

**ROLE OF FOOD SECURITY GROUPS' NETWORKS IN POVERTY REDUCTION: A
CASE STUDY OF CHAMWINO DISTRICT, DODOMA REGION**



**FOR REFERENCE
ONLY**

BY

RASEL MADAHA



**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN RURAL
DEVELOPMENT OF SOKOINE UNIVERSITY OF AGRICULTURE**

2007

ABSTRACT

This study focused on the role of food security groups' networks in poverty reduction in Chamwino district, Dodoma region Tanzania. The objectives of the study were to a) describe FGNs in terms of membership, activities and sustainability; b) identify the roles and extent to which Food Security Groups Networks have contributed towards poverty reduction; c) identify factors of success or failure and best practices in Food Security Groups Networks; d) identify and describe strategies for strengthening FSGNs. The study population consisted of all members of FSGNs who had participated in FSGNs for a minimum of three years. Data for this study were obtained using a case study research design whereby purposive sampling was used to select three villages out of 13 villages. The criteria for selecting the three villages were existence of FSGN in each of the villages, presence of a complete Community Cereal Bank building in a particular village and accessibility. A combination of quantitative and qualitative methods was used to collect data for this study. Tools such as personal interviews, in depth interviews, documentary review, observations and focused group discussion were used to collect data. Qualitative data were analysed using content analysis whereby quantitative data mainly from structured questionnaires were analysed using the Statistical Package for Social Sciences (SPSS). The main findings of this study in relation to poverty reduction are summarized as follows; the FSGNs have played different roles including increasing the capacity of members to access the extension services and empowering FSGN members in the areas of knowledge, decision making, finance and entrepreneurial

ability. The two roles have reduced poverty among FSGN members by (a) increasing income of members (increase in the mean annual households' income of FSGN members from TAS 194 030.28 to 357 456.34 pre and post Food Security Program respectively) enabling them to have access to good education for their children, quality housing and adequate clothing; (b) increasing agricultural production (mean increase in farm yields and farm size from 11.7 to 28.73 bags per ha and 1.5.2 to 3.14 ha, respectively); (c) improving household food security as a result they addressed problems such as malnutrition (change in feeding habits and practices implied by change in number of meals from at least 1 to utmost 3 meals per day in growing season) and change in family diet composition (e.g. rice and meat) which were seen as rare food, before they could be taken twice to thrice a week. Other findings of this study as well as recommendations are presented in chapter five of this dissertation.

DECLARATION

I, RASEL MPUYA MADAHA, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work and has never been submitted nor concurrently being submitted for a degree award in any other University.



Rasel Mpuya Madaha
(MA Candidate)

24.6.07

Date

The above declaration is confirmed



Prof. D. F. Rutatora
(Supervisor)

24.6.07

Date

COPYRIGHT

No part of this dissertation may be reproduced, stored in any retrieval means: electronic, mechanical, photocopying or otherwise without prior written permission of the author or Sokoine University of Agriculture in that behalf.

ACKNOWLEDGEMENT

I would like to express my sincere appreciation to my father Col. Peter Mpuya Madaha, Lay Volunteer International Association (LVIA) and the Ministry of Science, Technology and Higher Education of Tanzania for financing my study. I wish also to acknowledge with very deep appreciation the support and guidance given to me by Prof. Rutatora, D.F. His devotion made me gain a treasure, which will make me proud throughout my academic life. I would also like to thank the Volkswagen Foundation, the Faculty of Spatial Planning at the University of Dortmund, Germany, and the Gobabeb Training & Research Centre, Gobabeb, Namibia for inviting and sponsoring me to participate in and present my dissertation at an exploratory workshop on the topic "Resources, Livelihood Management, Reforms, and Processes of Structural Change" in Gobabeb, Namibia, from 18th September to 23rd September 2006.

My sincere thanks should go to all members of Food Security Groups Networks in Chalinze, Manchali and Makoja villages who volunteered their time so generously. This study would not have been completed without the cooperation and efforts of LVIA and its staff. I would like to thank the following LVIA staff for providing me with the necessary support that I needed: Mr. Riccardo Paloscia, Japhet Chamgeni, Victor Ndimbwa and Anania Bansimbile. I am deeply indebted to Mr. Riccardo Paloscia for allowing me to conduct my research at Chilonwa Food Security Programme area, the attachment has exposed me to the real world of peasants and the difficulties associated with their farming life. I am also deeply indebted to Mr. Victor Ndimbwa who took me

around the villages on a motor cycle. Some of the paths could not be accessed by a truck. I also thank Mr Kim Kayunze for academic, moral and financial support as well as his guidance throughout my Masters study at Sokoine University of Agriculture. I must finally declare that I am personally responsible for the final version of this work.

DEDICATION

To almighty GOD,

My dearest wife Happyfaith Rasel

My dearest Father and Mother Mr. and Mrs. Peter Mpuya Madaha,

My dearest Father and Mother in law Mr. and Mrs. Silvanus Macharia

My dearest sister Evodia Madaha and brother Emmanuel Madaha.

My dearest sisters in-law Linda Madaha and Teddy Macharia

My dearest brother in law Damian Macharia

They have given me physical and emotional support through the difficulty time in my study and made my dream come true.

I also dedicate this study to all members of Food Security Group Networks in Chalinze, Makoja and Manchalli Villages for their devotion.

LIST OF ACRONYMS AND ABBREVIATIONS

ADP	Area of Development Programme
AIDS	Acquired Immuno Deficiency Syndrome
AFREDA	Action for Relief and Development Assistance
ASSP	Agricultural Services Support Programmes
ASDP	Agricultural Sector Development Programme
BIDS	Bangladesh Institute of Development Studies
CBOs	Community Based Organizations
CCBs	Community Cereal Banks
CRMP	Cooperative Reform and Modernization Programme
CWWD	<i>Chama cha Walimu wa Wanyamakazi Dodoma</i> (Association of Trainers on Animal Traction Dodoma)
DADPs	District Agricultural Development Programmes
DAIPESA	Private Enterprise Support Activities
DANIDA	Danish International Development Agency
DED	District Executive Director
FAO	Food and Agriculture Organization of the United Nations
FO	Farmers Organizations
FSGs	Food Security Groups
FSGNs	Food Security Group Networks
FSP	Food Security Programme

GB	Grameen Bank
GDP	Gross Domestic Product
GTZ	German Technical Cooperation (<i>Deutsche Gesellschaft für Technische Zusammenarbeit</i>)
Ha	Hectare
HIV	Human Immunodeficiency Virus
IFAD	International Fund for Agricultural Development
IFAP	International Federation of Agricultural Producers
IFPRI	International Food Research Policy Institute
INADES	<i>Institut Africain pour le Développement Economique et Social</i>
JUWAKI	<i>Jumuiya ya Wanawake Kinyangiri (Women Entrepreneurial Association of Kinyangiri)</i>
KAPP	Kenya Agricultural Productivity Programme
km ²	Square Kilometers
LGAs	Local Government Authorities
LVIA	Lay Volunteer International Association
MAC	Ministry of Agriculture and Cooperatives
MDGs	Millennium Development Goals
MKUKUTA	<i>Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania</i>
MUMI Network	<i>Munungano, Mzula and Iloilo Network</i>
MTEF	Medium Term Expenditure Framework

MVIWATA	<i>Mtandao wa Vikundi vya Wakulima Tanzania</i> (Tanzania Network of Farmers Groups)
NFSP	National Food Security Policy
NGO	Non Governmental Organization
NPES	National Poverty Eradication Strategy
NSGRP	National Strategy for Growth and Reduction of Poverty
PRSP	Poverty Reduction Strategy Paper
RF	Revolving Fund
SACCOS	Savings and Credit Cooperative Society
SEP	Supervised Enterprise/Experience Projects
SHIWAMO	<i>Shirika la Wakulima Morogoro</i> (Association of Morogoro Best Fruits and Vegetables Growers Limited)
SMERU	Social Monitoring and Early Response Unit
TAS	Tanzanian Shillings
TASAF	Tanzania Social Action Fund
TCCIA	Tanzania Chamber of Commerce, Industries and Agriculture
TMTF	Tanzania Mini -Tiger Plan
SPS	Seed Producers Societies
SNAL	Sokoine National Agricultural Library
SPSS	Statistical Package for Social Sciences
SUA	Sokoine University of Agriculture
UMADEP	Uluguru Mountain Agricultural Development Project

MUVIMAHA	<i>Muungano wa Vikundi vya Maendeleo Hai</i> (Association of Development Farmergroups in Hai district)
UN	United Nations
URT	United Republic of Tanzania
USAID	US Agency for International Development
WFS	World Food Summit
WHO	World Health Organization
WOPATA	Women and Poverty Alleviation in Tanzania
WVT	World Vision Tanzania

TABLE OF CONTENTS

ABSTRACT	i
DECLARATION	iii
ACKNOWLEDGEMENT	v
DEDICATION	vii
LIST OF ACRONYMS AND ABBREVIATIONS	viii
TABLE OF CONTENTS	xii
LIST OF TABLES	xv
LIST OF APPENDICES	xvii
CHAPTER ONE: INTRODUCTION	1
1.1. Background Information	1
1.2. Problem Statement	6
1.3. Significance of the Study	7
1.4. Objectives.....	8
1.4.1. General Objective	8
1.4.2. Specific Objectives	8
1.5. Research Questions	9
CHAPTER TWO: LITERATURE REVIEW	10
2.1. Introduction.....	10
2.2. The Concept of Networking.....	10
2.3. How Food Security Group Networks Evolved in Chilonwa.....	11
2.4. Current and Earlier Initiatives Taken by Tanzanian to Reduce Poverty.....	17

2.5. The Role of Networking in Poverty Reduction	22
2.5.1. Risk sharing.....	23
2.5.2. Experimentation and demonstration	24
2.5.3. Empowerment	25
2.5.4. Extension and communication	29
CHAPTER THREE: METHODOLOGY.....	32
3.1. Introduction.....	32
3.2. Description of the Study Area.....	32
3.3. Definition of Study Population	34
3. 4. Research Design.....	34
3.5. Sampling Procedures.....	35
3.6. Data Collection Methods	36
3.6.1. Quantitative Data Collection.....	36
3.6.2. Qualitative Data Collection.....	37
3.7. Data Processing and Analysis	39
3.7.1. Qualitative Analysis.....	40
3.7.2. Quantitative Analysis.....	40
CHAPTER FOUR: RESULTS AND DISCUSSION	41
4.1. Socio-Demographic Characteristics of Respondents.....	41
4.1.1. Age of Respondents	41
4.1.2. Educational level.....	42
4.1.3. Marital status.....	42

4.1.4. Economic activities and household income of the respondents.....	43
4.1.5. Household income.....	44
4.2. Description of FSGNs in Terms of Membership, Activities and Sustainability...	45
4.2.1. Membership of FSGNs	46
4.2.2. Activities of FSGNs	46
4.2.3. Sustainability of FSGNs.....	49
4.3. Role of Food Security Group Networks in Poverty Reduction	70
4.3.1. Increased Accessibility of Extension Services by FSGN members.....	71
4.3.2. Empowerment of FSGN members.....	82
4.4. Factors of Success and Failure of Food Security Group Networks	85
4.4.1. Factors of Success	85
4.4.2. Factors of failure for FSGNs.....	96
4.5. Strategies for Strengthening Food Security Group Networks	99
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS.....	102
5.1. Conclusions.....	102
5.1.1. Membership, Activities and Sustainability of FSGNs	102
5.1.2. Roles of Food Security Group Networks in Poverty Reduction.....	104
5.1.3. Factors of Success or Failure of Food Security Group Networks.....	105
5.1.4. Strategies for Strengthening Food Security Group Networks	106
5.2. Recommendations.....	107
REFERENCES.....	114
APPENDICES	129

LIST OF TABLES

Table 1:	Distribution of Respondents by According to Socio-economic Characteristics (N=60)	43
Table 2:	Distribution of Respondents According to Economic Activities (N=60)	44
Table 3:	Distribution of Respondents by Household Income (N=60)	45
Table 4:	Distribution of Respondents According to Activities of Food Security Group Networks (N=60)	48
Table 5:	Distribution of Respondents by Weaknesses of Working with Food Security Group Networks (N=60)	50
Table 6	Distribution of Respondents by FSGN Members Contribution (N=60)	54
Table 7:	Distribution of Respondents by Incentives (N=60)	61
Table 8:	Distribution of Respondents by Type of Loan (N=60)	71
Table 9:	Distribution of Respondents According Skills Gained (N=60)	74
Table 10:	Distribution of Respondents According to Area of Information Exchange (N=60).....	76
Table 11:	Distribution of Respondents According to Number of Enterprise they Engage in (N=40).....	80
Table 12:	Distribution of Respondents by Area of Empowerment (N=60)	83
Table 13:	Distribution of Respondents by Social Capital (N=60)	84
Table 14:	Distribution of Respondents by Participation in Decision Making (N=60).	86
Table 15:	Distribution of Respondents by Participation in Food Security Group Networks Activities (N=60).....	87

Table 16:	Distribution of Members by Use of Democratic Procedures (N=60)	89
Table 17:	Distribution of Respondents According to Team Spirit of FSGN (N=60) ..	91
Table 18:	Distribution of Respondents According to Reasons of Failure to Promote Team Spirit (N=18).....	91
Table 19:	Distribution of Respondents According to Accessibility to Extension Services Offered by Food Security Group Networks (N=60).....	93
Table 20:	Distribution of Respondents by Reasons to Stay in FSGN (N=60).....	95
Table 21:	Distribution of Respondents by Failure of CCB (N=60).....	96

LIST OF APPENDICES

Appendix 1: Organizational Structure of FSGNs 130

Appendix 2: Population of Chilonwa Division by Ward, Village and Sex 131

Appendix 3: Study Area in Dodoma Region Tanzania..... 133

Appendix 4: A Map of Chilonwa Division..... 134

Appendix 5: Study Questionnaire 135

Appendix 6: Field Interview Guide 147

Appendix 7: Pictures from Field 149

CHAPTER ONE

INTRODUCTION

1.1. Background Information

The National Strategy for Growth and Reduction of Poverty (URT, 2005) reveals that proportion of the population below the national food poverty line is 18.7 percent and that below the national basic needs poverty line is 35.7 percent. According to the Tanzania Development Vision 2025 (URT, 1999), half of the Tanzanian population lives below the poverty line at USD 0.65 a day. Comparing these results with those of the Household Budget Survey of 1991/92 there has been a small decline in the proportion of the population below the national poverty lines. Basic needs poverty decreased from 38.6 percent in 1991 to 35.7 percent in 2000 and food poverty from 21.6 percent in 1991 to 18.7 percent in 2000.

According to National Strategy for Growth and Reduction of Poverty commonly referred to as MKUKUTA in Kiswahili, there is a small decline in the proportion of the population below the national poverty lines, even though poverty is high in rural areas of Tanzania where about 87 percent of the poor population lives. Poverty is highest among households who depend on agriculture. As the population grows, the absolute number of the poor raises concern. Poverty remains predominantly a rural phenomenon although the number of poor in urban areas, mainly the unemployed and those engaged in the informal sector, is growing fast. According to FAO (2004) the poor in both rural and urban areas typically lack capital and human assets, they are less educated, and they suffer from ill health. Furthermore, the vulnerability of the poor is increased by

preponderance of disease, including the rapid spread of HIV/AIDS. Increases in HIV/AIDS over the past decade aggravate the health status and future prospects of Tanzanians. HIV/AIDS undermines the foundations of development and attainment of the Millennium Development Goals which focus on poverty eradication.

The modest decline in poverty is associated with the low annual average per capita real growth of only 0.6 percent during the 1990s. According to the National Strategy for Growth and Reduction of Poverty, growth was faster in manufacturing, construction, mining and quarrying, as well as in wholesale, retail and hotels, than in agriculture. However, though vital, most of these activities are urban -oriented. Henceforth, it is important to devise strategies that will enable these sectors to widen livelihood opportunities to the poor. To that effect, initiatives to support rural-oriented sectors will be emphasized to empower the rural populations to increase their productive capabilities (URT, 2005).

Farmers networks can be one of the initiatives which can support rural oriented sectors and therefore support the National Strategy for Growth and Reduction of Poverty. Farmers' Networks have a potential to empower the rural populations to increase their productive capabilities and as a result reduce poverty. The organization of rural population in local development efforts such as networking of farmers groups is not a new phenomenon in rural development. Formal organizational structures such as cooperatives and unions were among the first structural imports into rural areas of the

third world countries in order to provide various inputs, marketing and education services to farmers (Wambura and Rutatora, 2001). Farmers Networks is a social setting in which people positively indulge in dialogue, encouraged to exchange ideas and experiences, urged to take the time to listen to each other and to work towards a new way of understanding old problems. According to Oerlemans and Assouline (2001) farmers' networks can be an effective means to contribute to sustainable agricultural development and hence reduce poverty. Farmers can learn from each other, act as a negotiating partner, invest collectively and involve relevant partners.

According to Paloscia (2006) one of the programmes which used the networking approach is the Food Security Programme (FSP) managed by LVIA and INADES FORMATION in Chilonwa Division, Chamwino District. INADES FORMATION, which is a non-profit-making international association mainly dealt with capacity building of farmers through training. Its mission is to work for the people's social and economic development, in particular through their capacity building and by giving them the opportunity to participate in the transformation of their communities. On the other hand, LVIA offers services such as:

- To assist groups in dealing with food storage and establishment of cereal banks.
- To improve food security in the project area by offering various extension services.
- To assist in the management and supervision of food security groups.
- To assist small agricultural projects.

- Training of traction animals and prevention of soil erosion by the use of ox-carts, ploughs, and weeders.
- To assist farmers in high quality seed production.
- To supervise activities of savings and credit as well as building savings and credit co-operative societies (SACCOS) banks.

The main target of LVIA and INADES FORMATION is to facilitate creation and strengthening of farmers groups and networks. LVIA and INADES FORMATION had been strengthening and facilitating creation of food security groups and Food Security Groups networks since 2001. The existing Food Security Groups had been networked to form Food Security Group Networks (FSGNs). The initiative was in response to prevailing food insecurity in Chilonwa division which is characterized by frequent shortage of food resulting from inadequate rainfall (LVIA, 2005).

The Food Security Programme covers five wards out of seven wards in the division. The wards covered by the programme include Buigiri, Majeleko, Manchali, Ikowa, and Msamalo. The Food Security Programme (FSP) which started in 2001 has resulted into networking of food security groups to form Food Security Group Networks (FSGNs). Although the programme was scheduled to end in 2004, it was extended to two years to allow smooth handing over of the programme activities to the FSGNs. The Food Security Groups Networks were created by LVIA and INADES FORMATION so as to unite the already existing Food Security Groups to deal with food insecurity. This was done through provision of skills and capital necessary to run a revolving fund. While

L VIA facilitated the implementation of the revolving fund, INADES FORMATION had abandoned the programme for no apparent reasons.

The organizational structure (see Appendix 1) of the FGSNs involved two organs namely the owning organ and the management agency. The Community Cereal Bank was an agent for managing the revolving fund and food loans. The Network of FSGs was the owning organ for inputs revolving fund and the village was the owning organ in case of food loans. The networks had simplified the work of the implementing agents as firstly the farmers can access the revolving fund and food loans easily, secondly L VIA used the networks to make a follow up on revolving fund and food loans (Paloscia, 2006).

According to L VIA (2005) the functional organ of the FSGN was the Steering Committee. The roles of the Steering Committee included endorsing contracts and agreements, and preparing policies of the FSGN; facilitating food security groups in dealing with food storage, and improving food security in Chilonwa division by offering various extension services in collaboration with L VIA and other development organizations in the division. Other roles of the committee were managing and supervising food security groups; facilitate training of traction animals; promoting use and facilitating availability of high quality seeds; supervising activities of Community Cereal Banks in collaboration with CCB leadership and village government; and finally coordinating and monitoring the revolving fund in liaison with Community Cereal

Banks. The Steering Committee also had a role of managing income generating activities of the network most of which had been funded by LVIA. The income generating activities funded by LVIA included poultry, bee keeping, salt production and sunflower production.

1.2. Problem Statement

According to the Tanzania Development Vision 2025, half of the Tanzanian population lives below the poverty line at USD 0.65 a day. Grassroots initiatives are therefore needed to properly address the problem of rural poverty, and the farmers' organizations such as Food Security Groups Networks are an ideal position to carry out poverty eradication initiatives (International Federation of Agricultural Producers and United Nations Capital Development Fund, 2005). In view of the liberalized market economy and globalization agenda farmers are seeking new ways of organizing themselves so that they can become dependable, effective, and efficient in an endeavour to improve their welfare. Prior to withdrawal of INADES FORMATION, LVIA and INADES FORMATION were involved in the promotion of the formation of FSGNs in Chilonwa division which would take over the activities of the two NGOs after food security programme had ended. Since FSGNs are social capital in the area it important to make use of the resource so as to reduce poverty among people of Chilonwa.

Farmers networks can be one of the initiatives which can support rural oriented sectors and therefore support the National Strategy for Growth and Reduction of Poverty. Networking has been recognized by research and development institutions such as

International Federation of Agricultural Producers (IFAP) and as well as funding agencies such FAO and International Fund for Agricultural Development (IFAD) as an important way of improving the effectiveness of extension communication and agricultural research leading to poverty reduction. Since the time Food Security Groups Networks were created in Chilonwa division to-date no study has been conducted to assess their role and effectiveness in as far as poverty reduction is concerned. This creates the need for the study so as to come up with relevant recommendations for improving farmers networks leading to an eventual poverty reduction process on a sustainable basis.

1.3. Significance of the Study

This study aims at providing strategies which will make the FSGNs sustainable and thus contribute to poverty reduction. The findings of this study will assist the implementing agents including LVIA, INADES FORMATION, INTERMON OXFAM, policy makers and other stakeholders such WOPATA, ALFREDA and UMADEP create and manage sustainable farmers' networks owned by farmers themselves. On the other hand, the study will enable the researcher to learn how to conduct an assessment study on the role of farmers groups network in poverty reduction. The researcher will gain skills in addressing various problems of farmers and present them in a way which is understandable. Other skills that will be acquired include collecting and analysing data, interpretation and presentation.

Furthermore the study of farmers networks is expected to capture important information to assist farmers, policy makers and development agents identify locally available resources, required support as well as recommending strategies aimed at improving the local infrastructure. Farmers networks may play a significant role in the provision of services necessary for successful agricultural production. Following recent changes in policy the government has withdrawn necessitating a need for farmers' networks such Food Security Group Networks and other forms of farmers' organizations so as to empower farmers in their fight against poverty (UN, 2003; GFAR, 2004).

1.4. Objectives

1.4.1. General Objective

The general objective of this study was to assess the role FSGNs in poverty reduction so as to provide strategies aimed at strengthening the networks with the intent of reducing poverty in selected villages of Chalinze, Makoja, and Manchali in Chilonwa division, Chamwino District.

1.4.2. Specific Objectives

The specific objectives of the study were to:

- (i) Describe FSGNs in terms of membership, activities and sustainability.
- (ii) Identify the roles and describe the extent to which FSGNs have contributed towards poverty reduction.
- (iii) Identify factors of success or failure and best practices of FSGNs.

- (iv) Identify and describe strategies for strengthening FSGNs in the study area

1.5. Research Questions

The research questions of this study were as follows:

- (i) How were FSGNs initiated and formed?
- (ii) How can FSG networks be organized and managed?
- (iii) What are the main activities of FSG networks?
- (iv) Can FSG reduce the negative effects of free market economy as far as poverty reduction is concerned?
- (v) How have Food security Group (FSG) networks contributed to poverty reduction?
- (vi) What are the factors of success or failure related to the performance of FSG networks?
- (vii) What are the major constraints which FSGNs may have experienced since the time they were formed?
- (viii) What have FSGNs done to overcome such constraints?
- (ix) In which ways can FSG networks be strengthened?
- (x) Can FSGNs sustain themselves once LVIA and INADES support come to an end?
- (xi) What mechanisms have leaders of FSGNs put in place to ensure continuity of activities after INADES and L.V.IA. withdrawal?

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter reviews literature on different aspects related to the concept of networking, how Food Security Group Networks evolved, current and earlier initiatives taken by Tanzanian government to reduce poverty and the role of networking in poverty reduction.

2.2. The Concept of Networking

Alders *et al.*, (1993) have defined networking as any group of individuals and/or organizations who, on voluntary basis, exchange information or goods or implement joint activities and who organize themselves for the purpose in such a way that individual autonomy remains intact. Farrington and Nelson (1994) have defined networking as the motor of the work of groups with a common goal or need; it exists solely to provide organizational structure in addition to providing information and inciting groups to act.

Different authors have described several types of farmers networks. Haverkort *et al.*, (1991) classified networks according to the pattern of flow of information. For example in a hierarchy type of network information flow is controlled by the top while in a horizontal network information flows directly between members. They also classified networks according to membership composition and activities involved. In this case networks can be formed by farmers organizations, researchers and extension workers,

with a variety of activities (e.g. information exchange, training and awareness raising). Pluknell *et al.* (1990) give a classification based on operational styles. Other network classifications are based on scope of geographical coverage and subject matter focus (Pluknell *et al.* 1990).

2.3. How Food Security Group Networks Evolved in Chilonwa

According to LVIA (2005) Food Security Groups Networks evolved as a result of the need to deal with the prevailing food insecurity in the area. INADES FORMATION was supposed to build the capacity of FSGNs through training followed by the registration of the networks. LVIA was supposed to manage field activities of FSGNs and facilitate the construction of the Community Cereal Bank (CCB) buildings for the FSGNs. All of the CCB buildings have been constructed and LVIA has continued to manage field activities of FSGNs. However INADES FORMATION was not successful in accomplishing its role of capacity building. The failure might have been contributed by inadequate time allocated for the Food Security Programme. For example a study conducted by LVIA (2005) in the programme area revealed that the time frame set for programme implementation was not sufficient and phasing out was abrupt and could not ensure sustainable maintenance of FSGNs and the FSG interventions.

Furthermore there was no exit strategy which had been set prior to programme intervention. In this respect, efforts made might end up in immediate and medium but not long-term solution to the community. The FSGNs were scheduled to replace LVIA

and INADES FORMATION by August 2005 but the FSGNs failed to replace the implementing agents. By then FSGNs were supposed to have been registered and independent from the implementing agents. The FSGNs still depend on external assistance so as to operate successfully and none of them has been registered.

According to Monrique *et al.* (1993) in Alders *et al.* (1993) there are three phases from which a network evolves. The first phase is known as planned activism, the second phase is development of a shared conceptual framework and finally creation of a network. Planned activism is a phase in which the first exchange of ideas takes place. Planned activism is facilitated by existence of concrete activities of the stakeholders who recognize the value of sharing and support. One member or a small group of enthusiastic members promote the idea of networking and plan for meeting with prospective network members. The result is generally a workshop or a meeting where the idea of forming a network is discussed and evaluated. Other issues of immediate interest to members are also discussed (Korten, 1990).

Once groups have established a sound economic base, it is important to promote their consolidation into networks. About two or three years after the small groups are formed, it is advised to encourage them to meet with each other. This creates ties and linkages that help in the formation of inter-group associations - federations of 10 to 15 small groups that join together to tackle a common interest or need. Inter-group associations organize the bulk purchase of inputs, the marketing of farm produce and the preparation

of requests for bank loans. They may also play a political role, by acting as a spokesperson for groups in discussions with local government administrators and development services (FAO, 2004, Mattee *et al.*, 1998).

Development of a shared conceptual framework is more difficult yet is an essential task. A shared conceptual framework facilitates the exchange of ideas, experiences and knowledge. According to Kolman (1993) the first year of preparation always results into formulation of unrealistic goals resulting from extensive theoretical discussions. A study conducted in 1993 by Kolman in Peru has revealed that the extensive theoretical discussions are necessary in the following ways: a) they overcome ignorance and the lack of information on the topic of interest amongst prospective members b) they integrate social ways of thinking with insight into technical processes c) last but not least they explain to development agents and other stakeholders as well as the actual needs of rural people. The process of exchanging so as to create a shared conceptual framework, takes a lot of time, yet it seems as an essential ingredient of networking. In a way it helps to transform a diverse set of people and organizations with "ill defined" sense of purpose into a "like minded" group with many interlocking relationship and a shared perspective, thus enabling them to effectively learn from each other.

The formation of a network comes last. Once a network is created, it is important to formalize it. For the network to be sustainable it has to be registered according to the law of a particular country. It has to be institutionalized. Every individual and organization

builds relationships with others, in networking. Most of these activities remain informal and rather incidental. However some of the activities become so relevant to the life and/or work of these individuals and organizations that they decide to institutionalize them in order to guarantee sustainability of the relationship. According to Engle (1990), a network which remains informal is compared to people who eat, but never build a kitchen. It is important for the networks to be formalized so as to fully utilize their potentiality in the fight against poverty.

FSGNs fairly followed the same path as they evolved. With regard to planned activism there was already fairly concrete activities of stakeholders as the FSGs and implementing agencies (LVIA and INADES FORMATION) were already in place since 2001. The stakeholders were already engaged in some concrete activities aimed at ensuring household food security. A second phase of shared conceptual framework supposedly to be more difficult was facilitated by LVIA and INADES FORMATION meaning that there were inputs from both the two implementing agents and FSG members. However time allocated to this stage was not adequate as the early years always resulted into formulation of unrealistic goals. This process should have taken longer to ensure that a shared conceptual framework among members is established. The problem with FSGNs is that the implementation process was done before the FSGN members had fully developed a shared conceptual framework. That is why the implementing partners failed to register the FSGNs as members were slow and could not meet all of the requirements for registration within the specified period.

An example of a successful network which followed the model is MVIWATA. Sokoine University of Agriculture has been successful in formalizing a network of farmers known as *Mtandao wa Vikundi vya Wakulima Tanzania* (MVIWATA), a Kiswahili acronym meaning Tanzania Network of Farmers Groups (Mattee *et al.*, 1998; CTA Seminar, 2001). MVIWATA was formed during a workshop organized at Sokoine University of Agriculture, where farmers' representatives decided to institutionalize the exchange of information between farmers, farmers' groups and researchers and extensionists, throughout the country. The network aims at facilitating communication among small-scale farmers all over the country. It also makes efforts in organizing and empowering farmers in Tanzania so as to become strong enough to influence policy decisions and promote their development on a self-reliance basis.

MVIWATA ensures effective representation, of farmers' interest, to facilitate learning and training, to enhance communication and advocacy strategies with a purpose of defending and promoting their interests. Currently MVIWATA represents over 60 000 small scale farmers in Tanzania. MVIWATA operates through networks of grassroots farmer groups. At present MVIWATA comprise 75 networks of grassroots farmers (Mattee, 1998; Gilla and Nombo, 1994; Paliscio and Madaha, 2006). The network membership is derived from the representatives of farmers groups and local networks. This condition indicates the importance of forming local networks by various groups existing in rural areas. Without local networks, it implies that groups will not be

members of the National network-MVIWATA, hence they would fail to access the support or incentives offered by the network.

According to Kaburire and Ruvuga (2006) one of MVIWATA's key institutional innovations involves forming a network of farmers and groups in order to create forum for communication, information exchange and sharing experiences. MVIWATA has documented and disseminated this experience, in collaboration with INADES FORMATION. LVIA and INADES FORMATION as one of the beneficiaries of the experience from MVIWATA are among organizations which give first priority to formalization of the existing networks in the area. LVIA and INADES FORMATION assisted in the formulation of Farmers' Groups in Chamwino District in 2001. Farmers in the study area were requested to stay in groups of 10 to 20 members forming a food security group. This was done so as to make groups manageable. The groups were owned by the members themselves. INADES FORMATION and LVIA were the custodian of the formed groups. Then the groups were given training on different agronomic practices including food storage, animal traction, use of short term and drought tolerant crops and environmental conservation. The food security group members were also empowered with skills on management of groups and entrepreneurship. LVIA and INADES FORMATION have been collaborating with MVIWATA in their efforts to facilitate formation of farmers groups and local networks in the study area (Paloscia, 2006).

2.4. Current and Earlier Initiatives Taken by Tanzanian Government to Reduce Poverty

This section highlights initiatives taken by Tanzania to reduce poverty and assist the poor. It describes the National Poverty Eradication Strategy (NPES) launched in 1997, Development Vision 2025 launched in 1999, National Strategy for Growth and Reduction of Poverty launched in 2005 as a follow up to the Poverty Reduction Strategy Paper of 2001 and finally organization of rural population in local development efforts.

Before describing current and earlier actions taken by Tanzanian Government to reduce poverty, it is important to understand the meaning of poverty in the context of this study. Although poverty is one of the most familiar and enduring conditions known to humanity, it is an extremely complicated concept to understand. Some researchers view it as a reaction to the stress of being poor, whereas others perceive it as a process of adapting to the condition of poverty (World Bank, 2002).

Poverty is defined as "a state of deprivation prohibitive of human life". This is caused by lack of resources and capabilities to acquire basic human needs as seen in many, but often reinforcing parameters, which include malnutrition, illiteracy, the prevalence of disease, squalid surroundings, high infant, child and maternal mortality, low life expectancy, low per capita income and expenditures, poor quality housing, inadequate clothing, low technological utilization, environmental degradation, unemployment and poor communication. Important recent work by United Nations Capital Development Fund as led to a broader concept of poverty, embracing notions of disempowerment,

limited capabilities, and relative well being and of the importance of subjective perceptions of these same factors. The concepts complement the more conventional "economist" notions of income and consumption levels and variability (URT, 2000; United Nations Capital Development Fund, 2005; National Strategy for Growth and Reduction of Poverty, 2005).

Another aspect closely linked to poverty is vulnerability. Vulnerability is an important aspect of household's experience of poverty. Kanbur and Squire (2001) argued that the notion of 'vulnerability to poverty' remains elusive. It is a condition that may be easy to recognise in oneself or one's neighbours, but there is no consensus about how to define the concept and measure it in a broad cross-section of people. In surveys, poor households often identify vulnerability as a condition that takes into account both exposures to serious risks and defencelessness against deprivation. Defencelessness in turn is often seen as a function of social marginalization that ultimately results in economic marginalization.

According to SMERU (2000) vulnerability is defined as probability or a risk a household will experience at least one episode of poverty in the near future. This means that a household vulnerability is measured as a probability; hence households have greater or lesser degree of vulnerability depending on the possibility of an episode to occur. Since the future is uncertain, the magnitude of vulnerability rises with the time horizon, so vulnerability over the next week will be quite low, over a year higher and

over several years the risk will be higher still. Many households while currently not in poverty recognise that they are vulnerable to events that could easily push them into poverty. Such events could be a bad harvest, a loss of job, an unexpected expense, an illness or an economic down turn. For example people in Chilonwa division are vulnerable as they often fall into bad harvest resulting from bad weather. A bad weather is unpredictable and can not be controlled. However community members who engage in production of drought tolerant crops often have a good harvest, but there are also occasions when drought tolerant crops fail to give good yields (Tiluhongelwa, 2002; I.VIA 2005).

Since independence in 1961, the government of Tanzania adopted poverty eradication as its main goal. In addressing the key challenge of strategizing to reduce poverty Tanzania has prepared and adopted NPES in 1997, which brought out a vision for the society with abject poverty and improved social condition (United Republic of Tanzania, 2005).

The overall goal of NPES was to provide a framework, to guide poverty eradication initiative in order to reduce absolute poverty by the year 2025. For achieving the goals of NPES the government identified five key sectors: education, health and nutrition, water, agriculture and rural roads. The NPES identified three areas of strategic interventions namely: creating an enabling environment for poverty eradication, building

the capacity for poverty eradication and eradicating poverty. The strategy has also spelt out roles at various levels for poverty eradication initiatives.

The NSGRP is informed by the aspirations of Tanzania's Development Vision (Vision 2025) for high and shared growth, high quality livelihood, peace, stability and unity, good governance, high quality education and international competitiveness. It is committed to the Millennium Development Goals (MDGs), as internationally agreed targets for reducing poverty, hunger, diseases, illiteracy, environmental degradation and discrimination against women by 2015. It strives to widen the space for country ownership and effective participation of civil society, private sector development and fruitful local and external partnerships in development and commitment to regional and other international initiatives for social and economic development. The impact of farmers' organization initiatives to reduce rural poverty varies according to level of resources availability, support and infrastructure. The withdrawal of Government from controlling major means of production and globalization necessitates the need for farmers' organizations so as to empower farmers (UN, 2003; GFAR, 2004).

According to MAC (2000a) cooperatives as one form of farmers' organizations have existed in Tanzania since 1925. The cooperatives formed were so strong economically and financially. After independence the success of the cooperative movement that surfaced in some parts of the country made the government to take the lead in cooperative development. The state actively promoted the establishment of cooperatives.

In the process the cooperatives became integrated with national objectives rather than members' aspirations and interests. This caused capital formation within cooperative movement to drop drastically. Ultimately cooperatives became completely dependent on the state through loans. Even the human resource development which was undertaken by cooperatives collapsed and became the responsibility of the state.

In general the cooperative movement has been weak in Tanzania because of corruption, mismanagement, conflict and lack of clear goals (Chambo, 1999). In the due course the government recognized this mistake and started to revive cooperative principles through the establishment of Cooperative Act of 1991. The 1991 Cooperative Societies Act was further refined by the 2003 Cooperative Societies Act. The Cooperatives Societies Act, 2003 places emphasis on voluntary organizations, democratic organizations controlled by their members, democratic control of the capital, autonomy, education and training of members, informing general public about the nature and benefits of cooperation and finally working for the sustainable development of their communities through policies approved by their members.

In Tanzania following the Cooperative Societies Act, 2003 and the Cooperative Reform and Modernization Programme of 2005 and disengagement of the state from production-oriented activities, the ideal of networking for small-scale farmers was seen as an alternative in the process of self-development in the rural environment. Networking is

powerful and cost-effective way of sharing information and achieving various other goals that individuals cannot achieve alone.

2.5. The Role of Networking in Poverty Reduction

A study conducted by Kaburire and Ruvuga (2006) in Tanzania concentrated on networking for agricultural innovation only. To a large extent public financing for research and extension is being made conditional on a strong collaboration with farmers and FOs. Many FOs including farmers' networks have emerged that are attempting to help address the multiple challenges faced by farmers – in agricultural and livestock production in general, and the need for innovation in particular. Nevertheless, there continues to be inadequate farmer participation in decision-making, whether these innovations are technical, organizational or institutional. The study by Kaburire and Ruvuga (2006) revealed that FOs have significant additional potential to make the research and extension agenda more relevant to farmers' needs and their environment, and indeed in bringing about the desired changes in agricultural productivity, incomes and sustainability. Thus the study calls for a need to conduct a research on farmer networks in relation to poverty reduction.

Another study conducted by Masandika and Mgangaluma (2006) concentrated on linking farmers' networks with various agricultural services. Farmers' networks such MVIWATA, which works at the national level, can not render all services required. The study revealed that there is a need for intermediate-level networks in order to reach

members at the grass-roots level. Such intermediate networks are normally created at the provincial or district level. The two studies were limited and could not give adequate details on role of networking which has led to a need of studying networking in the context of poverty reduction. Networking provides opportunity for reflection, for breaking down barriers and stimulating creativity (Engel, 1990). Farmers' networking plays the following roles in poverty reduction:

2.5.1. Risk sharing

A basic function of farmers' networking is to build confidence among member farmers and to provide support and encouragement. Compton and Joseffson (1993 as cited in Alders *et al.*, 1993) contend that younger farmers can learn from older farmers and farmers without experience can learn from experienced ones and so avoid the unnecessary repetition of mistakes done by older farmers in the past. By so doing new and inexperienced farmers can engage in production successfully and henceforth increase agricultural production. In Sri Lanka, farmers' groups have established an extensive network of inter-group associations called village boards, each representing an average of 10 groups. The village boards, in turn, have created two district-level federations with total membership of about 2000 farmers. The inter-village boards collect money to purchase agricultural implements such as fertilizers and seeds in bulk and provide them at a lower cost. They also organize training programmes through extension agencies and other line agencies. This is highly promoted because the small farmers have to take over management of the activities after termination of the project. In fact, quite a number of village boards are taking over the group promoter's functions.

In one district, where there were 24 group organizers, now only one is needed. If agricultural production is increased then poverty is reduced as farmers can get food and increase their income through sale of surplus produce.

2.5.2. Experimentation and demonstration

According to Compton and Joseffson (1993), cited by Alders *et al.* (1993) experiments conducted by farmers' networks can effectively and efficiently serve to develop farming practices that are compatible with local conditions. Experimentation avoids duplication of practices and enables farmers to investigate proposed new practices more completely and more quickly. Also they take into consideration the risk, labour requirement and community values, which are rarely considered by extension workers. Networks allow participating farmers to discuss and analyse each other's observations and experiences. This process results in valuable research questions. When forwarded to agricultural research organizations, these questions and requests should presumably, carry more weight, because they are put forward by a network rather than individual farmers.

Good examples are the Seed Producers Societies (SPS) networks of Mvumi Makulu, Bahama, Dabala and Nhinhi villages in Mvumi Division. They aim at engaging in quality seeds production and seed multiplication training. The seed producers engage in experimentation and demonstration aimed at producing quality seeds (Paliscio & Madaha, 2006). The use of quality seeds has enabled the farmers to access quality seeds at cheaper cost. Quality seeds have led to an increase of production (for example the

production of maize has increased from 7.43 bags of maize to 24.75 bags of maize per ha) and as a result poverty has been reduced among farmers who use them.

2.5.3. Empowerment

According to DANIDA (2004), at the individual level, empowerment has been defined in terms of factors that give greater control over one's life. Factors include an individual's knowledge base, resources, rights, and assets. Reference is also made to the sense of well-being in terms of status and self-esteem that are both facilitated and give further support to the capacity to control key aspects of one's life. However empowerment strategies do not only focus upon the individual. According to DANIDA (2004) a working definition of farmer empowerment is a process that increases the capabilities of smallholder farmers and farmer groups to make choices and to influence collective decisions towards desired actions and outcomes on the basis of those choices. On the other hand, World Bank (2003) defines empowerment as the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Central to this process is actions which both build individual and collective assets, and improve the efficiency and fairness of the organizational and institutional context which govern the use of these assets.

The main elements for a definition of farmer empowerment are as follows:

- Empowerment is not something that can be done by outsiders "to" people. Development programmes can help to create the conditions whereby people become agents of their own development and empowerment.

- Empowerment is about strengthening the position of people in their multiple roles as members of families, societies and as economic actors. Experiences from attempts to empower women show that it is not enough to focus on strengthening the agent's practical/economic outcome only.
- Empowerment is both process and result. The process is awareness and capacity building. The result (outcome) is: greater participation, greater decision making power and control and of transformative action.
- There is need for a parallel political process in the creation of channels to enable farmer involvement in policy making if greater participation is to have meaning. Empowerment is linked directly to participation. Participation may be practiced at different levels ranging from information sharing (where people are passive receivers of information) to empowerment (people take full responsibility for their own development, using development agents as resource providers). The latter illustrates the way in which farmer empowerment is also an element in broader democratisation strategies. This should not be forgotten as it carries implications for governments as well as for farmers.

According to DANIDA (2004) in the recent years empowerment has assumed a prominent role in rural and agricultural development with support to farmer groups, networks and organisations entering the dialogue between donors and governments in Asia and Africa. A central argument used by donors for supporting farmer empowerment is that there is a strong relation between farmer empowerment and such

development outcomes as poverty reduction, improved agricultural opportunities for growth, and better governance. Today farmer empowerment is held to be important for developing demand-driven advisory services: farmers that can better analyse their situation and can then better articulate demand; linked to farmer group organisation this can secure better service provision and the more efficient use of public resources. In the pursuit of the latter two, farmer empowerment embraces to varying degrees ideas of farmers as citizens who should play a central role in securing improvements in the functioning of government and of markets through their actions at the local level. The logic is a powerful one in today's development context.

According to World Bank (2003) the status of farmer empowerment is illustrated by the agricultural programmes of various donors in Kenya. The World Bank supported Kenya Agricultural Productivity Programme (KAPP) includes Support to Farmer/Client Empowerment. The GTZ supported programme "Promotion of the Private Sector Development in Agriculture" includes a component with the aim to strengthen private sector organizations in their internal organisational structure and empowering the organisations to raise their voice. USAID support aims to increase the capacity of smallholder business organizations to represent their farmer-members' business interests. Finally DANIDA's Agricultural Sector Support Programmes includes empowerment of smallholders and small entrepreneurs.

FSGNs members of Chilonwa division have been empowered through training, access to information and access to loans. According to Madaha, (2004) Food Security Groups play a very significant role in improving both agricultural production and food security for the household members. Food Security Groups allow group members to communicate and exchange ideas with others group members. The exchange of ideas allows members to be creative and have a sense of recognition. On the other hand, LVIA has been reaching the farmers in Food Security Groups and provides extension services to them easily. The practice of providing intensive assistance to a small number of progressive farmers and expecting that the effect of such assistance will reach other farmers directly by diffusion is not realistic and leads to increased social and economic inequality. That is why development agencies find it easy to work with groups instead of a few farmers (Mattee & Lassalle, 1994).

A study conducted by Madaha (2004) revealed that the members in the Food Security Groups receive a variety of services including technical support (training on agronomic practices), financial aid (loans, credits and accessibility to revolving fund) and material support (food loan and agricultural implements e.g. water pump, high quality seeds, draught animals, carts, plough, and rippers). The services aim at building the capacity of the Food Security Groups leading to their sustainability. In addition group members get an opportunity to communicate and exchange ideas with other group members. This fosters cooperation, joint effort and hard working which were seen as key elements in sustainability of groups.

The FSP in the area has been extended aimed at making the project intervention sustainable. The extension will be used to empower the FSGNs members and facilitate registration of FSGNs. Currently the implementing agents concentrate in finding different ways of making the FSGNs sustainable. This has created a need for research focusing on strengthening the FSGNs which are expected to take the role of the implementing agents. The efforts of the implementing agents in networking farmers are supported by studies conducted by Alders *et al.*, (1993) and Shenduli (1998) which revealed that as farmers join together and begin to support and learn from each other; a network develops strength and can easily address poverty issues. As a network grows it becomes increasingly able to promote the common interests of its members and of the larger community. Practical outcomes can be collective purchasing of supplies, collective selling and marketing of produce. Well established networks can become effective advocates of policy change such as those aimed at poverty reduction and claim improved access to public services.

2.5.4. Extension and communication

Farmers' networking can obtain and disseminate agricultural information from outside the network. According to Carney (2004) networks have often emerged in response to absence of an adequate extension services. Yet the existence of such networks can facilitate the work of extension workers and researchers provided that these accept the network for what it is. For example local networks in Mgeta and Mkuyuni division in Morogoro, organize and hold meetings on a monthly basis in which members interact and exchange ideas with one another about their activities, potentials and difficulties.

Sometimes, the network proposes field visits to other areas or specific groups where an important lesson could be learnt. The meetings and field visits enable them to utilize the skills learned and henceforth increase agricultural production (Mattee, 1998).

According to Mattee (1998) farmer networks facilitate effective communication of extension messages between farmers and change agents, and among farmers themselves. The change agents can communicate extension messages to farmers in farmer networks more quickly than individual farmers. On the other hand, farmers in farmer network meet and exchange extension messages. Farmer networks bring large number of farmers and other stakeholders together. The argument implies that although farmers groups approach is recommended in developing countries, local networks are essential for the success of both members and non-members of farmers groups as they help in technology dissemination. The dissemination of technology helps farmers to gain modern techniques and thus boost agricultural production leading to poverty reduction.

A study conducted by Mushi (2000) in Kilosa has revealed that the rate of technology dissemination to the community is low, mainly due to lack of capital and local networks. This is a recent phenomenon in Tanzania and little research has been done in this area. It is recommended that local networks should be formed in all areas where farmers groups exist. Local networks have proved to be very successful in technology transfer and adoption of new agricultural innovations. Furthermore the study by Mushi (2000) revealed that networking among groups creates a sense of self-awareness of the

members and tends to stimulate a continuous emergence of groups without any other impulse. In addition a study conducted by Nombo (1995) in Uluguru mountains in Morogoro Tanzania, revealed that communication between members is enhanced through local network and national network meetings. The representatives of farmers groups forming local network at division level or district level come together and exchange useful experiences. Furthermore the representatives of the local networks come together and exchange experience at a national level. The impact of the mentioned initiatives is that networks have proved to be very successful in technology transfer and adoption of new agricultural innovations, this leads to increase in agricultural production and income and as a result poverty is eradicated.

Literature review has accessed various sources to describe the concept of networking, how Food Security Group Networks evolved, capacity building for networking, current and earlier initiatives taken by Tanzanian government to reduce poverty and the role of networking in poverty reduction.

CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter describes the methodology which was used to carry out this study. It includes description of the study area, study population, research design, sampling procedures, data collection methods, instrumentation and data processing and analysis.

3.2. Description of the Study Area

The study was conducted in Chilonwa division. It is a one-hour drive eastern of Dodoma Municipal Council. According to Dodoma District Council statistics (2006) Chilonwa Division has a total population of 57 690. Appendix 2 shows population of Chilonwa division by ward, village and sex. There are seven wards in Chilonwa division including Msanga, Chilonwa, Buigiri, Majeleko, Manchali, Ikowa, and Msamalo. A map of Dodoma region and Chilonwa division are shown in appendices 3 and 4 respectively.

According to Tiluhongelwa (2002) the Wagogo predominantly inhabit the division with few other ethnic groups like Wakaguru, Wanguu and Wabarbaig. The area receives inadequate rainfall of an average of 550-600 mm annually.

The people living in Chilonwa division depend on subsistence agriculture for their livelihood. Most of the land in the area has poor vegetation cover because of the common slash and burn practices of cultivation in the area. Poor vegetation cover has

resulted into low fertility of the soils in the area. The soils are deficient in organic matter, nitrogen and other trace elements (Tiluhongelwa, 2002). According to LVIA (2005) the average farm size in the area ranges between two to three hectares per household.

On the other hand, the rainy season is from December to April and the dry season is from May to November. The distribution of the rainfall is often unreliable, limiting the choice of crop varieties which can be grown by the farmers. The major food crops grown in the area include sorghum and millet. These crops are suitable for low and unreliable rainfall of the area. Other crops grown in the area include maize, peanuts, sweet potatoes, groundnuts, cassava and pumpkins. Livestock production on other hand is affected by key problems such as diseases, shortage of water and pasture. Therefore agriculture is characterized by low productivity posing huge risk of food insecurity (Tiluhongelwa, 2002).

Chilonwa division has been selected because it is a project area for the Food Security Programme implemented by LVIA and INADES FORMATION. The Food Security Programme area includes ten villages all located in Chilonwa division. The villages include Mgunga, Makoja, Ikowa, Mnase, Mlebe, Mkalama, Mjawanga, Chalinze, Chinangali II, and Manchali villages. The Food Security Programme established a network of food security groups in the mentioned villages. So far there is one Food Security Group Network in each of the mentioned ten villages. The Farmers networks have been described in the introductory chapter of this dissertation.

3.3. Definition of Study Population

There is one FSGN in each of the ten villages of Chilonwa division. The study population consisted of all members of FSGNs in three purposively selected FSGNs out of ten FSGNs covered by the Food Security Programme (FSP) namely Chalinze, Makōja, and Manchali FSGNs. Targeted members were the ones who have been participating in FSGNs for a minimum period of three years. The reason for selecting this category of members was that they were the ones who had experience in networking issues of FSGNs and were capable of providing information relevant to this study.

3. 4. Research Design

Data for this study have been obtained using a case study research design. Case study research design was adopted because it assists in the understanding of a complex issue such as poverty reduction and can extend experience or add strength to what is already known through previous research (Yin, 2002). According to Yin and Soy (1994, 1997) case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers use the case study research method with success in carefully planned and crafted studies of real-life situations, issues, and problems. A key strength of the case study design involves using multiple sources and techniques in the data gathering process. The researcher determines in advance what evidence to gather and what analysis techniques to use with the data to answer the research questions. Case study allows a young researcher to learn how to use many techniques in the data gathering process. Data gathered are normally largely qualitative.

but it may also be quantitative. Tools to collect data can include surveys, interviews, documentation review, observation, focused group discussions and even the collection of physical artifacts (Hamel, *et al.* 1993; Soy, 1997; Yin, 1994; Tellis, 1997).

3.5. Sampling Procedures

At the time of conducting this study there were a total of seven wards and seventeen villages in Chilonwa division. The Food Security Programme (FSP) covers only ten villages in the division each having one Food Security Group Network. Due to time constraints purposive sampling was used to select only three villages out of ten villages in the FSP area. The three villages include Chalinze, Makoja, and Manchali. The criteria used to select the three villages include: (a) existence of a FSGN in each of the three villages (b) a completed Community Cereal Bank building in each of the three villages and (c) accessibility. From existing FSGNs in selected villages, a list of members was obtained using FSGNs registers and attention was given to members who have been participating in FSGNs for a minimum period of three years. This list was treated as a sampling frame from which a random sample of 60 members was drawn for detailed study by using a table of random numbers.

Due to time constraints only sixty FSGN members participated in structured interviews whereby ten of the selected members from each of the three networks were selected for a Focused Group discussion. According to Mullens (1996) participants of a focused group discussion should range from eight to ten to allow equal participation by all. If the

number of participants of a focused group discussion exceeds ten, some of the participants may fail to participate. Henceforth thirty members in total participated in focused group discussions. As time was limited only sixteen key informants participated in in-depth interviews. At least four key informants from the three villages participated in in-depth interviews.

3.6. Data Collection Methods

A combination of qualitative and quantitative data collection methods was used. Both quantitative and qualitative methods play a useful and complementary role in improving our understanding of a situation in a given area. Qualitative methods are useful for improving our understanding of the local circumstances that communities operate in, while quantitative methods help us to determine the breadth to which observed behavioral practices, resources, or problems are distributed within a population (Bailey, 1994).

In quantitative methods respondents were asked a set of open and closed ended questions from questionnaires. In Qualitative methods in-depth interviews, documentary review, observation and focus groups discussion were used to collect data.

3.6.1. Quantitative Data Collection

Structured questionnaires or interview schedules were used to gather information from selected FSGN members. The respondents were asked about the following, age, sex, education level, and occupation. Structured questionnaires were developed both as a

basis for recording required background information and as instrument for measuring the following in respect of the respondents:

- FSGNs in terms of membership, activities and sustainability
- the roles and the extent to which FSGNs have contributed towards poverty reduction.
- factors of success or failure and best practices in FSGNs.

In order to communicate effectively with the respondents, the instruments for this study were translated into Kiswahili from English by the researcher. The data collected were later translated into English for further processing and analysis. This was done with the assistance of my supervisor.

3.6.2. Qualitative Data Collection

Qualitative data were collected by the use of focused group discussion, indepth interviews and observations. Field Interview Guides were used during focused group discussion. The qualitative methods are described as follows:

a) Focus Group Discussion

Focus Group Discussion included three groups of women and men mixed together. This was done to facilitate participation of both sexes. The members of the farmers' Networks formed small groups of ten members each to facilitate participation by all members. The rationale behind this is that majority of members feel free to participate in

a conversation in small groups than in large groups. The focus group discussion led to a discussion about

- perception of FSGNs, accessibility to resources and capabilities to acquire basic human needs
- organization, management, history, membership, activities and sustainability of FSGNs
- The role of FSGNs in poverty alleviation and improvement of the livelihood of their members.
- Ways in which FSGNs have contributed towards poverty reduction
- Strategies in which FSGNs can be strengthened.

b) In-Depth Interviews

A total of sixteen key informants participated in-depth interviews so as to supplement or confirm information obtained from structured questionnaires. This was done so as to examine in detail some of information which appeared to raise concern with regard to study objectives and especially those which were superficially addressed in the interview schedules. A total of three months were spent at the study area so as to facilitate the in-depth interviews. At least four key informants from each village were interviewed. In-depth Interviews were expected to capture, among other things, the following information:

- Contribution of FSGNs in poverty reduction.

- Factors of success or failure of FSGNs
- Ways for strengthening FSGNs

c) Observations

A diary was kept for recording all observations such as quality of houses, and clothing, as well as possession of livestock such as pigs, chicken and goats during the study. Once an observation is made the researcher confirms by asking the owner how he or she got such possessions. Possession of good quality houses, clothes and livestock indicated extent to which FSGNs have contributed towards poverty reduction. The observations focused in finding information about extent to which FSGNs have contributed towards poverty reduction. Secondary data were collected following consultation of LVIA and INADES staff. There was no need to use other tools i.e. questionnaires to get information which could easily be captured from official sources such as LVIA and district officials. At LVIA and INADES offices, reports and files provided information on the success of the existing FSGNs. The two NGOs had a task of setting up community based organization and management structures to include the CCB as the agent managing the networks. Officials at district level were also contacted.

3.7. Data Processing and Analysis

Data were prepared for analysis so as to summarize information from the questionnaires, researcher's diary (observations) and interview guides into a form, which is easily comprehensible and integrated. Data originally reported in Kiswahili were translated

into English and paraphrased while preserving the original details and meaning as accurately as possible. The data from interview schedule were then coded and recorded on computer forms before they were entered in the computer and analysed. The analysis was done using Statistical Package for Social Science (SPSS).

3.7.1. Qualitative Analysis

Qualitative analysis was based on information from focus group discussion, documentary review, observations and in-depth interviews. Qualitative data were analyzed using content analysis technique. Content analysis refers to words, meanings, pictures, symbols, themes or any message that were communicated during the study (Mouton, 2001). Verbatim responses were also analysed by systematic reading of response texts with the aim of drawing general conclusions and collecting revealing citations. Data were categorized, tabulated, and recombined to address the study objectives. Cross-checks of facts as well as discrepancies were conducted by the use of in-depth interviews. In-depth interviews are necessary to gather additional data to verify key observations or check a fact (Yin, 2002; Dominique & Jean, 2000).

3.7.2. Quantitative Analysis

Analysis was conducted with respect to the objectives of the study using the Statistical Package for Social Science (SPSS) at Sokoine University of Agriculture, Morogoro. Descriptive statistics such as frequencies and percentages have been presented in tables showing differences, relations and opinions of respondents in which the discussion of the results are based.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter is divided into four sections namely socio-demographic characteristics of respondents; description of FSGNs in terms of membership, activities and sustainability; role of food security group networks in poverty reduction, factors of success or failure of food security group networks and strategies for strengthening FSGNs in selected villages of Chitenwa division.

4.1. Socio-Demographic Characteristics of Respondents

The following sub-sections describe the general characteristics of the respondents in terms of age, educational level, marital status, economic activities and household income of the respondents.

4.1.1. Age of Respondents

Table 1 shows that, the majority of respondents (60%) were aged between 23 and 41 years old. All of the respondents were economically productive as they all fell within the range of 15 to 64 years old. People in the age range (23 and 41 years old) mentioned could participate in economic activities and were able to produce for the community. According to Matice, *et al* (1998) one is considered economically productive from the age of 15 to 64 years old. On the other hand, a study conducted by Nombo (1995) revealed that members in the age category of 23 to 41 years have proved to be more

venturesome and ready to try out innovations hence they were likely to participate more in groups' or networks' activities.

4.1.2. Educational level

The majority (56.7%) of the respondents presented in Table 1 had reached primary school level. Although fewer respondents had attained secondary school education, information obtained from Focused Group Discussion revealed that these were found to hold key positions in terms of leadership and were described as beneficial to the FSGNs in terms of leading their fellows in the appropriate use of the resources entrusted to them. For example, in Makoja village the only form IV leaver was a secretary of FSGN and she kept all records properly as well as advised the management on important issues for action. Proper record keeping is essential in the management of the revolving fund as it enables the leadership to monitor the progress of the FSGNs and enable them to make appropriate decisions for immediate action.

4.1.3. Marital status

As shown in Table 1 majority of the respondents (83%) were married. According to Chilonwa Division Administrative Officer (Personal communication, 2005) an average household had 4 to 5 members leading to an increased demand for food. Historically Chilonwa division had experienced a series of drought (subsequent drought years) conditions in the division for a long time. Married people with young children were severely affected by a series of drought conditions in the place as food demands for a household with many dependants is high.

Table 1: Distribution of Respondents by According to Socio-Economic Characteristics (N=60)

Parameter	Values	Number	Percentage
Age Category (years)	23-41	36	60
	42-60	24	40
Total		60	100
Educational level	Primary education	34	56.7
	Vocational training	14	23.7
	Secondary education	6	10
	No formal education	6	10
Total		60	100
Marital status	Married	50	83.3
	Widowed	4	6.7
	Divorced or Separated	3	5
	Single	3	5
Total		60	100.0

According to LVIA (2005) such droughts which led to food insecurity were the main reason which made married people to join the food security group networks so as to be able to have an adequate food for their household.

4.1.4. Economic activities and household income of the respondents

Table 2 shows distribution of respondents according to economic activities. Economic activities were classified as on-farm or non farm production.

Table 2: Distribution of Respondents According to Economic Activities (N=60)

Economic Activities	Number	Percentage
On farm production only	29	48
On farm production and Non farm production (e.g. petty business)	31	52
Total	60	100

The major economic activity carried out in the study area is on farm production. On farm production enabled the farmers to get food as well as earn an income for their households. On farm production involves production of maize, groundnuts, sunflower, simsim and sorghum. Groundnuts, sunflower, simsim and sorghum grow well in the area. Maize does not grow well in the area due to inadequate rainfall.

The non-farm production which mainly involves petty business such as salt production, food vendor, merchandise and tailoring enables the family to earn additional income for their households. From Focused Group Discussions it was revealed that non-farm income generating activities has enabled the households engaged in those activities to generate an additional income. The generated income has enabled those households to be food secured.

4.1.5. Household income

Table 3 shows distribution of members according to the household income. The increased income is as a result of increased accessibility to extension services offered by

FSGNs. The extension services have enabled the FSGN members to boost agricultural production, and gain business skills.

Table 3: Distribution of Respondents by Household Income (N=60)

Household income per Annum (in TAS)	Number	Percentage
50,000 -100,000	13	22
100,000 TAS-150,000	17	28
150,000 and above	30	50
Total	60	100

The extension services will be covered under section 4.3. According to LVIA (2005) there is increase in the mean annual households' income of FSGN members from 194,030.28 to 357,456.34 TAS pre and post Food Security Program respectively. Those figures reveal that the income of FSGN members has doubled enabling them to meet some of the costs of basic needs. Therefore the increased income of the FSGN members put them at a position whereby they could acquire their basic human needs.

4.2. Description of FSGNs in Terms of Membership, Activities and Sustainability

This section describes membership, activities and sustainability of FSGNs. Data which were obtained from LVIA files, personal interviews, field officers, focused group discussions, observations and in-depth interviews generated information which was used to describe sustainability, membership, and activities of FSGNs.

4.2.1. Membership of FSGNs

Data from LVIA files revealed that there are six food security groups in Makoja Network, six Food Security Groups in Machali and seven Food Security Groups in Chalinze. The same findings were revealed during focused group discussions. The number of members in one network ranges from 48 to 128 members. Membership of food security groups ranges from 8 to 20 members (Tiluhongelwa, 2002; LVIA, 2005; Palsconi, 2006). There is no any legal basis which limits the number of members and gender composition in a Food Security Group Network. The FSGN constitution allows any resident of the village aged eighteen years and above to join the network. According to LVIA (2005) at the initial stages of the establishment of the FSG, members were advised not to exceed ten per each FSG in order to simplify the role of LVIA and INADES FORMATION in strengthening the FSGs. Membership in the selected villages is described as follows. There are 80 FSGN members in Chalinze village (50 are women and 30 are men), 70 in Machali village (out 70, there are 45 women) and 80 in Makoja village (40 women and 40 men). In-depth interviews and observations revealed that majority of members in the CCB are FSGN members. It has remained so since the establishment of the CCB and there is no any significant change which has been reported with regard to the change of CCB membership.

4.2.2. Activities of FSGNs

The constitutions of the FSGNs which are similar throughout the Food Security Programme area provided information on activities of FSGNs. The information was also

supplemented by data from LVIA office and personal interviews. The main activities of the FSGNs include:

- a) facilitating training, workshops and seminars: training, workshops and seminars focused on improved agronomic activities, animal traction, entrepreneurship, networking, leadership, safe storage of cereals, importance of balanced diet, vegetables preservations and cookery, weaning food for children under 5, sick people, pregnant and breast feeding mother, use of organic and inorganic fertilizers and finally petty business skills;
- b) assisting in the management and supervision of food security groups, an activity performed by the steering committee. The steering committee has a role of supervising the day to day activities of the food security groups;
- c) assisting food security groups in dealing with food storage by using existing Community Cereal Banks (CCBs) with built storage structure. The CCB management has been equipped with skills on safe storage of cereals;
- d) supervising activities of CCB. The steering committee of the FSGNs works in collaboration with the village government in supervising the day to day activities of the CCB and
- e) coordinating, monitoring, and managing the revolving fund hand in hand with the village government and the Community Cereal Banks (Tiluhongelwa, 2002; LVIA, 2005; Palsconi, 2006).

Table 4 shows the activities of FSGNs as revealed by the respondents.

Table 4: Distribution of Respondents According to Activities of Food Security Group Networks (N=60)

Activities	Number	Percentage
Facilitating training, workshops and seminars	15	25
Assisting food security groups in dealing with food storage	16	27
Providing loans	17	28
Providing agricultural implements	12	20
Total	60	100

All of the activities aim at building the capacity of FSGN members in addressing the basic needs and thus fight poverty. According to LVIA (2005) the FSGNs work in collaboration with LVIA, government and other development agencies a) to provide extension and/ or advising services aimed at increasing farmers knowledge on improved agronomic practices in order to boost their agricultural production in individual forms and block/group farms; b) to empower farmers and thus enable them influence policy decisions and promote their development on a self-reliance basis and c) to ensure food security throughout the year by providing relevant seminars and loans farmers to stay and work in their fields instead of labouring out due to food shortage

These initiatives made farmers food secure allowing them to concentrate their efforts on their farms instead of searching for hired labour.

4.2.3. Sustainability of FSGNs

According to FAO (1999) a successful farmers' network is one that can sustain its operations and activities with little need of outside support. Sustainability should not be interpreted to mean permanence but the process of self-help institution-building. It should be seen as a dynamic one, involving a wide variety of organizational forms. The farmers' network is just one of those forms which may be useful at a particular stage of development, given local conditions. Farmers' network should exist only as long as the net benefits derived from the organization exceed the net costs. The members of a particular network should continue to gain benefits from the network, but the network should be ceased if the members incur more costs than benefits from the network. In this study sustainability was assessed in the context of organisational, economic, socio-cultural, participation and ownership, gender and technological factor.

a) Organisational Sustainability

Organisation structure of the FSGNs is fairly complex as it involves three organs including FSGN steering committee, CCB management and the village government. The three organs need to jointly make various decisions which have an impact on the day to day operations of the FSGNs.

Strengths

The structure allows the FSGN members to jointly influence the CCB. Majority of the FSGN members are members of the CCB, this allows them to control the decision

making with regard to the operation of the CCB. The CCB is one of the pillars of the FSGNs as it allows members to store their cereals and sell them at a future date when prices are high. One of the participants of a focused group discussion said “*The CCB has enabled us to store our cereals safely and we sell them at a high price when the demand is high. This enables us to earn an income which we use to meet our basic needs*”.

Weaknesses

If a network has to be sustainable, network cohesion and solidarity is essential. The existence of unsolvable problems endangers cohesion and sustainability of networks (Castells, 2004). Table 5 shows percentage distribution of respondents according to weakness of working with FSGNs. One of the weaknesses as far as organizational sustainability is concerned is interference from the village leadership (Table 5). The village government did not give the expected cooperation to the leadership of the FSGN and the CCB hence this threatens sustainability. The CCB and FSGN were seen as one powerful organ endangering the sovereignty of the village government.

Table 5: Distribution of Respondents by Weaknesses of Working with Food Security Group Networks (N=60)

Weakness	Number	Percentage
Poor leadership	24	40
Uncooperative Attitude of members	22	37
Interference from village government	8	13
Inadequate capital	6	10
Total	60	100

It has been a custom in the past where by the village authorities controlled food aid. Some of the village executives have been stealing the food aids purposely and use it for private ends or personal interests. It appears as if the Community Cereal Banks (CCBs) had taken away from village government the role of distributing food aid to the village community and making it impossible for the village government leadership to steal it. The village authorities have been uncooperative purposely so as to jeopardize the operations of the CCB. This is one the weaknesses of the organizational structure which requires the FSGN, CCBs and village government to work together so to enable the CCB to operate efficiently.

Opportunities

The involvement of the village in the day to day operation of the CCB may allow the CCB to be sustainable as the village government will always be there after LVIA and INADES FORMATION have completely withdrawn. However the village government should not be corrupt and should stop seeing the CCB and FSGNs as organs jeopardizing their sovereignty. According to Mattee *et al* (1998) the farmers' network are meant to empower the peasants and enables them to have one voice. Empowered peasants are in better position to fight poverty. The village government should not see the empowered peasants as enemies but should treat them as partners in rural development.

Threats

Uncooperative village government is a threat as it endangers the operation of the CCBs and FSGNs. If the village government continues being uncooperative the FSGNs and the CCB will collapse. The cooperative village government is essential as it has a legal responsibility of protecting the FSGNs and the CCBs in their day to day operation. If the village government does not co-operate then unfaithful people both members and non-members may take advantage and misuse the funds of the FSGNs and the CCB as there would not be any punishment.

On the other hand, the presence of the village government on the structure of the FSGNs endangers the freedom of the FSGNs as the village government will be safeguarding the interests of the government and not the interests of the farmers. The Cooperatives Act, 2003 places emphasis on voluntary organizations, democratic organizations controlled by their members, democratic control of the capital, autonomy, education and training of members, informing general public about the nature and benefits of cooperation and finally working for the sustainable development of their communities through policies approved by their members. The safeguarding of the interest of the government will result into the collapse of the FSGNs as it was the case with failure of cooperative movement in Tanzania in the 1980s.

On the other hand, learning to improve network performance, for instance through monitoring and evaluating common goals, impacts, results and strategies does not get a

high priority. This may hamper the realization of the goals of the network in the future. All matters that lead to coherence of network should be given priority. Failure to do that will make a network fail to achieve its goals. Finally a network should never enroll members more than its capacity. There should be a number of members who can easily be managed and can access services easily. According to Oerlemans and Assouline (2001) little interest in management aspects endangers the sustainability of the network in the future especially when new members join in with different expectations or when the outside world (policy, market, etc.) changes.

b) Economic and financial sustainability

In the context of this study financial sustainability has to do with the ability of FSGNs to maintain its financial resources sustainably. The financial resources are necessary in enabling the FSGNs to meet the running costs and to continue offering the extension services to the FSGN members. According to FAO (1999) the more financially self-reliant the small farmer group or farmers network and the higher the level of financial resources mobilized internally, then the more sustainable it appeared to be. FSGNs should be able to mobilize its financial resources on their own and should not be totally dependent on external assistance.

Strengths

The strengths of FSGNs as far as financial sustainability is concerned are:

- (a) FSGN members contribute labour resource (Table 6) so as to enable the FSGNs meet some of the operational costs; (b) Some of the FSGN store their cereals in the CCB and

sell them at a higher price when there is shortage of cereals in the market. 25 percent of the net benefit for each of the sold bag of cereals is taken by the CCB so as to meet the running costs of the CCB; (c) The CCB building valued at USD 5000 in 2005 (currently the value might have increased) can be used as a collateral to gain loans from the government and other financial institution. The view of making use of the CCB as collateral was also shared during the focused group discussion. One of the participants of a focused group discussion said that *"We should be entrepreneurial and make use of this building as collateral for getting loans"*. If the CCB can access loan from government and other developmental agencies, it may purchase bulky amount of agricultural implements to be given to members in form of loan. The CCB is the sole organ which is necessary for the survival of the FSGNs as the CCB building holds the FSGNs members together.

Table 6 Distribution of Respondents by FSGN Members Contribution (N=60)

Contribution	Frequency	Percentage
Labour only	45	75
Labour and meetings	12	20
Nil	3	5
Total	60	100

d) The FSGNs owned the revolving fund which was made available to them via the FSP. The revolving fund would allow the FSGN members to access implement loan and boost agricultural production (LVIA 2005).

Weaknesses

The weaknesses as far as financial sustainability is concerned are a) it had been revealed during focused group discussion that there are inadequate funds from the revolving funds which were made available through the FSP. Since the FSGN members are many then, the cycle of loans takes very long to reach other members. As a result other members waiting for their turn get demoralized as it takes a long time for them to get loans. There should be adequate funds to allow majority of the FSGN members to access funds early; b) 10 percent (Table 5) of the respondents said that, the FSGNs have inadequate capital to meet the running costs. A young farmers' network needs to be supported at early stages of growth. If they are not supported they will end up collapsing. Likewise for the young FSGNs which are young, it is important for them to be supported financially. The leadership of FSGNs should network with Local Government Authorities, INADES FORMATION, L.V.I.A. and other development partners to access funds from government and other donor agents. The funds obtained should be used as a revolving fund to ensure that many FSGN members benefit from the obtained funds.

Opportunities

Currently the government has allocated some money to support peasants organized into groups and networks. The leadership of the FSGN should make the necessary arrangements to access the funds and increase their capital so as to make members

access the loans (Chamwino District Executive Director, Personal communication, 2006).

Threats

13 percent of the respondents revealed that the village government interferes with operations of the FSGNs. During interviews with respondents it was revealed that the interference is as a result of a corrupt village government which treats the FSGNs and CCB as enemies instead of partners. It appeared to the village government that the FSGNs and CCB has taken their sovereignty and they would do all they could to make the CCB and FSGN collapse. Existence of the corrupt village government may endanger the financial interventions of the FSGNs. The FSGNs need the assistance of the government to deal with unfaithfully members whose aim is to waste the financial resources of the FSGNs. A corrupt government may collaborate with the unfaithful members and misuse the financial resources of the FSGNs.

c) Technological sustainability

In this study technological sustainability has to do with sustaining the gained technological skills for example improved agronomic practices and animal traction. The gained skills should be maintained so as to allow young and new members to learn those skills from older and experienced members. Sustainability as far as technology is concerned is described as follows:

Strengths

The FSGN members had been equipped with different technological skills. They had been equipped with skills on animal traction, agronomic skills, entrepreneurship skills and soil conservation skills. The gained skills would enable the FSGN members to boost agricultural production, engage in petty business, and conserve the soil. As a result they would be able to fight poverty sustainably. In addition the Community Cereal Bank building provides safe storage of cereals allowing members to have food through the year and get an additional income when selling the cereals at high prices.

Weaknesses

Poor leadership (40%) and uncooperative attitude of some of the members (37%) revealed that the main problems of working with the networks and may lead to the failure of FSGN to sustain the gained technological skill (Table 5).

According to Jost, *et al* (2006) leadership of a network has to be sensitive and responsible. Network leaders who earn the respect of members through their character and commitment build trust and become role models for others to follow. Majority of the leaders have low capacity to manage the networks. Some of them do not know their responsibility as leaders and they end up crossing lines of authority. This has resulted into many conflicts among leaders. The prevailing conflicts may result into demoralization of FSGN members making them leave with the gained technological

skills which are needed for future members. However the crisis which existed is normal for a young farmer network such as FSGNs.

According to Oerlemans and Assouline (2001) farmers' networks have to be managed properly, if they have to be sustainable. Management aspects such as balanced leadership, collective responsibility, coherence of the group and enrolling capacity, have always been given little interest. There should be balanced leadership meaning that the networks should be managed democratically allowing both leaders and members to have a say in matters of interest to the network. Every member of the network should be accountable to the network. All members should work together to achieve the goals of the group collectively. This is referred to as collective responsibility.

This study discovered that the capacity of both leaders and members has not been built properly. One member said *"We request LVIA and INADES to build our capacity. Our networks and CCB are still young we can not operate on our own"*. For a community organization to be sustainable, the capacity of community members must be built.

It is therefore strongly recommended that efforts should be made to build the capacity of the FSGNs before LVIA completely withdraws. With poor leadership there is no technological sustainability as there would not be any mechanisms to sustain the gained technological skills.

Another problem has to do with technical backstopping for the FSGNs. Before the phasing out of the Food Security Programme technical backstopping was provided by

L.VIA and INADES FORMATION as there was a budget allocated to support the intervention. Currently the budget for technical backstopping of the FSGNs has been removed and this poses a problem with the usual access.

Opportunities

The government has employed experts on different fields. The FSGNs should continue making use of those experts to update the gained technological skills. This can be done through networking with the government experts on their day to day basis. In addition the FSGNs should continue collaborating with LVIA as the international NGOs have experts in the gained technological skills as well as it still continues operating in the area. The local and central governments have set aside funds such as TASAF and endowment fund (*Kikwete fund*) which targets small entrepreneurs at grass root level. The FSGNs should make use of those funds.

Threats

The FSP is in its transition phase and the budget for technological interventions such as trainings have ceased. Since there is no budget for conducting training leading to improved agronomic skills and other technological interventions, there is a possibility of the members to loose some of the gained technological skills as well as up to date technological skills.

d) Participation and Ownership Sustainability

For FSGNs to be sustainable, members have to be ready to participate in the management of the FSGNs. Participation should be at all levels allowing members and leaders to jointly work together for the betterment of the FSGNs. Participation of FSGN members in FSGN in design and implementation of activities enables them to have a sense of ownership. If FSGN members have a sense of ownership, then the FSGNs would have a greater chance of being sustainable. In addition, effective participation enhances empowerment

Strengths, weaknesses, opportunities, and threats as far as participation and ownership are concerned is described as follows:

Strengths

The FSGN members participate mainly through labour contribution and meetings (Table 6). Labour contribution and meetings by FSGNs are important for the sustainability of the FSGNs. Participation is mainly contributed by the incentives (Table 7) offered by the FSGN. According to FAO (1999) the most easily forgotten phenomena is that farmers network cooperation involves costs as well as benefits such as the incentives offered by FSGNs. Only when the difference is positive will cooperation occur and it will only be sustained if the farmers network can generate enough cash income or in-kind contributions such as labour contribution to cover its running costs in the short run and have enough left over to invest in growth. Having a "positive cash flow" may be enough

for a farmers network to "stay in business" it is not enough to guarantee its sustainability. That requires reaching some degree of operational and financial autonomy or self-reliance.

Table 7: Distribution of Respondents by Incentives (N=60)

Incentives	Number	Percentage
Agricultural Implement and food loan	43	72
CCB building for storage	43	72
Financial and moral support form their fellow members	43	72
Household food security	9	15
Food and implement and food loan	8	13
Total	60	100

In addition, it has been revealed from focused group discussion and in-depth interviews that most of FSGN members were cooperative in CCB related activities. The reason for cooperative attitude to CCB related activities was that they have invested their time and labour contribution in the construction of the CCB building. It was also revealed by 72 percent of respondents (Table 7) that a CCB building is one of the incentives which keep them in FSGNs. Given the existing situation, the FSGNs in collaboration with the CCBs are in position to offer the mentioned incentives provided more time is dedicated to building the capacity of the FSGNs.

Weaknesses

One of the weaknesses of FSGNs as far as participation and ownership is concerned is uncooperative attitude of some of FSGN members. Table 5 has revealed that some of the FSGNs have developed uncooperative attitude (37%) and the attitude may endanger sustainability of FSGNs. Some of the members have become uncooperative after withdrawal of LVIA and INADES FORMATION in some of their roles as implementing agents. It appeared that those members joined the FSGNs so as to gain the benefits but they were not ready to meet the expected costs. On the other hand, the uncooperative attitude has resulted into slow registration process. It was scheduled for the FSGNs to be registered by August 2004 but those efforts ended in vain. The implementing agent LVIA and INADES FORMATION encountered difficulties in facilitating the registration of the FSGNs. The network members were not cooperative as claimed by INADES FORMATION field officers.

A second weakness has to do with the refusal of some of the FSGN members to participate in FSGN activities as they did not trust the capacity of FSGNs to continue providing the extension services. Since LVIA had withdrawn in some of the activities mainly provision of loans, some of the members had lost hope in the capacity of the FSGNs to sustain those interventions. *"We can not participate in meetings since our leaders have no capacity to lead us"* one of the respondents said. It is claimed that little has been done to, build the capacity of the network members and leaders so as to

manage the FSGNs successfully after the withdrawal of LVIA and INADES FORMATION.

World Vision Tanzania spends up to 12 years intervention in an ADP developing people so that they can be able to run development activities on their own. ADP is an area chosen by communities for WVT intervention. The approach which is used is known as "Empowering the Poor" where by Project Coordinators can facilitate ADPs to go ahead and organize groups, CBOs or associations. WVT has been successful in creating CBOs or associations inside or outside Tanzania. MUVIMAHIA CBO in Hai is an excellent example of a CBO which is locally owned and managed by the communities. It was created by WVT.

As far as participation and ownership is concerned there were no opportunities and threats identified.

e) Gender sustainability

In the context of this study gender sustainability refers to equal participation by both sexes (males and females) in FSGN activities. The focus should be on empowering the vulnerable sex in most cases women or female headed households so as to be able to utilize the services offered by FSGNs. Strengths, weaknesses, opportunities and threats as far as gender sustainability is concerned are described as follows

Strengths

According to LVIA, 2005 majority of the FSGN members were women both married and single parents. This is a strength which should be used to strengthen the FSGNs. According to FAO (2007) poverty reduction initiatives need to be far more gender sensitive if they are to benefit both men and women. It is a pity that most of the poverty reduction initiatives do not recognize women's contribution in poverty reduction. The lack of curricula and programmes of study that address gender issues has meant that students of both genders are unaware of women's contribution to sustainable agriculture and poverty reduction. The low level of participation of girls and young women in rural youth programmes in many developing countries further hinders their access to the knowledge and skills related to improved agricultural practices and to training in leadership development and community action.

International experience from FAO reveals that the number of women's groups and organizations promoting women's participation in agricultural development has increased significantly over the past decade. These groups have played an important role in increasing rural women's visibility at local and international levels; representing and safeguarding women's traditional and legal rights (e.g., access to land or participation in the decision-making process at village level); improving women's ability to control their earned income; facilitating women's access to agricultural resources and services (e.g., extension, training, inputs, credit and technology, etc.); and influencing policy-making and legislation at the national level (FAO, 2007).

According to WVT (2005) Tanzania experience can be taken from Kinyangiri division where by women entrepreneurial association (JUWAKI) has played a great role in provision of loans for the women in the division. Women of the division in collaboration with World Vision Tanzania created the women association with the aim of fighting poverty among women of Kinyangiri ADP. There is great evidence of improvement of standard of living of those women and their respective households.

According to Yunus (2006) the success of Grameen Bank in Bangladeshi which is a mixed organization with majority of women rests upon women (97% of loan borrowers) active participation. Grameen Bank (GB) has reversed conventional banking practice by removing the need for collateral and created a banking system based on mutual trust, accountability, participation and creativity. As of May, 2006, the bank has 6.74 million borrowers, 97 percent of whom are women. With 2259 branches, GB provides services in 72 833 villages, covering more than 86 percent of the total villages in Bangladeshi. Grameen Bank's positive impact on its poor and formerly poor borrowers mainly women has been documented in many independent studies carried out by external agencies including the World Bank, the International Food Research Policy Institute (IFPRI) and the Bangladesh Institute of Development Studies (BIDS).

According to FAO (2007) sustainable development requires social change on the part of both women and men. For this reason, the creation of women's groups is not always an

effective solution. However mixed organizations such as FSGNs, are more likely to put priority on the issues of concern to the majority of members, often men, and on men's economic activities, which are traditionally considered crucial for household welfare. Mixed organizations usually treat women's constraints and needs as secondary to the general problems of workers and the poor. Because women have lower educational levels, less experience in public affairs, and fewer communication skills than men, they tend to be passive members of mixed organizations. Taking an example of Grameen Bank in Bangladesh and JUWAKI in Tanzania as well as FAO with international experience, the FSGNs with the majority of poor women have a great potential for poverty reduction amongst its members. Therefore the large number of women in the FSGNs is one of the strengths which should not be ignored and FSGNs should invest in that potential resource. The investment should focus on empowering women members so that they may hold key position of decision making in the FSGNs as the case with Grameen Bank. They should not be passive members of the FSGNs by allowing men to hold all of the key positions of decision making in the networks.

Weaknesses

During dry season there is a tendency of men to travel over long distances in search of food and casual labour. They abandon their families (women and children) leaving them without food or money. According to one female respondent *"Our husbands usually abandon us during dry season. They travel giving excuses that they are going to search the food for the household but they always come back empty handed. They just end up*

feeding themselves and forget their wives and children". As a result, women become overburdened with household activities and fail to fully participate in activities of FSGNs. Since majority of FSGN members are women then the FSGNs may collapse if measures to rectify the situation are not taken soon.

Opportunities

Since the government and other development organizations have their main focus on women empowerment and reducing women discrimination, FSGN should network with those agencies so as to get more projects aimed at assisting women. For example National Strategy for Growth and Reduction of Poverty (URT, 2005) is committed to the Millennium Development Goals (MDGs), for reducing discrimination against women by 2015 as one of the internationally agreed targets. As a result there are many development organizations and governments committed to MDGs. Generally the FSGNs should be able to easily express constraints faced by women to those development organizations and government and by so doing they may access developmental projects targeting women.

Threats

Women married to uncommitted husbands (the ones who believe women can not do any thing constructively) may face some constraints to actively participate in FSGNs activities. Since the majority of FSGN members are women this may result into the failure of the FSGNs to operate effectively.

f) Socio-cultural sustainability

In the context of this study socio-cultural sustainability refers to customs and traditions of the local community in the study area which may make FSGNs sustainable. Traditions and customs of the local communities may hinder or promote development process in the community. It is therefore important to assess the traditions and customs so as to come with strategies aimed at improving the performance of FSGNs. Strengths, weaknesses, opportunities and threats as far as Socio-cultural sustainability is concerned are described as follows :

Strengths

The FSGN members majority of whom are CCB members have a culture of giving moral and financial support to one another. 72 percent (Table 7) of respondents have revealed that they have a culture of receiving and providing financial and moral support from their fellow members. This is a culture which keeps FSGN members in the FSGNs. This culture should be promoted and maintained

Weaknesses

According to LVIA (2005) Gogo tribe is a dominant tribe in the study area with the majority of the FSGN members being Gogo. The Gogo have a culture of embracing begging in their community. It is a common tendency for a passer by to meet a strong gogo woman or man in the streets of Dodoma begging for money so as to buy food. “//

is a usual behaviour for a Gogo to beg and the behaviour is accepted by the Gogo community" one of the participants of focused group discussion said. This culture is not good as it may interfere with provision of loans through the revolving fund.

On the other hand, some of the FSGN members have developed a behavior of believing that whatever comes from Europeans is a gift. This behaviour is not good as it may interfere with micro credit interventions in the community. For example, the CCB had failed to collect loans particularly from non members of the FSGNs who had a belief that the food loan which was facilitated by LVIA an Italian NGO was a gift from Europeans.

Opportunities

In Tanzania some of the tribes are hard working and they do not embrace the culture of begging. There should be arrangements for exposure visit so as to expose the FSGN members to communities in Tanzania with the culture of hard working.

Threats

Since the FSP is in its transition so as to phase out, there is no money allocated to deal with the bad culture through exposure visit and training. There should be adequate budget allocated to deal with bad culture which may continue interfering with the development interventions from government and other developmental agencies.

In summary the FSGNs have a potential to be sustainable as all of the factors including organisational, economic, socio-cultural, participation and ownership, gender and technological factors have strengths and opportunities which can be promoted. On the other hand efforts should be undertaken to eliminate the weaknesses and mitigate the threats.

4.3. Role of Food Security Group Networks in Poverty Reduction

This section covers the role of FSGNs in poverty reduction. The FSGNs have played different roles including increasing the capacity of members to access the extension services and empowering FSGN members in the areas of knowledge, decision making, finance and entrepreneurial ability.

As far as extension services are concerned FSGNs have done the following roles (a) provision of agricultural implement and food loans (b) increasing farmers' knowledge and skills on improved agronomic practices leading to increased agricultural production (c) facilitating exchange of useful experience and information. As a result members can sell the agricultural produce at high prices as well as grow quality seeds which lead to increased harvest and income (d) provision of safe storage for cereals which are later sold at high prices (from September to March) when there are few cereals in the market (e) increasing farmers' business skills. FSGN members have formed business /entrepreneurial networks which are important in earning an income. In business/entrepreneurial networks relatives or friends join together in a business venture. The roles of FSGNs are described as follows:

4.3.1. Increased Accessibility of Extension Services by FSGN members

This study has revealed that all of the FSGNs have accessed different extension services through their FSGNs. The extension services that members of FSGNs have accessed are as follows: provision of agricultural implements and food loan, training in improved farming practices, information exchange, safe storage of cereals and training in business skills. The extension services have enabled the FSGN members to increase agricultural production and henceforth reduce high rates of morbidity and mortality rates, malnutrition, illiteracy, high infant and maternal mortality rate, poor quality housing, inadequate clothing, low per capita income and expenditures and food insecurity. Details on the type of extension services that members of the FSGNs accessed are described as follows:

a) *Provision of Agricultural Implement and Food Loans*

Table 8 shows that 90 percent of the respondents have received both food and implement loan where as 5 percent of the respondents have reported to have received food loan only.

Table 8: Distribution of Respondents by Type of Loan (N=60)

Type of Loan	Number	Percentage
Famine food and implement loan	54	90
Famine food loan	3	5
Nil	3	5
Total	60	100

FSGNs in collaboration with LVIA have enabled members to access agricultural implement and famine food loan. Famine food loan refers to grains which are stored in the Community Cereal Banks so as to be used as loan given to FSGN and other community members at the time when there is shortage of food. The food loan is managed by the CCB and owned by the village government on behalf of the village community. Grains were purchased by LVIA and distributed to all CCBs in the FSP area so as to reach community members (members and non-members) in the whole project area (LVIA field officer, personal communication, 2006). The amount of money collected after payment of the food loans was meant to be used as a revolving fund for the same purpose of providing food loan at the time when there is food shortage. The accessibility to famine food loan has enabled the FSGN members to be food secured through out the year as they can access the food when there is food shortage.

On the other hand, agricultural implement loan has enabled the FSGN members to access agricultural implements such as fertilizers, pesticides, oxen, oxen-carts, ploughs, weeders and high quality seeds. The contribution of revolving fund for agricultural implement has led to increased agricultural production, time and labour saving; income gain through hire-out services and reducing transport burden. Ownership of oxen, ox-ploughs and/or carts and knowledge provided on the use of draught animals on a gender-based perspective has not only contributed to an increase in women's participation in the use of draught animals in farming and transport, but also increase in agricultural production and reduction of human labour and time spent in those activities. Typical

case given by one of focused group participants in Manchali indicated that before the project he embarked on the use of hand hoe and had only 0.4 ha of groundnut and 0.4 ha sorghum. Possession of ox-ploughs and oxen as a result of FSP enabled him to expand his farm size to 1.2 ha of groundnuts and 0.8 ha of sorghum with notable increase in production from 17.32 to 24.75 bags of groundnuts and 7.43 to 12.38 bags of sorghum per ha.

It was further revealed that the ox-plough owners have developed a sense of entrepreneurship with which they work hard to complete their farm preparation and ploughing early to save enough time for ox-plough hire services to other members of community in need. From their experience, it is more likely for ox – plough owners to earn 200 000. TAS or more per season through ox–plough hire services. The ploughing hire charges per ha vary between 17 326/= to 24 752/= TAS. Like in the case with famine food loans the collected money from the agricultural implements as used as a revolving fund so as to allow as many FSGN members access agricultural implements. Differently from the famine food loan, the agricultural implement loan is meant for the FSGN members only. The accessibility to improved agricultural implements has enabled FSGN members to boost agricultural production lead to increased income and household food security.

This study has revealed that only a few non-members have benefited from the famine food loan offered by FSGNs. *“Our life standard has improved because we can access*

famine food loans easily as compared to non-members of FSGNs " one of the respondents of focused group discussion said. It has been claimed by participants of focused group discussions and in depth interviews that the famine food and agricultural implement loan has reached only a small proportion of the community mainly FSGN members. Experience shows that farmers organized into groups and networks can easily be assisted by development agents. Development agents such as LVIA and INADES FORMATION have been working with farmers who are organized into social institutions such as farmers groups and farmers networks. It is argued by Jones and Rolls (1982) that the practice of providing intensive assistance to a small number of progressive farmers and expecting that the effect of such assistance will reach other farmers directly by autonomous diffusion processes, is not realistic and leads to increased social and economic inequality. This is why many development agents find it appropriate to work with the farmers organized into social institutions such groups and networks.

b) Increased Knowledge and Skills in Farming Practice

Table 9 shows the distribution of respondents by skill gained. 78 percent of the respondents have gained skills in efficient use of agricultural implements. On the other hand only 12 percent of the respondents reported to have gained skill on proper food storage leading to household food security.

Table 9: Distribution of Respondents According Skills Gained (N=60)

Skill gained	Number	Percentage
Efficient use of agricultural implements	47	78
Skill in proper application of recommended agronomic practices	6	10
Skill in proper food storage	7	12
Total	60	100

The proper agronomic practices include animal traction, proper tillage of soil, soil conservation, correct spacing, gardening, vegetable preservation and correct use of improved and/or appropriate seed varieties. Efficient use of agricultural implements includes correct application of fertilizers both organic and inorganic, proper use of oxen plough, and rippers. Proper food storage has to do with the correct use of natural and artificial preservatives to preserve food for a long time.

The gained skills have enabled FSGN members to conserve the soil, boost agricultural production, increase income and to be food secured through the year leading to an improved standard of living. The improved standard of living results from a) mean increase in farm yields and farm size from 12.38 to 29.7 bags per ha and 1.62 to 3.23 ha, respectively; reduced storage damage due to pests, hence, increased safe storage duration from at least one month to seven or more months with the respective increase in mean storage capacity of 69 371 bags to 76 046 bags for the whole Chilonwa division before and after the FSP, respectively b) reduced food vandalism and improved food planning and management at household level, hence, assurance of food and seeds

availability for subsequent growing season; c) change in feeding habits and practices implied by change in number of meals from at least 1 to utmost 3 meals per day in growing season; and change in family diet composition (e.g. rice and meat) which were seen as rare food before they could be taken twice to thrice a week). The improved standard of living has increased ability of FSGN members to address problems such as high rates of morbidity and mortality, malnutrition, illiteracy, high infant and maternal mortality rate, poor quality housing, inadequate clothing, low per capita income and expenditures and food insecurity.

c) Information Exchange

This study revealed that FSGNs facilitate information exchange between farmers, farmers groups, research and extension, allowing effective adoption as well as diffusion of extension messages. According to Mattee *et al.* (1998) the extension messages can be communicated from change agents to farmers and from one farmer to another. If extension messages are communicated to a large number of farmers, the adoption rate among farmers is high.

Table 10: Distribution of Respondents According to Area of Information Exchange (N=60)

Area of Information Exchange	Number	Percentage
Extension messages	57	95
Do not know	3	5
Total	60	100

Ninety five percent of the respondents (Table 10) revealed that FSGNs facilitate information exchange in extension messages. The exchange has enabled them to boost agricultural production and be exposed to business avenues where they earn an additional income. Focused group discussions have revealed that FSGN members have been networked to government and other developmental agencies from which they easily get useful information. It has been revealed in a study conducted by Mattee *et al* (1998) through effective communication of extension messages the change agents can communicate extension messages to farmers in farmer networks more quickly than individual farmers. Likewise farmers organized in farmer networks can easily meet and exchange useful experience as farmer networks bring large number of farmers together. This is what makes government and other development partners prefer working with farmers' networks rather than individuals. This has resulted into increased skills on the part of the FSGN members allowing them to boost agricultural production and earn more income.

Focused group discussion further supported that all FSGN members across the whole FSP area have been networked through exchange of useful experiences and extension messages. The networking of FSGN members across the whole FSP area has enabled them to be at position where by they can share useful experiences and information. For example some of the experienced FSGN members from Chilonwa division have established a farmers group called the CWWD (Chama cha Walimu wa Wafanyamakazi

Dodoma), a swahili acronym for the Association of Trainers for Animal Traction of Dodoma which aimed at offering training on animal traction across the whole FSP area. In addition, focused group discussions and in-depth interviews have revealed that there was frequent exchange of information between FSGN members of Chitego and those of Chalinze on price of cereals in the market. Likewise there is a flow of information between FSGN members of Manchali and those of Makoja. The information on price of cereals has enabled FSGN members to sell their cereals and agricultural products at a higher price leading to an increased income.

d) Safe Storage of Cereals for High Prices

In depth interviews and focused group discussions revealed that, the idea for CCB construction was an outcome of community experienced problems in relation to:-

- Low prices of their produce, which forced them to sell large portion of their crops and end up with transitory food insecurity in growing season
- Selling of agricultural labour for food in growing season causing failure to commit much time in carrying out farming activities at their own farms, hence, creating a form of food insecurity vicious cycle: and
- Community members falling under the trap of borrowing food from individuals, with the condition of paying very high interest of up to 600 percent i.e. repayment of 6 bags for the loan of 1 bag of maize at the time when there is cereal shortage.

The CCB has successfully addressed the mentioned problems as members can sell their cereals at high prices, be food secured reducing the need to sell agricultural labour during growing season so as to get food, and finally they do not have to pay an interest rate of up to 600 percent to pay the cereals purchased during cereal shortage. This has enabled members to increase their income as well as avoid losing it from purchase of cereals at the time when there is scarcity of cereals. For example FSGNs provide members with safe storage for their cereals in Community Cereal Banks. The cereals are then sold at high prices (from September to March) when there are few cereals in the market. The safe storage of cereals has reduced negative impact of free market economy e.g. low price of cereals during harvest (June to July) period especially in terms of market and price for their produce. One of the negative impacts of the free market as found by Tiluhongelwa (2002) is price fluctuations which are not in favour of the peasants in the division. This study has revealed that FSGNs have enabled the members to have fair price for their cereals. The price can double in the months of November and December. For example in July a bag of maize costs 15 000 Tanzanian shillings whereas on November and December a bag of maize may cost 30 000 Tanzanian shillings (Bansimbile, A. Personal Communication, 2006).

According to FAO (1993) the changes resulting from free market economy are positive in that they present opportunities for development through free entrepreneurship. However they can also pose a danger for small producers such as members of FSGNs. Structural adjustment programs have often brought hardship to the poorest strata of the population mainly peasants in developing countries. FSGNs have assisted the poorest

strata (members of FSGNs) in this aspect by making them immune to price fluctuations as determined by demand and supply of cereals.

The price fluctuations resulting from free market does not affect the members of FSGNs. Furthermore an increase of income as a result of selling through the CCB has enabled the member to engage in their own income generating activities instead of spending a lot of time searching for casual employment. Focused group discussion and in-depth interviews have supported the same *"We do not have to sell our cereals when prices are low but we can wait for high prices. Truly we are not affected by current policy changes affecting our market for cereals"* one of the participant of group discussion said.

e) Increased Business Skills

Table 11 shows numbers of enterprises FSGN members engage in

Table 11: Distribution of Respondents According to Number of Enterprise they Engage in (N=40)

Number of enterprise	Number	Percentage
More than one enterprise in the village	28	70
More than one enterprise outside the village	12	30
Total	40	100

Majority of the respondents (70%) had involved themselves in more than one enterprise within the village. The enterprises of those who engage in petty business form informal networks known as entrepreneurial network. According to Tokuori (2004) in

entrepreneurial networks relatives or friends join together in a business venture mainly so as to exchange useful information. The role of entrepreneurial networks as far as exchange of useful information is concerned makes them useful to peasants in rural settings.

This study has revealed that entrepreneurial networks have improved the businesses of FSGN members. The entrepreneurial networks have improved their business through exchange of information and joint efforts in addressing their needs. For example there is exchange of information on improved varieties of crops and good prices for their produce among network members. The joint efforts are on transporting their produce to reliable markets and to have one voice for the prices of their products. The entrepreneurial spirit has made them quick in accepting other developmental initiatives taking place in the area for example majority of the FSGN members have joined clusters organized in the livelihood project enabling members to gain access to training and implement loan from implementing agents (LVIA and INADES INFORMATION) and government. For example experts from District level and other development agencies such as CRDB bank have been organizing training for the FSGN members. The organization of FSGNs has enabled those experts to more easily reach FSGN members than non-members. This puts the FSGN members at a position to benefit more from the developmental projects currently being implemented at the area.

In addition it has to be known that the food security groups have been networked since 2001 when the food security program was launched. Members of the FSG have been meeting formally and informally. This interaction has enabled them to be trained easily by staff from the two implementing partners (LVIA) and INADES FORMATION, government and other development agencies working in the area. The exposure to many development agencies has enabled them to be at a position where by they will never fall into poverty easily. One of the focused group participants said that *"I do not hesitate to join any social institution for farmers as being a member of FSGN has revealed the importance of networking with my fellow farmers and other development agents in our village"*.

Majority of FSG network members have better lives than before, they joined the FSG network. Today their households are more food secured, and they own agricultural implements which have enabled them to increase agricultural production. Even more, FSGN members are more powerful and happier than before, they joined FSGNs.

4.3.2. Empowerment of FSGN members

According to World Bank (2003) empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Central to this process is actions which both build individual and collective assets, and improve the efficiency and fairness of the organizational and

institutional context which govern the use of these assets. The capacity of FSGNs members to make choices has been increased. Nowadays they can make choices in different areas such as what agricultural implements to use as they have increased their income and what petty business to do as they have gained business skills and useful information from their fellow members and business partners. FSGN members have formed entrepreneurial network which are important in earning an income. FSGN members have been empowered in the areas of knowledge, decision making, finance and entrepreneurial ability.

Table 12 shows response of the interviewees according to area of empowerment. Majority of the FSGN members have been empowered in more than one area as indicated in the table. For example 80percent of the respondents reported to have been empowered in three area including finance, knowledge and decision making.

Table 12: Distribution of Respondents by Area of Empowerment (N=60)

Area of Empowerment	Number	Percentage
Finance	48	80
knowledge	48	80
decision making	48	80
entrepreneurial ability	12	20
Total	60	100

Table 13 shows distribution of respondents by social capital as a result of being members of FSGNs.

Table 13: Distribution of Respondents by Social Capital (N=60)

Social Capital	Number	Percentage
Increased social capital	58	98
Decreased social capital	1	1
No change	1	1
Total	60	100

98 percent of the respondents said that they have become more powerful and happier after joining the FSGNs. Members are united and their rights as farmers can not be denied. They contribute constructive ideas to the village meetings without fear. They have accessed training aimed broadening their understanding of their rights.

It has been revealed from in depth interview, observation and focused group discussions that the standard of living of FSGNs members has increased significantly. Some of the members have built good houses and some of them own draft animals, plough, oxen cart and other implements. One of the participants of focused group discussion said “ *FSGNs have changed my life. I own ox-plough, cart and oxen. I would have remained poor forever if FSGNs were not introduced*”. The skills which they have gained as members of the FSGNs has enabled majority of them to escape from poverty.

In summary the FSGNs have played different roles mainly provision of extension services which have resulted into empowerment as well as increasing the capacity of FSGN members to meet the costs of basic needs and thus leading to poverty reduction among them.

4.4. Factors of Success and Failure of Food Security Group Networks

This section describes factors of success and failure of FSGNs.

4.4.1. Factors of Success

The key factors of success of FSGNs revealed in this study were a) decision making by FSGN members; b) participation of members in FSGNs activities; c) good governance and transparency; d) ability of FSGN members to work as a team; e) accessibility to extension services by FSGN members.

i) Involvement of FSGN members in decision making

If a FSGN has to be successful members of FSGNs have to be involved in decision making of the network matters.

Table 14 shows distribution of respondents by decision making. Participation in decision making of the respondents is one of the factors of success as it has been mentioned by the majority of the respondents.

Table 14: Distribution of Respondents by Participation in Decision Making (N=60)

Participation	Number	Percentage
Strongly agree	45	75
Agree	10	17
I don't agree	5	8
Total	60	100

The tendency of leaders to make decisions, without consulting members is harmful. It has to be known that decision-making by consensus will preserve harmony and unity within the network. This type of decision-making also promotes participation by every one as it is expected that each member will voice his/her opinion. Although consensus decision-making takes considerably longer than majority voting the greater strength and unity achieved makes consensus more viable in the long run (Burkey, 1992).

According to Alders *et al.*, (1993) a successful network is the one whereby individual autonomy remains intact and members freely participate in decision making on the operation of their network. If members are not allowed to freely participate in decision making then they may refrain from participating in network activities.

According to Chambo (1999) after independence the Tanzanian government state actively promoted the establishment of cooperatives. In the process the cooperatives became integrated with national objectives rather than members' aspirations and interests leading to interference with decision making of the members. This caused

social capital formation within cooperative movement to drop drastically. Ultimately cooperatives became completely dependent on the state through loans. Even the human resource development which was undertaken by cooperatives collapsed and became the responsibility of the state. It is therefore important for the members to be autonomous and be involved in decision making process.

ii) Effective Participation of Members in FSGNs activities

Willingness of members to participate in FSGNs activities determines the success of FSGNs. Table 15 shows frequency of participation of members in FSGNs activities.

Table 15: Distribution of Respondents by Participation in Food Security Group Networks Activities (N=60)

Participation	Number	Percentage
Once per season	24	40
Three times per season	22	38
Twice per season	11	18
More than three times per season	3	4
Total	60	100

Participation is linked directly to empowerment. Participation may be practiced at different levels ranging from information sharing (where people are passive receivers of information) to empowerment (people take full responsibility for their own development, using development agents as resource providers). All of the respondents

said that they participate in FSG network activities through meetings and labour contribution. It is argued by Burkey (1992) that participation in meetings is very important event in the life of the social institutions. It is through meetings where members can discuss freely all the affairs pertaining to their group development and it is through members' participation where genuine unity of purpose can be built. According to Fordham et al., (1995) community participation can mean at least three different things. It can mean:

- Contributing (where money, labour, or materials are provided);
- Consulting (where views are sought in order to elicit contributions, but the decisions may be elsewhere);
- or controlling (where community members are really performing community/management functions).

Development agencies often claim to practice the third kind of participation, where in reality they concede only the first or the second. Participation can be seen primarily as a means to achieve specific goals such as building a better management structure, obtaining improved goods and services, and getting natural resources into a good condition. Participation to achieve specific purposes more efficiently requires that judgements be made about what represents 'better management', 'improved services' and 'good condition'. The efficient argument draws attention to the fact that participation is all about negotiating goals (Patrizio et al, 1997 in Ingles. 1999). Alternatively, the most important feature of participation can be seen as its potential to

enhance the power of resource users to influence things (Nelson and Wright, 1995). The purpose of participatory process is seen as increasing the skills, knowledge, confidence and self-reliance of resources users to collaborate and engage in sustainable development. Participation becomes an end in it self rather than just a means to achieve other things. The argument suggests that management of resources can be improved through participation.

iii) Good governance and transparency

Table 16 shows that majority of the respondents are satisfied with the existing system of obtaining leaders.

Table 16: Distribution of Members by Use of Democratic Procedures (N=60)

Type of Leadership	Number	Percentage
Democratic	48	80
Poor and undemocratic	3	5
Do not know	9	15
Total	60	100

80 percent of the respondents said the existing system of obtaining leaders is democratic. Only a few (5%) of the respondents said that the existing system of obtaining leaders is undemocratic. The reason given by them was that poor leadership is what makes the existing system of obtaining leaders to be undemocratic. The existence of cooperative oriented leadership constitutes another factor in stimulating the local community to work

and live together. Experience shows that the necessary faith and motivation is best created by local leaders who possess first hand knowledge of local situation and problems, know local people intimately and share with them the same problem and aspirations. All these factors enable them to influence the minds and thoughts of the people and thus to motivate them towards cooperative action (Wambura and Rutatora, 2001).

A study conducted in Northern Thailand revealed that in all the groups, which are seen as successful, there is a key individual, often the person who took the first step in the formation of a group. A personality which conveys enthusiasms and confidence, a willingness to devote time and energy to the group and the wider community, a vision which sees a possible solution to a long acknowledged problem or recognizes an opportunity which no one has yet exploited and an ability to share that vision with others (Garforth, 1993). According to Jost, *et al* (2006) leadership of a network has to be sensitive and responsible. Network leaders who earn the respect of members through their character and commitment build trust and create a worthy example for others to follow. Leadership must communicate a vision of how their cooperation can move the network from independence to interdependence for the benefit of everyone.

iv) *Ability of FSGN members to work as Team*

Table 17 shows distribution of respondents by team spirit of FSGN. Majority of the respondents said that the unity among FSGN members was mainly due to frequent food insecurity occurrences in the area and Community Cereal Bank building.

Table 17: Distribution of Respondents According to Team Spirit of FSGN (N=60)

Status	Number	Percentage
Existence of FSGN team spirit	37	62
Non-existence of team spirit	18	30
No response	5	8
Total	60	100

Farmers need to work as a team. They are required to do certain things such as collective purchase of large amounts of agricultural implements collectively and provide those implements to members at a cheaper cost. This is a case in Sri Lanka where by an extensive network of inter-group associations collect money to purchase agricultural implements such as fertilizers and seeds in bulk and provide them at a lower cost. They also organize training programmes through extension agencies and other line agencies.

Table 18 shows distribution of respondents according to reason of failure of FSGN members to promote team spirit.

Table 18: Distribution of Respondents According to Reasons of Failure to Promote Team Spirit (N=18)

Reason	Number	Percentage
Poor leadership	12	67
Uncooperative attitude of some of the members	3	16.5
Interference of internal affairs by LVIA and village government	3	16.5
Total	18	100

The reasons for the failure of FSGN to work as a unity or promote team spirit were poor leadership, uncooperative attitude of some of the members and finally interference of FSGN internal affairs by I.VIA and village government. FSGNs must have an ability to make FSGN members work as a unit. A successful FSGN has to hold its members together as one unit. According to Chilamba (1987) success of any social organization (institution) depends on the organizations action ability to work a unit. For example FSGN members worked together hand in hand in the construction of Community Cereal Bank (CCB).

On the other hand focused grouped discussion and in-depth interviews have revealed that members of FSG network do not work successful as unit because most of the Food Security Groups forming the FSG network are not active. There are no frequent meetings and group activities which are essential in binding the FSG network members together.

v) *Accessibility to extension services*

Accessibility to extension services which are offered by a network is one of the factors which make particular FSGNs successful.

Table 19: Distribution of Respondents According to Accessibility to Extension Services offered by Food Security Group Networks (N=60)

Extension service	Number	Percentage
Access to implement loan, training, financial and moral support	48	80
Access to implement loan and training from LVIA and INADES FORMATION	10	17
No response	2	3
Total	60	100

Table 19 shows distribution of respondents according to extension services which drove them to join the FSGNs. 80 percent of the respondents said that they have joined FSGN because of the combination of the following benefit to access implement loan, training, financial and moral support. The FSGNs must continue to facilitate accessibility of members to different extension services for them to be successful and sustainable.

According to Alders *et al* (1993) a network develops strength when farmers join together and begin to support and learn from each other. For example focused group discussions have revealed that members of FSG network get financial and moral support from each other. In one of the instances a member who had a social problem got support from her fellow members.

In addition in-depth interviews revealed that majority of FSG network members have a better standard of living because they have accessed implement loan and training. For

example they have accessed implement loan and training on animal traction. One of the respondents said *"Nowadays I can cultivate large land areas and harvest more produce than before. I own an ox-plough which simplifies my work"*.

FSGNs have enabled LVIA and INADES FORMATION to train and give implement loan to the FSGN members easily. The process of reaching the FSGN members has been easy because information and innovations could be disseminated and reach majority of members. It has also been easier for LVIA to make follow up on the loans. On the other hand, it has been difficult to make follow up on community grain loan which targets both members and non members of FSGNs. In depth interviews with community cereals bank (CCB) revealed, that it is has been very difficulty to collect loans from non members. On the contrary it has been very easy to collect loans from members of FSGN. The practice of providing intensive assistance to a small number of progressive farmers and expecting that the effect of such assistance will reach other farmers directly by autonomous diffusion is not realistic and leads to increased social and economic inequality. That is why development agencies such as LVIA find it easy to work with groups or networks instead of a few farmers (Mattee & Lassalle, 1994).

Table 20 shows distribution of respondents according to reasons that keep them in FSGNs.

Table 20: Distribution of Respondents by Reasons to Stay in FSGN (N=60)

Reason	Number	Percentage
Implement loan.	46	76
CCB building	46	76
Training.	46	76
Joint efforts		
Food loan	14	24
Total	60	100

It has been mentioned by 76percent of the respondents that a combination of implement loan, moral support, financials support from their fellows, training, CCB building and joint efforts are key reasons that keep them in their FSGNs. A FSGN has to continue to offer environment which is conducive to the members in terms of implement loan, moral support, financial support and training to the members. Members of FSGN have to work jointly in addressing their problems as joint efforts strengthen their unit.

On the other hand a CCB building may be used as collateral to make members access loans from financial institutions so as to engage in farming and income generating activities. In depth interviews and focused group discussions revealed that a community cereal bank building and its services keep FSGN members in their respective FSGNs. It is believed that if a CCB building did not exist, the bondage of FSGN members would have broken. *"We have built the CCB building with our own hands and it is our*

responsibility to protect it. It is a symbol of unity for FSGNs which keeps us united" one of the respondents said. It was claimed by participants of focused group discussions that CCB is the only functional organ which holds the FSG network members.

4.4.2. Factors of failure for FSGNs

There was only one factor of failure for FSGNs revealed in this study which was inefficient operation of the Community Cereal Bank as far as management of the revolving fund and food loans is concerned. The CCB is an agent for managing the revolving fund and food loans. The FSGN is the owning organ for inputs revolving fund and the village is the owning organ in case of food loans. Apart from the fact that the CCBs have simplified the work of the implementing agents as the farmers can access the revolving fund and food loans through the CCBs easily, the CCBs have faced some constraints in collecting loan from the members. The revolving fund and food loan are aimed at enabling members to access their basic needs and thus eradicate poverty.

If the CCB fails to operate efficiently, members will gradually fail to access the revolving fund and thus fall into the previous situation whereby they failed to get some of their basic needs.

Table 21: Distribution of Respondents by Failure of CCB (N=60)

Reason for the failure	Number	Percentage
Uncooperative attitude of the village government	25	42
Perception by respondents that whatever is given by a white man is a gift	22	37
Bad weather	13	21
Total	60	100

Table 21 shows distribution of respondents according to failure of FSG network members to pay loan. The reasons for the failure of CCB to collect loan are perception that whatever is given by a European is a gift, uncooperative attitude of village government and finally a bad weather in the division. The reasons are described as follows

It was found in this study that the introduction of the revolving fund which was intended to provide soft loans to local communities faced some constraints because some of the FSGN members believed that whatever was given by a white man needed not to be paid back. Local communities refused to pay the loans as it was believed that the loan were gifts from white people. There is a local term justifying the perspective that whatever is given by a European is a gift. The local term is "Mbochelo". It means something given as a gift. *"The loan given to us belongs to (Europeans) white men, why should they collect it from us. Black people are always jealous and that is why we do not develop"* a member of focused group discussion said painfully. This may be as a result of past interventions by other European organizations which provided aid in the name of loans but never collected those loans. Consequently it is believed the field officers usually black Tanzanians collect the loans for their private use. It is thought that the white Europeans are not aware of that tendency. *"I do not understand why one should fail to return loan as expected. There has been a traditional loan system where by community members pay their loan as expected. Today they refuse to pay loan because a white man*

provides the loan which are treated as gifts" said one participant of focused group discussion.

A case in Manchali is an example of the tendency of treating services (requiring community contributions) from Western development organizations as gifts from Europeans. Some of the members of a livelihood cluster refused to contribute only 200/= Tanzanian shillings to get vaccine for their chickens believing that the vaccines were supposed to be given to them free of charge. They refused because the contribution was demanded by a black field officer (Bansimbile, A. personal communication, 2005). It is supposed to be a "Mbochelo" meaning whatever comes from a white European is a gift. As a result there were massive deaths of chickens.

Another reason for the failure of the CCB is uncooperative attitude of village government. It has been a custom in the past where by the village authorities controlled food aid. Some of the village executives have been stealing the food aid purposely and use it privately. It appears as if the community Cereal Banks (CCBs) had taken away from village government the role of distributing food aid to the village community and blocking the possibility of stealing it. The village authorities have been uncooperative purposely so as to jeopardize the operations of the CCB. In-depth interviews have revealed that some of the village government leaders have been trying to convince the village community not to be cooperative to the CCB. *"The village leaders are corrupt and they consider FSGN and CCB leadership as their opponent"* one respondent said. This has resulted into the failure of the CCB to collect loans successful

Finally a bad weather is another reason for the failure. The community cereal bank deals mainly with cereals. Bad weather has resulted in to inadequate rainfall in the areas and as a result many of the community members have failed to store the cereals in the community cereals bank. According to Tiluhongelwa (2002) rainfall is not reliable resulting into failure of community members to harvest enough cereals required for payment of the loan.

4.5. Strategies for Strengthening Food Security Group Networks

Key issues which were identified from the assessment of the three objectives and needed to be addressed in form of strategies are as follows: lack of budget to support the Food Security Programme (FSP) due to completion of the FSP, lack of networking with development partners and lack of sustainability initiatives for FSGNs.

Lack of budget to support the Food Security Programme (FSP) was as a result of the approach used by LVIA and INADES FORMATION which never addressed sustainability issue. Hence, coming to an end of FSP without preparing beneficiaries and their institutions to continue activities under FSP using their resources would have made people fail to continue the programme. However, existence of District, INADES and LVIA interventions in the area require the leadership of the FSGNs to establish strong linkages with those development partners so as to get technical backstopping. The technical backstopping should focus on areas whereby the FSGNs are incompetent. Strong linkages may be enhanced after rigorous consultations amongst the key players and signing a memorandum of understanding.

In addition the leadership of the FSGNs should make efforts to establish good relationship with MVIWATA so as to be able to network with researchers, development partners and the rest of the farmers in Tanzania so as to access training, exchange information and influence policies. MVIWATA also makes efforts in organizing and empowering farmers in Tanzania so as to become strong enough to influence policy decisions and promote their development on a self-reliance basis. One of MVIWATA's key institutional innovations involves forming a network of farmers and groups in order to create forum for communication, information exchange and sharing experiences. Networking with MVIWATA will enable the FSGNs to be part of the useful forum created by Tanzanians and for the interest of Tanzanians.

Furthermore the government of Tanzania has set aside funds to assist the Tanzania community in poverty reduction. The government of Tanzania has disbursed 1billion TAS famously known as Kikwete fund to each region, as part of government empowerment policy, especially through Savings and Credit Cooperative Societies (SACCOS). People seeking loans from the endowment fund (Kikwete funds) can log their applications with the two banks charged with distributing the loans which are the CRDB and National Microfinance Bank (NMB). There is also another government poverty reduction intervention through 'TASAF' (Tanzania Social Action Fund). 'TASAF' main objective is to increase and enhance the capacity of communities and stakeholders to prioritize, implement, and manage sustainable development initiatives and in the process, improve social economic services and opportunities. Specifically TASAF aims at provision of extra resources for the creation of community assets at the village level; targeting incomes to very poor households working on Public assets like roads forest lots etc and finally addressing institutional development issues at the community level, district, and central Government for sustainable poverty reduction interventions (World

Bank, 2006). Therefore, FSGNs should network with the local government so as to access funds from TASAF and endowment fund (Kikwete funds) as well as other funds from government which will be provided in future.

On the other hand, this study has identified some weaknesses in the area of sustainability in terms of organisational, economic, socio-cultural, participation and ownership, gender and technological factors. The key weaknesses include presence of the village government in the organizational structure of the FSGNs, poor leadership, inadequate funds to support the revolving fund, culture of embracing begging, and overburdening of women by household activities. It is important to establish a mechanism which will enable the FSGNs to address these weaknesses. The best mechanism which can be employed by the FSGNs is to take the necessary steps to address the weaknesses on their own and aggressively search for assistance from their development organizations for the weaknesses which they fail to address. Furthermore FSGN leadership in collaboration with their developmental partners that is INADES, LVIA and MVIWATA should start out afresh strategies for sustaining activities under their programme.

In summary the findings of this study have revealed that the FSGNs have reduced poverty of its members. FSGNs have provided extension services which have resulted into empowerment as well as increasing the capacity of FSGN members to meet the costs of basic needs and thus leading to poverty reduction among them. However there are some weaknesses and threats identified in the area of sustainability as well as limitations with regard to inefficient operation of the CCB which is supposed to sustain the revolving fund to FSGN members. Necessary efforts should be employed so as to mitigate those threats, weaknesses and limitations of the FSGNs creating a conducive and sustainable environment for poverty reduction.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

The general objective of this study was to assess the role Food Security Group Networks (FSGNs) in poverty reduction so as to provide strategies aimed at strengthening the Food Security Group Networks with the intent of reducing poverty in Chamwino District. The findings of this study are expected to assist leadership of Food Security Group Networks, LVIA, INADES FORMATION and LGAs to promote formation of sustainable farmers' networks owned by farmers themselves. This chapter describes the major findings from which valid recommendations are made. The major findings are presented in the order of specific objectives of this study.

5.1. Conclusions

The major findings of this study are described as follows:

5.1.1. Membership, Activities and Sustainability of FSGNs

One of the objectives of this study was to describe FSGNs in terms of membership, activities and sustainability. With respect to membership the study revealed that there are eighty FSGN members in Chalinze Food Security Group Network (fifty are women and thirty are men), seventy in Machali Food Security Group Network (out of seventy, there are forty five women) and eighty in Makoja Food Security Group Network (forty women and forty men). Generally there are more women than men members in the FSGNs because women are the most affected at the time when there is food shortage in

their community as men usually migrate temporarily to other places so as to find casual labour.

The main activities of the FSGNs were to (a) facilitate training, workshops and seminars (b) assist in the management and supervision of food security groups (c) assist food security groups in dealing with food storage (d) supervise activities of CCB and (e) coordinate, monitor, and manage the revolving fund hand in hand with the village government and the Community Cereal Banks (CCB). The overall assessment of the main activities of FSGNs is that they were performed successful with exception of the activity on coordinating, monitoring, and managing the revolving fund hand in hand with the village government and the Community Cereal Banks (CCB) whereby management of the revolving fund and food loans was inefficient. The reasons for the inefficient operation of CCB were perception that whatever is given by a European is a gift; uncooperative attitude of village government; and finally a bad weather in the division. The details are described on Chapter four of the dissertation.

Sustainability of FSGNs was measured in terms of organizational, economic, socio-cultural, participation and ownership, gender and technological factors. Generally the FSGNs have a potential to be sustainable as all of the factors including organisational, economic, socio-cultural, participation and ownership, gender and technological factors have strengths and opportunities which can be promoted. On the other hand efforts should be undertaken to eliminate the weaknesses and mitigate the threats which were

identified in the factors of sustainability. Details of strengths, opportunities, weaknesses and threats under sustainability are found in chapter four of the dissertation.

5.1.2. Roles of Food Security Group Networks in Poverty Reduction

As per study findings the FSGNs played different roles including increasing the capacity of members to access the extension services and empowering FSGN members. The extension services provided by FSGNs included provision of agricultural implements and food loan, training in improved farming practices, information exchange, safe storage of cereals and training in business skills. Empowerment is in the areas of knowledge, decision making, finance and entrepreneurial ability. Since empowerment is the process of increasing the capacity of individuals or groups, the capacity of FSGN members has been increased as they can make choices in different areas such as what agricultural implements to use as they have increased their income and what petty business to do as they have gained business skills and useful information from their fellow members and business partners. They have also formed entrepreneurial network which are important in earning an income.

Poverty among FSGN members has been reduced as FSGNs have increased income of members (increase in the mean annual households' income of FSGN members from TAS 194 030.28 to TAS 357 456.34 pre and post Food Security Program respectively), increased agricultural production (mean increase in farm yields and farm size from 11.7 to 28.73 bags per ha and 1.5.2 to 3.14 ha, respectively), and improved household food

security while addressing problems such as malnutrition (change in feeding habits and practices implied by change in number of meals from at least 1 to utmost 3 meals per day in growing season; and change in family diet composition e.g. rice and meat which were seen as rare food before they could be taken twice to thrice a week). In addition the FSGNs have reduced illiteracy, poor quality housing and inadequate clothing among FSGN members.

5.1.3. Factors of Success or Failure of Food Security Group Networks

From the findings of this study the factors of success of FSGNs included the following a) involvement of FSGN members in decision making of major issues of FSGNs; b) effective participation of members in FSGNs activities; c) good governance and transparency of FSGNs; d) ability of FSGN members to work as a team; e) accessibility to extension services by FSGN members. The mentioned factors should be strengthened so as to make the FSGNs successful. The FSGNs must continue to facilitate accessibility of members to different extension services for them to be successful and sustainable.

On the other hand, there was only one factor of failure for FSGNs as was revealed in this study. The factor of failure was linked to inefficient operation of the Community Cereal Bank. This was so because there was poor management of the revolving fund and food loans. Apart from the fact that the leadership of CCB has simplified the work of the implementing agents as the farmers can access the revolving fund and food loans

through the CCBs easily, the leadership of CCB has faced some constraints in collecting loans from the members. Factors of success discussed above if adhered to may enable the FSGNs to be sustainable. The leadership of FSGNs should pay special attention to the factors of success so as to strengthen the FSGNs and ensure their sustainability.

5.1.4. Strategies for Strengthening Food Security Group Networks

In view of the objectives on identifying and describing strategies for strengthening FSGNs in the study area the following strategies were identified; the leadership of the FSGNs should establish strong linkages with local government, INADES FORMATION, LVIA and development partners in the area so as to get technical backstopping; secondly the leadership of the FSGNs should make efforts to establish good relationship with MVIWATA so as to get connected to researchers, development organizations and the rest of the farmers in Tanzania so as to access training, exchange information and influence policies; thirdly leadership of FSGNs should network with the local government so as to access funds from TASAF and endowment fund as well as other funds from government which will be provided in future and lastly it is important to establish a mechanism which will enable the FSGNs to address the weaknesses mainly in the area of sustainability so as to sustain them.

5.2. Recommendations

In the light of the major findings which have been summarized in the conclusion section of the chapter the following recommendations are made:

(i) Sustainability of FSGNs was measured in terms of organizational, economic, socio-cultural, participation and ownership, gender and technological factors. Sustainability should be promoted by investing in the existing strengths and opportunities as described under chapter four of this dissertation. On the other hand, efforts should be made to eliminate the weaknesses and mitigate the threats through capacity building of the FSGN members. INADES FORMATION, LVIA and LGAs currently existing in the area should take a leading role in building the capacity of FSGN members. The interference from the village government which was seen as a weakness on organizational sustainability should be addressed by defining valid mechanisms for collaboration among FSGN leaders, INADES FORMATION, LVIA, and LGAs at all levels.

In addition, the presence of village government in the structure of the FSGNs may be in conflict with the objectives of FSGNs as the village government may try to enforce objectives of the government which are different from those of FSGNs. This tendency may result into failure of the FSGNs as it was the case with the cooperative movement after independence where by the government took a lead in the cooperative movement and made those cooperatives fail to be sustainable. The cooperatives became a tool for

top-down governmental policies and were effectively integrated into state structures (Wambura and Rutatora, 2001). To date the cooperative movement has been strengthened by the Cooperative Act, 2003 and the Cooperative Reform and Modernization Programme (CRMP) 2005.

As far as financial sustainability is concerned it was revealed that there were inadequate funds for the revolving fund to allow many members to access the fund within a short period. In that regard, it is therefore recommended that the leadership of the FSGNs in collaboration with LGAs, INADES FORMATION and LVIA should make effort to chart out strategic measures for making FSGNs improve their financial position. This may be through assessing the constraints facing CCBs and thinking through the strategies for addressing them. In the interim period they may wish to revitalize the CCBs by applying for TASAF, empowerment fund (funds disbursed by the government to be loaned to small and medium scale entrepreneurs famously known as Kikwete fund), and DADPs. The empowerment fund will then be used to support the revolving fund of the FSGNs.

As far as technological sustainability is concerned there are three weaknesses which are poor leadership, uncooperative attitude of some of the members and inaccessibility to the usual technical backstopping from LVIA and INADES FORMATION. Since LVIA and INADES FORMATION still exist in the area, efforts should be made to build the capacity of the leaders and FSGN members so as to make them sustain the gained

technological skills and pass them to future FSGN members. With regard to technical backstopping, INADES FORMATION and LVIA should find funds and concentrate on providing technical backstopping as well as networking the FSGNs to other potential developmental partners capable of providing technical backstopping.

As far as participation and ownership sustainability is concerned some of the FSGN members refuse to participate in FSGN activities as they did not trust the capacity of FSGNs to continue providing the extension services. The leadership of FSGNs should network with Local Government Authorities (LGAs) at all levels, INADES FORMATION, and development partners so as to be able to access training aimed at building the capacity of FSGN members and their leaders. On the other hand, gender sustainability is endangered as women who are the majority may fail to participate in FSGNs activities resulting from increased burden at their households as men have a tendency of traveling over a long distance during the dry season in search of food and casual labour. It is therefore recommended that FSGN leadership in collaboration with INADES FORMATION, LVIA, Local Government Authorities (LGAs) and other development partners should address this problem mainly through empowerment and sensitization workshops. Empowerment may be done through provision of soft loans in the form of the revolving fund and training.

In terms of socio-cultural sustainability, the behaviour of embracing begging is common among the Gogo who are the majority of FSGN members and it led to them believing

that whatever comes from white men is a gift. It is therefore recommended that FSGN leadership should make it clear to FSGN members that all development interventions involving provision of material and funds in the area are given to accelerate development process and are not given as gifts. In addition the community members should take the necessary steps to abandon this retarding custom. They should be entrepreneurial and learn to be self-reliant.

(ii) FSGNs have played different roles including increasing the capacity of members to access the extension services and empowering FSGN members. Since the sustainability of any organization involves costs and benefits, it is recommended that FSGNs should continue to offer the extension services to enable members benefit from the networks. If FSGN members continue benefiting from the FSGNs, they will continue staying in the networks. On the other hand, FSGN leadership should introduce cost sharing (incur some costs) such as financial and labour contributions as well as active participation in FSGNs activities so as to make the FSGNs meet the running costs and continue offering the extension services.

(iii) It has been revealed that the factors of success of FSGNs included the following a) involvement of FSGN members in decision making of major issues of FSGNs; b) effective participation of members in FSGNs activities; c) good governance and transparency of FSGNs; d) Ability of FSGN members to work as a team; e) accessibility to extension services by FSGN members. It is therefore recommended that efforts by

FSGN leadership, INADES FORMATION, LVIA and other development partners should be aimed nurturing positive attributes from factors of success. The nurturing of positive attributes should be by putting emphasis on voluntary organizations, democratic FSGNs controlled by members themselves, democratic control of the capital, autonomy, education and training of members, informing general public about the nature and benefits of cooperation and finally working for the sustainable development of FSGNs through policies approved by their members.

On the other hand inefficient operation of the Community Cereal Bank as far as management of the revolving fund and food loans is concerned was the only factor of failure. This was mainly as a result of bad community perception with regard to development intervention by organizations run by Europeans. It is therefore recommended that leadership of FSGNs, INADES FORMATION, LVIA, and Local Government Authorities (LGAs) in collaboration with other development partners in the area should launch campaigns aimed at changing the attitude or mind set of the FSGN members and other community members so that they may abandon the wrong perception. This can be done through village meetings across all villages in the area as well as the use of folk media scattered across the villages carrying a message discouraging the perception. In addition it is also recommended that adequate time should be taken by development partners including LVIA, INADES FORMATION and Local Government Authorities during feasibility study of the projects to understand

community perception and past interventions, which may harm successful implementation of projects

The village governments in the area regards the FSGNs specifically the CCBs as one powerful organ endangering the sovereignty of the village government by taking away some of the responsibilities of the village government. It therefore recommended that the INADES FORMATION, LVIA, and district government officials should make frequent follow ups to ensure that there is a good cooperation between FSGNs and village government.

With regard to bad weather it is therefore recommended that FSGN members should engage in production of drought tolerant crops such as sorghum, sunflower, groundnuts, simsim and millet. Those crops can grow easily in the division. By so doing FSGNs members will be able to increase cereal production and henceforth they will be able to reduce poverty.

(iv) There is a need for the leadership of the FSGNs to take steps to link the FSGNs with government and development partners working in Chilonwa division. Since all FSGN members can not do the linkage with the government and development partners, the leaders of the FSGNs are the ones who will be representing the rest of the FSGN members. It therefore, very important to equip those leaders of the FSGNs with capacity to network and strengthen relationships with the government and those development

partners. Since INADES FORMATION deals with capacity building in the area, it therefore recommended that the leadership of FSGNs should build strong ties with INADES FORMATION for the assistance on capacity building. This can be done through writing an official letter to the organization as well as visiting the offices frequently so as to get the assistance.

REFERENCES

- Alders, C. Haverkort, B. and Velhuizen, L. (1993) *Linking with Farmers. Networking for Low External Input and Sustainable Agriculture*. Intermediate Technology Publications, London. 298pp
- Babbie, E. (1989). *The Practice of Social Science Research (Fifth Edition)*. Wadsworth Publishing Company Inc. Belmont, California. 501pp.
- Bailey, K. D. (1994). *Methods of Social Research (Fourth Edition)*. The Free Press, New York 45pp.
- Bernard, H.R. (1995). *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. 2nd Edition. Alta Mira Press, Oxford. 585pp.
- Breman, H. and Debrah K. (2003) Improving African Food Security .Special Volume on “Food, global market, national policies, and the international community SAIS Review. *A Journal of International Affairs*. 23 (1):153 - 170
- Burkey, S. (1992). *People first: A Guide to self-relevant participatory rural development* led. Books Ltd, London and New Jersey. 395pp.

Carney, D. (2004). Formal farmers' organizations in the agricultural technology system: current roles and future challenges. [<http://www.odi.org.uk/nrp/14.html>] site visited on 30/9/04.

Castells, M. (2004). *Informationalism, networks, and the network society: a theoretical blueprint*. Edward Elgar Publishing Ltd, Oxford. 106pp.

Chambo, S. (1999). *Cooperative and Poverty Alleviation A Conceptual Framework*. Moshi Cooperative College. Tanzania. 27pp

Chitambar, J.B (1987) *Introductory Rural Sociology. A Synopsis of concepts and principles*. Wiley Eastern Limited New Delhi. 194pp

CTA Seminar 2001 on-line (2001). Information and Communication Management Strategies for Federations of Farmers' Organisations. [www.ctaseminar2001/news.html-43k] site visited on 1/10/04

Danish International Development Agency (2004). *Farmer Empowerment: Experiences, Lessons Learned and Ways Forward*. Ministry of Foreign Affairs, Copenhagen. 20pp.

Dominique, L. R. and Jean, V. (2000). VERBATIM: Qualitative Data Archiving and Secondary Analysis in French Company. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research [<http://qualitative-research.net/fqs/fqs-eng.htm>] site visited on 10/10/2005

Douthwaite, B. Carvajal, A. Alvarez, S. Claros, E. and Hernández, L.A. (2006). Building farmers' capacities for networking (Part I): Strengthening rural groups in Colombia through network analysis. [www.km4dev.org/journal] site visited on 6/11/2006

Engel, P.G.H. (1990). Two ears, one mouth. Participatory Extension on why people have two ears and only one mouth. *The international journal of knowledge Transfer*. 18(40): 2-5.

Engel, P.G.H. (1990) Knowledge management in agriculture: Building upon diversity. Knowledge in society. *The international journal of knowledge Transfer* 16(41): 7-9

FAO (2007). Gender and agricultural support systems. [<http://www.fao.org/sd/WPdirect/WPdoe004.htm>] site visited on 21/5/2007.

FAO (2005) Food security: concepts and measurement

[<http://www.fao.org/DOCREP/005/Y4671E/y4671e06.htm>] site visited in 8/6/2006

FAO (2004) People's participation: FAO's small group approach Prepared by the Rural Institutions and Participation Service (SDAR) FAO Rural Development Division
 [www.fao.org/waicent/faoinfo/SUSTDEV/FSdirect/FBdirect/FS006.htm - 15k]
 site visited on 11/11/04

FAO (1999). Small farmer group associations: Bringing the poor together.
 [http://www.fao.org/sd/PPdirect/ppfo0009.htm] site visited on 16/1/2006

FAO, (1993) *Farmers' Self-help Organizations. Mobilizing People's Resources for Development*. Rome. 13pp.

Fordham, P. Holland, D. (1995). *Adult Literacy, a Handbook for Development Workers*.
 Oxfam Print Unit.UK. 56pp

Forrington, J. and Nelson, J. (1994) *Information Networking for Agricultural Development: Review of concepts and Practices*. CTA. Wageningen. 86pp.

Garforth, C. (1993) Rural Peoples Organizations and Extension Communication in Northern Thailand. *Journal of Extension system* 9 (2): 33-64].

GFAR (2004). Farmers Organizations. [http://www.egfar.org/action/stakeholders/rubric-6.shtml] site visited on 25/9/04

Gilla, A.S. and Nombo, C (1994) " MVIWATA: Farmers' Networks in Tanzania". In: Proceedings of National Conference on the Role of NGOs in Agricultural Extension. (Edited by Mattee, A.Z. and Ngetti, M.S). 29-30 November 1994, Dodoma, Tanzania, pp 67-72.

Government of Australia (2006). What is Sustainability?

[<http://www.environment.sa.gov.au/sustainability/definitions.html>] site visited on 16/01/2007

Haverkort, B., Van de kamp, J. and waters-Bayer, A. (1991) *Joining Farmers experiments*. Intermediate Technology Publications, London. 3pp.

Hamel, J., Dufour, S.. and Fortin. D. (1993). *Case study methods*. Newbury Park, CA: Sage. 34 pp

IFAP (2000).Millennium Survey on Actions to Reduce Rural Poverty and the Role of Farmers' Organizations. [<http://www.ifap.org/develop/surveygen.html>] site visited on 11/8\

International Federation of Agricultural Producers (IFAP) (2004). Farmers' Organizations. [www.ifap.org/wfc04/-14k] site visited on 10/15/04

International Fund for Agricultural Development (IFAD) (2002) IFAD Strategy for Rural Poverty Reduction in Eastern and Southern Africa[<http://www.ifad.org/operations/regional/2002/pf/pf.htm>] site visited on 11/8/04

Ingles. A.N. and Musch A. (1999). *The Participatory Process for supporting Collaborative Management of Natural Resources* . Rome. FAO. pp 39-54

Ishengoma, C.G. (1998). *A study of the role of women in household food security in Morogoro rural and Kilosa districts*. Dissertation for award of Ph.D. degree at Sokoine University of Agriculture, Morogoro, Tanzania. 49pp

Jones, G.E. (1987) *The Green of Africa. Breaking through in the battle for Land and Food*. Paladin Grafton Books, London.286 pp

Jones, G. E. and Rolls, M. (EDs.) (1982). *Progress in Rural Extension and Community Development. Vol 1 Extension and Relative Advantage in Rural Development*. John Wiley and Sons. New York.

Joram, J. and Mziray, A. (2004). *Refinement of the Revolving Fund Model. A Task Force Report on Strengthening FSGs Network Chilomwa Division*. INADES FORMATION .Tanzania 49pp.

Jost, J. Norman, D. and Freyenberger, S. (2006). Enhancing Sustainable Agriculture through Farmer Groups: The Experience of the Kansas Heartland Sustainable Agriculture Network [http://www.kansassustainableag.org/Pubs_kcsaac/ksas4.htm] site visited on 5/11/2006.

Kaburire, L. and Ruvuga, S. (2006). Networking for agricultural innovation. The MVIWATA national network of farmers' groups in Tanzania. [http://www.kit.nl/net/KIT_Publications_output/showfile.aspx?a=tblFiles&b=FileID&c=fileName&d=TheFile&e=913] site visited on 5/11/2006

Kanbur, R. and Squire, L. (2001). The Evolution of Thinking about Poverty: Exploring the Interactions. In: *Development Economics: The Future in Perspective*. World Bank and Oxford University Press, New York. pp.183–226.

Karten, D.C. (1990). NGO strategic networking: from community projects to global transformation. World Bank and Oxford University Press, New York 22pp.

Kolman, E. (1993). *Networking for sustainable agriculture in Peru: Experiences of the Re de Agricultural Ecological (RAE)*. Van Schaik Publishers. Oxford. 36pp.

Lay Volunteer International Association (L.VIA) (2005). *Evaluation Report of Food Security Program*. L.VIA Italia Cuneo. Italia pp 1-41

Madaha, R. (2004). *Role of Food Security Groups in Improving Vegetable Production in Chamwino District*. Dissertation for the Award of BSc Degree at Sokoine University of Agriculture, pp 38-40.

Masandika, R. and Mgangaluma, A (2006). Linking farmers' groups with various agricultural services providers. [http://www.kit.nl/net/KIT_Publicaties_output/showfile.aspx?a=tblFiles&b=fileID&c=fileName&d=Thefile&c=914] site visited on 1/11/2006

Masawa, H. (2004). Some Guidelines for the ADP Journey Towards Sustainable CBOs. World Vision Tanzania. [www.wordvision.org.tz] site visited on 12/11/2006

Mattee, A.Z. and Lassalle, T. (1994). Diverse and linked: Farmers organization in Tanzania. ODI Network Paper. [<http://www.odi.org.uk/nrp/14.html>] site visited on 30/9/04.

Mattee A.Z, Lassalle, T. and Temu, A.E. (1998). Farmers' Groups as a Strategy for Tanzania. In: Proceedings of the Third Faculty of Agriculture Annual Scientific Research Conference on Promotion of Agriculture Production in Tanzania. (Edited by Kinabo, J.L, Temu, A.E, Kifaro, G.C. and Mbagi, SD). 6-8 May 1998, Morogoro Tanzania, pp 217-218

- Ministry of Agriculture and Cooperatives. (2000). *The Need for Agricultural Extension Reform in Tanzania. Task Force Report on Agricultural Extension Reform.* Government printer, Tanzania.pp 45-57
- Mouton, J. (2001). *How You Can Succeed in Your Master's and Doctoral Studies.* Van Schaik Publishers.Oxford165pp
- Monsanto Holdings Limited (2002) Demonstration and evaluation of agro-technologies at farmers field [<http://www.teriin.org/reports/rep55/rep55.pdf>] site visited on 11/11/04.
- Mullens, J. (1996). *Using qualitative methods to validate quantitative survey instruments.* National Center for Education Statistics. Washington, DC: 638pp.
- Mushi, V.A. (2000). 'The Role of Farmers' Groups in Rural Development: A Case Study of Gairo Division in Kilosa District. Unpublished dissertation for award of Masters. degree at Sokoine University of Agriculture, Morogoro, Tanzania. pp 74-76.
- Nelson, N. and Wright, E. (1995). *Power and Participatory Development: theory and practice.* ITP. London.24pp
- Nombo, C. (1995). A study of Farmers Groups as an Entry Point in Rural Development. A Case Study of Uluguru Mountains Agricultural Development Project.

Dissertation for award of Master. degree at Sokoine University of Agriculture, Morogoro, Tanzania. 93pp.

Norman, D. Bloomquist, L. Janke, R. Freyenberger, S. Jost, J, Schurle, B. and Kok, H. (1997). *Sustainable Agriculture: Reflections of a Few Kansas Practitioners*. Manhattan, Kansas: Kansas State University. 67 pp.

Paloscia, R. Madaha, R. and Tarmo, P. (2006). *Qualitative Survey Swot Analysis for Rural Business Development Program (RBD) in Chilomwa and Mvumi Division- Dodoma Region and Mkuyuni Division- Morogoro Region*. Lay Volunteer International Association. Cuneo Italy. pp11-13.

Pluknell, D.L., Smith, N.J and Ozgediz, Z.S. (1990) *Networking in international agricultural research in Food Systems and Agrigarian Change*. Cornell University Newyork .4pp.

Oerlemans, N. and Assouline, G. (2001) .Enhancing farmers' networking strategies for sustainable development [www.esb.sdu.dk/mas] site visited on 5/6/2006.

Quintal, O.G. (1993) *Networking for low-external input and sustainable Agriculture*. Netherland Royal Tropical Institute KIT Press. Netherland .133 pp.

- Salomon , M.I; Ingle P.G. (1997). *Networking for Innovation A Participatory Actor-oriented Methodology*. Netherland Royal Tropical Institute KIT Press. Netherland pp 111-210
- Schuler, D. (1996). *New Community Networks: Wired for Change*. [http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Pdf/1610160202_ref.html] site visited on 5/2/2006.
- Selvaggi, G. and Chamgeni,J. (2002). *Report on Food security monitoring data in Chilonwa Division*. Lay Volunteers International Association. Cuneo Italy. 20pp.
- Shenduli, A.A.(1998). *The Role of Farmers' Groups Network in the Adoption and Diffusion of Selected Agricultural Technologies in Upper Mgeta, Morogoro Rural District*. Dissertation for Award of M.A. Degree at Sokoine University of Agriculture Morogoro, Tanzania. pp 71-73.
- Singleton, R.A., Straits, B.C. and Straits, M.M. (1993). *Approach to Social Research*. Oxford University Press, New York. 572 pp.
- SME:RU (2000). *Quantifying Vulnerability to Poverty: A Proposed Measure, with Application to Indonesia*. [www.smeru.or.id] site visited on 6/11/2006
- Soy, S. K. (1997). *The case study as a research method*. University of Texas , Austin.pp 43-56

Tellis, W. (1997) Introduction to case study [<http://www.nova.edu/ssss/QR/QR3-2/tellis1.html>] site visited on 26/4/2006

Tiluhongelwa, T. (2002). *Food Security Report; Chinolowa Division*. LVIA and INADES FORMATION, Dodoma.pp 1-50

Tokuori, T. (2004). The Role of Networks in the Construction Industry: A Case Study of Burkina Faso. *Tanzanian Journal of Population Studies and Development* 11 (2):69-84.

United Nations Capital Development Fund (2005) Poverty, decentralization and local Governance; Corporate Policy Papers Taking Risks [http://www.uncdf.org/english/about_uncdf/corporate_policy_papers/taking_risks/09.php] site visited on 24/7/2005

United Nations Organisation (2004) Commission on Sustainable Development acting as The Preparatory Committee for the World Summit on Sustainable Development Second Preparatory Session 28 January – 8 February 2002 [<http://www.johannesburgsummit.org/html/major-groups/famers-revised-textdoc>] site visited on 28/9/2004.

United Nations (2003) Strengthening The Role Of Farmers*Programme Area [<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter32.htm>] site visited on 2/10/2004.

United Nations (2002). Dialogue Paper by Farmers' Organizations.
[http://www.iencarth.org/wssd_farm.pdf] site visited on 11/11/2004.

United Republic of Tanzania (1997). Agricultural and Livestock policy. Dar-Es-Salaam.
Government press. pp 24-32

United Republic of Tanzania (URT, 1999). The Tanzania Development Vision 2025.
[<http://www.tanzania.go.tz/vision.htm>] site visited on 11/2/04.

United Republic of Tanzania (URT, 2000). Interim Poverty Reduction Strategy Paper
(PRSP) [<http://www.imf.org/external/NP/prsp/2000/tza/01/INDEX.HTM>] Site
visited on 10/14/2004.

United Republic of Tanzania (2003). The cooperative Societies Act,
2003[www.parliament.go.tz/bunge/bunge.asp?Menu=3&page=2&fqry=&docyear=All-19k] site visited on 17/7/ 2005.

United Republic of Tanzania (2004). Poverty Eradication, in Tanzania.
[<http://www.tanzania.go.tz/poverty.html#top>] site visited on 30/4/2005.

United Republic of Tanzania (2005). *National Strategy for Growth and Reduction of
Poverty (NSRGP)*. Government Press. United Republic of Tanzania. pp 4-15.

United Republic of Tanzani (2005). *National Food Security Policy*. Dar-Es-Salaam.
Government press. pp 16-35

United Republic of Tanzania (2005). *Cooperative Reform and Modernization Programme (CRMP)*. Dar-Es-Salaam. Government press. pp 1-26

Wambura R.M., Rutatora D.F.(2001).*Strengthening Farmers' Accessibility to Information, Input and Markets in Tanzania through Existing and New Forms of Farmers Organizations*. A Baseline Survey Report Submitted to the TARP II-SUA Project Coordination Office. Morogoro.

World Bank (1994). *Tanzania Agriculture*. The World Bank, Washington, DC. pp 46.

World Bank (2002). *Fighting Poverty through Sustainable Development*. The World Bank Washington DC pp 54.

World Bank (2003). *Second National Agricultural Services Development Project*. Project Information Document. Report No: PIC2715. The World Bank, Washington DC. pp45

World Bank (2006). *The Tanzania Social Action Fund (TASAF): owning the process of measuring impact and achieving results* [<http://www.worldbank.org/afr/findings/english/find264.pdf>] site visited on 17/5/2007

WVT (2005). *Kinyangiri Area of Development Programm Annual Progress Report*. WVT. Tanzania pp 1-6

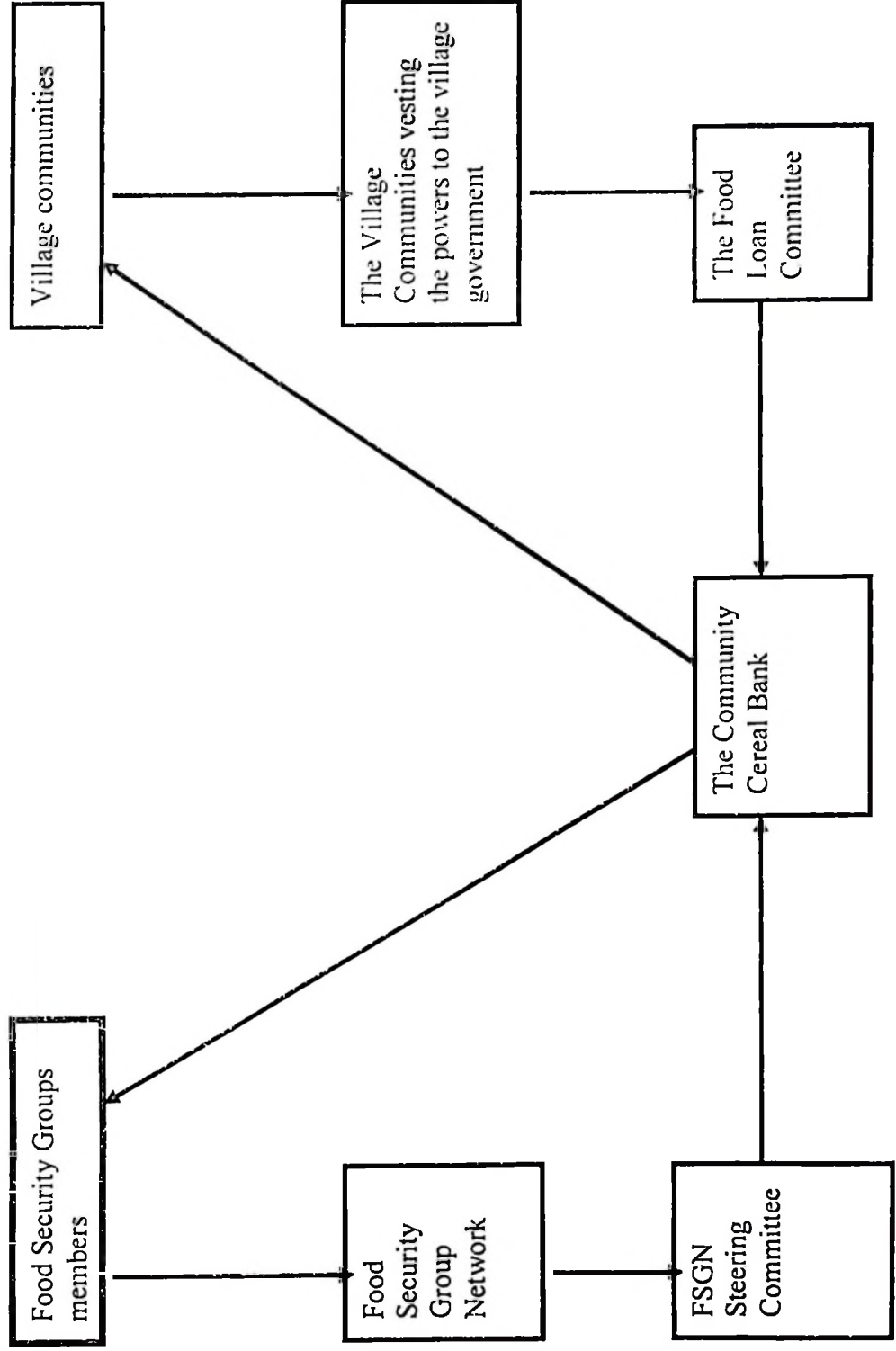
Yin, R.K. (1994). *Case study research: Design and methods* (2nd ed.). Beverly Hills, CA: Sage Publishing.3 pp

Yin, R. K. (2002). *Case study research, 3rd edition*. Thousand Oaks, CA: Sage Publications. pp 20-30

Yunus, M. (2006). *Breaking the vicious cycle of poverty through micro credit*. Grameen Communications. Bangladeshi pp 1-25

APPENDICES

Appendix 1: Organizational Structure of FSGN's



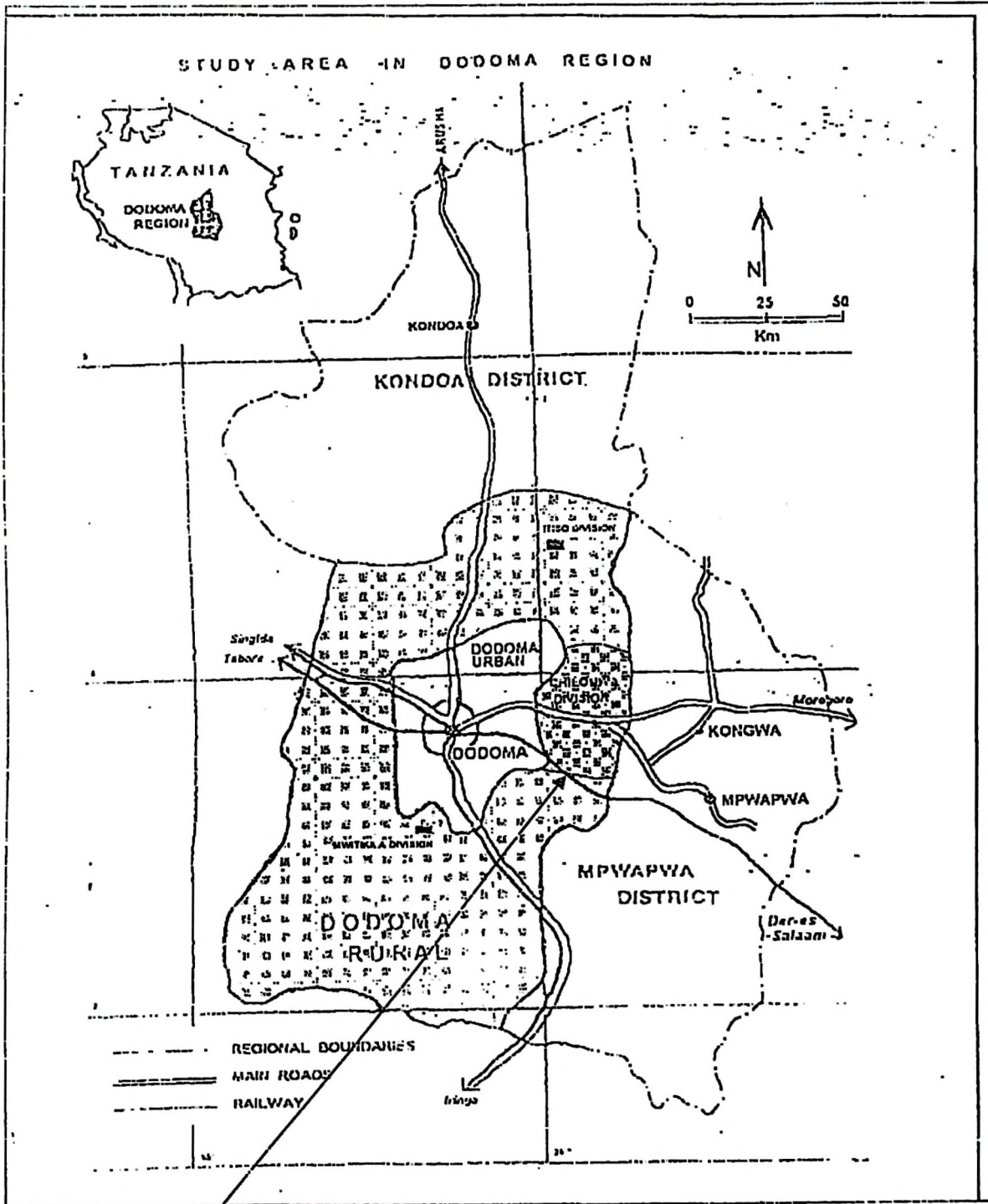
Appendix 2: Population of Chilonwa Division by Ward, Village and Sex

Village Street Population Category Chilonwa Division	Sex	Population
Total Ward	Msanga Rural ward	
	Total	8,210
	Male	4,016
	Female	4,292
Msanga village	Total	4,730
	Male	2,297
	Female	2,433
Kawawa village	Total	3,580
	Male	1,719
	Female	1,861
Total Ward	Chilonwa Rural ward	
	Total	6,509
	Male	3,143
	Female	3,366
Mahamha village	Total	3,399
	Male	1,643
	Female	1,756
Nzali village	Total	3,110
	Male	1,500
	Female	1,600
Total Ward	Buigiri Rural Ward	
	Total	12,943
	Male	6,094
	Female	6,849
Chamwino village	Total	6,488
	Male	3,117
	Female	3,371
Buigiri village	Total	3,879
	Male	1,793
	Female	2,086
Chinangali vilage	Total	2,576
	Male	1,184
	Female	1,392
Total Ward	Majeleko Rural Ward	
	Total	6,155
	Male	2,937
	Female	3,218
Majeleko village	Total	3,458
	Male	1,673
	Female	1,785
Chinangali I vilage	Total	3,458
	Male	1,673
	Female	1,785

Total Ward	Manchali Rural Ward	
	Total	9,099
	Male	4,324
	Female	4,775
Manchali village	Total	4,720
	Male	2,236
	Female	2,484
Chalinze village	Total	2,833
	Male	1,358
	Female	1,475
Wilunze village	Total	1,546
	Male	730
	Female	816
Total Ward	Ikowa Rural Ward	
	Total	4,963
	Male	2,359
	Female	2,604
Ikowa village	Total	2,889
	Male	1,395
	Female	1,494
Makoja village	Total	2,074
	Male	964
	Female	1,110
Total Ward	Msamalo Rural Ward	
	Total	9,811
	Male	4,383
	Female	5,428
Mgunga Village	Total	4,540
	Male	1,974
	Female	2,566
Mnase Village	Total	3,089
	Male	1,392
	Female	1,697
Mlebe Village	Total	2,182
	Male	1,017
	Female	1,165

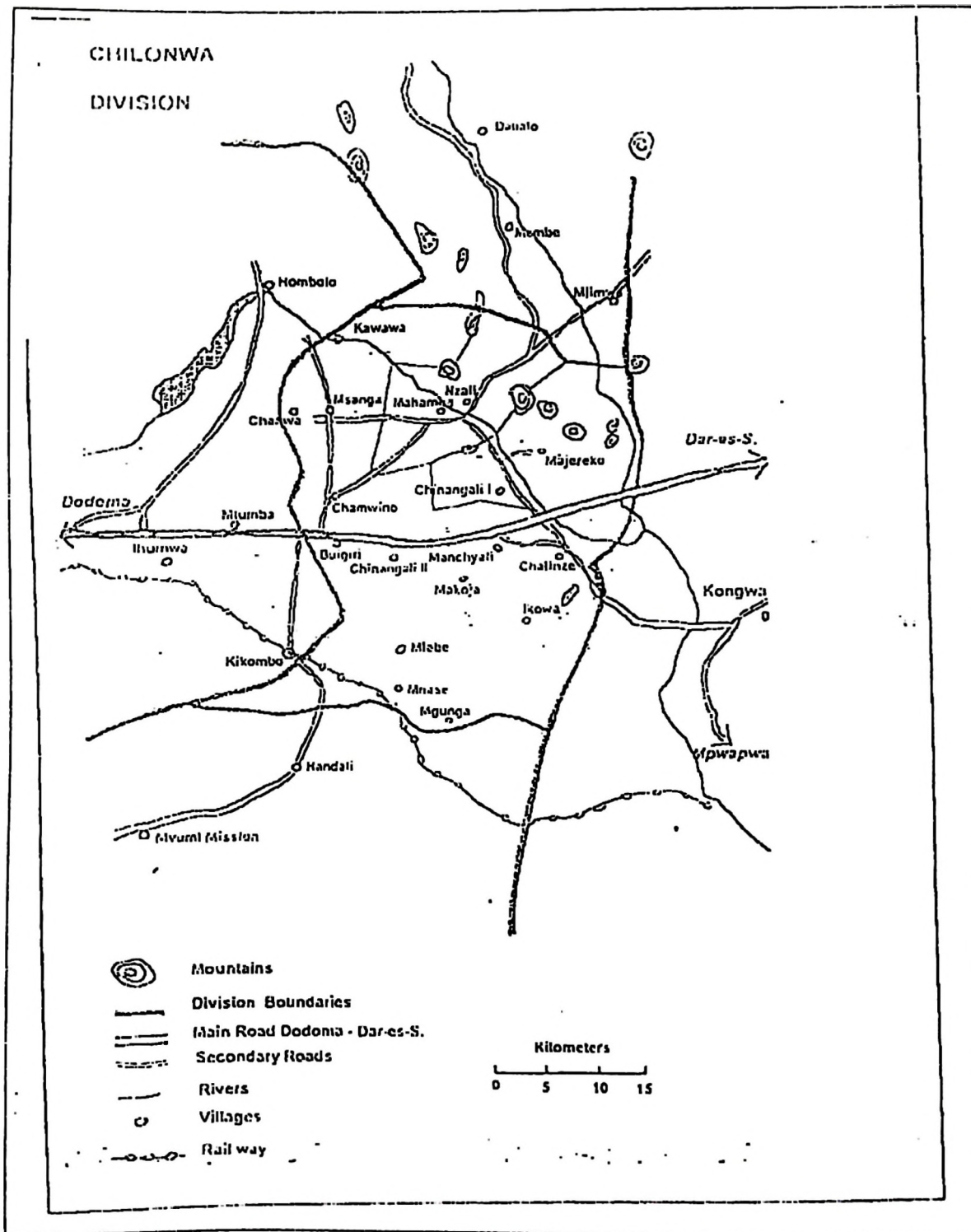
Source: Dodoma District Council

Appendix 3: Study Area in Dodoma Region Tanzania



Chilonwa Division

Appendix 4: A Map of Chilonwa Division



Appendix 5: Study Questionnaire

**SOKOINE UNIVERSITY OF AGRICULTURE
DEVELOPMENT STUDIES INSTITUTE, P.O. BOX 3024, MOROGORO**

A QUESTIONNAIRE FOR FARMERS NETWORK MEMBERS

**ROLE OF FARMERS ORGANIZATIONS IN POVERTY REDUCTION: A CASE
STUDY OF CHILONWA DIVISION IN CHAMWINO DISTRICT, DODOMA
REGION**

By

Madaha Rasel, Masters Student, raselmpuya@gmail.com

Dear farmers.

Good morning/afternoon. I am a student from Sokoine University of Agriculture, Morogoro Tanzania. I would like to thank you for agreeing to meet with me today. All the questions I shall be asking relate to my research for my Masters of Arts degree course and any answers or replies made will be kept confidential. No names will be revealed and on the interview form itself, a number known only to me will identify you. My research attempts to: -

- describe farmers Networks in terms of membership, organization, management, history, activities and sustainability.
- identify the roles and describe the extent to which Farmers networks have contributed towards poverty reduction.
- identify elements/factors of success or failure and best practices in Farmers networks.
- identify and describe strategies for strengthening Farmers networks.

Divison..... Village.....
Respondent's name.....
Name of the Group.....
Name of FSGs Network

A.GENERAL INFORMATION

1. Member's age.....
2. Gender 1. Male.....
2. Female.....
3. Marital status 1. Married.....
2. Single.....
3. Widowed.....
4. Divorced/separated.....
4. How many people are in your household?
5. Please classify the household members under the following

Age Group	Sex		
	Male (no)	Female(no)	Total
Children under school age			
Children attending primary school			
Children who have finished school			
Adults (Above 18 years)			

6. What is your level of education? (TICK)
 1. No formal education at all
 2. Adult education
 3. Primary education
 4. Secondary education
 5. Post secondary education
 6. Others (specify)
7. What is the major source of income for your family? (Tick)
 1. Salary/wages
 2. Off farm activities
 3. Farming
 4. Others (specify)
8. What is the size of your farm? (in ha).....
9. If farming is the major source of income in which activities are you engaged in? (Tick)
 1. Groundnut production
 2. Sunflower production
 3. Maize production
 4. Millet production
 5. Others (specify)
10. What is the estimated income per season from above activities?
11. If off farm activities, what type of activities?

12. What is the estimated income per month from your project? (Tick)

- 1. Below 50, 0000
- 2. 50,000 TAS to 100,000 TAS
- 3. 100,000 TAS to 150,000 TAS
- 4. 150, 0000 and above

B. MEMBERSHIP, PERFORMANCE, ORGANIZATION, MANAGEMENT, HISTORY, ACTIVITIES AND SUSTAINABILITY OF FSGNs

- 1. When was your Network formed?
- 2. Who initiated the formation of the Network?..... ..
- 3. With how many founder members?.....
- 4. With what objectives?
.....
.....
.....
- 5. List the activities of your network
.....
.....
.....
.....
- 6. How has the membership changed
.....
.....
.....
- 7. What are the reasons for the change
.....
.....
.....
- 8. How have the objectives of the Network changed?
.....
.....
.....
- 9. Please list the reasons for the change
.....
.....
.....
.....
- 10. How has the leadership of Network changed?
.....
.....
.....

11. How have the activities of the Network changed?

.....

12. Please give reasons for that change

.....

13. How has the constitution of the Network changed?

.....

14. How are member of your Network relate to each other? (Tick)

No.	Condition	Agree	Don't Know	Disagree
1	Tension			
2	Misunderstanding			
3	Hostility			
4	Cooperation			

15. What are the most important factors that keep you in your Network?

.....

16. What problems did you experience in working with Network?

.....

17. What has caused these problems?

.....

18. What attempts or strategies have you devised to solve these problems

.....

19. What do you consider to be your Network's achievements so far?

.....

20. Do you benefit from the Network you are in? (TICK)

- 1. Yes
- 2. No

17. If yes, what benefits are you obtaining from the group?

.....

.....
.....

C. ROLES AND EXTENT TO WHICH FARMERS NETWORKS HAVE CONTRIBUTED TOWARDS POVERTY REDUCTION

1. Are you aware that I.VIA and INADIS will soon withdraw from supervising and sponsoring the activities of your Network?

1. Yes ... 2. No....

2. If yes how is your Network prepared to take the role of the two NGOs

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

3. What role will you play as an individual so as to cope with the situation

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

4. Do you participate in Networks activities?

a. Yes.....

b. No.....

5. If yes in what activities do you participate

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

6. Do you get any services from your Networks

a. Yes.....

b. No.....

7. If yes, what services do you do receive from your Network. Please list them

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

8. Have Farmers networks improved your performance in your day-to-day activities as a farmer?

a. YES

b. No.....

9. If yes, how

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

10. Information exchange between farmers is important in their day-to-day activities. Do you agree with this statement?

- a. Yes...
- b. No....

11. How important is information exchange in your day-to-day activities as a farmer?

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

12. It is believed that farmers Networks facilitate the exchange of information between farmers, farmers' groups and research and extension. Do you agree with this statement?

- a. Yes....
- b. No.....

13. If yes, how do they facilitate the process?

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

14. Currently the government implements market led economy, what is your opinion with regard to this change

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

15. Are there any negative impacts resulting from market led economy

- a. Yes...
- b. No...

16. If yes, please list those impacts

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

17. Do farmers Networks assist you in reducing the negative impacts resulting from market led economy?

- 1. Yes....
- 2. No....

18. If yes, how

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

19. What other strategies have you employed to address the negative impacts of market led economy

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

20. In what areas has your Network improved your standard of living?(Tick whatever applies)

- 1. Increased income... 2. Access to resources... 3. access to education... 4. Access to good health care... 5. Nutrition..... 6. High quality housing..... 7. high technological utilization..... 8. Enviromental conservation.....

21. In the above question, please list three areas from which much of the assistance has been obtained

.....
.....

22. Has your income increased after becoming a member of your Network?

- 1. Yes... 2. No...

23. If yes how has the increase in income improve your day-to-day living

- a. Reduced time required to search for casual labour...
- b. Improve food security in a household...
- c. Improved access to health services...
- d. Any other (specify)...

24. Do you belong to any other network relating to your main economic activity apart from your Network?

- 1. Yes..... 2. No.....

25. If yes, please give the name of the network or networks?

.....

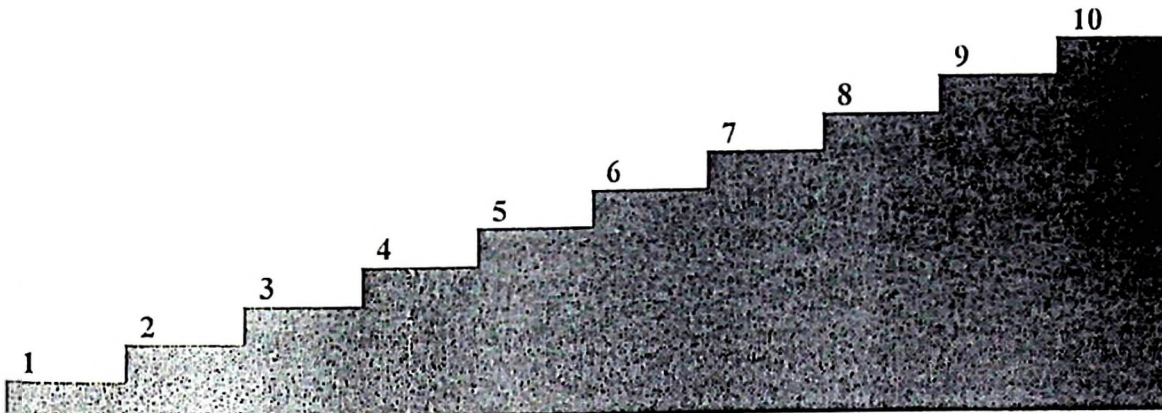
26. Please list the activities of the above mentioned network or networks

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

27. How have the above mentioned networks improved your standard of living?

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

Figure. 1.10-Step Ladder



28. I am now going to ask you a series of questions on your life and how you feel about it. Here is a picture of 10-step ladder. Imagine that at the bottom, on the first step, stand the poorest and worst off people, and on the highest step, the tenth, stand the richest and best off. On which step of this ladder are you located today?

Step Number

29. And on which step were you located before you joined your Network?

Step Number

30. (If there was a positive change) what are the three most important factors that helped you move up?

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

31. (If there was a negative change) what are the three most important factors that contributed to this change?

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

32. (If there was no change) what are the three most important reasons why there has been no change in your situation?

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

33. And now imagine, please, another 10-step ladder, where at the bottom, on the first step, stand people who are completely powerless and without rights, and on the highest step, the tenth, stand those who have a lot of power and rights. On which step of this ladder are you today?

Step Number

34. On which step were you before you joined your Network?

Step Number

35. (If there was a positive change) What are the two most important factors that contributed to this change?

.....
.....

36. (If there was a negative change) What are the two most important factors that contributed to this change?

.....
.....

37. Now imagine, please another 10-step ladder, where at the bottom, on the first step, stand people who are sad, and on the highest step, the tenth, stand those are happiest. On which step of this ladder are you today?

Step Number

38. On which step were you before you joined your Network?

Step Number

39.If you are now happier, what were the two most important factors that contributed to this?

.....
.....

40.If you are now less happy, what were the two most important factors that contributed to this?

.....
.....

41.Do you engage in any petty business?

1. Yes... 2. No....

42.If yes how many acquaintances do you have?

43.How many acquaintances come from outside your village?.....

44.It is believed that many entrepreneurial networks are useful in improving your business. Do you agree with the statement?

1. I agree very strongly..... 2. I agree..... 3. I disagree completely.....

45.If you agree how have the entrepreneurial networks improved your business?

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

D.FACTORS OF SUCCESS OR FAILURE AND BEST PRACTICES IN FARMERS NETWORKS

1. What made you decide to become a member of this Network?

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

2. What keeps you in your Network?

.....
.....

3. Did you join your Network voluntarily?

1. Yes... 2. No...

4. If the answer is no give reasons

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

5. Does your Network allow Network members to accept or reject new members?

1. Yes.... 2.No.....

6. How many members are in your Network

.....
.....

7. Can you participate freely in Network informal discussions?

1. Yes..... 2. No.....

8. Are you given total freedom in making decisions regarding the composition of the membership, the size of the Network, objectives, by-laws, leadership, finances and activities?

1. Yes... 2. No...

9. If no why

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

10. How do you find the current system of obtaining leaders? (Tick)

1. Very good.... 2. Good... 3. Satisfactorily ...4. Bad.....

11. If the answer to the above question is bad, please give reasons

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

12. Do you participate in your Network's common activities on a shared basis?

1. Yes... 2. No.... (IF YES GO TO QUESTION 14)

13. If no why?

.....
.....
.....(GO TO QUESTION 15)

14. How many times per month do you participate in Network's common activities on a shared basis?

13. Are you satisfied with your participation in Network's common activities?

1. Yes..... 2. No....

14. If the answer is no, please explain

.....
.....

15. Do members in your Network successful work as a unit

1. Yes... 2. No....

16. If the answer is no, give reasons...

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

17. What kind of resources do you provide to your Network?

1. Financial contributions.... 2. Labor contribution....3. Others(specify).....

18. Do you access the produced benefits by sharing the surplus earned by the Network in the form of interest on share capital?

1. Yes... 2.No...

19. If no why?

.....
.....

20. What kind of modern technologies in agriculture do you apply in your Network? Please list them

.....
.....

21. How did you access those agricultural modern technologies?

.....
.....

22. Are you a member of Community Cereal Banks (CCBs)?

1. YES.... 2. No....

23. If yes are you aware that Community Cereal Banks (CCBs), have to operate on a reduced and limited dependency from the organization they are working on the long term basis?

1. Yes..... 2. No.....

24. If yes what have you done to ensure that your CCB operates efficiently?

.....
.....

25. Current and future undertaking of the CCB are being jeopardized by some of villagers and food security members who make unnecessary delays in paying the loan which was given to them by the CCB. Please list possible reasons for such habit

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

26. In your opinion what should be done to stop this habit?

.....
.....

THANK YOU

Appendix 6: Field Interview Guide

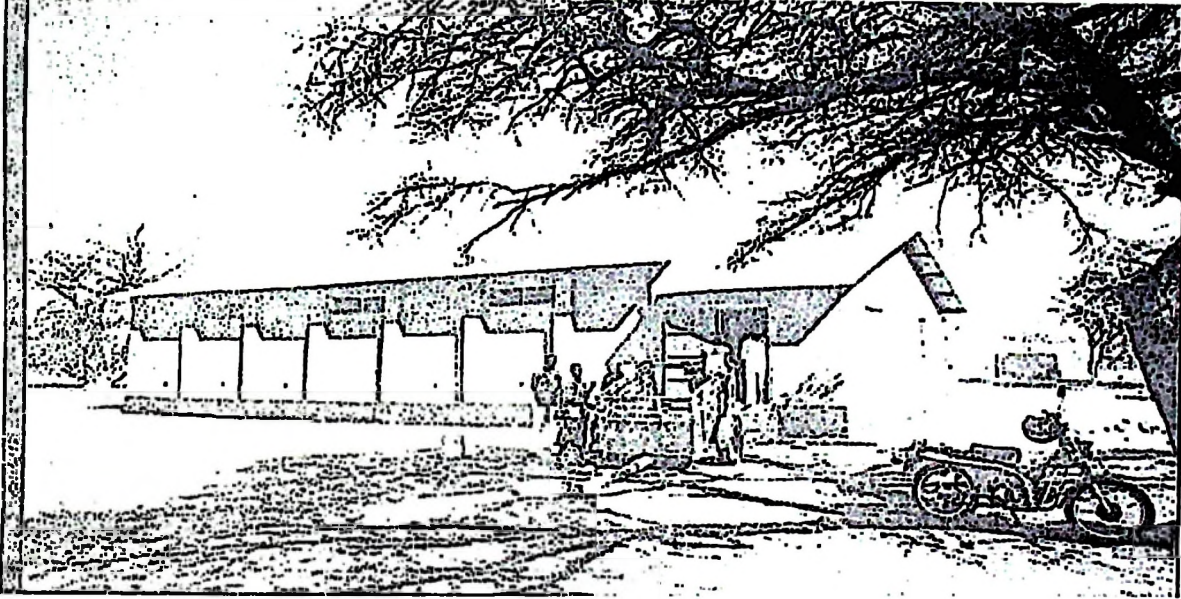
- **Membership, organization, management, history, activities and sustainability of FSGs Networks.**
 - *Membership, Organization, Management and History FSGs Networks*
 - *Activities of FSGs Networks*
 - *Sustainability and Cohesiveness of FSGs Networks ,*
 - *Motivation of members, leadership, and autonomy of members in FSGs Networks*
 - *participation by members in FSGs Networks*
 - *gender equity by FSGs Networks*
 - *conformity to group norms by FSGs Networks*
 - *provision of effective learning environment FSGs Networks*
 - *joint action by FSGs Networks*
 - *generation of solution for FSGs Networks,*
 - *provision of voice and forum to farmers*

- **The roles and the extent to which Food Security Groups networks have contributed towards poverty reduction.**
 - *Contribution of FSGNs in availability of resources and capabilities,*
 - *How has FSGNs promoted the ability of members to acquire basic human needs*
 - *Contribution of FSGNs in improving health and literacy rate of members.*
 - *Contribution of FSGNs in improving income generating activities and expenditure of members.*
 - *Contribution of FSGNs in improving housing, clothing and food security of members.*
 - *Contribution of FSGNs in high technological utilization*
 - *Contribution of FSGNs in environmental conservation*
 - *Contribution of FSGNs on employment availability*
 - *Contribution of FSGNs in facilitating good communication among members and with other important stakeholders.*

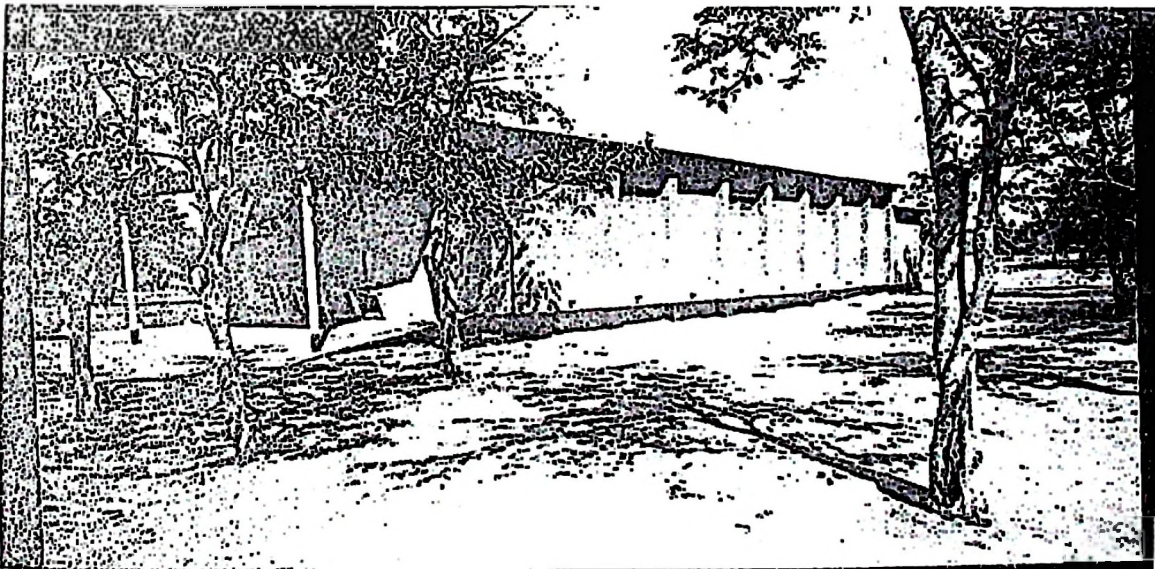
- **Factors of success or failure and best practices in FSGNs**
 - *What factors lead to success of food security groups networks?*
 - *What are the best practices, which strengthen food security groups networks?*
 - *What support do you get from FSGNs?*
 - *What benefits do you get from FSGNs*
 - *Does the FSGNs facilitate application of modern technologies?*
 - *Does FSGNs facilitate participation of Farmers networks?*
 - *Leadership of FSGNs*
 - *Autonomy of FSGNs,*
 - *Common interests of members in FSGNs*
 - *Developing technical and economic activities benefiting members*
 - *Relations with partners operating in their economic and institutional environment,*
 - *FSG network composition, size of the FSG network and voluntary membership,*

Appendix 7: Pictures from Field

A community cereal bank in Makoja Village



A community cereal bank in Machalli Village



A picture from Makoja Village showing droughtiness of most of the villages in the study area



A questionnaire interview with FSG network members. A man on the left is an interpreter of a local language



A Focused Group discussion with FSG Network members



Some of the Food Security Group Network members have a better a life than before

