaches;
- Strengthening the operation of agricultural inputs trust fund to facilitate availability of credit for inputs and agricultural machinery production;
- Promoting pre and post-harvest management services so as to reduce pre and post harvest losses;
- Strengthening food security crop monitoring services;
- Strengthening strategic Grain reserve to address food emergencies;
- Rehabilitating and/or establishing physical marketing and storage facilities;
- Reviewing legislation that affects private sector participation in the agricultural sector, including the lands Acts;
- Removing taxes and restrictions on trade at national, regional and district levels; and
- Promoting cross-border trade with neighboring countries.

**5:2:2 Other Sector and sub-sector policies with direct impact on food security:**

The Government has formulated a number of policies, which have a bearing on food security. These include:

Food and Nutrition Policy (1992) which integrates and coordinates nutrition issues in the country in order to ensure improve nutritional status; the National Land Policy (1997) which promotes and insures land tenure system to encourage the optimal use of land resources which plays a very significant role in food production; the water policy (2002) which advocates for

sustainable development and use of water resources for various purposes including irrigation and domestic use, all being crucial for food security; National Fisheries Policy (1997) which aims at Promoting efficient utilization of the available fisheries resources in order to contribute to the growth of the national as well as household food supply and dietary diversification; National Forest Policy (1998) and National Beekeeping Policy (1998) which support conservation of the natural resources and provides for improved climatic environment for sustaining food production and forestry products. These policies also support income generation through sales of forestry products; and The National Disaster management Policy (2004) that aims at timely response during food emergencies.

**5:2:2:1 Rural Development (2003):**

The policy provides linkages between individual sector policies for rural development and emphasizes on cross sector issues such as infrastructure development, governance and capacity building, which are crucial towards attaining sustainable food security.

**5:2:2:2 Cooperative Development Policy (1997 updated in 2002):**

The policy provides the framework for the restructured cooperatives to operate on an independent, voluntary and economically viable basis and it empowers farmers in agricultural production and marketing.

**5:2:2:3 National Micro – finance Policy (2002):**

The policy promotes micro financing through the banks, other financial intermediaries and savings and credit societies for provision of credit and other financial services.

#### **5:2:2:4 National Environmental Policy (1997):**

Policy aims at ensuring sustainability, food security and equitable use of resources for meeting the basic needs of the present and future generations.

#### **5:2:2:5 Gender Policy (2000):**

The objective of the Gender Policy is to promote and mainstream gender balance in all sectors of the economy. Specific attention is accorded to women who are the main food and agricultural producers.

#### **5:2:2:6 HIV and AIDS Policy (2001):**

The objective of HIV and AIDS Policy is fighting the scourge on a multi-level and using a multi-sectoral approach. The policy is also important towards achieving food security as it emphasizes prevention of AIDS, which, if not controlled, would render many producers unproductive and increase number of vulnerable people.

#### **5:2:2:7 The Wildlife Policy of Tanzania (1998):**

The policy aims at community participatory management of wildlife conservation and utilization including game ranching. It also encourages agro-biodiversity necessary for improving agricultural production. This ensures food security in villages surrounding conservation areas.

#### **5:2:2:8 Trade Organization (WTO) policies, which influence food security:**

These policies impact on food security in one-way or another. However, the implementation of the policies has not resulted in a cumulative impact on food security. This is due to uncoordinated efforts and lack of clear emphasis on food security aspects. In addition, there has not been any attempt to monitor the impact of these policies on food security. The NFSP is meant to

facilitate better coordination and monitoring of the impact of these policies on food security in the country. Through this policy, the Government aims at ensuring that development policies in other sectors recognize food security as an important tool for attaining sustainable development.

### 5:3 EMPIRICAL:

<sup>11</sup>Food security depends on both food production as well as food purchasing power. Succinctly point out that the issue of food security largely involves both decision-making powers on who produces what “who” and “when” who buys “what” and “how much” and who decided “what” to be produced or bought. Food sector in rural areas is closely associated to gender roles where women form the core production force despite, their being deprived of land ownership and control rights and decision-making powers on production and distribution of goods, services and productive resources including their own labor power.

Since independence up to the mid eighties the Government of Tanzania embarked on various measures such as mass mobilization campaigns; short, medium and long – term policies, strategies, plans and programs to ensure food availability and improved nutritional standards. However, these measures did not adequately address production and less on accessibility and utilization. They were also piecemeal, ad-hoc and therefore unsustainable. In addition, the various efforts were uncoordinated and without a mechanism for monitoring and evaluation of their impact on food security.

The Government has recognized his situation under its overarching policy frameworks of the Tanzania Development vision 2025, Poverty Reduction strategy paper (PRSP) and National Strategy for Growth and Reduction of Poverty (NSGRP). The Vision 2025, PRSP and the NSGRP guide the development initiative of Tanzania. Vision 2025 envisages raising the general

---

<sup>11</sup> Food security and Land research Report 2002 Koda page 123



standard of living of the population to the level of a typical medium income in developing country by 2025. The vision identifies three priority goals: ensuring basic food security, improving income levels and increasing export earnings. It also recognizes agriculture as one of the priority sectors for achieving these goals. The PRSP recognizes agriculture and food security as among the critical areas for poverty reduction. The NSGRP goes further seeking to achieve high and shared growth, high quality livelihood, peace, stability and unity, good governance, high quality education and international competitiveness.

In accordance with Vision 2025 and PRSP, the Tanzania Government adopted the Agricultural Sector Development Strategy (ASDS) in 2001 and the Agricultural Sector Development Program (ASDP) in 2002 for implementing the PRSP within the agricultural sector, as well as for operationalising the Agriculture and Livestock Policy (ALP) of 1997. The objective of the ASDS is to transform the predominantly subsistence agriculture into a commercial, profitable agricultural production system.

The ASDS identifies interventions to be implemented to improve agricultural productivity in Tanzania, a key aspect of food security; the ASS observes that there is no clear government policy framework on food security. Similarly, the objectives of the over-reaching policy frameworks of the Vision 2025 and the NSGRP in relation to food security cannot be achieved in the absence of a clear sector policy framework.

Over and above the national policy frameworks, Tanzania has ratified international conventions and commitments geared towards addressing food

security issues. Tanzania is a signatory to the International Covenant on Economic, social and cultural Rights (ICESCR) that recognizes the right of everyone to an adequate standard of living including adequate food. Therefore, food is a basic and essential human right and hence each citizen is entitled to adequate and safe food to meet nutritional needs. However, the covenant has not been translated into national law. The National Constitution does not directly mention food as a basic right, but it alludes to the fact that it is part and parcel of the “Right to Life” stipulated under the basic rights and duties article 3 sections 16.1 of the Constitution. The government recognizes that the responsibility of ensuring household food security rests upon the individual household itself and specifically the head of the household. The government intervenes in the event of food emergencies. Tanzania committed to implement the World Food summit plan of action contained in the 1996 Rome Declaration on world Food security and the Millennium Development goals (MDGs) as internationally agreed targets for halving poverty, malnutrition and hunger by year 2015.

Similarly, Tanzania is committed to implement the African Union’s (AU) Comprehensive Africa Agricultural Development Program (CAADP) under the New Partnership for Africa’s Development (NEPAD) initiative of 2002. The CAADP has five pillars one of which is increasing food supply and reducing hunger.

At the regional level, Tanzania is working with the Southern African Development Community (SADC) to achieve regional food security. SADC, through its Food, Agriculture and Natural Resources Division (FANR), is

coordinating efforts towards food security and is working with partner countries to promote national, household and individual food security. In addition, the Country is cooperating with the east African Community (EAC) partner states in the area of agriculture and food security. The implementation of the international and regional conventions and commitments calls for a comprehensive food policy framework.

Given the complexity and multidimensional nature of food security there is a need for a food security policy framework that will provide a mechanism for prioritization on interventions, coordination of implementation, monitoring and evaluation of food security issues. The policy addresses government challenges to ensure food security to its people on a sustainable basis through issues related to increased food production and productivity; trade; distributions; management; safety; food safety – net and aid; and institutional coordination.

### **5:3:1:0 FOOD SECURITY SITUATION IN TANZANIA**

#### **5:3:1:1 Assessment of Food Security:**

<sup>12</sup>Poverty is one of the major causes of food insecurity in Tanzania. The prevalence of income poverty is still high in Tanzania. According to the poverty and Human development Report of 2003 basic needs poverty decreased from 38.6 percent in 1991/1992 to 35.7 percent in 2000/2001 and food poverty from 26.6 percent in 1991/1992 to 18.7 percent in 2000/2001. There is also a big disparity between urban and rural poverty for both food and basic needs poverty.

---

<sup>12</sup> Final Draft of National food security policy page 4

Poverty remains overwhelmingly in rural areas where 87 percent of the poor population lives and is highest among households who depend on agriculture. Basic needs poverty in urban areas in 1991/1992 was 28.7 percent while in rural areas it was 40.8 percent. In year 2000/2001 in other urban areas it was 13.2 percent while in rural areas it was 20.4 percent.

Malnutrition is still a common problem in Tanzania. The HDR of 2003 reveals that there is no significant nutritional status improvement for the under fives in Tanzania. Stunting, though on decline, continues to affect a sizeable proportion of children in the country. It declined from 47 percent in 1991/1992 to 44 percent in 1999. During the same period underweight in children increased from 29 percent to 30 percent, while wasting decreased from six to five percent. Child malnutrition is much worse in rural areas than in urban areas and much higher in the poorest areas.

Food insecurity in this country is both transitory and chronic in nature. Transitory food insecurity which is a temporary decline in household's access to adequate food arising from instability of food production, food prices, or household's income is common in marginal areas of the central and northern regions of Dodoma, Singinda, Shinyanga, Tabora, some parts of Tanga, Arusha, Kilimanjaro and Manyara. As in many Sub – Sahara African countries, even in areas with surplus production, households sell their surplus product immediately after harvest. As a result six to nine months later in the year many do not have their own crop or the cash to purchase food from market. The situation is particularly critical during the rainy season when calories needs are high due to agricultural work and market prices are high due to shortage in supply especially

in urban areas where food insecurity is often caused by price fluctuations. Other factors contributing to seasonal food insecurity include, overselling due to competing needs for cash including food, health, education and clothing, deterioration of food stocks during storage and high storage costs, which prevent farmers from storing large stocks of food. This scenario perpetuates the cycle of food insecurity, as it causes people to change their eating patterns and habits. This is detrimental to their health, nutritional well-being and productivity. Continuous or chronic food insecurity which is a persistent inadequate intake of food caused by continued inability to meet the food needs of the household members either through production and/or purchase is common to the urban poor households, the rural landless resource poor smallholder farmers and pastoralists. The situation with regard to food availability, accessibility and utilization is outlined below.

#### **5:3:1:2 Availability of food:**

Food availability means ensuring sufficient food for all people through production, stocks and/ or trade. In Tanzania the major source of food supply is from local production. On average Tanzania produces about 65 percent of its food requirements. The county's food self sufficiency measured by the <sup>13</sup>self sufficiency Ratio (SSR) 1 over the period of five years from year 2000/2001 to 2004/2005 has ranged between 88 percent and 105 percent averaging 96.2 percent. Although at the national level the country is about food self sufficient in most years, there are variations at the regional, district and household levels, for example, between 2000/2001 and year 2004/2005 Arusha, Manyara, Kilimanjaro,

---

<sup>13</sup> SSR=(Gross Domestic Production/Gross Domestic Requirement) x100

Shinyanga, Singida, Tabora, Coast and Tanga regions were consistently registering food shortages while other regions were self sufficient or produced surpluses for most of the years. In some of the surplus regions pocket of areas with food shortages have been observed. For example in year 2004/2005 the following regions of Dodoma, Singida, Iringa, Lindi, Mara, Mtwara and Tanga registered surplus production but had pockets with food shortages.

The measurement of the SSR may not capture the extent of food availability in the country because it does not take into account other food commodities that are produced at the household or acquired from other sources such as livestock and livestock products; wild animals, fish and other marine or aquatic products; non timber forestry products, fruits and vegetables. These foods are important in the Tanzanian food basket and contribute significantly to food availability in the country. <sup>14</sup>For example, between year 2001/2002 and year 2003/2004 meat production ranged from 333,000 tons to 348,800 tons and milk production from 900,500 liters to 1,180,000 liters. Food imports do not play a significant role in the total food supply in Tanzania as most of food supply is from domestic production. Tanzania however, imports substantial quantities of wheat. Over the period 1999 to 2003 on averages it imported about 30,000 tons of wheat annually to supplement domestic production of about 71,000 tons per year. <sup>15</sup>During the same period about 90,000 tons of rice was imported annually in addition, maize and beans are imported by the world food program (WFP) mainly to feed refugees and for safety nets such as food for work and school feeding programs. During years of drought or emergency, situations due to floods or other natural

---

<sup>14</sup> National food security Policy 2005 page5

disasters, the country experiences serious shortages of food therefore requires additional supplies through commercial imports and at times from food aid. For example, in year 2003/2004 when there was food shortage due to drought, total food imports amounted to 698,668 tons comprising of 103,672 tons maize, 157,597 tons of rice and 437,309 tons of wheat grain. Out of the total imports, commercial imports amounted 607,600 tons comprising of 42,694 tons of maize, 135,597 tons of rice. Food aid amounted 59,068 tons comprising of 29,068 tons of maize, 22,000 tons of rice and 8,000 tons. The government imported 32,000 tons of maize.

The major factors affecting food availability are low production and productivity of land, labor and other production inputs, high incidences of crop and livestock pests and diseases, inadequate processing, storage and marketing intrastate. This is caused mainly by inadequate finance to obtain productivity enhancing inputs or capital, limited availability of support services and appropriate technologies. In addition, many rural households are faced with labor shortage, due to the migration of young people to the urban areas in search of employment. The HIV and AIDS pandemic has also contributed to loss of labor for household agricultural production, since the infected and those caring for them cannot devote enough time and energy for agricultural production. Other factors affecting food availability include high pre and post harvest losses due to pests, disease and climatic conditions. Pre harvest losses account for over 30% of all crop losses in the country. It is estimated that post – harvest losses range from 30% - 40% for cereal gains and legumes, up to 45% for roots and tubers and

---

<sup>15</sup> World food program report 2002 page 12

40%-80% for fresh vegetables and fruits. In addition, inappropriate food management at household level diminishes food stocks available for consumption.

#### **5:3:1:3 Accessibility to food:**

Accessibility to food refers to the ability of the household members to access sufficient food to meet their nutritional requirements. Food accessibility depends on the extent to which food can be obtained from household production and / or from the market. This in turn depends on the functioning of the domestic and international markets and on the income level of the consumers.

In Tanzania, physical access to food is affected by inadequate infrastructure, mainly transportation network. The spatial distribution of surplus food production areas is such that food production is mainly concentrated in the southern highland regions and peripheral areas of the country, while the traditional food deficit areas are located mostly in the central corridor and parts of northern areas. Given the fact that the country is vast and there are long distances between food producing and deficit areas with inadequate transportation network there are high costs of transportation involved. High cost of transportation lead to high distribution costs which in turn are reflected in high prices of food in deficit areas and therefore affecting access to food by low-income rural as well as urban populations.

Poverty is still a common phenomenon among rural communities and the urban poor, where inadequate employment and lack of income generating activities lead to low purchasing power and hence affect access to food.

Within a household, access may be influenced by certain cultures and traditions, which determine who in terms of age, gender and birth order gets a certain type,



quantity and quality of food. In some cultures certain foods are prohibited for certain household members, but are reserved for others only. This often results into discriminatory distribution and so denying some members access to adequate food.

#### **5:3:1:4 Food utilization:**

Food utilization refers to the use of nutrients in the body for better nutrition and health. The incidence of malnutrition in a society is an outcome of inadequate consumption and/or utilization of food. According to the <sup>16</sup>Tanzania Demographic and health survey – TDHS (199), about 44% of the children in Tanzania suffer from chronic protein energy malnutrition (stunting), indicative of chronic food insecurity. Underweight and wasting in children is 30% and 5% respectively, indicative of transitory. In adults, the prevalence of underweight body mass index (BMI) less than 18 is about 12% in women. About 10% of the adult population in urban areas is obese. The prevalence of vitamin A deficiency is about 30% for children and 80% for pregnant women. Iodine deficiency affects 25% of the population.

Utilization of food by the body is very much influenced by the nature and preparation of the food, as well as by the physiological condition of the body. Presence of diseases such as diarrhea, respiratory disorders and measles in children; malaria (in children and adults), HIV and AIDS and intestinal parasites tend to impair food intake and nutrient absorption making the food less useful to the body. Incidences of diseases are associated with living in poor and unsanitary conditions, which may occur because of low level of knowledge, lack of clean

---

<sup>16</sup> Tanzania Demographic and Health Survey 2002 page34

water and sewage or garbage disposal systems. This situation is made worse by inadequate preventive measures and health facilities for diseases treatment. Promotion of processing and utilization of nutrient rich food particularly in the rural areas is important for improving food utilization in the body. Inappropriate food preparation methods also lead to unnecessary losses of nutrients. This is often a result of inadequate knowledge on nutrition, food preparation and dietary practices, as well as women's heavy workload, which makes it difficult for them to devote enough time for proper preparation of food.

Food utilization is also a function of dietary habits, food preferences and cultural norms, which define what is considered as food. Although there are a wide variety of food crops, which are produced or could be produced, the tendency is to rely on a very narrow range of staples, which if not available, tend to exacerbate food insecurity.

#### **5:3:1:5 Vulnerability to food insecurity:**

Many studies have been conducted in different part of the country with a view to identifying vulnerable groups. Recent studies such as the Participatory poverty assessments conducted within the framework of the PRSP identified the following poverty prone groups as likely to be most vulnerable to food insecurity:

- Households situated on marginal lands (e.g. drought – prone, degraded and food-prone areas)
- Subsistence farmers who produce marginal or inadequate amounts of food;
- Resource poor farmers, who lack adequate land, labor and inputs to produce adequate food;

- Landless wage earners lacking adequate resources to produce food or income to obtain food;
- Urban poor lacking adequate resources to obtain food;
- Households with a large number of dependants than they can afford; and
- Households headed by children and the elderly due to loss and death of family heads.

Since the vulnerability to food insecurity is location and group specific interventions should therefore address each group independently depending on the degree of severity.

### **5:3:2 PAST EFFORTS TO ADDRESS FOOD INSECURITY**

Reduction of food insecurity has been one of the major objectives of Tanzanian Government since independence. There have been a number of mass mobilization campaigns addressing food insecurity such as: Kilimo cha Kufa na Kupona in 1971 (“Agriculture as a matter of life and death”); Siasa ni Kilimo in 1972, (“Politics is Agriculture”); Chakula ni Uhai of 1972, (“Food is Life”), Operesheni vijiji in 1973 (“Villagisation”) and Kilimo cha Kiangazi of 1974 (“Dry Season Agriculture”). These campaigns were highly successful as the country was able to increase crop production. However, they were costly, ad-hoc and short term hence unsustainable.

In order to have a more systematic and planned development of the agricultural sector, in 1983 the Government adopted the National Agricultural Policy, which had one of its major objectives to achieve national self-sufficiency in food and raise the nutritional standards of all the people, subsequently in 1984, the Government developed a National Food Strategy,

which aimed at achieving the objectives of the National Agricultural Policy. The strategy was implemented mainly through parastatals such as the National Agricultural and food corporation (NAFCO), National Ranching Company (NARCO) and the National Milling Corporation (NMC). Although these approaches and policies contributed to increased production, they concentrated mainly in ensuring food self-sufficiency and less on improving accessibility and utilization. Furthermore, most of these parastatals operated at very high cost and given the state's financial constraints they become unsustainable.

To address these weaknesses the Government embarked upon a structural adjustment program for three years followed by an economic recovery program in 1986. Its objectives were geared towards increasing the output of food and export crops through appropriate incentives to production, improving marketing structure, increasing available resources to the agriculture sector, rehabilitation of physical infrastructure in support of directly productive activities and other aspects related to fiscal, monetary and trade policy. In 1991 the Food Security Act of 1991 was passed in which several functions related to food crops production, including the responsibility of maintaining the strategic Grain Reserve (SGR) were transferred to the Food Security Department (FSD) under the Ministry of Agriculture and Cooperatives.

The Tanzania Government has since then, moved from a controlled economy to a market economy gradually pulling out from activities that it entrusted itself for nearly three decades to support the private sector to undertake

production, input supply and crop marketing functions. The government has remained with the major role of facilitation. These macroeconomic reforms introduced by the Government from the mid 1980s necessitated a shift in sector policies to realign with the new policy direction currently being pursued by the Government.

### **5:3:3 TANZANIA AGRICULTURE DEVELOPMENT STRATEGIES AS A MEASURE TO CHECK FOOD INSECURITY:**

<sup>17</sup>The majority of the poor are found in rural areas, where agriculture is the mainstay of livelihoods. Agriculture and food security has such a dominant role in the economy that it is the most critical of the sectors that have been identified as the priority poverty reduction sectors in the PRSP. In the long run, commercializing smallholder agriculture and accelerating its growth rate are critical in pulling the majority of the rural poor out of abject poverty and food insecurity. The strategy lays the foundation stones for this long run objective but also proposes interventions with a more immediate impact on rural poverty alleviation through diversified and increased food production and productivity of smallholder agriculture.

#### **5:3:3:1 LIVESTOCK AND FOOD SECURITY.**

The majority of rural farm households own at least some livestock. Indeed, livestock output has accounted for around 15 percent of agricultural GDP in recent years. The total number of livestock is 27 millions that means there is substantial potential to increase the contribution of livestock to agricultural

---

<sup>17</sup> Household Budget survey of 1991/92 page 120

output and food security. Ways of overcoming many of the constraints currently limiting the livestock and food security are:

**(a) FARM SIZE:**

Despite of the abundance of unutilized land, Tanzania agriculture is a dominated by small-scale subsistence farming. <sup>18</sup>Approximately 85% of the arable land is used by smallholders who operate between 0.2 and 2.0 hector and traditional agro-pastoralists who keep an average of 50 heads of cattle. It is estimated that the average per capita land holding is only 0.12 hector. The major limitation on the size of land holding and utilization is the heavy reliance on hand hoe as the main cultivating tool, which sets obvious limitation on the area of crops that can be grown using family labor, the achievement of food security. This ‘‘hand-hoe syndrome’’ among Tanzanian smallholder farmers is both a cause and symptom of food insecurity. Given the generally abundant land supply, households’ capacity to maintain and increase their production through land expansion depends on the extent to which they can hire labor or use labor saving techniques. (E.g. Animal traction, power tillers, tractors hire services, minimum cultivation techniques, herbicides etc).

**(b) ASSETS AND FOOD PRODUCTIVITY:**

Characteristic of the rural population in terms of use of modern inputs and technology, the ownership and distribution of assets and cropping patterns and how the poor fare on those assets. e.g. Ploughs, carts, fertilizers, pesticides. It is observable that poor farmers have lower access to, or use of,

---

<sup>18</sup> Agriculture sector Development strategy page 7 of 2002

each of these, this explain the reason of the farmers to sell part of their food crops immediately at harvest time when the prices are low.

**(c) AVAILABLE TECHNOLOGIES.**

With no serious land constraint in most districts, efforts to increase smallholder food production can include both technologies to expand unutilized land area and/or intensification of the existing cultivated area. However, best Natural Resource Management (NRM) practices indicate that the focus should first be on environmentally friendly and sustainable intensification. In the short run, the most practical approach is to focus on the increased use of existing labor productivity enhancing technologies that are affordable, given the human, physical and financial assets available to poor households.

There are many technological innovations that are yet to be adopted by the majority of smallholder farmer, such as improved seeds, storage facilities and animal breeds. In many cases they are not adopted because they are unknown to smallholder farmers or there are no effective delivery systems in place. In other cases they are not profitable given existing relative input and output prices and husbandry practices. Improving food productivity and commercializing farm production among smallholder farmer is the key issues in food productivity – enhancing technologies are often the key to profitability but equally; increased farm profitability is often critical to the adoption of new technologies. The reduction in transaction costs and the development of competitive agricultural marketing systems for both inputs and crop and livestock outputs can be done to raise farm profitability and

encourage the adoption of new technologies. This will require the development of an appropriate policy environment for private investments in general and in agriculture relate activities in particular.

**(d) THE AGRICULTURAL LABOR FORCE.**

As Tanzania's agriculture is dominated by hand hoe technology, the growth of the agricultural labor force is one of the major factors determining the growth of agricultural output and food security. <sup>19</sup>The size of the agricultural labor force is probably just under 11 million. The most active age group is that between 15 and 59 Years, accounting for about 89 percent of the agricultural labor supply with women contributing about 70 percent of this supply. While the total demand for labor force is growing at around 3.1 percent p.a., it is estimated that the agricultural labor force is growing at a maximum of 2.8 percent p.a. due to rural urban migration and the growth of non – agricultural informal sector activities in the rural areas. The effective labor force is probably growing more slowly than this due to the effect of the HIV/AIDS and malaria pandemics.

**(e) LITERACY RATES.**

<sup>20</sup>The literacy rate for the rural areas is about 61 percent for those aged above 10 years. In recent years, illiteracy rates have increased due to deterioration in the quality of adult education and basic education in primary schools, together with a fall in primary school enrolment rates. These high levels of illiteracy pose a major obstacle to agricultural transformation because empirical evidence in Tanzania and elsewhere in developing countries

---

<sup>19</sup> Agriculture sector development strategy 2002 page 7



suggests a correlation between literacy among farmers and improvements in food productivity. Accordingly, literacy, especially among women, has a considerable impact on food insecurity reduction. Unless the current trend is reversed, illiteracy may serve to perpetuate food shortage in rural Tanzania.

#### **5:3:4 THE PERFORMANCE OF THE AGRICULTURE AND FOOD SECTOR.**

<sup>21</sup>According to a recent study, the agricultural sector has maintained a steady, if unspectacular growth rate of over 3 percent p.a. over the last decade. This is greater than the rate of total population growth, which means that there has been a small but steady growth in per capital agricultural output. It is also a faster rate of growth than that of the agricultural labor force, indicating a continuous slight increase in agricultural labor productivity over this period. Indeed, real agricultural growth has maintained the same average growth rate as the rest of the economy, the contribution to total GDP is around 50 percent, has not fallen during the past decade. This is very deferent to the typical pattern in development where industrial and service sector growth rates normally outpace the agricultural sector growth rate leading to a steadily declining share of agriculture in total GDP.

A similar pattern emerges in terms of agricultural exports where the real growth has averaged around 7 percent p.a., a similar rate to overall export

---

<sup>20</sup> Agriculture sector Production strategy 2002 page 8

<sup>21</sup> Agriculture sector development strategy 2001 page 8

growth so that the share of agricultural export in total exports has remained virtually unchanged at 56 percent.

However, the level of real agricultural and food production growth during the last decade is considered unsatisfactory because it has not been able to bring a significant number of the rural poor above food insufficiency line. Perpetuating the existing pervasive rural poverty. Given the importance of agriculture as the mainstay of rural livelihoods, agriculture must grow much faster if food security is to become a reality in Tanzania.

Several factors have contributed to the modest performance of the agricultural sector in the country. One undoubted factor has been the heavy reliance on hand hoe cultivation in rain fed agricultural systems. In the absence of major technological breakthroughs or diversification into new crops, the rate of growth of the agricultural labor force tends to be a major determinant of the agricultural sector's potential growth. In addition, the incentive structure in the sector over the past decade has not encouraged growth or investment in the sector. Agriculture's barter terms of trade, that measure the relative change in agricultural producer prices compared to the price of industrial goods have not changed significantly over the past decade. Breeding down this global indicator suggests that the real price of food crops has fallen over the decade whilst the real price of export crops has rise The farmers' share of retail or export prices is another indicator of agriculture's and food security incentive structure. As a result of market liberalization for the major food crops, margins between producer prices and consumer prices have narrowed significantly, indicating a high degree of market integration. For the major

export crops, the farmer's share in export prices has generally increased over time, but the magnitude has remained modest. Despite a considerable rationalization and streamlining of taxes in recent years, there are still significant direct and indirect taxes on many marketed agricultural products that have lead to constraint in food production.

**AGRICULTURE AND FOOD SECURITY SECTOR STRENGTHS, WEAKNESSWS, and OPPORTUNITIES AND THREATS:**

**5:3:4:1 AGRICULURE AND FOOD SECURITY STRENGTHS AND OPPORTINITIES:**

**(a) Comparative advantage**

Tanzania has a comparative advantage in the production of almost all industrial export crops and some non-traditional export crops. This can be further enhanced by increasing food production and improving marketing and efficiency. However there is a large potential for increasing production of items such as wheat, rice to replace imports and to expand food and livestock export to neighboring countries most of which are likely to remain food deficit for the foreseeable future. This requires the comparative advantage to be translated into financial and profitability. This may not occur if direct and indirect taxation of agricultural products is too high and/or markets prices are not favorable and stable.

**(b) Expanding market opportunities.**

Another opportunity for Tanzanian agriculture and food sector is the expanding domestic market for food, especially for livestock products and

crops with a high-income elasticity of demand. With expansion in the rapidly growing mining and tourism industries and income growth in general,

Domestic demand for beef, milk, and other high-protein products is likely to grow rapidly. Similarly, markets within the region and globally are increasingly becoming available as a result of Tanzania's membership of regional trade groupings (e.g. EAC and SADC) and as a signatory to international trade protocols (e.g. WTO and EU-ACP). Exploitation of these trading opportunities should be a central to the design of insuring food security.

**(c) Farming as part of the national culture:**

Farming and livestock keeping are a way of life amongst the majority of Tanzanians. This is likely to remain the case in the foreseeable future, provided agriculture is made increasingly profitable. At the same time small-scale farmers maintain strong social networks, which provide social capital and facilitate the diffusion of information. This provides the opportunity of food production to increase.

**(d) Growth of agribusiness**

The development of private agribusiness enterprises and a few large-scale farming enterprises in Tanzania is creating potential opportunities for strategic partnerships between these enterprises and smallholder farmers.

<sup>22</sup>These partnership schemes have shown promising prospects in increasing the production and quality of cash crops, such as sugar cane in Mtibwa,

---

<sup>22</sup> Agriculture sector development strategy 2002 page 9

tobacco in Tabora and Iringa, and oilseeds in Morogoro. For certain farm enterprises this could be an effective mechanism for overcoming the institutional void left behind by the collapse of the rural finance and the cooperative marketing systems in the country. It would also improve the availability and utilization of farm inputs and modern technology at the farm level, leading to increased food productivity and production.

**(e) Ongoing structural reforms.**

Agriculture's transition towards a market – based production system has been part of the adjustment and structural reform programs that have been implemented by Government with the assistance of development partners. A key assumption underlying the reform is that internal political commitment to the adjustment and structural reform process (especially in the agricultural and food sector) will continue unabated with the support of the development.

**5:3:4:2 AGRICULTURE'S WEAKNESSES AND THREATS**

Tanzania agricultural has numerous weaknesses and threats that constitute the development agenda for the food security, but only the most important ones can be discussed here.

**(a) Low productivity:**

The most critical weakness in agriculture is low productivity of land, labor and other inputs. This is caused mainly by <sup>23</sup>inadequate finance to obtain productivity enhancing inputs or capital, limited availability of support services and appropriate technologies forcing the majority of food producers

---

<sup>23</sup> Agriculture sector development strategy 2002 page 10

to produce only for subsistence. Moreover, a low return to labor and the drudgery of rural life result in migration of youth from rural to urban areas and deplete the agricultural labor force. Low rates of return in agriculture compared to other sectors of the economy also result in low levels of private investment in agriculture. Creating the requisite environment for raising productivity and also increasing agriculture's profitability to attract private investment is fundamentally critical to the design to attain food sufficiency.

**(b) Poor coordination and limited capacity:**

The agricultural sector involves many actors within the public sector who are currently not well coordinated in policy formulation, program planning or implementation. Many public institutions, lack capacity in terms of staff, funding, and facilities for carrying out their mandated activities. The private sector is still relatively undeveloped and many of those currently involved in agribusiness lack entrepreneurial skills, information and capital to expand their agribusinesses.

**(c) Underdeveloped supporting facilities.**

Weak agro- industries and poor linkages within the marketing, processing and production chains affect the performance of agriculture and food security sector, as do poor market-orientation and inadequate processing of commodities. Coupled with high levels of waste. The poor state or lack of rural infrastructure is a cause of high transport costs for distribution and marketing of inputs and produce, leading to lower farm gate prices to the producer. Incomplete liberalization and poor regulation of food markets

critically constrains agricultural development. All these lead to low profitability for the sector.

#### **5:4 PRIVATE SECTOR ORGANIZATIONS AND FOOD SECURITY:**

While public organizations play a facilitating role, it is the private sector that is directly involved in productive activities that contribute towards raising food security and improving livelihoods. There are many actors in the private sector that fall under different categories, each facing specific capacity constraints.

##### **5:4:1 Farmers**

This is a very broad category ranging from small-scale subsistence crop producers and livestock farmers, who between them comprise more than 90 percent of farming population to medium and large-scale farmers. Farmers face many constraints in fulfilling their roles, which can be grouped into five main areas:

- Institutional and governmental constraints, including an uncertain regulatory environment, inappropriate policies, inadequate extension, research, marketing and regulatory services.
- Financial constraints, including lack of access to capital assets and credit, exacerbated by low prices of output, high cost of inputs, multiple taxes and limited incomes.
- Natural environment constraints, which include limited access to land and water, frequent outbreaks of pests and diseases and deteriorating natural resource base.

- Human constraints that include limited knowledge and skills, poor health and low productivity.
- Infrastructure constraints, including poor roads, inadequate marketing infrastructure, lack of electricity, water and communication facilities.

#### **5:4:2 Farmers' Organizations**

The keys to empower, well informed and articulate farmers be small, medium or large scale, is through strong farmers' organizations. Farmers' and livestock keepers' organizations may be in the form of cooperatives, associations or groups. The Tanzania Chamber of Agriculture and livestock (TCAL) and the Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) also represent farmers' interests. The most important roles for farmers' organizations include:

- Provision of services such as information, inputs, credit and procurement of produce.
  - Collecting and disseminating marketing information to members.
  - Conducting membership education
  - Providing training on technical and organizational issues.
  - Lobbying and advocacy on behalf of their members.
- 
- <sup>24</sup>However, most of the cooperative organizations face serious management problems and cannot function effectively. Many of the

---

<sup>24</sup> Agriculture sector development strategy 2002 page 31



organization also have limited financial resources and managerial skills. Skills and facilities necessary for lobbying and advocacy. To overcome these problems, local government authority, ministry of cooperative and marketing, NGOs and private institution such as Private agribusiness sector support can continue to promote the establishment of cooperatives and other farmer's organizations on a demand – driven basis.

#### **5:4:3 Agribusinesses:**

This is a very diverse category comprising small medium and large-scale actors who play critical roles in the agricultural and food sector. It includes: importers, wholesale distributors and retail suppliers of agricultural inputs; farm produce buyers; transporters; processors; and exporters of agricultural produce.

The success of food security development depend on the private sector planning a key role in commercial activities and the provision of many services, especially after the withdrawal of Government from these activities. However, the capacity of agribusiness actors is constrained by limited business and financial skills, lack of capital, poor infrastructure as well as an unfriendly legal and administrative framework. Many agribusiness actors also lack the ability to envisage or plan the long-term development of their businesses. The Food security stakeholders can help to overcome these constraints and strengthen the capacity of the private sector by:

- Providing a favorable legal and administrative framework for private sector investment in key areas of agricultural development.

- Supporting training in Financial Management and entrepreneurial skills. As well as contract management particularly for small and medium scale agribusiness.
- Involving agribusiness in dialogue with the Government in matters related to policies, taxation, tariffs and programme formulation.
- Encouraging the formation of professional associations to represent the interests and promote the development and capacity of the various segments of the private sector.

#### **5:4:4 Financial Institutions.**

The financial institutions that are important for the agricultural and food security sector include commercial banks, micro-finance institutions. (MFIs), non-bank financial institutions, e.g. SACCOS, and informal institutions, are limited financial management skills. Moneylenders and some of the MFIs e.g. savings and credit associations (SACAs) lack an appropriate legal framework. Most institutions, especially formal banks are urban – based and have limited networks for rural outreach and, more importantly, are unable or unwilling to carry the risk of lending to the agricultural sector.

#### **5:4:5 Civil Society Organizations (CSOs)**

This is a diverse group of actors, comprising both local and international. Community – based organizations (CBOs) are also emerging as important players, especially with the present emphasis on participatory approaches. The most critical roles of NGOs and CBOs include:

- Providing extension and credit services.

- Lobbying and advocacy for policy changes and development.
- Funding community-based interventions.
- Providing public services on a contract basis.

While NGOs and CBOs are envisaged to play a greater role for the development of the agricultural sector, they face a number of problems including:

- Limited human resource capacity. For example, most agricultural NGOs rely heavily on staff seconded from the public services.
- Poor coordination amongst themselves and with LGAs and sector Ministries.
- Limited financial resources.
- Limited experience in providing agricultural services on contract.

Many of the strategic interventions designed to strengthen the capacity of the private sector and agribusiness and provide a more favorable environment for their operation are also applicable to NGOs and CBOs. For example, staff of these organizations should be encouraged to attend the enhanced training courses especially on agribusiness management.

#### **5:4:6 Other Service Providers**

The media is crucial for information dissemination and public education in agriculture. However, it is mostly urban- based and therefore has limited coverage of rural development activities and issues. To overcome this, the sector ministries,

LGAs, agricultural trade associations and NGOs and CBOs can be encouraged to delegate the task of maintaining liaison with the media to a relevant staff member.

## **5:5 Creating a favorable climate to foster commercial activities**

The commercialization of agriculture and food security can proceed more rapidly with a favorable economic, administrative and legal environment. Government is responsible for creating such an environment in consultation with sector stakeholders. In this regard, the following priority focus areas can be proposed.

### **5:5:1 Sustaining Macroeconomic Stability**

A stable macroeconomic environment is a necessary condition for agricultural profitability and growth. Stable macroeconomic variables such as the rate of inflation, the lending interest rate, the exchange rate and the tax regime make the entire economy and agriculture in particular attractive to private investments.

MF, PC and the Bank of Tanzania (BOT) have to put in place a macroeconomic policy framework to ensure sustainable growth and stability of the Tanzanian economy. In addition, actions are to be taken on the following variables that are currently imposing constraints on private investments in agriculture. e.g.<sup>25</sup>The Lending Interest Rate;

Despite a significant decline in the inflation rate from a high of 30 percent p.a. in the mid 1990s to 5.3 percent in June 2001, the commercial banks nominal lending rate to the agricultural sector remains at around 19 to 20 percent p.a. this implies a real interest rate of 13 to 14 percent. Such high

---

<sup>25</sup> Agriculture sector development strategy 2002 page 35

interest rates partly reflect inefficiency in the banking sector, but mainly reflect the high risk of lending to agriculture. It is still stated that the real rate is still higher than the average rate of return in agriculture, which is claimed to be below 10 per cent p.a. for most agricultural investments. If real interest rates remain this high in the medium and long term, they will continue to deter private investment in agriculture.

#### **5:5:2 Taxes, Levies and Fees on the Sector**

There is a wide range of taxes, levies and fees on the agricultural and food sector. There is a need to work on the rationalization of the taxation regime in agriculture. They may also devise appropriate tax incentives to attract private investments in agriculture it should be noted that a growing and profitable agriculture would provide a sound tax base in the medium and long term.

#### **5:5:3 Energy Tariffs and Prices on the Sector.**

High-energy tariffs and oil prices for the agricultural and food security sector are a deterrent to rural processing and a cause of unfavorable trading results for agribusiness firms.

#### **5:5:4 Reviewing, Harmonizing and Publicizing the Agricultural Sector Legislation**

Harmonizing the Agricultural legislation system should help to protect the legitimate interests of agriculture and food security sector and stakeholders. Review and harmonize agricultural legislation to accommodate the needs of the emerging market economy some of these are:

- The cooperative Act of 1991 need to be reviewed as part of this exercise to provide more autonomy to farmers' organizations.

- Make the Plant Protection ACT (1997) effective and harmonized with the TPRI Act (1979) in order to remove overlapping mandates in the field of inspection services.

#### **5:5:5 Providing Legal Empowerment for Stakeholders to Control Commodity Boards.**

Currently, the commodity boards are owned and controlled by the Government. Autonomous commodity boards, controlled by the stakeholders, will increase accountability to members, and be able to develop incentive schemes to produce quality outputs and to adhere to the use of recommended technologies and practices.

#### **5:5:6 Legalizing and Promoting Cross – border Trade**

Tanzania has signed various trade protocols and agreements with her neighbors in the East African Community and SADC. In order to exploit the markets in the neighboring countries, the government needs to be advised to remove all barriers to cross-border trade except for products that are threats to health, safety and environment. The removal of barriers will reduce substantially the uncertainties and transaction costs currently faced by traders. It will provide a clear signal to the private sector to plan production, processing and marketing for external market use. This will be of particular benefit to farming areas adjacent to neighboring countries.

## **6:0 CHAPTER 111: METHODOLOGY:**

### **6:1 Research Design:**

The approach followed was participatory action research (PAR). Research was carried out in order to investigate if food insecurity is the constraint to people's development, causes of food insecurity, establish magnitudes of food insecurity in the community, reasons for food insecurity and recommend measures to tackle food insecurity in the area. The approach allowed the study team and the community itself to identify and analyze issues, constraints, and basic data in relation to food security.

The technique applied had several advantages these include; create confidence among farmers and the team and facilitate acquisition of reliable data. The technique allowed closeness, invited farmers to give contribution, allows Internalization of knowledge as well as easy transfer of knowledge. The disadvantage of the technique employed include time used, it took a long time to accomplish the exercise and it is cost because it employed facilities like vehicle, stationeries and training of survey team.

### **6:2 SAMPLING TECHNIQUES AND PROCEDURES:**

Meeting with steering committee of MUVIMAMO was convened and leaders together they choose villages, which they think, are food insecure the villages that were sorted are Bwiko, Mwenga Kweisewa, Chepete, Mkomazi, Manga Mtindiro, Mbuyuni and Mswaha Darajani was sorted as a control village. At each village during the days of survey each leader of sub-village submitted the names of house hold and the names were thrown into a container and at

least 28 house-holds per sub-village were selected randomly by villagers them selves, this encouraged villager participation.

#### **SAMPLE DISTRUBUTION:**

<b>S/N</b>	<b>VILLAGE NAME</b>	<b>NQ: SUB - VILLAGE</b>	<b>NQ: OF HOUSEHOLD</b>	<b>NQ: OF RESPONDENT</b>
1	BWIKO	6	32	30
2	MWENGA	8	35	34
3	KWEISEWA	7	27	28
4	CHEPETE	9	38	36
5	MKOMAZI	10	43	41
6	MANGA MTINDIRO	11	43	42
7	MBUYUNI	7	45	43
8	MSWAHA DARAJANI	8	47	46
<b>TOTAL</b>		<b>66</b>	<b>265</b>	<b>300</b>

#### **6:3 SAMPLE SIZE:**

A sample size of 300 household/families out of 3015 households from the selected villages of which are assumed to be food insecure will create no more than a 10% sampling error with a confidence level of 95% for households whose 21.5% are food secure while 78.5%are food insecure.

#### **6:4 DATA COLLECTION:**

A single survey instrument cannot capture all the information. It was desirable to employ different techniques of data collection for triangulation and greater assurance of precision and reliability. Consequently mix of profession and skills in data collection method was considered. Thus, the survey employed both Primary and Secondary data collection methods.



#### **6:4:1 PRIMARY DATA COLLECTION:**

##### **6:4:1:1 Quantitative method:**

The quantitative method was applied to collect data from 300 households, 5 village leaders and 3 agriculture extensions through administering an interview using open-ended questionnaire (see the appendix I).

The survey group was subdivided into sub group according to the set up of households and local leader accompanied each group, each team member administered not less than 7 questionnaires per day.

##### **6:4:1:2 Qualitative methods:**

The qualitative data collection was applied to compliment the quantitative data through focus group discussion and meetings with farmers groups, direct observation. It was important to apply alternative methods of data collection; the reason was to check possible bias of collected information, qualify the quantitative data, also was used as source of independent additional information.

Data and information from the focus group discussions were analyzed and comprehensively summarized in groups, special sheets of paper for documentation in the report were used to make sure that the information collected was objectively according to the survey need.

##### **6:4:1:3 Household observations:**

Another method of data collection was to observe features that were relevant to the exercise e.g. characteristic of household, presence of food storage structure at the household, health condition of children and adults, plant population in the farm and other farming practices.

## **6:4:2 SECONDARY DATA COLLECTION:**

### **6:4:2:1 Review relevant documents regarding food security:**

The team reviewed food security documents from various sources e.g. Mombo ADP baseline survey that was done in 1999, Tanzania household survey of year 2002, Reports from Area development Program, District food security reports and Tanzania agriculture development strategy. The information from these documents complemented those from household survey.

### **6:4:2:2 Recall periods**

Evidence of food security was gathered by asking different members of household and focus groups what they eat, how many meals they eat during food shortage, what measure they take as household to cope with food shortage.

### **6:4:2:3 Document of the experiences from farmer's leaders and agriculture extensions**

Other information that useful documented in the past; these covers experiences from the farmers, leaders and extensions officers.

## **7:0 SURVEY TEAM TRAINING.**

The data collected during the survey depend above all on the quality of the field work this in turn depend on the quality of survey team and the ability of team to create and sustain morale in the field. The team proved to have support with the people in the villages. In order to get the above qualities the team was trained for four days on: -

### **7:1 Aim and objectives of the training:**

The purpose of training was to orient the group on what is expected out from them this was important because the group had heterogeneous background and it was important to build and strengthen team spirit for the team to work together. The team was encourage to make sure that every member understands the objective of the survey that was very important exercise because the results are going to put into implementation and team should make sure that results precise as possible and if the team brings wrong information will mislead the future of the program and the exercise is cost in terms of time and money.

### **7:2 Listening and interviewing technique:**

One of important aspect of research is how to get right information from the beneficiaries this involves when to met the members at the house hold how can interviewer interact with interviewee in short time and get the right information from him or her without offending or creating embarrassing situation. This required the skills that encourage maximum interaction in a short time and make the interviewee free to express themselves; so it was

important to make sure that when the team visits the house holds they introduce them self and elaborate the purpose of the visit and the information they give is not for public consumption and they were assured of secrecy the team was also accompanied by village leader to enhance interaction.

#### **7:3 Data collection tools:**

The whole team went through the questionnaires and focus group discussion questions word by word to test if every team member understands the questions and expected information from the respondent, this removed the ambiguity on the understanding of the question and the team leader clarified questions to make sure that there was homogenous understanding.

#### **7:4 Pre testing of questionnaire:**

After the above the following day was pre-testing of questionnaire. Each member carried out the testing of questionnaire by visiting one household and administers one questionnaire then the team assembled to discuss the result from the respondents. The team leader clarified the areas that were not clear. That again built homogenous understanding of the question.

#### **7:5 Data collection:**

The team was also oriented on kinds of data collection that was primary data collection from the household, village leaders and agriculture extensions using questionnaire, focus group discussions using the list of questions and secondary data by doing documentary review from various literatures on food security.

#### **7:6 Information compilations:**

Information compilation requires skills to document comprehensive information without losing the meaning, it was important to orient the group on this important skill especially for the information from the focus group discussion.

## **8:0 DATA ANALYSIS:**

### **8:1 PRIMARY DATA ANALYSIS:**

Quantitative data were analyzed using Epi-info statistical package to check for relation ship between variable e.g. average households with food security, meals consumption, and crop production per household the results of analysis are found in appendix 7.

### **8:2 SECONDARY DATA ANALYSIS:**

Quantitative information from farmers focus group discussion, field observation and documentary review were analyzed and compiled by survey team which consisted of extension officers, enumerators and members from host organization the team compiled information on farm skill practices on food crop production e.g. plant spacing, plant population, use of farm implement, food storage methods, livestock production.

The results of analysis are discussed in section 9 here under;

## **9:0 CHAPTER IV FINDINGS:**

### **9:1 COMMUNITY COMPOSITION:**

The total 300 households visited during the survey in 8 villages the total labor force individuals who can produce is 25% of while the bigger category of unproductive population is 75% these area children, elders and school going age children. About 150 interviewees in households surveyed and 7 village leaders out of 8 village leaders interviewed responded that labor force migrate to town or go to work as casual labor in other areas as mean of mitigation during the periods of food shortage and leave the responsibility of household to women. This scenario has many implication at the households women shoulder a bigger responsibility of feeding the family and taking care of family while at the community level labor force has migrate to other places, during this period of the year it is difficult to plan and implement development activities.

### **9:2 HOUSEHOLD COMPOSITIONS:**

The teams found that like many Tanzania majority of house holds surveyed villages were predominantly male-headed households. Female-headed households comprised of 35% while 65% were male headed of 300 visited households. The reasons of female-headed house hold included divorces, widowing and polygamism, 90% of the visited households were Moslems. Women's role at the household is both reproductive and productive. Women shoulder major roles in the family include from farm preparation, planting, weeding, harvesting, storing and other house hold chores. The decision on

what to do with the produce after harvest is predominantly determined by men.

#### **9:3 HOUSEHOLDS INDIVIDUALS STRUCTURE:**

The household person structure indicate that the big portion of population are individuals between 6-18 years of age this represents 45%, while 0-5 years represents 20%, 19-55 year is 25%, 56 year and above is 10%. The structure above indicates that large proportional of population is born by youths of 6-18 years followed by 19-55 years. The category of 6-18 years is population that can be said is not productive this is probably a primary school going population. Productive population is only 25% that means they should be able to feed 75% but with the kind of agriculture production methods and techniques available in the community it is hard to feed the rest of population.

#### **9:4 CURRENT HOUSEHOLDS FOOD SECURITY SITUATION:**

The total of 300 households visited 209 households equivalent to 69% said they had food shortage while 91 households equivalent to 31% had food to support them for 1-2 months during those periods 167 households responded that they control food consumption while the rest said they opt for casual labor to get some money to purchase more food. The main cause of food shortage according to 67% respondents is because of drought, there was shortage of rains in the last year.

#### **9:5 HOUSE HOLD FOOD SECURITY:**

The food security situation in the household was examined basing on many factors. E.g. crop production, food consumption, livestock production, food storage, and marketing. This was done so because the household is in it self a



unity of analysis. Many factors from the dimensions of the analysis which run from, relations between people in the household through the house hold it self and out into other economic systems in the community. Therefore food security of households of the area of survey, comprise of different complex variables outlined and discussed here under.

#### 9:5:1 CROP PRODUCTIONS.

Average area cultivated for 300-house hold visited is 2.7 to 5.4 acres per household. The main food crops in the area are maize, paddy, beans, cassava, cashew nuts and Groundnuts.

The production of the staple food crops is as presented in table 1.below

Crop	Area under cultivation acre (average) per household	No. Of Respondents		Total	Harvest in 100kg bag/acre	Recommended output in100kg bag/acre
		Male	Female			
Maize	3.4	195	105	300	8.6	25
Paddy	6.1	201	90	291	7.3	20
Beans	2.1	185	105	290	4.5	20
Cashew nuts	1.3	225	73	298	5.9	30
Ground nuts	1.2	175	102	277	1.7	28
Average	2.7				3.1	

The average production of crops is very low when compared to the recommended out put. The recommended yield of the aforesaid crops as per the record of district agricultural office is 25 bag/ acre, 20 bags/ acre, 20 bags/ acre, 30 bags/ acre, 28 bags/acre for maize, paddy, Beans, cashew nuts and un-husked groundnuts respectively.

### 9:5:2 FOOD CONSUMPTION AT THE HOUSEHOLD:

Food consumption at house hold interviewed depends on the food availability in that particular season of the year some house holds resolve to eat 2(two) meals even 1(one) meal instead of three meals that are break fast, lunch and Dinner

Table 2 below shows the trend of food consumption when food is available and when there is shortage.

<b>Number of meals</b>	<b>No of Respondent</b>			<b>When Food is available</b>	<b>When there is Food shortage</b>
<b>Meals</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Total</b>	<b>Total</b>
3 Meals	71	185	256	204	33
2 Meals	91	165	256	46	116
1 Meal	106	147	253	4	107

The table 2 above; shows how people in the household change their food consumption pattern depend on availability of food in the household. During food shortage 107 households consume 1 meal while when food is available 204-house hold consumes 3 meals in 256 households visited. This situation have several implication in the house hold and at the community level, at the house hold there are many chances that children will be malnourished while low capacity of production for adults. At the community level this situation affects schools attendance for children. i.e. attendance to schools becomes low in season of severe food shortage, and community contribution to development activities also decline during these period. Men leave their homes for casual labor to get money to buy food in urban areas leaving the rest of other house- hold responsibility to women.

### **9:5:3 FOOD STORAGE.**

Traditional food storage is the system of food storage used in the community and is practiced at the households, 78% of the respondents of 300 interviewee's responded to practice food storage at their households but the capacity of the structure of storages was not beyond 12 bags of maize which is approximate 1200 kilograms, that amount can only support a household of 7 member for 3 to 6 months. The team observed three types of storage structure, one is use of Hessian bags 116 house holds, second is use of "dari" the crop parked without de-husking on the cycling of the house 87 house holds, the third one is to place the grain on a constructed rack "Kichanja", non responded using post harvest pesticides. All these three methods of crop storage have not solved the problem of grain borer during the time of visit most of storage structures were empty which means at that time households had depleted their food reserves. Either they were boiling fresh maize with their cobs for lunch /break fast, some households resolved to eat cassava as alternative food.

### **9:5:4 LIVESTOCK PRODUCTION:**

The team observed the traditional free-range poultry in all homesteads. The farmers visited complained of a disease that kills their poultry every year. One agricultural extension officer told the team that the disease was the new castle disease that could be controlled by mass vaccination of all poultry with very little investment the vaccine of 1000 Tshs can vaccinate up to 10,000 poultry, but the farmers seemed to be not aware of that. Some households

own other animal like cattle (indigenous breeds) goat, sheep and pigs at times of food shortage they sale the animals and purchase food like grains. The families visited, which own cattle, sheep and goat, their children looked healthier than that those don't own cattle, because they use milk as part of their diet. Food security at household could be improved if household could increase and improve livestock production if possible by introduction of exotic or mixed breeds. There are 1,408 livestock's in 300 house holds that were visited which means is average of 5 live stock per house hold that can be chicken, goat, sheep, cow and total livestock population in the whole division is 69,061. This number was observed to be very little because of plenty of land and grass that is available. Agriculture extensions responded that the main problem associated with animal production is due to shortage of agriculture extension services in the area the whole division has only 3 veterinary officers while the standard is supposed to be six.

#### **9:5:5 MARKETING:**

Marketing was among the major problem of agricultural production. This problem is mainly due lack of market information especially during harvest season, during that period a bag of maize that weight 100kgs can be sold between 7,000 to 9000 Tshs while in the near by region the same quantity can be sold between 18,000 to 20,000 Tshs this situation makes farmers to sell their produce at throw away prices, lack of effective means for transportation of crops to the market for poor farmers pose a big problem. Farmer in the area don't have alternative crops they grow maize, beans, paddy, groundnuts and few cashew nuts for food as well as cash except sisal that is grown mainly by

few progressive farmers and big companies. Farmers' use the harvests to meet both food requirements and sell the little surplus for other needs like school fees for children, treatment, clothes etc. this put farmers in the vicious cycle of food insufficient year after years.

#### **9:5:6 USES OF FARM INPUTS:**

The quantities of farm produce depend among many factors, the use of fertilizers and improved seeds. About 89% of the farmers interviewed know the importance of application of fertilizer and good seeds, but 35% use cow dung while the rest did not apply any fertilization in their farms, some of the reasons according to 57% respondents was that the industrial fertilizers and seeds were not available in the previous farming season the rest said industrial fertilizers are expensive such that they can not afford to purchase and at times when they apply they don't get any profit following adverse poor prices of their produce.

#### **9:6 TEAM OBSERVATIONS ON REASONS FOR LOW CROP**

##### **PRODUCTION PER ACRE:**

##### **9:6:1 UNTIMELY PLANTING:**

Due to change of rain season pattern the farmers have missed the right time to plant. The team observed that most of the crops have dry out because of little rain received in this year.

#### **9:6:2 LOW PLANT POPULATIONS.**

Low plant population, which is mostly a result of too wide spacing 10kg of maize seeds is supposed to be planted in one acre, but some farmers said to have a tendencies of planting the same quantity in 2 acres.

#### **9:6:3 USES OF LOCAL SEEDS:**

About 78% farmers use a local seed variety that gives low and poor yield. The reasons is that most of Improved seeds are sold at higher prices which most of the farmers can not afford, and there are few shops that sell improved crop seeds variety

#### **9:6:4 POOR FARM IMPLEMENTS:**

Very few farmers use other farm implement for tillage or weeding other than hand-hoe. Because of characteristics of soils that are hard it take up to 4 day to till an acre of a farm, this result to shallow tillage which means the plant on the farm can not get nutrient from under surface soil because of shallow roots penetration, most of the farmers, interviewed they say farm implement like ox-plough are expensive and they don't have enough knowledge on its application. Hiring of tractor is rather expensive and they are few tractors.

#### **9:6:5 LACK OF INPUT UTILIZATION BY FARMERS.**

Farm inputs like improved seeds varieties, fertilizer are not accessed by majority of the farmers, the reasons are due to higher prices that most of the farmers can not afford there are no system in place to make sure that farmers access these input either through revolving loan system.

#### **9:6:6 PEST:**

All the farmers visited their maize had problems of leaf sport, streak virus

Diseases which attack leaves, there was a problems of rosette in ground nuts

and Fungus on cashew nuts trees, the effects like these lower production per plant.

## **10:0 IMPLEMENTATION AND RECOMMENDATIONS:**

### **10:1 CROP PRODUCTION:**

The problems associated with crop production are lack of improved seeds, poor farm Implements, pest and untimely planting. MUVIMAMO leader should sought assistance from the government on strengthening extension services in the area, skills like plant population, right time of planting crop pest can be solved if there are adequate extension services. The organization has been able to initiate farmers' shop which sells farm Inputs, and credit and saving society. But by the time of this survey they complain of low capital, this is a good initiative and leaders should, net work with seeds supplier agencies to see if they can be loaned farm Inputs during the planting period, alternatively they can be assisted to access credit funds provided by government through council or other sources of fund to capitalize these facilities.

### **10:2 FOOD STORAGE.**

The team observed poor means of storage e.g. use of Hessian bags, use of 'dari' and place on "kichanja". The team suggests Improving means of storage through training & extension, household can be trained on how to construct Improved food storage structures like "Kihenge" that is used in other parts of Tanzania like Shinyanga etc: Alternative pest control like use of pesticides, storage of cereal in drums, are skills that farmers can be trained and adopt.



### **10:3 LIVESTOCK PRODUCTION**

We observed that average each household process at least 5 livestock's, but most of them were indigenous breed. Organization leader can network with livestock breeding organization like heifer international to see the possibility of initiating improved breeds project in the area. Some households obtained dairy cows and goats from the project supported by Anglican Church; this can be extended to other farmers through revolving loan scheme. Problem of livestock diseases could be solved if the extension system is strengthened, veterinary drugs can also be introduced, in the farmers shop that is operating.

### **10:4 MARKETING:**

The problem of marketing for agriculture crops can be solved through accessing information regarding market price dynamics and market itself. Farmers can be mobilized through their functional groups that already exist to transport, their crops to other places/regions like Dar-es-Salaam, Arusha etc. Crops diversification of crops e.g. plant of vegetables that mature in short period and sell can be of advantage to break mono-cropping especially in areas where farms are close to rivers.

### **10:5 INTRODUCTION OF MICRO IRRIGATION SCHEME.**

The beneficiary's area is endowed with Pangani and Vulini River but little has been done to utilize effectively this resource for Irrigation. Organization leader can look for recourses and initiate micro irrigation schemes like use of motorized pumps, pedal pumps and mobilizing farmers to construct canals for irrigation of farms especially those which are passed by river tributaries.

## **11:0 CONCLUSIONS:**

The area surveyed according to the above findings is food insecure that demands immediate attention by the stakeholders to come up with sustainable solutions. The main reason for the situation is poor farm practices, limited access of farm inputs by the farmers, poor and inefficient extension services offered by the extension systems in the area, limited knowledge of markets and huge post harvest loss due to poor means of food storage. According to 67% respondents the situation could be substantially resolved by putting enough resources on improvement of traditional irrigation scheme that already exist and construction of new systems of irrigation, the rest respondents mentioned other areas like lack of market information, poor skills on farm practices and unreliable rains.

## **12:0 EXECUTIVE SUMMARY OUTLINE OF THE PROPOSAL**

### **12:1 THE PROJECT TITTLE: MOMBO FOOD SECURITY PROJECT**

#### **12:2 PROJECT EXECUTIVE SUMMARY:**

For a long time a large proportion of Tanzanians living in rural villages have not had food security. This also lacks the resources necessary to increase production or to purchase adequate food in the market. The survey on food security at house hold that was carried in year 2004.To not less than 300 house holds in collaboration with host organization (MUVIMAMO) based in Korogwe District at Mombo Division Tanga region, shows that food insecurity at house hold has far ending consequences both at house hold and at community level. At the household level leads to malnutrition for children and low working capacity for adults to work at community level results in poor community involvement/contribution to their development this necessitate measures to resolve the situation through intervention that will transform the practices on food production especially at the household level and increase food sufficient for households.

#### **12:3 CONTACT PERSON:**

MR SAID CHENYEGELA  
MUVIMAMO CHAIRMEN  
P.O.BOX.154  
MOMBO  
**KOROGWE.**  
TANZANIA

**PROPOSAL SUBMITTED BY:**

MUVIMAMO (Muungano wa Vikudi vya Maendeleo Mombo).

P.O.BOX 154.

**MOMBO**

**12:4 PROBLEM STATEMENT:**

The access to quality and adequate food is cited as one of basic human right in aspect of human right. This implies that all people regardless of sex, age, class and race / ethnicity are all times guaranteed of physical, economic and psychological access to quality food to met both physiological and nutrient requirement. Food security is a matter of human life. As a human right issue, food security has three minimum requirements i.e. production of adequate food supply, maximizing stability in the flow of supplies and accessing available supplies. The results of food security survey done in Mombo division in collaboration with Community based organization called MUVIMAMO unfolded food insufficiency in the area of population of about 15,347 people sampled out of 69,047 people from the whole division. The result show that, during food shortage 107 households consume 1 meal while when food is available 204-house hold consumes 3 meals in 256 households visited this period covers not less than four months in a year. This situation have several implication in the house hold and at the community level, at the house hold there are many chances that children will be malnourished while low capacity of work for adults. At the community level this situation affects schools attendance for children. i.e. attendance to schools becomes low in season of severe food shortage, and community contribution to development

activities also decline during these period. Men leave their homes for casual labor to get money to buy food in urban areas leaving the rest of other household responsibility to women as a means of mitigating the problem. This situation justifies the necessary intervention to resolve the food shortage problem through food security program detailed here under.

**12:5 MISSION STATEMENT:**

To Improve food security for about 69,047 people (21,307 male, 21,057 children and 26,235 female) in over 15,000 households the project will undertake various interventions that will lead into improvement of health for children and adults as a result of implementation of food security programs.

**12:6 TARGET GROUP.**

Direct beneficiaries are over 69,047 people (21,307 male, 26,235 female, 21,057 children). While over 3058 are indirect beneficiaries.

**12:7 PROJECT ACTIVITIES:**

To achieve the project objectives will carry a large number of activities. The detail of activities are in project implementation plan refer appendix 6 and project logical framework in appendix 5 and budget in appendix 4 following are the summary of activities that will be done in year one of the project implementation plan.

#### **12:8 PROJECT OUT PUT (Short term)**

- Sufficient food at household level.
- Decrease number of hungry people
- Improved farming techniques practiced by members of households and farmers groups.
- Increased quantity of crop and animal production.

#### **12:9 PROJECT OUTCOME (Medium term)**

- Household food availability and income increased.
- Community contribution and participation to the development activities increased.
- Reduced number of malnutrition cases among children and adults

#### **12:10 PROJECT OUTCOME (Long term results)**

- Increased capacity of community to manage their own food security.
- Improved people's health and their contribution to the community development.
- Improved standard of living of the community.

#### **12:11 PROJECT INPUTS/RESOURCES REQUIRED:**

Many of the resources will be obtained locally except those that cannot be obtained locally. Project will get various experts from District government, and other development agencies. The potential sources will be obtained from District council and donor.

### **12:11:1 BUDGET REQUESTED FOR YEAR ONE: US\$ 243200**

The expenditure description is on (appendix 5)

### **12:11:2 OUR CONTRIBUTION: US\$ 150,000**

## **12:12 PROJECT MONITORING AND EVALUATION:**

### **12:12:1 MONITORING:**

Project stakeholders will carry out constant monitoring to make sure that the project is in the right track. Organization leaders, project management team and farmer will carry field visits to check the accomplishment against project plans.

### **12:12:2 EVALUATIONS:**

External evaluator will carry out project evaluations at the middle of the project cycle and at the end recommendation will be auctioned in the future stages of project cycle. This will help to check the project if it is in the right track.

## **12:13 REPORTING**

The project staff will prepare and deliver monthly, quarterly, annually narrative and financial reports that will cover targets against achievement, challenges and plan of action for further stages. The financial reports will state the situation regarding financial expenditure and budget at every account code.