

**SELF-RELIANT DEVELOPMENT INITIATIVES AND SUSTAINABLE
LIVELIHOODS: THE CASE OF ZAKUDIMBA PRODUCERS COOPERATIVE
SOCIETY (ZAPCO)**

M.A. (DEVELOPMENT STUDIES) THESIS

By

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UNIVERSITY OF MALAWI

CHANCELLOR COLLEGE

July, 2012

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**Thesis Submitted to the Faculty of Social Science of 2012, in partial fulfillment of
the requirements for a degree of Master of Arts in Development Studies.**

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July, 2012

DECLARATION

I, the undersigned, hereby declare that this thesis is my own original work which has not been submitted to any other institution for similar purposes. Where other studies have been used, acknowledgements have been made.

Joshua Thengele-la- Chirwa

Signature

Date

CERTIFICATE OF APPROVAL

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval.

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Member, Supervisory Committee

DEDICATION

I dedicate this work to my wife, my son - Chawezi, my mum, my late cousin Gomezgani Banda and to all sons and daughters of my late Dad, both the living and the dead.

ACKNOWLEDGEMENTS

I thank God for his abundant gifts that have enabled me to be where I am.

To my supervisors; Professor Paul Kishindo and Dr. Patrick Kambewa, I say thank you very much. Your tireless efforts not only helped me to produce work of this quality but also to grow intellectually. Thanks to the coordinator Dr. Ronald Mangani and all staff in the Faculty of Social Sciences who contributed to my studies.

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Thanks should go to leaders and members of Zakudimba Producers Cooperative (ZAPCO) for allowing the study to be conducted at the cooperative. I thank them also for the cooperation during the data collection exercise.

ABSTRACT

A number of community-based self-reliant (self-help) development projects have been implemented in Malawi in recent years. This study was aimed at examining conditions that lead to emergence of self-reliant projects and their contribution to rural livelihoods. The study was conducted at Zakudimba Producers Cooperative (ZAPCO) and used primary data. A mixed methods research was used for data collection. The qualitative component comprised focus group discussions (FGDs), key informant interviews and observations. The quantitative component used Individual Household Method (IHM). Non probability sampling methods were used to select ZAPCO zones and clubs for the FGDs. Probability sampling methods were used to select clubs for the IHM. From the selected clubs, a census method was employed to select members.

The study found that small scale farmers were influenced by both internal and external factors to form clubs which later formed ZAPCO. The study found a strong sense of ownership for the cooperative existing among members and mechanisms are in place that would ensure its sustainability. Such mechanisms include participation of members in managing the cooperative, empowerment of members, use of local resources and access to markets. The study used disposable income per adult equivalent to measure income remaining after a household has met its food energy requirements. It was found that all households that participated in the study were food secure and had income remaining after meeting their food needs.

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LIST OF ABBREVIATIONS AND ACRONYMS

AE	:	Adult Equivalent
ADMARC	:	Agricultural Development and Marketing Corporation
AIDS	:	Acquired Immuno-deficiency Syndrome
ARDEP	:	Agricultural Research and Development Programme
BBA	:	Bondolfi Beekeepers Association
CDD	:	Community-Driven Development
COSPE	:	Co-operation for the Development of Emerging Countries
DC	:	District Commissioner
EPA	:	Extension Planning Area
EU	:	European Union
FGDs	:	Focus Group Discussions
GDP	:	Gross Domestic Product
HACOP	:	Hertzog Agricultural Cooperative
HIV	:	Human Immuno-deficiency Virus
IHM	:	Individual Household Method
JSIF	:	Jamaican Social Investment Fund
LPA	:	Lagos Plan of Action
MASAF	:	Malawi Social Action Fund
MBS	:	Malawi Bureau of Standards
MGDS	:	Malawi Growth and Development Strategy
MCP	:	Malawi Congress Party

MGDs	:	Millennium Development Goals
NABW	:	National Association for Business Women
NASFAM	:	National Smallholder Farmers Association in Malawi
NGO	:	Non Governmental Organization
NSO	:	National Statistic Office
OVOP	:	One Village One Product
PRA	:	Participatory Rural Appraisal
PRS	:	Poverty Reduction Strategy
RSA	:	Republic of South Africa
SACCO	:	Savings and Credit Cooperative
SSA	:	sub-Saharan Africa
TA	:	Traditional Authority
UNDP	:	United Nations Development Programme
USADF	:	United States Africa Development Fund
WHO	:	World Health Organization
ZAPCO	:	Zakudimba Producers Cooperative

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Developing countries face serious challenges in their pursuit of development. These challenges constitute internal and external constraints that prevent governments from providing support for rural populations (Meertens, 2000; Nel et al, 2001; Kyle et al, 2003). As some have observed, among the constraints, the application of top-down approaches to development has alienated and marginalized the very rural poor in developing countries these strategies were meant to serve (see, for instance, Nel et al, 1997). The application of structural adjustment policies (SAPs), for example, seen as a panacea for the economic crisis of the early 1980s in these countries, impacted negatively on the local population (see Meertens, 2000; Ali, 2003). In sub-Saharan Africa (SSA), the application of SAP contributed to the worsening of poverty levels (Thomas, 1987; Oakley and Clegg, 1999; Ali, 2003; Chinsinga, 2003).

Following SAP, adjusting countries had to remove subsidies on agriculture, education, health and infrastructure development in order to reduce expenditure (Lele, 1990; Fonchingong and Fonjong, 2003; Bryceson, 2004). The application of the top down approaches failed to improve the rural economy in developing countries and hence local

communities were obliged to take up responsibility to improve their economic and social well-being (Ellis and Biggs, 2001; Nel et al, 2001; Kyle et al, 2003). As a result, notions like self-reliance and indigenous development appear to be among the few realistic development alternatives available to rural communities who have been left behind by the Western modes of development (Binns and Nel, 1999). Self-reliance strategies follow a community-driven (bottom-up) approach to development in which communities decide and prioritize development programmes they wish to be implemented in their areas. Such approaches to development have been supported by international organizations such as the World Bank and the Inter-American Development Bank (see, for example, World Bank, 2000; Dahl-Østergaard et al, 2003; Platteau, 2003). Through community driven approaches, poor people become the main actors in development and set their own priorities and methods of achieving them. As a result, communities become empowered and the resultant development initiative is more sustainable and responsive to the needs of the people involved (World Bank, 2000; Dahl-Østergaard et al, 2003; Kumar, 2003; Mansuri and Rao, 2003; Platteau, 2003; Gillespie, 2004; Binswanger and Nguyen, 2005).

Like other bottom-up approaches, self-reliance as a development strategy advocates for communities themselves to initiate and implement development activities in order to improve their standard of living. Through this development process, communities become empowered, develop more confidence in handling their affairs and build a strong sense of ownership for their development initiatives (Burkey, 1993; Binns and Nel, 1999; Fonchingong and Fonjong, 2003). According to Chambers (1995), empowerment enables local people to do their own analysis of development needs, gain confidence and make

their own decisions. Hence, if people are not empowered all efforts to improve their living standards would be extremely difficult (Burkey, 1993).

A community is an important element in self-reliant development initiatives. The term community can refer to a geographical entity such as a village or a group with common interests, for example, cooperatives, associations, clubs or women's groups (Aiya, 2001; Rose, 2003). Through self-reliant development strategy, local people are able to organize themselves into such groups which each member voluntarily joins (Agere, 1982; Burkey, 1993). It is within these groups that local people are able to recognize their capabilities and build powerful communities (Mathie and Cunningham, 2003). The recognition and use of the capabilities and strengths enable local people to control the development process and initiate development activities in order to enhance their livelihoods. Participation in development activities in a group context, enables local people to become empowered, develop self-confidence and cooperation (Burkey, 1993; Dhungana and Kusakabe, 2010; Schaaf, 2010). Stewart (2005) contends that groups enhance poor communities' economic and political power. This enables them to address market failures, access finances, manage common resources and initiate income generating activities.

Although self-reliant development initiatives focus on local people using local resources to improve their livelihoods, external help is important for what the people cannot yet manage themselves (Burkey, 1993; Lamont, 1987). As such outsiders such as Non Governmental Organizations (NGOs), the private sector and government development

agencies have often been mobilized to support local efforts. Ojameruaye (2004) observes that the poor and the disadvantaged would find it extremely difficult to improve their living conditions without external help. Korten (1980), for example, studied fourteen community cooperatives in Asia and only four of these were successful. One of the reasons for their success was their strong external linkages with government agencies which regulated their functioning and provided them with services such as training, facilities, and intra-group conflicts resolution.

1.1.2 An Overview of the Economy, Livelihoods and Community Projects in Malawi

The sections that follow under this subheading provide an overview on Malawi's economic and poverty situation, livelihood strategies of the rural communities and community projects.

1.1.2.1 Economic Situation and Poverty

Malawi is one of the least developed countries in SSA. The country has a population of 13,077,160 people and 84.7% of these live in rural areas according to the Population and Housing census of 2008 by the National Statistical Office (NSO). With a per capita gross domestic product (GDP) of \$256 in 2007, the country was ranked 160 in terms of human development out of 182 countries according to the United Nations Development Programme (UNDP) Human Development report of 2009. Malawi's economy is highly dependent on agriculture which contributes about 30% to the GDP (NSO, 2011). The share of agriculture contribution to GDP has tended to rise owing to the dismal performance of the manufacturing industry (Chirwa et al, 2006; Chinsinga, 2008).

However, a large proportion of the agricultural production is done by smallholder farmers (Jenkins and Tsoka, 2003; Republic of Malawi and World Bank, 2006). But due to high population density, the distribution of landholdings among smallholder farmers is concentrated between 0.2 and 2 hectares (Republic of Malawi and World Bank, 2006) with the average per capita of cultivated land of 0.22 hectares (Chinsinga, 2008). Most of the agricultural activities take place in a single growing season which lasts for 4 to 5 months although some farmers utilize residual moisture in *dambos* (riverbanks) in the dry season (Ellis, et al, 2003).

Poverty levels are high in Malawi. The country's chronic poverty and economic stagnation are attributed to poor performance of the smallholder farmers. In 2009, about 39% of the population lived below the poverty line¹ and 15% were ultra poor whose total consumption per capita on food and non-food items was lower than the minimum food expenditure. The level of poverty was higher in rural areas at 43% as compared to urban areas at 14% (NSO, 2009). It has been argued that the high poverty levels in rural areas is perpetuated by extremely low and fragile incomes, resulting in market activities based on very small transactions (Dorward and Kydd, 2004). The illiteracy rate for the adult population in 2009 was 30% and was higher among females at 40% than males at 21% (NSO, 2009). Such high poverty and illiteracy levels in Malawi have resulted in high malnutrition and mortality rate among under five children. According to the Malawi Demographic and Health Survey (MDHS) preliminary report for 2010, about 47% of children in Malawi are stunted while 13% are underweight.

¹ A subsistence minimum expressed in Malawi Kwacha based on the cost-of-basic-needs methodology – NSO 2009.

The country has an estimated infant mortality rate of 66 per 1000 live births and an under five mortality rate of 112 per 1000 live birth (NSO, 2010).

1.1.2.2 Rural Livelihoods and Food Security

Agriculture is one of the most important sources of livelihood for the majority of rural poor in Malawi (Republic of Malawi and World Bank, 2006). Rural farmers in Malawi have diversified their crop production to include food and cash crops such as tobacco, maize, cotton and groundnuts. However, due to high risks associated with agricultural production, most households have diversified their livelihood strategies. It has been observed, for instance, that rural communities use both farm and non-farm activities as sources of livelihoods (Ellis et al, 2003; Peters, 2006; Takane, 2006; 2007). But participation in the non-farm business activities has been found to be crucial for economic advancement in rural areas (Ellis et al, 2003). Some of the non-farm livelihood sources in rural areas in Malawi include remittances, returnee savings, labor and natural resources. However natural resource based livelihood sources in Malawi are threatened by increasing population density and crowding in, hence they do not provide the basis for expanding income (Dorward and Kydd, 2004).

High poverty levels have an effect on food security in Malawi. Food security at the household level in Malawi is highly dependent on maize which makes a greater contribution to diet as compared to the situation in other African countries (Orr et al, 2009). Over 90% of Malawian households grow maize as staple food crop (Minot, 2010), but maize stocks for most smallholder farmers run out before or shortly after planting the

next crop (Orr et al, 2009). However, in some parts of the country, especially along the central and northern shore of Lake Malawi such as Nkhotakota, Nkhata Bay and Karonga Districts cassava is grown as a staple food crop. Due to inadequate landholdings, some households in Malawi fail to produce adequate food to meet their nutritional needs for each household member (Republic of Malawi and World Bank, 2006). In 2009, for example, the food for 65% of the households would not last them before the month of December that same year. Due to inadequate food supply, 14% of the households would not eat three or more main meals they normally eat per day. As such some of these households shifted to cheaper foods, reduced the amount of food consumed per day or relied on cash for work (NSO, 2010). This problem was most pronounced in the Southern Region where 18% of the households failed to eat their normal food compared to 12% in the Central Region and 9% in the Northern Region. The share of inadequacy in nutritional requirements is generally higher in rural areas than in urban areas.

1.1.2.3 Community Self-help Development Projects

There has been a long tradition of collective action for community development in rural areas in Malawi (Cross and Kutengule, 2001). Traditional leaders have been leading rural communities in the implementation of grassroots communal work. However, it was in 1964 when the government adopted the United Nations conception of community development (Kishindo, 2000). This concept was adopted because the government recognized that improvement of rural living standards would largely have to be carried out by the people themselves (Kishindo, 1989). Since then, the government has been advocating for a strong policy on rural development and self-help (Warner et al, 1983;

Kishindo, 2003; Jimu, 2008). In line with this, during the period between 1964 and 1994, the government supported a wide variety of self-help projects throughout the country (Warner et al, 1983). It has been observed that the effective tradition of local village organization and their involvement in committees and the policing of participation by the Youth League of the Malawi Congress Party (MCP) which ruled between 1964-1994 in community projects contributed to the success of the projects in the country (Msukwa, 1990; Kleemeier, 2000; Cross and Kutengule, 2001; Kishindo, 2003; Jimu, 2008).

It has been observed that during the early years of democratic change in the country, there was a “general apathy and lack of motivation ... (among) Malawians to take charge of their individual and collective destinies” (National Economic Council, 2000: 37). The framers of the Vision 2020 believed that lack of a self-help attitude during the multiparty period arose from the general misconception of self-help and national service as enslavement. In fact some politicians equated self-help with *thangata* which was forced labour on estates during the colonial era. Some factors that contributed to lack of the spirit of participation among Malawians during the multiparty era included lack of transparency by NGOs; low literacy levels; lack of financial resources, lack of mobilization and facilitation skills and time constraints (See, Jimu, 2008).

1.2 Problem Statement

Different kinds of participatory strategies have been used by donors and governments to fight poverty in developing countries (Kleemeier, 2000). The belief has been that success in rural development projects in developing countries is affected by the extent to which

community members participate in these initiatives (Cohen and Uphoff, 1980). In recent years, the Malawi Government has implemented a number of policies and programmes to stimulate and facilitate local community development in response to food insecurity and poverty (Hill et al, 2007). Some of these policies and programmes include the Vision 2020, Malawi Social Action Fund (MASAF), Malawi Poverty Reduction Strategy Paper (MPRSP), One Village One Product (OVOP) and the Malawi Growth and Development Strategy (MGDS). Through implementation of some of these policies and programmes, two types of community development projects can be identified according to Kishindo (2000). These are community-initiated development projects such as building classroom blocks and teachers' houses which need external support; and centrally planned projects such as piped water schemes which require contributions from local communities usually in form of labour and locally available construction materials and cash if possible. However, participation by the grassroots in the initiation and identification of centrally planned projects is minimal (Vajja and White, 2008). In most cases grassroots infrastructure development projects are externally initiated and supported and can also address the livelihood needs of the rural population.

The concern with livelihoods is a new phenomenon. It was formerly assumed that agricultural development would take care of the problem of rural poverty as increased agricultural production would ensure food security and increased income at household level. However, agriculture as an engine for developing rural areas is facing new challenges such as policy changes, price fluctuations, ecological and climatic conditions (Dorward et al, 2004). The Malawi Government's policy interventions have centered on

addressing food security and poverty through input subsidy and cash transfer programmes among smallholder families (Chinsinga, 2005; Devereux et al, 2006; Davies and Davey, 2008). This might be the case because agriculture is still viewed as the most obvious means of stimulating growth in rural areas and providing income and food security for the majority of the rural population (Peters, 2006). But while the input subsidy programmes would improve future livelihoods for the poor and the cash transfer programmes would provide short term solution to food security and poverty, they cannot empower the poor communities to become self-reliant. This situation begs a number of questions on community initiated development projects and livelihoods in Malawi such as: What policies would sustainably address livelihood problems of rural communities? How can the rural poor become empowered to solve their own livelihood problems? This study seeks to address the gap in the knowledge on community initiated livelihood projects by providing answers to the following research questions: What conditions influence communities to initiate and participate in livelihoods projects? How are such projects sustained? What role do outsiders play in community self-reliant projects? Do such projects improve food security and incomes of poor households? This study contends that communities have the potential to develop themselves but require external support for what they cannot do on their own.

Existing studies on community development projects in Malawi have not answered some of these questions, tending to focus on conditions that drive the initiation of community infrastructure development projects, and the role of both community members and outsiders in these projects (e.g. Warner et al, 1983; Kishindo, 2000; 2003; Jimu, 2008).

The few known studies on local self-reliant projects aimed at addressing the livelihood needs of a community such as Hill et al (2007) and Booyens and Crause (2009) did not examine the important issue of conditions that led to the establishment of the projects and mechanisms for sustaining the operations of the cooperatives.

1.3 Objectives of the Study

The main objective of this study is to examine conditions that lead to the emergence of self-reliant projects and the contribution of such initiatives to livelihoods of the community.

1.3.1 Specific Objectives

The specific objectives of the research are:

1. to identify conditions under which community self-reliant projects are initiated;
2. to explore mechanisms that ensure sustainability of self reliant development projects; and
3. to assess whether self-reliant projects improve household income and food security.

1.4 Significance of the Study

Rural people have the potential and capacity to help themselves meet their livelihood needs. In order for community members to become self-reliant, it is imperative that they develop an attitude of initiating and implementing their own development projects using local resources and skills. However, in most of the community initiated development

projects in Malawi, especially those under MASAF, project identification and execution were done by a small number of people (Vajja and White, 2008), who Kishindo calls the "development-conscious" leaders or people who are aware of a better quality of life (Kishindo, 2000; Kishindo, 2003). These development-conscious leaders are unevenly distributed in society leading to uneven distribution of externally funded projects (Kishindo, 2000). In addition, such forms of participation in community development projects led to the implementation of projects that do not represent the wish of the people and failure to build social capital (Vajja and White, 2008). Project sustainability under such circumstances would be problematic. To ensure sustainability and building the capacity of members of the community, decisions on project identification and execution should involve the grassroots themselves.

Very few scholarly studies have focused on community initiated livelihood projects. This study is one of the few on community initiated livelihood projects. The study will therefore contribute to bridging the knowledge gap on how such projects are initiated and ultimately owned and sustained by members of the community who initiate them.

1.5 Organization of the Study

The rest of the study is organized as follows: Chapter Two gives an overview of the study area and also explores how ZAPCO was started. Chapter Three provides a review of the theoretical and empirical literature that help to understand issues that this study investigates. Chapter Four presents details of the methodology used in this study. The

findings of the study are analyzed and discussed in Chapter Five. Lastly, Chapter Six provides a summary of the findings and the conclusion.

CHAPTER TWO

THE STUDY AREA

2.1 Introduction

This chapter provides a discussion on the context in which Zakudimba Producers Cooperative (ZAPCO) is operating. The chapter has three sections: Section 2.2 gives details of the study area and the location of ZAPCO zones and clubs. Section 2.3 provides details on how the cooperative was started while Section 2.4 gives an overview of external support given to community projects in the study area.

2.2 ZAPCO in Context

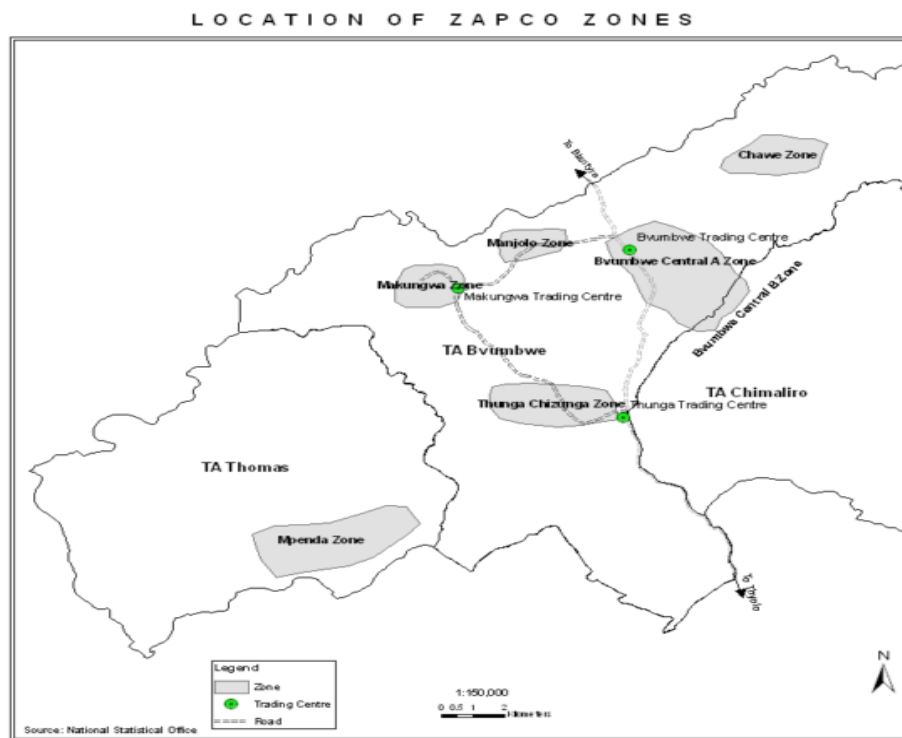
The study was carried at ZAPCO in Thyolo District. Thyolo District is located in the Southern Region of Malawi and shares its boundary with Blantyre, Chirazulu, Mulanje and Chikwawa districts. The district is found to the south east of Blantyre district. Thyolo is multi-ethnic. The following ethnic groups are found in this area: Mang'anja, Lomwe, Ngoni, Sena and Yao. Among these tribes, the most dominant ones are the Lomwe and Mang'anja. Although the majority of people in the area practice Christianity, some follow the Islamic faith. A matrilineal type of tradition is practiced in this area. In a matrilineal system, it is women who have primary land rights and inheritance is traced through the line of the mother (Chirwa et al. 2003).

The district has a population of 587, 455 and about 96.9% of this population lives in rural areas that depend on land for their livelihoods (NSO, 2010). Land plays a critical role in livelihoods of many rural people in Thyolo District and the lack of it is one of the major constraints on agriculture and food production. The district, however, has a severe land shortage problem owing to high population density with 342 persons per square kilometer and large tea estates found in the district (NSO, 2008). The other contributing factor for land scarcity in Thyolo is the large tea estates found in the district. Agriculture is the main economic activity in the district. A majority of the population (79%) in the 2008/2009 growing season was engaged in agricultural activities and 98% of these grew staple food crops. However, in the same year, 55% of the people living in Thyolo did not have enough food to take them through the month of December (NSO, 2010). This means that 45% of the population in the district depended on other food sources. Apart from farming, households in the district derived their livelihoods from wage employment especially in tea plantations found in the district, casual labour, and family business. Thyolo registers high rainfall and has a cool climate favorable for vegetable production. It has been observed that community members in the district grow vegetables both for household consumption and for sale. In its February 2011 project report, the Bioversity International² noted an increase in household income in Thyolo resulting from vegetable sales.

² Bioversity International - formally known as International Plant Genetic Resources Institute (IPGRI) - is based in Rome and has regional offices in Asia, Pacific and Oceania, Europe, Americas, North Africa and Sub-Saharan Africa. It undertakes, encourages and supports research aimed at conservation of agricultural biodiversity to the world's most vulnerable communities.

ZAPCO comprises vegetable growing farmers who belong to different clubs located in the areas of TAs Bvumbwe, Chimaliro and Thomas. The cooperative has 18 clubs spread in six zones namely Bvumbwe Central, Makungwa, Thunga Chizunga, Mpenda, Manjolo, and Chawe zones. However for purposes of this study, the Bvumbwe Central zone was split into two: Bvumbwe Central A, represents the area found in TA Bvumbwe and Bvumbwe Central B, covering the area found in TA Chimaliro. Figure 2.1 is a map showing where ZAPCO zones are located in the three TAs.

Figure 2.1: Location of ZAPCO zone in TAs Chimaliro, Thomas and Bvumbwe



The cooperative has a total of 138 members, see appendix 1. Table 2.1 presents the size of ZAPCO membership, clubs and zones in three TAs in Thyolo District.

Table 2.1: Number of members, clubs and zones in three TAs.

	TA Bvumbwe	TA Chimaliro	TA Thomas	Total
Number of zones	4(+1*)	1*	1	6
Number of clubs	11	3	4	18
Number of members	91	20	27	138
Average number of members per club	8.3	6.7	6.8	7.7

*Bvumbwe Central zone has two sections one in TA Bvumbwe and the other in TA Chimaliro.

Source: Own calculation from study data.

The central offices of the cooperative are located at Bvumbwe Trading Centre about 13 kilometers to the south of Blantyre city. Being close to Blantyre has enabled people around Bvumbwe Trading Centre to have easy access to market for their farm produce and also have opportunities for employment in the city and the tea estates. Among members of the ZAPCO, vegetable farming is the main economic activity throughout the year. Likewise, being close to Blantyre, ZAPCO members have access to fresh food markets in the city. Other major crops cultivated in the area where ZAPCO is found are maize, beans, cassava, tobacco, cotton ground nuts, sweet potatoes, soybeans, peas and cotton. Apart from rain fed production, ZAPCO members also use irrigation for the production of their vegetables.

2.3 ZAPCO as a Local Development Initiative

Communities in Thyolo District have been practising horticultural production for a long time. This area has a conducive climate for the production of fruits and vegetables. But for a long time, vegetable production remained low because of lack of good seed, pest damage, poor farming methods and poor marketing (Bioversty International, 2011). This contributed to the exacerbation of poverty and food insecurity in the area. Smallholder farmers in the study area took up the challenge to end this problem after the District Commissioner of Thyolo had sensitized communities to form clubs. With support from the Bvumbwe Research Station, the smallholder farmers organized themselves into farmers' clubs in 2003 in order to improve their living standards. The members felt that through clubs they could easily have access to loans, extension services, markets and share knowledge on good agricultural practices. Through discussions during meetings that were conducted at club level, members thought of forming an association. This association was later turned into a cooperative named ZAPCO in 2009. Through clubs belonging to this cooperative, farmers are able to pool their resources together and share knowledge and skills in order to improve their agricultural production. These small scale farmers largely use local resources and skills for the production of farm inputs such as manure and insecticides. Farmers use local knowledge to produce local manure from maize stocks and other wastes while insecticides are produced using locally found vegetation.

2.4 External Support

Smallholder farmers in Thyolo have benefitted from external support through their membership to farmers' groups. OVOP, for example, is assisting four cooperatives in the district through the provision of technical support and loans³. In addition, Bioversity International is assisting an association comprising farmers groups from five villages spread across four Extension Planning Areas (EPA) in the district. Similarly, the success of ZAPCO can partly be attributed to the support provided by different organizations and the government. This support has been in the form of loans, training and extension services, and provision of equipment and building infrastructures. Such assistance has been provided either directly to club members (such as training and extension services) or to the cooperative such as access to markets, equipment and building. It should be noted that ZAPCO farmers benefit from the support given to the cooperative through their membership to the clubs.

2.5 Conclusion

The chapter has contextualized the research in terms of the geographical attributes of the study area and provided a summary of livelihood strategies in Thyolo District and the formation of ZAPCO. It has been observed that Thyolo has severe land problems and yet agriculture is the main livelihood activity in the district. The district has cool climate favourable for horticultural production. Small scale farmers in the district have been practicing production of vegetables but have remained poor. Some community members in the area around Bvumbwe organized themselves into clubs to reduce their economic

³ Macheka, Extension Officer, Dwale EPA, pers. Comm., 2011

problems. Members of the clubs which formed ZAPCO engage in vegetable production using local resources to improve their standard of living. Local farmers in the area have also benefitted from external support provided by different organizations.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

Research has been conducted on community initiated projects focusing on infrastructure and livelihood projects worldwide. This chapter discusses and summarizes the research that has been conducted on community initiated projects. It is divided into two sections: Section 3.2 which discusses the theoretical framework upon which this study is based and Section 3.3 which summarizes the works of the researchers that have conducted studies on community self-reliant projects.

3.2 Conceptual Framework

3.2.1 The Concept of Self-reliance

The concept of self-reliance originated in China in 1945 (Chen, 1992) but the idea, as a local community relying on its resources, is as old as human history (Galtung, 1976; Sayigh, 1991). Self-reliance is regarded as a panacea for the failure of the dependency theory and it identifies specific policies designed to promote development by eliminating the bases of dependence and exploitation that are held responsible for the underdevelopment in periphery societies (Biersteker, 1980; Sayigh, 1991). Self-reliant

development assumes that a community is able to improve its economic and social conditions without or with minimal external support and liberates itself from dependency and exploitation. The strategies for self-reliance development can be applied at different levels including individual, local, national or regional (Galtung, 1976; Burkey, 1993).

Burkey (1993) applies the concept of self-reliance at individual and local or community levels. He defines self-reliance as “doing things for one’s self, maintaining one’s own self-confidence, making independent decisions – either as individual or within the context of a collective group to which each member has voluntarily allied himself or herself”. Economically, Burkey describes a self-reliant community as a collective group that is able to produce some or all of its basic requirements and surpluses which can be traded for commodities and services it does not produce efficiently itself. In his view, the development of self-reliance begins with an individual through the process of conscientisation and human development. Accordingly, outside attempts to promote self-reliance and ignoring these two processes would not succeed.

For people to take action against their oppressive reality they need first to understand their situation in terms of the prevailing social, economic and political conditions and decide what their important needs are. This can be done with the help of development workers through the process of problem posing education often referred to as conscientisation. Conscientisation is the stimulation of people’s self-reflected critical awareness of their social, political and economic conditions and enabling them to take action against oppressive elements of reality through collective action (Freire, 1996).

This collective action at a local level is enhanced by social capital. Social capital defines the networks of trust and mutual accountability linking individuals in communities (Bebington, 1999). Woolcock (1998) views it as a broad term that encompasses the norms and networks that facilitate collective action for mutual benefit. Through collective action, the community members themselves conduct analysis of the reality and decide what their important needs and experiences are and what action to take against their poor living conditions. As a collective group therefore, community members are able to access financial capital which facilitates accumulation of produced capital. Conscientisation also relates to the change of attitude. This means that local people must develop confidence in their knowledge and skills, their ability to identify problems and find solutions, and taking action to improve their conditions of living.

The second process identified by Burkey (1993) as necessary for the development of self-reliance is human development which constitutes human capital. This involves the strengthening of personality and acquisition of knowledge and information. Strengthening poor people knowledge and personality would enable them gain self-confidence, learn to be assertive, have faith in their abilities and trust in their comrades (Burkey, 1993). As a result their capability to manage and control their own development would be enhanced. A variety of knowledge and skills can be gained while working as a collective group or through external support from development workers in form of training. This may include the ability to form and manage their organization, how to use such organizations to gain access to resources and prevent exploitation and how to acquire and adapt new knowledge and technologies for improved production and income

generating activities (Burkey, 1993). The gained knowledge and skills comprise one of the important factors necessary for initiating, managing and sustaining community self-reliant development.

Apart from conscientisation and human development, Burkey (1993) also identifies the following factors as important for promoting self-reliance: use of own resources, working as a group and minimal external support. The use of own resources builds self-confidence and ensures that a community becomes self-reliant. According to Burkey (1993) poor people's confidence is enhanced when they feel and believe that it is their own contributions in the form of financial, material and labour resources that are driving the development. Therefore to maintain self-confidence and enhance the spirit of self-reliance, Burkey (1993) argues that external support for self-reliant project is only needed during the start of the project and for what the community cannot yet do for itself. According to Burkey (1993), self-reliance is based on social relations and is promoted when people work as a collective group, with same goals and aspirations, to which they voluntarily join. Within groups people pool their resources and efforts together in order to improve their conditions of living. In addition, groups provide an ideal situation for the development and sharing of knowledge and skills which are important for self-reliant initiatives. Moreover, the small groups can come together to form associations to further the interest of the members in interactions with external entities such as banks, non-governmental organizations (NGOs) and government departments (Burkey, 1993).

Unlike Burkey, Lamont (1987) uses the term self-reliance interchangeably with self-help. However, Lamont also recognizes the importance of awareness of a deficiency in one's living conditions and the motivation to act against the oppressive reality as necessary for becoming self-reliant. In addition, the use of own material and human resources is also regarded by Lamont as an important factor for one to become self-reliant. According to Lamont (1987) a person can become self-reliant "once he has acquired the ability through appropriate knowledge, skill, and attitude to conduct his affairs in such a way that they bring about the quality of life he desires". The development of human resource is what features highly in Lamont's conception of self-reliance.

Three things have been highlighted in this regard and these are knowledge, skill and attitude. According to Lamont (1987), knowledge is important for people to develop an attitude of self-reliance. In his view, one has to know what one's environment offers, the relationship between different types of elements in one's environment, where to get what one lacks etc. The skill defines one's ability to do what one is supposed to do in order to become self-reliant. Once one is aware of the available resources and knows how to achieve one's goals, then with the skills one has, one would achieve the goals using the available resources. Apart from knowledge and skills, community members should also have the attitude of wanting to achieve the goals set for them to address the problems they are facing. Lamont (1987) argues that many people "know what to do to help themselves and ... have the ability to do it, but ... lack the motivation; the want to do it; an attitude of self-reliance".

For Lamont, therefore, the motivation to act on their problems, the acquisition and application of own knowledge and skills using their own resources for their own development programmes empowers community members and enables them to become self-reliant.

Apart from Burkey and Lamont, Chambers is also concerned with empowering local communities for them to determine their own development programs. But, unlike the two, Chambers in his participatory rural appraisal (PRA) is not concerned with the concept of self-reliance but advocates for empowering community members to take control of their development programmes (Chambers, 1994). PRA is a family of approaches and methods that enable local people to express, enhance, share and analyze their knowledge of life and conditions to plan and act in order to improve their conditions of living (Chambers, 1994). Chambers points out that the use of own knowledge and skills would enable local people to control their own development (Chambers, 1995). The PRA techniques are applied to a number of developmental issues such as natural resource management, agriculture, gender, poverty and social programming. Two factors feature highly in Chambers work of PRA which are important for empowering community members and these are inclusiveness and the role of outsiders (Kapoor, 2002).

According to Chambers, inclusiveness allows for all community members, including the marginalized and the disadvantaged groups, to participate in PRA meetings and workshops. Inclusive participation ensures the incorporation of the views of all people in planning for the development programs, that the planned programs meet the needs of the

people, reduction of cost for projects implementation as local people contribute labour and resources, empowerment of local people and promotion of knowledge transfer between local people. Inclusiveness therefore allows participation of every member of the community in development programs and empowers them to take control of their lives.

In PRA an outsider is any person or organization from outside local community who can take a catalytic role in facilitating PRA (Chambers, 1994). According to Chambers (1994) outsiders are the conveners and facilitators of the development process while the insiders are the actors and analysts. He points out that in PRA, outsiders must change their behavior and attitude, listen and learn so that local people confidently and capably express their own knowledge, conduct their own analysis, and assert their priorities. If outsiders encourage and give confidence to local community members they can perform better in the activities whether they are literate or illiterate (Chambers, 1994). This would then enable the local community to develop self-confidence, share knowledge, skills and experiences and hence empower them to take control of their development process.

This study has adopted Burkey's view of self-reliance. This is because self-reliance as conceptualized by Burkey (1993) clearly defines the economic expectations of a self-reliant community which is one of the objectives of this study. In addition, Burkey identifies important factors which have to be considered for a community to become self-reliant and these factors are applicable to this study. Some of these factors include conscientisation, working as a group, human development and use of own resources.

Based on Burkey's concept of self-reliance, a community becomes self-reliant when it is able to obtain its basic needs either through own production or purchase from the market. As such a self-reliant community may also aim at creating income with which it can obtain its livelihood needs (Rogerson and Rogerson, 2010). However for a community to become self-reliant the following are some of the requirements according to Burkey (1993):

- The community members must be conscientised. This will enable them become empowered to take action to improve their conditions of living. The agents of change such as development workers or development-conscious leaders play an important role in raising awareness on better living conditions (Burkey, 1993; Kishindo, 2000; 2003).
- Community members need to organize themselves in groups. Working as a group enables local people to pool their resources, share knowledge and skills and improve their access to external resources and services (Burkey, 1993).
- For any project to succeed there is need to develop human capital. This involves developing knowledge and skills for local people which is important for self-reliant development initiatives. This would enable local people to plan and implement their own development projects using local resources.
- Use of own resources and skills. The use of own knowledge, skills and resources and the belief that it is their own effort and resources that are driving the development process would instill confidence in local people and ensure sustainability of the development project (Burkey, 1993).

In addition, the use of own knowledge, skills and resources is enhanced when people are in a group as they pool their resources together.

3.2.2 The Context of Food Security

According to Galtung (1976), self-reliance is not the same as self-sufficiency or autarky although it may be argued that self-sufficiency in food is worth striving for. But a self-reliant community is expected to be food secure through own production or purchase from the market. Food security refers to the availability of food to all people, at all times, and having physical, social and economic access to sufficient, safe and nutritious food that meets their dietary requirements and food preferences for an active and healthy life (FAO, 2003). Within the household, food security depends on whether the household has enough income to purchase the required amount and type of food or to produce enough food for its own consumption (Garrett and Ruel, 1999). In order for a country, community or a household to be food secure, the following conditions have to be met: food availability, food access and adequate food energy requirements for individual household members (Garrett and Ruel, 1999; Smith et al, 2000; FAO, 2003; Pinstrup-Andersen, 2009).

At the national level, food availability is determined by a country's net food import (import minus export) and food production (Smith et al, 2000). Not having enough food stocks to feed the population would render a country food insecure. This can result from structural poverty or intensified periodic pressures such as natural disasters, economic collapse or conflict that hinder a country to either produce its own food or import from

other countries (FAO, 2003; Pinstруп-Andersen, 2009). However, Dévé et al (2002) assert that more food production is associated with greater food security and that food insecurity in terms of supply shortages can come about because of the fluctuations in food production or changes in price. The inability to produce adequate food, especially in Africa, has been attributed to a number of factors including adverse weather patterns, civil conflicts, political-economic crises, HIV and AIDS and poor policy decisions. Malawi is a good example where a combination of adverse weather conditions, poor policy decisions and information constraints contributed to the shortage of food supply at national level (Stevens et al, 2002; Menon, 2007). Inadequate food supply results in price changes on the market which may lead to food inaccessibility affecting households. The food access problems may adversely affect rural communities resulting in food insecurity at the household level.

Food security is currently not simply viewed as the inability to produce enough supply of food at the national level but as a failure of livelihoods to generate access to sufficient food at household level (Clover, 2003; Stevens et al, 2003). A household becomes food secure if its members have access to the needed basic food at all times. Access to food at household level is determined by the full household income comprising cash income and the value of the goods produced and services provided at that level (Smith et al, 2000). There are three ways through which a household can access its food needs according to Smith et al (2000). These are through own production or gathering; purchase from the market and or in-kind transfers from relations, government or organizations. However, in-kind transfers are against the spirit of self-reliance and are likely to promote

dependency. A number of factors may affect food production at the household level which may lead to food insecurity. These factors may include (1) adverse weather conditions, (2) poor health, (3) lack of income to buy inputs, (4) lack of markets, (5) small land holdings, and (6) lack of labour (see, David et al, 1994; Mtika, 2001; Ngwira et al, 2001). Food purchase from the market is determined by the household's ability to generate cash income through sale of assets, remittances or labour; and availability of efficient markets. It should be noted that famines have occurred even with plenty of food at national level as most people buy food rather than produce it (Clover, 2003). As such lack of income and poverty at household level may render some households food insecure due to inability to purchase the required food (Gladwin et al, 2001).

In addition, access to markets may be constrained and prices may be highly seasonal or uncertain thereby exposing food purchasers to food insecurity. It has been observed that in countries where the role of agricultural parastatals in input delivery, output purchase and marketing has been reduced, private traders have either neglected or exploited small scale farmers exposed by this institutional vacuum (Stevens et al, 2003). Problems of food access may either be transitory or permanent just like problems of food availability at national level. Transitory food insecurity describes a household that experiences seasonal food shortages while permanent food insecurity describes a long-term lack of access to sufficient food (Pinstrup-Andersen, 2009). In both cases households' food access may not translate into the acquisition of the right amount of food energy requirements for individual members.

The failure to meet the food energy requirements for individual members of the household also results in food insecurity. Apart from the inability to access food, a household's failure to meet individual members' food energy requirements may either result from household's preferences to prioritize the acquisition of other goods and services such as school fees and housing over the acquisition of food, or the intra-household allocation of the food may not be based on individual members' food needs (Pinstруп-Andersen, 2009). However, if a household produces enough food and generates enough incomes to meet its other needs, it would remain food secure. The food energy requirements vary with age and sex of the household member. On average a person requires approximately 2100 kilocalories per day. The household, therefore, becomes food secure when it manages to meet the food energy requirements of its individual members. It should be noted however that most of the poor and food insecure households are found in rural areas and depend primarily on agriculture for their livelihoods (Mehra and Rojas, 2008).

3.2.3 Small Scale Farmers and Access to Produce Market

Small scale farmers have not been able to freely participate in economic exchange due to market failures (see, for example, Kyle et al, 2003). In most cases this has resulted in market domination by large scale enterprises. Easy access to markets would enable small scale farmers to successfully engage in agricultural production. However, in the sub-Saharan region, small scale producers face tough competition from large scale farmers in the fresh foods market. This is because small farmers are required to comply with rigid procurement systems and tough quality and safety standards in order to enter the market.

Thus, due to lack of capital, the smallholder farmers face the risk of exclusion from the market in preference for large scale and/or foreign producers (Hantuba, 2003; Feidberg, 2003 and Louw et al, 2007). The situation in Malawi currently is not different. About 50 percent of the fresh fruit and vegetable products found in supermarkets in Malawi, for example, are sourced internationally (Makoka, 2005).

During the colonial period, the Malawi Government played an important role in the provision of markets for farm produce through the formation of marketing boards. The boards underwent several transformations and led to the formation of Agricultural Development and Marketing Corporation (ADMARC) in 1971 to provide marketing services to smallholder farmers (Milner, 2005). ADMARC dominated all agricultural services between 1980 and 1993 before the structural adjustment reforms were implemented (Chinsinga and Cabral, 2008). During this period ADMARC played an important role in supplying inputs and providing marketing and extension services to smallholder farmers. ADMARC provided assured and reliable markets for smallholder outputs, provided credit and subsidized the cost of inputs to farmer's clubs. As a result smallholder farmers had easy access to inputs and a ready market for their produce. However the activities of ADMARC were greatly reduced because of the structural adjustment reforms which resulted in smallholder farmers having no viable market for their produce.

3.3 Empirical Literature

Empirical literature on self-reliant development initiatives is limited. In SSA, studies on self-reliance have focused on both community infrastructure development projects and community projects aimed at securing livelihoods. In this region, studies on self-reliance and livelihoods have concentrated on projects carried out by communities in the Republic of South Africa (RSA). Very few studies have been conducted on projects of this nature in Malawi and other parts of the World. It should be noted, however, that all the existing literature shows the importance of external support and utilization of local resources and skills for self-reliance development projects to be successful.

3.3.1 Studies in Other Countries

A number of studies have been conducted on self-help community infrastructure development in other countries. These studies have shown that community members have participated in the development of social and economic infrastructures of their communities through the provision of labor, materials (e.g. bricks or sand) and cash. However, other studies have shown that communities have initiated development projects in order to reduce poverty and increase their household income. These studies have shown that given appropriate support communities can improve their standard of living.

3.3.1.1 Infrastructure Projects

The success of community self-help infrastructure development projects can be attributed to a number of factors including community participation, strong ties existing in rural communities and use of local resources. A study by Thomas (1987) on Harambee

community self-help projects in Kenya focused on contributions by communities for public projects, such as primary schools. Harambee means the voluntary provision of goods, usually social infrastructure, through the cooperation of community members (Wilson, 1992). The study found that households' participation in self-help projects contributed to the success of the projects. It has been observed that through Harambee self-help projects, communities are able to mobilize local resources to improve their wellbeing. Through this self-help approach, communities have benefitted from private resources (such as financial) and provided the opportunity for rural people to participate in project planning and management. The study by Thomas (1987) also suggests that communities participating in self-help projects are able to considerably improve their standard of living and access to external resources. Another study by Wilson (1992) on Harambe projects focused on the efficiency of self-help projects in the provision of public goods. The study found that these projects are more efficient in rural areas where strong ties exist among community members. However, the study also contends that the success of these projects is based on the fact that a majority of these projects are small-scale local projects such as schools, clinics and small agricultural facilities.

Reliance on own resources with or without external support is critical for improving the wellbeing of a community, encouraging local initiatives and the spirit of self-help. Studies have shown that reduction in government support has encouraged the self-help efforts in rural communities. A study by Fonchingong and Fonjong (2003) conducted on community self-help infrastructure projects in the Cameroon Grassfields has demonstrated the significance of relying on local knowledge, skills, resources and

technology in the development of the community and improving the living standards of the rural people. The study found that reliance on indigenous technology and local human resources has led to overwhelming popular participation in the community initiated development projects in the area. The study also found that external help from the government, civil society and international organizations in terms of technical expertise and financial resources is important for enhancing community development initiatives.

Some community infrastructure projects have been initiated and implemented following government policies and programmes. These programmes have followed the demand-driven approach in which communities are given the opportunity to prioritize projects to be implemented in their areas. Rao and Ibáñez (2003) conducted a study on projects supported by the Jamaica Social Investment Fund (JSIF). The study aimed at assessing whether community-driven development (CDD) social funds improve the targeting, impact and build the capacity of the communities. The JSIF is supported by the World Bank and it disburses funds to communities for the construction of public infrastructures such as school blocks and roads. In these projects, communities contribute a small proportion (varying from 5 to 20 percent) of the costs in form of cash, labor or materials. The study was conducted on projects that received funding from JSIF and those that did not receive funding from JSIF. It was found that although there was broad based satisfaction with the outcome, the JSIF funded projects were elite-driven and decision making was dominated by a small group of motivated people. The study also found that both communities (those that received JSIF funding and those that did not) are more likely to make decisions that affect their lives after implementation of the projects. But in

the case of JSIF projects, despite the findings indicating improved capacity for decision making, it was not clear whether this would result in more sustainable projects. In both cases, however, projects have promoted participatory development in the country. The study found that communities that did not receive support from JSIF showed higher levels of community driven decision making because in these projects participation was very high and prioritized the needs of community members than their counterparts.

Some studies have indicated that, with support from outsiders, communities are able to organize themselves and mobilize resources in order to improve their standard of living. Teodoro and Rayos Co (2009) carried out a study on the homeless urban poor households in Philippines who, through self-help initiatives, build their own homes, buy land to improve their livelihoods and negotiate for their place in the city. The study established that, by organizing themselves, with the help of an NGO (the Homeless People's Federation of the Philippines), the poor communities were able to mobilize their meager resources in order to secure housing with security of tenure for their families. The study shows that the poor in the Philippines, with the support of an NGO, were able to mobilize themselves, improve their savings, plan and implement development projects in order to improve their living conditions.

3.3.1.2 Livelihoods Projects

Communities can organize themselves in self-help groups to engage in the production of goods and services in order to increase their income and food security. Studies have shown that, apart from reducing their poverty, communities also get empowered to deal

with their social and economic problems if they organize themselves in self-help groups. A study by Dhungana and Kusakabe (2010), for example, conducted on women with disability self-help groups in Nepal focused on how the groups have benefitted and empowered women with disabilities. The study observes that women with disabilities in Nepal formed their own self-help groups after realizing that they were not being recognized by other disability groups headed by men, or by non-disabled women's groups. The study concluded that these self-help groups empower disabled women economically and socially. The physically challenged women were able to access loans and markets for their produce through the groups and also managed to fight for their rights. Another study on women self-help groups was conducted by Jivetti and Edwards (2009) focusing on factors affecting performance of self-help groups in Western Kenya. The study indicates that most of these groups were engaged in income generating activities and faced problems such as lack of market for their commodities, transportation, leadership problems, group governance and management and lack of motivation. The study shows that the produce of these self-help groups fetch low prices at the local markets and they are not able to penetrate the urban market. The study also observes that due to lack of capital the women self-help groups required external help in order to expand their income generating activities. However, the study also observes that, through these self-help groups, women are able to generate income that is needed to improve their welfare.

Other studies have also revealed that, without external catalysts, local communities themselves are able to initiate development programmes to fight poverty and generate

livelihoods. However, it has been observed that such programmes have survived because of external support. A study carried out by Kyle, Binns and Nel (2003) to evaluate the progress of the Hertzog Agricultural Co-operative (HACOP) in former Ciskei Homeland, Republic of South Africa (RSA), found that the cooperative was initiated by a black community itself to avert mounting unemployment and poverty in the area. The study observes that the success of the project was driven by high levels of human capital (farming skills), social capital (local resources i.e. the presence of abandoned farmland) and good leadership. Apart from the determination and perseverance of its members, the study observes that the project survived because of external help from an NGO in the form of financial and technical support. The study concludes that the project required external support to survive and that the level of human and social capital plays a significant role in self-reliant development projects.

A study on a community based livelihoods projects conducted by Nel, Peter, Illigner, Wilkins and Robertson (2000) in Zimbabwe examines a beekeeping initiative carried out by members of Bondolfi community in Masvingo in Zimbabwe. The beekeeping project provided an alternative source of livelihoods. However, it was observed that the project was initiated by external agents in the form of advice from the Swiss Mission present in the area after noting the deteriorating levels of poverty, food insecurity and lack of income in the area. The study also indicates that this project relied on local skills and resources apart from benefiting from external technical and material support provided by UNDP. The study shows that the efficiency of the project increased through the formation of Bondolfi Beekeepers Association (BBA). It is also indicated in the study

that the project has empowered women in the area as the majority of the members of BBA are women. However, the study states that reliance on external support has created a sense of dependency for members of the BBA.

3.3.2 Studies in Malawi

In Malawi, studies have been carried out on both infrastructure and livelihoods development projects in which communities were highly involved. It should be noted, however, that the need for community involvement in socio-economic development in Malawi was recognized at the dawn of independence (Hussein, 2003). It is evident that local communities have been participating in self-help infrastructure development projects such as construction of roads, bridges, school blocks or health centres since then. Apart from the community infrastructure self-help projects, evidence shows that rural communities in Malawi also engage in self-reliant projects to promote food security and household incomes.

3.3.2.1 Infrastructure Projects

A number of self-help infrastructure projects have been implemented at the community level in Malawi. Studies have focused on projects aimed at improving the living standards of the rural communities. Some of these studies have shown that communities have been able to identify problems affecting them and have requested outsiders, such as government and NGOs, for assistance to improve their standard of living. In such projects, studies indicate that communities have taken a leading role in planning, organizing, mobilizing labour and resources, and implementing the projects. Studies by

Kleemeier (2000), Msukwa (1990) and Warner, et al (1983) on community water schemes in Malawi are a case in point. These studies observe that communities initiated the construction of the water schemes after realizing the water problems in their areas. The village heads would submit a request to the District Commissioner (DC) for a project. These studies also noted that communities took the primary responsibility of constructing and maintaining the water schemes and the government only provided technical support. Another study by Ng'ong'ola et al (2001) on MASAF projects shows that community participation in identifying projects to be constructed in their areas empowered them to manage their own development programmes. However, this study observes that politicians played a vital role in sensitizing communities about the need for development projects and that community development assistants were instrumental in mobilizing communities. The study also notes that in such areas, different committees were set up to plan, organize, and mobilize villagers and resources for the implementation of the project. The study observes that communities also benefitted from MASAF projects as the infrastructures constructed in their areas reduced distances from their homes. Additionally, communities benefitted through employment offered on construction sites of these projects. It should be noted that high community participation in these projects contributed to the high sustainability of the projects.

Some of the studies on MASAF projects have concentrated on community participation in the selection of the community projects. Vajja and White (2008) carried out a study of community initiated projects under social funds in Zambia and Malawi. The study focused on whether the social funds projects build social capital. It observed that social

funds projects are not producers but consumers of social capital. However the study found that social funds enhance the capacity of communities and empower them to act on the development challenges they face. The study also indicates that although the social funds projects benefitted the entire communities, selection of the projects both in Malawi and Zambia was done by prime movers. A prime mover is a professional found in a community (e.g. headmaster or a health worker), a community leader (Vajja and White, 2008), or what Kishindo (2003) calls people who are aware of the better quality life. Hence, such projects did not address what communities wanted. Another study focusing on how community projects under MASAF were selected was conducted by Kishindo (2000). This study observes that selection of the community infrastructure projects was done by development conscious leaders and this led to uneven distribution of the MASAF projects in the country.

Other studies have assessed the benefits of implementing community driven projects to rural communities. A study by Bloom et al (2005) on MASAF community driven projects assessed the level of benefits the projects provided to the poor and also how the projects contributed to pro-poor institutional development. The study found that MASAF provided benefits to the poor in terms of infrastructure development and employment in public works programmes. Apart from employment at construction sites, studies have shown that MASAF had a component aimed at addressing livelihood needs of the community members through income generating public works programmes. Moreover studies by Jimu (2008) and Bloom et al (2005), assert that MASAF implemented a money-for-assets programme in which rural households benefitted financially.

Studies have also shown that some communities have on their own initiated self-help development projects to deal with the socio-economic problems faced in their areas. However, these studies demonstrate that the success of these initiatives has come about because of external support. Jimu (2008), for example, shows that the piped gravity water supply project at Chingale in Zomba, Malawi, was initiated, planned and implemented by the community and government only provided pipes for the construction of the project. It was noted that the project was a success because it was initiated, planned and implemented by the community itself. Another study by Kishindo (2003) focused on four community projects implemented in sub-Chief Kachenga's area in Balaka district. The study states that three of these projects (a school, a health centre and a road) were initiated by community members themselves while the piped water project was a government initiative. The study shows that the community initiated projects could not have succeeded without external help. The school project for example was successful due to support from the Anglican Church and the Christian Service Committee while the road construction was supported by the World Vision International, but the health centre project failed because the Ministry of Health did not offer support.

3.3.2.2 Livelihoods Projects

The livelihoods for the rural population in Malawi are highly dependent on land. But land holdings in Malawi are small due to high population density as, on average, rural households have 1.2 hectares of land. The average per capita land holdings are 0.33 hectares of land. While plot size per capita is highest in the Northern Region (0.43 hectares), it is lowest in the Southern Region (0.29 hectares) followed by the Central

Region with 0.35 hectares per capita (Republic of Malawi and World Bank, 2006). Such small land sizes can hardly sustain the livelihoods of the rural communities. Apart from the rapid population growth, rural livelihoods in Malawi have also been affected by the reduction in farm labor supply due to HIV and AIDS, degradation of soil fertility, inconsistent access to farm inputs and lack of viable alternatives to income sources (Sahley et al, 2005). These factors have, therefore, influenced rural households to diversify livelihood strategies to improve their living standard.

One of the strategies that contribute to the promotion of livelihood of community members in Malawi is the formation of cooperative societies. The history of the cooperatives in Malawi dates back to the colonial period. The colonial administration introduced cooperatives in 1946 to incorporate native Africans into the cash economy, to boost production and export of cash crops and to pay taxes (Kadzola, 2009). The main area of focus for these cooperatives was production of agricultural produce, processing and marketing. The cooperatives faced a number of challenges during this period. Some of these challenges included low levels of education; lack exposure for the members; inadequate resources and time for pre-formation education to teach members their rights and obligations; and poor management skills. In spite of these problems a high number of cooperatives were registered. It was during the period of Dr. Banda that the cooperative movements were abolished because they were considered as a political threat and they were replaced by government parastatals (Kadzola, 2009). However, during the 1970s the government, NGOs and the donor community encouraged the formation of Savings and Credit Cooperatives (SACCO). Since then, the Government of Malawi has been

promoting the establishment of cooperatives in an effort to help small scale farmers to improve their living standard (Nkhoma and Coforte, 2011). In 2002, the government put in place plans to facilitate the formation and development of farmer cooperatives and associations in order to boost agriculture productivity and reduce poverty among smallholder farmers (Malawi Government, 2002). The introduction of the cooperative movement in Malawi is therefore, one of the strategies for promoting the livelihood of smallholder farmers.

Studies on livelihoods in Malawi have focused on the relationship between policy implementation and poverty reduction in rural areas. Ellis and Ade Freeman (2004), for example, carried out a study on rural livelihoods in Malawi, Kenya, Tanzania and Uganda to provide information for lesson learning on the implementation of the Poverty Reduction Strategies (PRS). At the household level, this study found that securing a good standard of living is an accumulative process that requires household's ability to build assets and diversify across farm and non-farm sources. However, the study established that multiple commodity and enterprise taxes on small scale business conducted at village level stifle the generation of income that can highly contribute to the enhancement of livelihoods for the poor. Another study by Ellis et al (2003) found that many rural families in Malawi face severe constraints and have limited ability to secure a good standard of living. One of the contributing factors to such constraints is decentralized government. The study found that the decentralized government has become part of the problem for the rural poor to migrate out of poverty through taxation of monetized activities in rural communities. It was found to be the case that "multiple commodity and

enterprise taxes levied at the village level suppress cash generation at the very point where it can make the most difference to the livelihoods of the poor” (Ellis et al, 2003, p. 1508). Other problems the study identifies as preventing rural households from improving their livelihoods include shocks such as floods and dry spells, small and declining farm sizes, lack of livestock, prevalence of food deficit from own production even in normal years, low monetization of the rural economy, little cash in circulation, and institutional blockages.

Matchaya’s (2010) study of the National Smallholder Farmers’ Association of Malawi (NASFAM) identified and analyzed factors that motivate smallholder farmers to join the association. According to the study, NASFAM is a farmers’ cooperative which aims at reducing poverty of smallholder farmers through helping them to market their products, access credit and access input and output markets. The study found that participation in NASFAM and similar producer organizations is dependent on human capital, transaction costs, household-level of endowments and farming systems. This study shows the role of the association in reducing poverty in rural areas. Another study focusing on the role of associations or cooperatives in reducing rural poverty was conducted by Kurokawa et al (2010). The study focuses on OVOP assisted associations or cooperatives in Malawi, Thailand and Japan. The OVOP movement is based on three principles which are production of acceptable products and services using local resources, self-reliance and creativity, and local human resource development. In addition, the movement also emphasizes enhancing local ownership of the projects. The study found that communities in Malawi initiate their own development projects and then submit proposals to OVOP

secretariat for assistance. This study found that most projects that accessed support through OVOP initiatives enhanced the livelihoods of rural poor and increased their income. However, the study found that there were a limited number of OVOP ongoing projects in 2008 due to marketing difficulties and financial problems.

Few studies have been conducted on community initiated livelihood projects in Malawi. Of these studies, some have illustrated the critical role played by a change agent in initiating self-reliant projects, and that these projects have benefited from community participation and external support. A study conducted by Booyens and Crause (2009) on Andiamo Cooperative in Balaka District shows how an agent of change, in the form of a parish priest, facilitated a development process that values and empowers local people while drawing on and using external resources. Under this cooperative, local people have come to own and control their development initiatives and are able to enhance their livelihoods. This study demonstrates that a community, with the help of a change agent, can initiate, manage and implement successful development projects. Another study by Hill, Nel and Illgner (2007) on Ngolowindo Horticultural Cooperative in Salima district indicates that members of the cooperative developed an attitude of self-reliance through participation in a project initially implemented by government with support from the European Union (EU). The study shows that the project which is currently technically supported by a European NGO, known as Co-operation for the Development of Emerging Countries (COSPE), has managed to improve food security and reduce poverty at the household level through small scale agricultural production and income generation.

ZAPCO is another example of the livelihood projects initiated by the community members themselves. The cooperative was initiated by community members themselves to enhance their social status. Members of the cooperative engage in vegetable farming, collecting and marketing processed vegetables in order to improve their livelihoods. ZAPCO aims at making vegetable farming and processing as the major economic activity for all farmers in the area⁴. ZAPCO now produces a lot of products with support from other organizations and the Government of Malawi.

3.4 Conclusion

Findings from these studies have shown that self-reliant projects have been implemented to improve community infrastructure and rural livelihoods. It has been shown in some of these studies that local communities have been able to initiate self-reliant development projects. In some instances a change agent has played a vital role in the initiation of community development projects. These studies have indicated some conditions such as poverty, hunger and unemployment that influenced local communities to initiate self-reliant development projects in order to improve their standard of living. It is also evident from these studies that outsiders have played a vital role in the initiation, resources mobilization and implementation of most of the community self-help projects. The studies have also indicated local community development projects have benefitted from community participation through provision of labour, material resources, knowledge and skill. According to these studies, it is the participation of local people in self-reliant projects and the use of local knowledge, skills and resources that would ensure

⁴ http://www.ovop.org.mw_zakudimba.html

sustainability of such projects. The findings from these studies therefore show that community self-reliance is attainable. However the success of self-reliant development projects is dependent on participation of local people in such projects and the support provided by outsiders.

CHAPTER FOUR

STUDY METHODOLOGY

4.1 Introduction

This chapter presents the research methodology that was used in this study. The chapter has five sections. Section 4.2 presents the research design while Section 4.3 describes the sampling methods for both quantitative and qualitative research methods used in this study. Details of how data was collected for the study are explained in Section 4.4. The data analysis exercise is presented in Section 4.5 and Section 4.6 describes what was followed in the study to ensure quality data.

4.2 Research Design

The study used a mixed methods research. The mixed methods approach was adopted because the type of data that was collected in this study required that both quantitative and qualitative methods should be used. It was expected that using this research design would provide a better understanding of the phenomenon under study and enhance confidence in the findings than if one method only were to be used. The qualitative methodology was used to identify conditions that influence communities to initiate self-reliant projects and to explore mechanisms that ensure sustainability of such projects.

This methodology used key informant interviews, observation and focus group discussions (FGDs) for data collection. On the other hand, the study used quantitative methodology to assess whether self-reliant projects improve household income and food security. The quantitative methodology used the IHM for data collection. Qualitative and quantitative research methodologies were used sequentially starting with the qualitative one. Data collected through the qualitative method allowed interviewers to have a better understanding of the economy of the study area before the individual household interviews were conducted.

4.3 Sampling Methods

The sampling methods used in this study were based on the research methodologies that were used and the study population. The quantitative methodology used random sampling method, multi-stage cluster sampling method and a census method. On the other hand, the qualitative methodology used purposive and quota sampling methods.

4.3.1 Quantitative Sampling Methods

The quantitative methodology employed the random sampling method, multi-stage cluster sampling method and census sampling method. In this study, random sampling was done by putting pieces of paper on which names of participating zones or clubs were written in a box. The contents were shuffled and then the required number of pieces of paper was picked. Although ZAPCO clubs are found in three TAs (Chimaliro, Thomasi and Bvumbwe), the study was only conducted in TA Chimaliro and TA Bvumbwe due to difficulties in accessing the clubs in TA Thomasi. It must be recalled that ZAPCO clubs

are divided into six zones spread in these three TAs and that TA Bvumbwe has five zones (Thunga Chizunga zone, Bvumbwe Central, Makungwa, Manjolo and Chawe zones). Two clubs (Misitu Iwiri and Titukulane clubs) were randomly selected from Bvumbwe Central B zone to participate in the quantitative study. As explained above, random selection of the two clubs in TA Chimaliro involved picking from a box two pieces of papers bearing the names of the clubs.

A multi-stage cluster sampling method was used to select zones and clubs in TA Bvumbwe which has five zones. Through this sampling method, three zones were randomly selected. These were Thunga Chizunga, Chawe and Bvumbwe Central A zones. From the selected zones, the following clubs were randomly selected: Tilimbike, Matenje, Chamwabvi and Umodzi clubs. From the selected clubs, a census method was used to select club members for the administration of the questionnaire. The census method ensured that all the members of the population participated in the study. The method was used because on average the population of club members for each club is seven. A total of 38 club members were interviewed. Based on the average membership of ZAPCO clubs, data was randomly collected from eight households of nonmembers in areas surrounding the selected clubs. However, data from one participating non member was not included in the analysis because the participant provided conflicting information. It was expected that data from non members would be compared with data collected from ZAPCO members in terms of disposable income to determine the effects of membership to clubs on household income and food security.

4.3.2 Qualitative Sampling Methods

The qualitative methodology used two sampling methods. These were purposive sampling method in which participants were selected based on the knowledge they have about ZAPCO and quota sampling which was aimed at including all groups of the population in the study area. Purposive sampling was used for conducting key informant interviews. Prior to the selection of participants for key informants and FGDs, information was gathered on organizations that have been supporting ZAPCO and the performance of different clubs. Through purposive sampling, people with knowledge about how ZAPCO started, knowledge of the local economy and external support given to community initiated projects in the area were selected and interviewed. Both purposive and quota sampling methods were used for selecting participants in the FGDs. Quota sampling was used in order to select clubs based on the performance of the members and gender representation, while purposive sampling was used to select participants who were involved in the management of ZAPCO. The FGDs were conducted in three clubs. FGD is a method of collecting in-depth data on specific topics involving a group of people who share common experiences, problems, or concerns and are willing to reveal them in a group atmosphere (Kumar, 1987). The selected clubs were Nambuna club in TA Chimaliro and Chembekezo and Nkhalango clubs in TA Bvumbwe. In the selected clubs, all members participated in the FGDs owing to the small membership composition of the ZAPCO clubs. Another FGD was conducted in which participants comprised leaders of ZAPCO. In total, four FGDs were conducted in this study.

4.4 Data Collection Exercise

The data collection team comprised three members and one was a supervisor. The data collected related to the period between October 2009 to September 2010. This was because preparation for planting of most major crops such as maize, tobacco and cotton in the area starts in October and the agriculture year ends in September. However other major crops, such as vegetables (including maize) and potatoes, are grown all year round. Farmers use irrigation for these crops and they are planted both in *dimbas* and upland. As such data for this study was collected covering all the year round.

4.4.1 Quantitative Data Collection

The quantitative data collection used the IHM. The method has been piloted in several countries focusing on single villages but has been used on a large scale in Malawi (Seaman and Petty, 2010). The IHM interview technique requires that before conducting the household interviews, the interviewer has a good understanding of the local economy such as income sources, seasonality of work, types of crops and estimated outputs and prices. For purposes of this study, interviewers were required to have knowledge of the support given to ZAPCO clubs. In addition, the interviewers were aware of benefits of being a ZAPCO member. Risks of omitting income sources were minimized by adapting the interviews to the local economy and using income classification. Additionally, during the interviews, questions were asked in a way that allowed respondents to recall the income from agricultural production and all other sources of income. Since ZAPCO members use irrigation for agricultural production throughout the year, the interviews focused on month by month of the reference period (2009-2010). The interviews were

kept short (about an hour) so as to avoid interviewer/interviewee fatigue. Interviewers conducted four interviews each day to ensure data quality and overcome mistakes resulting from interviewer exhaustion. The data collected was checked for completeness and consistency on the same day. In case of incompleteness or inconsistencies households were visited again to resolve the problem(s). A semi-structured interview form was used to collect data on household demographic characteristics such as age and sex of household members, household income, crop production, employment, club membership, reasons for joining the clubs and whether people had benefitted from their membership to the clubs.

During the interviews data on returns from agricultural production was collected based on local units of measurements such as sacks, buckets, basins, plates and *mitanga* in order to minimize recording errors. This data was converted into standards measures using conversion factors. However, expenditure data was not collected because it presents difficulties with recall errors and lengthens the interview (Seaman and Petty, 2010). Estimates of land measurements were done using acres as required by the IHM software. This data was later converted into standard metric measures using conversion factors. Food energy requirements were converted using standard reference sources and where equivalents were not available, estimates were done.

4.4.2 Qualitative Data Collection

The qualitative data collection exercise was conducted prior to the quantitative one in order for the data collection team to have knowledge of the economy of the area before conducting the quantitative data collection exercise. The qualitative data collection exercise used FGDs, key informant interviews and observation as data collection methods.

4.4.2.1 Focus Group Discussions (FGDs)

FGDs are used to evaluate issues under study, to gain insight about people's opinions or attitudes on these issues and to understand group processes (Esterberg, 2002). In this study, FGDs were used to collect data relating to conditions that influenced community members to start working in groups which later resulted in the formation of a cooperative. Data on mechanisms for ensuring sustainability of ZAPCO and the importance of working in groups was collected through FGDs. Specifically FGDs data was collected on the following: conditions that influenced communities to form clubs; reasons for community members joining clubs; outside help; roles of club members; how ZAPCO is organized and managed; use of local knowledge and resources; ways of ensuring sustainability of clubs; production and products of the project; and accessibility to the markets. There was a moderator and a note taker who facilitated the FGDs. While the moderator guided the focus group sessions the note taker took notes on what and how it was said by participants. An interview guide was used during the sessions. The interview guide had a list of main topics or themes that were covered during the FDG sessions and it served as guide for the facilitator in covering the topics and keeping the

discussion on track. The focus group sessions were tape recorded because it is difficult to write down exactly what people say and who has said it (Bryman, 2008). The recorded sessions were later transcribed.

4.4.2.2 Key Informant Interviews

Key informant interviews involve enquiring and seeking out experts for interviews (Chambers, 1994). In this study key informants were those people with relevant knowledge about issues that were discussed. These issues were related to knowledge about ZAPCO, the economy and livelihood strategies of the area and agricultural practices. Four key informants were interviewed in this study and these were the agricultural field officer for Dwale Extension Planning Area (EPA), the Assistant Director of Agricultural Research Services at Bvumbwe Agriculture Research Station, the Chairman of ZAPCO and the Assistant Cooperative and Liaison Officer for OVOP in Thyolo District. Data collected through the key informant interviews provided information on local conditions that led to the emergence of the cooperative. Specifically, through the key informant interviews, data was collected on conditions that influenced farmers to form clubs which eventually led to the formation of ZAPCO, seasonality, crops grown in the area, external support given to ZAPCO, market information for crops in the area, types of employment found in the area and benefits for farmers to belong to farmers' clubs. Key informant interviews were also used to collect contextual information on the local economy that complemented insights from other methods of data collection. As in the FGDs, an interview guide was used for collecting data during key informant interviews.

4.4.2.3 Observation

Some of the information in the study was obtained through observation. During the visits to clubs to conduct FGDs, field observations of members' farms and *dimbas* were conducted as well. Observations were also made on the operations of ZAPCO. This included the following: vegetable plants in the *dimbas*, tomatoes planted in green houses and processing of farm products in the factory and processed vegetables. While the good quality of the crops indicated that farmers were using good farming methods, large quantities of vegetable crops cultivated by farmers and high quality of the processed products were taken as evidence that farmers had the potential of gaining more income from the sales and improve their standard of living.

4.5 Data Analysis

This study used more than one research method and the data collected from the different methodologies were analyzed differently. While the quantitative data was analyzed using the IHM software, the qualitative data was analyzed using content analysis. The results from different research methodologies were triangulated in order to come up with the final results of the study.

4.5.1 Quantitative Data Analysis

After the administration of the questionnaires, quantitative data was checked for completeness and consistency before being entered into a specialized IHM software ready for analysis. This software was chosen because it allows measurement of the household's food income and cash income and is based on individual analysis of

households. The IHM software was developed by Evidence for Development in United Kingdom and an Open Source project to standardize the software is underway at Chancellor College of the University of Malawi to widen access to it. The IHM data is standardized as disposable income per adult equivalent. Disposable income represents cash remaining to the household after it meets its basic food needs. The remaining income is expressed as adult equivalents (AE) in order to make comparisons between households with different demographic profiles. The AEs are weights that are assigned to individual household members depending on their needs based on age and sex. The disposable income per adult equivalent is calculated as follows (see also Khangamwa, 2010):

1. Calculation of the of the household food energy requirement is based on age and sex. The IHM uses the standardized nutritional requirements tables published by World Health Organization (WHO) as reference standards for calculating disposable income per AE. The estimated food energy requirement for adults, for example, is 2500kcal/day while the food energy requirement for children ranging from 12-18 years old is 2300kcal/day (World Health Organization, 1985).
2. In the case of households that cannot meet their basic food needs through their own production, the disposable income is calculated first by:
 - a) Finding the food energy the household requires to purchase using cash income earned in the referent year to meet the shortfall. This is found by subtracting the food energy produced and consumed by the household from the household's food energy requirements.

- b) Then finding the household disposable income by subtracting the cost of purchasing food energy in (a) above from the household total cash income throughout the year.
3. The disposable income is then standardized by the number of AE in each household.

The AEs allow direct comparisons to be made between households of different sizes and age composition. In this study, household's income was calculated in terms of the money remaining to the household after the household had satisfied its food energy requirements at a standard rate from its own food income or purchase of food using its cash income. Since in IHM disposable income represents cash remaining to the household after it meets its basic food energy requirements, it means that households that have positive disposable income are food secure. The disposable income for households with at least a member belonging to the cooperative was compared with the disposable income for households with non members to assess the impact of membership to the clubs on household income and food security.

4.5.2 Qualitative Data Analysis

The analysis of qualitative data started after some data was collected right in the field. The information obtained from such analysis shapes the next steps in the data collection process (Bryman, 2008). The data was analyzed using content analysis. Content analysis involved a systematic analysis of the issues that were emerging from the data collected during the FGDs. According to McIntyre (2005), content analysis involves a systematic

description and analysis of information recorded during data collection. From this analysis, themes were developed based on the data collected and the objectives being addressed in the study.

4.6 Quality Assurance Mechanisms

The study engaged well qualified and experienced research assistants to collect accurate data. One of the research assistants is a degree holder while the other has an advanced diploma from Chartered Institute of Marketing. Both of them once worked as research assistants and have been engaged in data collection exercise before. After each day's work, data was checked and cleaned the same day. In case of problems that needed meeting the interviewee again, consultations were done the following day to resolve the problem.

4.7 Ethical Considerations

In this study permission was sought from leaders of the cooperative before data was collected from the club members. Club members who participated in the study were asked to take part in the study and no one was coerced to participate. In addition, participants were told that they were free to opt out at any time if they wished to discontinue with the study. The information from this study was solely used for the purpose of the study and used questionnaires were securely kept and would be destroyed after submission of the final version of the thesis.

4.8 Conclusion

The chapter has presented the research design and data collection methods that were used in this study. A mixed methods research and a combination of data collection methodologies were used to provide rich data that would enhance confidence in the findings of this study. Participants in the study were sampled in a way that they provided information that was representative of the entire membership of the cooperative which was also vital for enhancing confidence in the findings of the study. To ensure data quality, the study used well qualified and experienced enumerators and ensured that each enumerator administered not more than five questionnaires per day. The study used IHM for quantitative data collection and analysis which enabled the study to generate income remaining at household level after satisfying its food energy requirements.

CHAPTER FIVE

RESULTS AND DISCUSSIONS

5.1 Introduction

The chapter presents the findings of the study. Results from both quantitative and qualitative research methodologies are presented. The quantitative findings present statistics relating to demographic characteristics, sources of income and income profiles of the households which participated in the study. The qualitative results present details on conditions that led to formation of clubs and the cooperative, and mechanisms that were put in place to ensure sustainability of the cooperative.

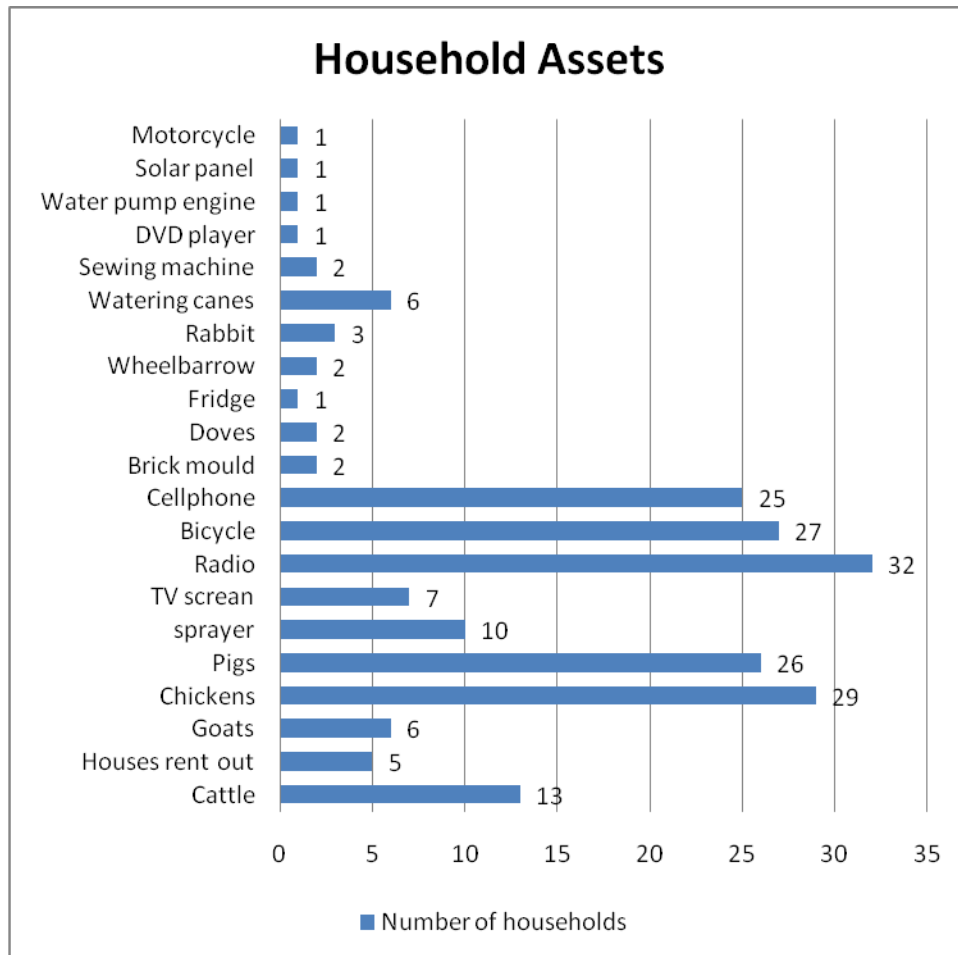
5.2 Socio-economic Profile of the Area

Thyolo has a severe land shortage owing to large tea estates that were established by commercial farmers in the district. However, it is common practice among households in the area to possess multiple parcels of upland plots. On average, the estimated total upland holdings for those who participated in quantitative study in the area is 1.37 acres per household while, on estimated average, a household possesses 0.28 of an acre for *dimba* cultivation. It should be noted that these measures were based on farmers' estimates about their land sizes. These measures were, however, far from landholdings of 1.57 hectares per household that Chirwa et al (2003) found in Thyolo and the national average of 1.2 hectares per household (Republic of Malawi and World Bank, 2006).

People practice both rain-fed and irrigation farming. Irrigation farming is done during the dry season in the *dambos* or upland near water sources, mainly for production of vegetables.

ZAPCO members are horticultural farmers and vegetable production is one of the major sources of livelihoods. About 93.3 per cent of people who participated in this survey were engaged in vegetable production. Apart from vegetable production, members of ZAPCO also cultivate other crops such as maize, potatoes, beans, groundnuts, cowpeas and pigeon peas. In addition, a higher percentage of members of ZAPCO derive their livelihoods from livestock production than those who do not own livestock. About 72.0 percent of members interviewed kept chickens while 41.9 percent and 27.9 percent kept pigs and dairy cattle respectively. Some of the off-farm livelihood activities found in the area are bicycle hire, petty trade and farm labour. Figure 5.1 summarizes the household assets for ZAPCO members who participated in the quantitative study. For more details on household assets see appendix 2.

Figure 5.1: A summary of household assets for ZAPCO members



Source: Computation from study data

Figure 5.1 shows different types of assets accumulated by households with at least a member of the cooperative. In this figure, more than half of the households have accumulated the following assets: bicycles, pigs, chickens, radios, and cellphones. The figure shows that 13 out of 46 households who participated in the study had cattle and 5 out of 46 who participated in the study had a house for renting out.

According to the World Bank such types of assets would help the poor to construct their pathways out of poverty as, during the times of crisis, the assets could be traded on the market (World Bank, 2000).

5.3 Demographic Characteristics of the Study Population

The quantitative data collection covered 46 households and 38 of these were households in which at least one person was a member of the cooperative. In the remaining 8 households, all household members were non members of the cooperative. The total number of people enumerated in these households was 275. Out of the 275, 13.1 percent were aged between 0-5 years; 29.5 percent of the people were aged between 6-14 years; 42.5 percent, were aged between 15-45 years; 11.6 percent were aged between 46-65 years while 3.3 were over 65 years. Of the 38 cooperative members who participated in the survey, 20 were males and 18 were females. Out of the 38 households with at least a cooperative member, 31 were male headed while 7 were female headed.

The dependency ratio was another characteristic of the population that was calculated in this study. The dependency ratio defines the proportion of the economically active members of the household or population to those members who are not economically active. If the rate of dependency ratio is zero it means no member of the household or population is economically inactive. The households that participated in this study had an average dependency ratio of 1.1 ranging from 0-3. This means that in these households there were more dependants than economically active members.

Table 5.1 describes the relationship between the dependency ratio and disposable income in this study.

Table 5.1: Dependency ratio and disposable income per adult equivalent (AE)

	Quartile	Quartile	Quartile	Quartile
	1(N=11)	2(N=11)	3(N=11)	4(N=12)
Average				
dependency ratio	0.31	0.71	1.18	2.3
Average disposable				
income per AE	45,932.64	29,904.73	72,892.09	41,654.10
Range	0-0.5	0.5-1	1-1.5	2-3

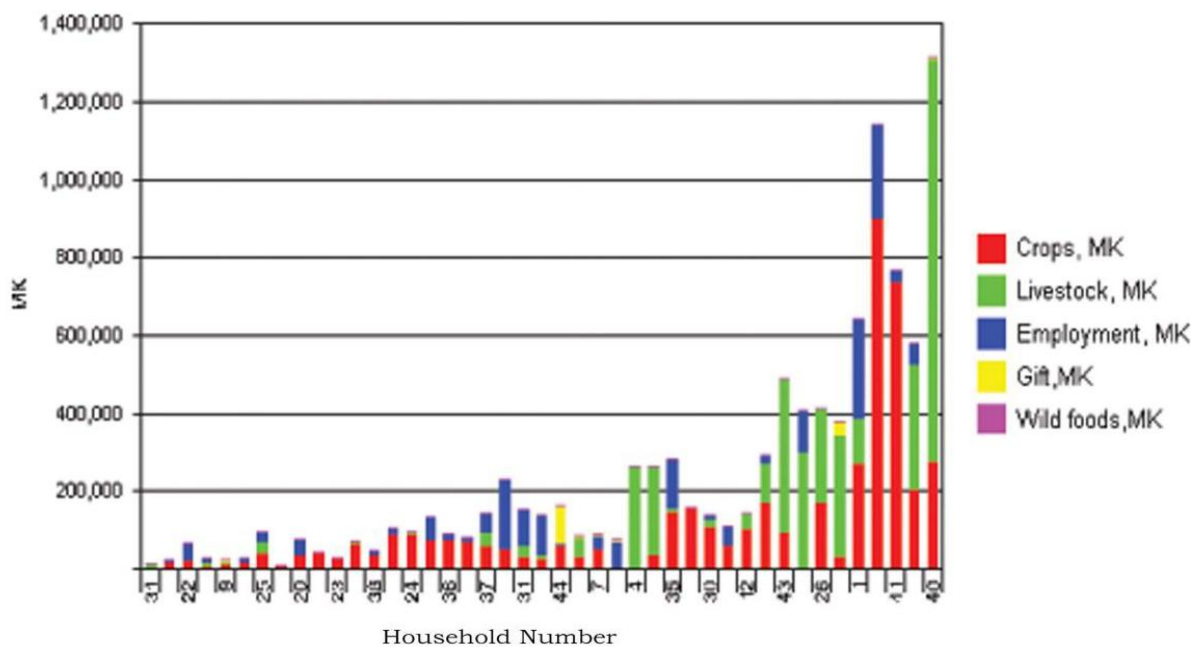
Source: Own calculation from study data.

Table 5.1 shows that on average, households with the lower dependency ratio (0.31) had an average disposable income per AE of MK45, 932.64 which is higher than households with higher average dependency ratio such as households in quartile 2 (0.71) and households in quartile 4 (2.3) with average disposable income per AE of MK29,904.73 and MK41,654.10 respectively. However, if disposable income per AE for households in quartile 3, for example, with average dependency ratio of 1.18, is compared to the average disposable income per AE for households in quartile 2 with dependency ratio 0.71, it shows that average disposable income per AE decreases with decreasing dependency ratio. This indicates that in this study disposable income is not affected by the number of economically inactive members of the household.

5.4 Sources of Food Income and Cash Income

People in the study area earn their livelihood in various ways. Data has been summarized and presented to describe main sources of households' food income and cash income in the study population. The data shows that there are five sources of income in the study area. These are crop production, livestock production, employment, remittances (gifts) and from natural sources. Figure 5.2 provides a summary the major sources of income in the study area.

Figure 5.2: Sources of Food and Cash Income for the Households



Source: Own computation from study data.

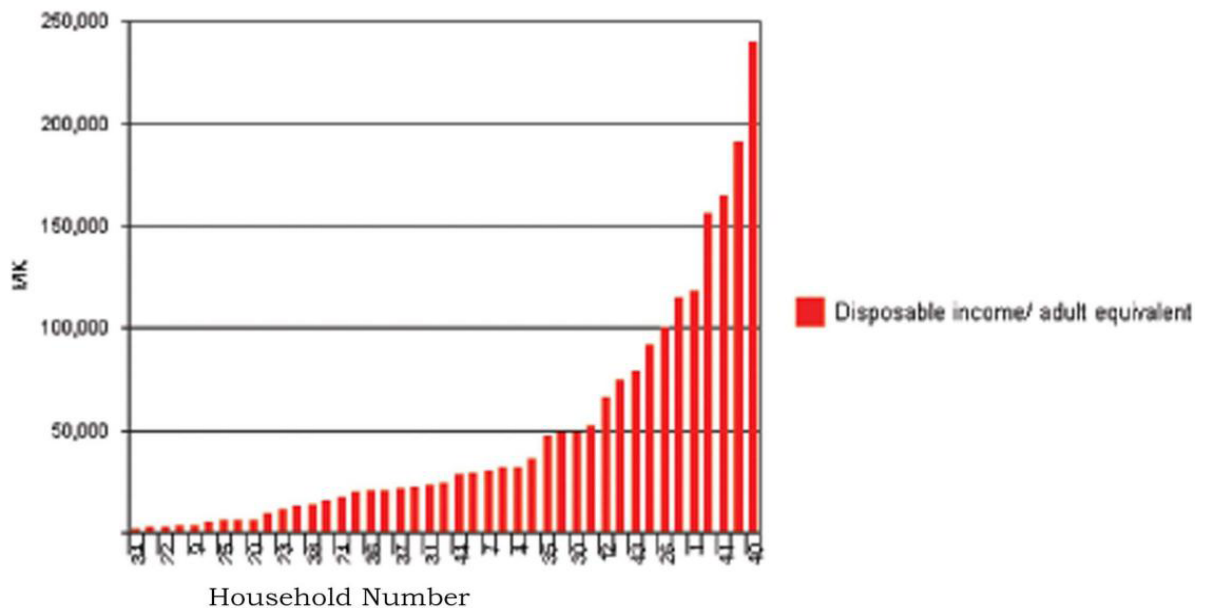
Figure 5.2 shows that crop production, livestock production and employment are the major sources of income in the study area. But of the three sources of income, the majority of the households earn their income from crop production. The figure also

shows that more wealthy households earn their income from livestock production than households who are not well to do. It should be noted that this area has dairy farmers and forms part of the Blantyre Milk shed area. Most of the wealthy farmers who earn their income from livestock are in fact dairy farmers. The study also shows that very few households earn their income from remittances (gifts) and very small amounts are derived from wild foods by households.

5.5 Profile of Household Income

As discussed above, the IHM measures the disposable income per AE. The disposable income is the income remaining after a household meets its basic food needs. Based on the disposable income, the IHM ranks households in ascending order starting with the one with the least amount of income remaining to the one with largest amount of disposable income. If a household is above 0 it means that it had income remaining after meeting its basic food needs while those which are below 0 were unable to meet their basic food requirements from their own production. Figure 5.3 shows the amount of money remaining after a household had met its basic food requirements among households that participated in the study

Figure 5.3: Households' Disposable Income per AE



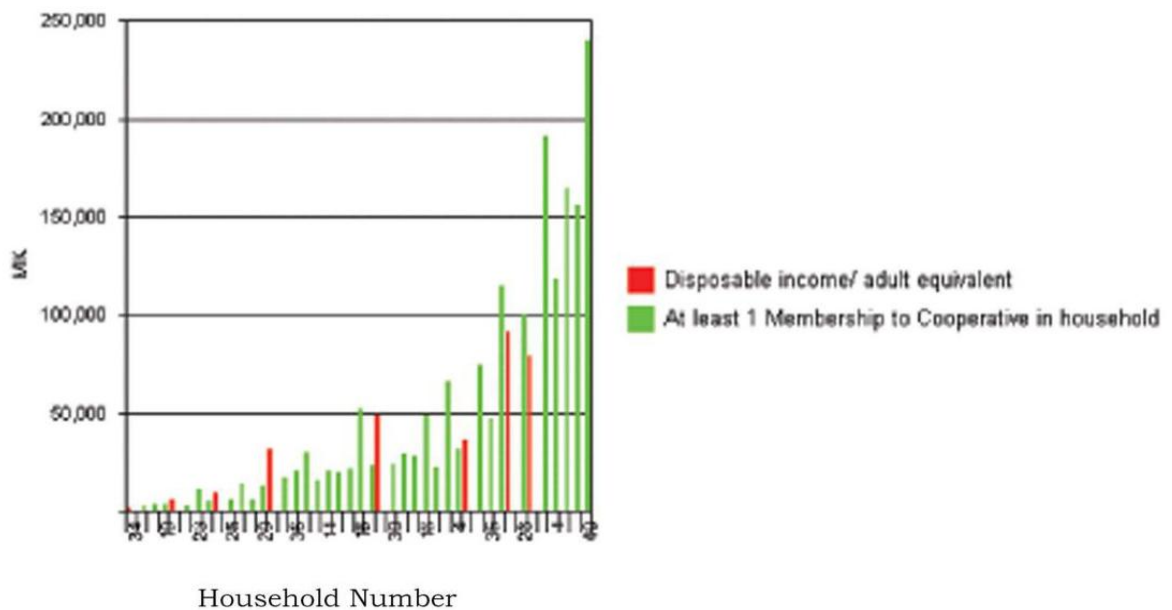
Source: Own analysis using study data

From Figure 5.3 above, all households in the study population were above the 0 line. This means that all the households were able to meet their basic food energy requirements. Therefore all households in this study population were food secure. Results in the figure above also mean that after meeting the basic food needs the households in the study population had income remaining.

The third objective of the study intended to assess whether self-reliant projects improve household income and food security. Therefore, the results in Figure 5.3 have already shown that the study population was able to meet its basic food requirements and had income remaining for other needs. However, since the study population comprises both members of the cooperative and nonmembers, it is imperative to depict a population of cooperative members that is food secure and has disposable income.

Therefore, Figure 5.4 shows disposable income for households in which at least one member belonged to ZAPCO.

Figure 5.4: Disposable income per AE and Cooperative Membership



Source: Own computation from study data

Figure 5.4 above shows that all households in which there was a member of the cooperative were above 0. The figure also shows that these households were food secure and had income remaining after meeting their basic food energy requirements. However, since Figure 5.3 above shows that all households that participated in the study had income remaining after meeting their basic food requirement, it is therefore, difficult to attribute having disposable income and being food secure for cooperative members to the effects of being cooperative members. It should be noted that the area where the study was conducted is close to the City of Blantyre and tea estates in Thyolo, as such people in the areas are able to find employment in the city and the tea estates. Moreover, the city

provides a ready market for the produce of smallholder farmers in the study area. But it should also be noted that very few non members participated in the study to make meaningful comparisons with members of the cooperative.

5.6 Cooperative Membership, Non-membership and Income from Agriculture

Agriculture is the main source of livelihood in the study area. Both cooperative members and non members were engaged in agricultural activities. The main sources of income from agriculture were crop and livestock production. Vegetable production was one of the major crops from which both members and non members earned their income in the study population. Table 5.2 shows agriculture sources of income.

Table 5.2: Household Agriculture Income Sources and Disposable Income per AE

Income sources				
	Crops	Livestock	Vegetables	Disp.income/ AE
Average income				
(MK)	115,882.93	105,070.86	68,173.02	51,577.50
Standard Deviation	184,843.31	243,237.52	110,802.10	62,275.06
Max. Value	903,800.00	1,033,750.00	614,000.00	239,851.00
Min. Value	0	0	0	1,939.00
Median	57,080.00	4,550.00	40,270.00	26,289.00
Number	45	45	45	45

Source: Own calculation

Table 5.2 above describes the agricultural sources of income in the study population. The table shows that crop production is the major contributor to household income in the study population. The high average income and standard deviation under vegetable production indicates that vegetable production contributes highly to the income realized from crop production among households that participated in this study. It should be noted however that both members and non members participate in vegetable production. Other sources of income include employment and remittances. However, since the cooperative promotes vegetable production amongst its members, it can be implied that membership to the cooperative (through vegetable production) contributes to improved household income and food security among the members.

5.7 Conditions that Led to the Formation of Clubs and the Cooperative

A number of factors catalyzed the formation of farmers' clubs in the study area which later formed an association and then a cooperative. In this study these factors have been categorized into two groups. These are internal factors and external factors.

5.7.1 Internal Factors

The internal factors include internal constraints experienced by small scale farmers in the study area which perpetuated their poor living conditions and the attitude and initiative of the local farmers themselves. The adverse internal conditions prompted the smallholder farmers to find ways of improving their living standard.

5.7.1.1 Initial Conditions

Communities in the study area have been growing vegetables as a source of income for a long time. But the income generated from vegetable production could not improve the standard of living for most smallholder farmers. This was the case because smallholder farmers generally had little knowledge and skills on horticultural production⁵. As a result vegetables produced were of poor quality and could not generate high income on the market and small scale farmers were unable to improve the living standard of their families. The smallholder farmers started working in groups so that they could share information on new farming methods and easily access extension services to improve their vegetable production. Another reason why they decided to work in a group context was that as individuals they were not able to access markets. In one of the focus group meetings it was said:

As small scale farmers, we have been practicing vegetable farming for a long time but we were not able to harvest quality produce that could fetch more money on the market. But through farmers groups, we have learned modern methods of farming and marketing our produce and now we are able to produce good quality tomatoes.

Access to markets by small scale vegetable farmers in the area has been a challenge for a long time (Bioversity International, 2011). As a result, large quantities of produce were rotting, sold at give away prices or were just given to livestock. It transpired during the focus group meetings that farmers formed clubs so that through clubs they could find markets for their vegetable produce. It should be noted that initially farmers formed clubs and members of these clubs formed an association which later became a cooperative.

⁵Kamangira, pers.com. 2011

During the FGDs participants pointed out that they wanted members of different clubs to be under one organization in order to increase chances of market accessibility. Similarly, the results from IHM showed that the majority of small scale vegetable farmers (20 out of 38) joined the cooperative to find markets for their produce. The farmers believed that through these markets they could sell their produce at reasonable prices and hence improve the living standards for their families.

5.7.1.2 The Initiative of Small Scale Farmers

Farmers were sensitized by extension workers to the importance of working in groups. Thereafter, farmers themselves formed clubs which later became an association and then a cooperative. Through their interaction with OVOP officials, the cooperative members thought of setting up a factory after noting that markets for their raw vegetables were scarce and that raw vegetable fetched low returns. They felt that having a factory would mean adding value to their vegetables which would earn more income and easily find markets. When asked whose idea it was for them to have a factory for processing their farm produce, this was what transpired in one of the focus group meetings:

It was our idea to establish a factory. We realized that we had nowhere to sell the tomatoes we were producing in large quantities. Large quantities of the tomatoes we were producing would get rotten because of not finding the market. We thought of adding value to our products using our own hands or machines we would solve this problem and we would earn more money.

ZAPCO members produce *mfutso*⁶ which is sold at OVOP antenna shop in Lilongwe. An antenna shop, a term associated with OVOP, is a shop where products from OVOP supported clubs, associations or cooperatives are sold. However, due to the delay in receiving money from sales of this commodity, the members thought of constructing a shed, using bamboo poles, at Bvumbwe Trading Centre where ZAPCO products such as *mfutso* could be sold. After noting this initiative, the Ministry of Trade and Industries offered to provide support. Hence an antenna shop for the cooperative is under construction at Bvumbwe Trading Centre with support from the ministry.

5.7.2 External Factors

External factors also contributed to the initiation of self-reliant projects in the study area. These factors included the roles played by the District Commissioner (DC) in the district, traditional leaders, and agricultural officials from Bvumbwe Research station and Dwale Extension Planning Area (EPA).

5.7.2.1 The Role of the District Commissioner and Traditional Leaders

Malawi was the first country in SSA to introduce OVOP activities in 2003. The OVOP programmes are included in government plans and are expected to empower rural communities and contribute to the Millennium Development Goals (MDGs). The OVOP programmes, under the Ministry of Local Government and Rural Development, help producer groups to add value to their raw products. According to Kurokawa et al (2010), OVOP programmes in Malawi cover a number of productive activities such as dairy

⁶*Mfutso* is dried vegetables. At ZAPCO *mfutso* does not only constitute dried vegetables but also dried tomatoes and onions. Solar driers are used to make *mfutso* at ZAPCO.

processing, fish processing, vegetable production and processing, rice milling, honey production and mushroom production. In Thyolo district, the DC as a state agent played the role of a change agent in influencing community members in the area to form clubs (producer groups). It transpired during an FGD that the DC mobilized traditional leaders and urged them to sensitize their subjects on the introduction of OVOP programmes and the importance of forming clubs. After being sensitized by their traditional leaders, interested community members formed clubs.

5.7.2.2 The Role of Agricultural Officials

The presence of Bvumbwe Research Station in the area also acted as an agent of change that influenced small scale farmers to form clubs. The research station used to work with small scale farmers from surrounding villages who conducted demonstrations on new crop varieties that were produced at the station. These small scale farmers were encouraged to work in groups so that they could access funding from organizations to assist in their agricultural production⁷. From these clubs an association was formed which became a cooperative afterwards.

Extension workers also played the role of change agents for the formation of clubs in communities that surround Bvumbwe Trading Centre. Through interaction with extension workers from Dwale EPA, small scale farmers were sensitized on the importance of

⁷Kamangira, pers.com. 2011

working in groups⁸. During one of the focus group meetings this is what participants said on the role of extension worker on the formation of clubs:

The extension workers encouraged us and informed us that those who are in groups can easily access training, extension advice, loans and other forms of assistance from other organizations.

Such information helped farmers realize that they could share ideas and skills on good agricultural practices and access government's and other organization's support when they are in groups. Farmers also became aware that working in groups would help them easily access extension services, loans and markets for their produce.

5.8 Mechanisms for Ensuring Sustainability

Various activities are implemented and participatory approaches to management of cooperative are applied to ensure that ZAPCO can sustain itself even after external support is withdrawn. The activities are aimed at building the capacity of the members and the cooperative itself and intensifying the use of local resources as a mechanism to ensure sustainability of the initiative.

5.8.1 Management of the Cooperative

The overall management of the cooperative is carried out by the board also referred to as the executive committee. The board is responsible for planning and monitoring implementation of activities of the cooperative. The sub-committees and ordinary members are responsible for implementation of various activities sanctioned by the

⁸Midiani, the Agriculture Extension Officer for Dwale EPA, pers.com. 2011.

board. However each sub-committee is responsible for specific tasks. The production and quality control sub-committee, for example, is responsible for ensuring that farmers are able to produce high quality products and in quantities that will meet the requirements of the cooperative. This sub-committee will also be responsible for ensuring that the output from the factory is of good quality when it starts operating. All disputes arising among members of the cooperative are handled by the legal affairs and disciplinary sub-committee; while the finance sub-committee is responsible for all the assets and finances of the cooperative. A qualified accountant assists the finance sub-committee in managing the finances. The cooperative also has a marketing sub-committee which works in collaboration with the secretariat to find markets for the produce. A secretariat was set up to assist in managing the affairs of the cooperative. The secretariat comprises a manager, an accountant and a stores clerk.

5.8.2 Participation of Members

Participation of members in running ZAPCO is one of the mechanisms that have made the cooperative a success. There are different ways through which the members participate in the activities of the cooperative. Some of such modes of participation include participation in decision making, participation in production and contribution of resources.

5.8.2.1 Participation in Decision Making

ZAPCO members fully participate in running the affairs of the cooperative. The cooperative is led by a board headed by a chairperson. The board is democratically

elected by members of the cooperative after every five years. The six zones into which ZAPCO clubs are divided are represented in the board. The board, which also serves as executive management of the cooperative, meets weekly. As a measure of increasing participation of members in running the cooperative and also for the board to be accountable to the members, a general meeting is convened annually to which all members are invited to participate. During the annual general meeting annual reports on the general operations and finance of the cooperative are presented and discussed. The board may call for a meeting to which all members are invited when important decisions have to be made as was reported in one of the focus group meetings:

The board may call for a general meeting and all members are invited. The agenda is circulated in advance to all members so that they know and prepare for what will be discussed during the meeting.

The involvement of members in decision making and management of the cooperative builds a sense of ownership for the project. This will then ensure continued production and functioning of the cooperative.

5.8.2.2 Participation in Production and Ownership of ZAPCO

One of the requirements for a farmer to qualify for membership into a ZAPCO is to have a *dimba* or a garden where vegetables are cultivated. Members produce vegetables and fruits that are supplied to markets identified by the cooperative. The cooperative then deducts 3 percent from the total sales of the supplied commodities to be used for administration. Members have been trained in production of processed products such as *mfutso*, juice, jam and tomato sauce. While *mfutso* is currently being produced using solar

driers, juice, jam and tomato source will start being produced when the factory starts operating. Involvement of the members in production of processed products enhanced their knowledge and skills that will ensure continued operations of the cooperative. However, production of these processed products is under the supervision of the production sub-committee. Members of the production sub-committee have been trained in production of fruit juice, jam, tomato source and *mfutso* using factory machines. It is also worth noting that when the factory starts operating members are the ones to be supplying raw materials (vegetables and fruits) for production of processed products.

During the construction of the factory building, members were making contributions in form of cash and labor. This is what transpired in one of focus group meetings:

During the construction of the factory building with support from OVOP, members contributed labour and material resources. Some of the material resources members contributed included bricks, sand and quarry stones.

Members also contributed cash for paying guards that were deployed at the construction site. These contributions have also strengthened a sense of ownership for the project which is important for its continued survival even in the absence of external support.

Members have been key in the growth of the cooperative at various stages. As discussed above, it was their own initiative to set up clubs which later formed an association and then a cooperative. The cooperative was therefore established by its members and is managed by the members themselves. It was evident from the focus group meetings and key informant interviews that various initiatives that the cooperative undertakes are

originating from the members themselves. Such initiatives include the formation of clubs, building a factory and having an antenna shop. ZAPCO is a limited company with its members as shareholders. The fact that members are the sole shareholders of the cooperative has created a strong sense of ownership amongst them. This was evident from what transpired during a focus group meeting said:

The company and equipment in the factory are ours. When the equipment breaks down it is our responsibility to fix them. We will ensure that we even buy equipment for standby, especially those that wear out quickly, for our factory not to stop functioning.

Such a sense of ownership for the initiative is likely to contribute to the sustainability of the ZAPCO. In addition, participation of members in the implementation of activities has also contributed to strengthening the sense of ownership for the initiative.

5.8.3 Empowerment of Members

Empowerment mechanisms are in place at ZAPCO which would ensure continuity of the project and reduce dependency on external support. Apart from the participation, the cooperative members have been empowered through development of the infrastructure, attendance of training and provision of equipment and technical support.

5.8.3.1 Infrastructure Development

The first infrastructure development for the cooperative was the construction of a factory building and installation of machines with financial support from OVOP. The factory will ensure that farmers add value to their products so that they fetch higher income on the market. The increased income will enable farmers to acquire inputs and increase their

crop production. During FGDs members were of the view that the factory will ensure that they have a ready market for their farm produce. The members will be selling the produce to the factory to be processed into final products such as juice and jam. Moreover members take the factory as their own and therefore will make sure that break down of the machines in the factory is repaired using income generated from the sales of factory products. The construction of a factory will therefore make a positive difference in the living conditions of ZAPCO members when it starts operating.

The second infrastructural development is the construction of ZAPCO's antenna shop with funding from the Ministry of Trade and Industry. The antenna shop will be operating like fresh food supermarkets and will be stocking farm produce of the members of the cooperative. This will, therefore, broaden the spectrum of the market where club members will be selling their farm produce and factory products. This will ensure that farmers' produce is sold at reasonable prices and does not get wasted through decay, left unharvested, or given to livestock. Having a ready market for farm produce will encourage club members to increase their horticultural production, become more self-reliant and improve their livelihoods. This will therefore empower members of the cooperative economically and sustain their production.

5.8.3.2 Provision of Training

Training is important for equipping participants with knowledge and skills that would help to sustain development initiatives. Information collected during focus group meetings indicates that different types of training were offered to members of ZAPCO.

The aim was to empower members to successfully manage and implement activities of the cooperative. Members of the cooperative were trained in the following: leadership and management skills with funding from United States Africa Development Foundation (USADF); business management and processing with funding from OVOP; and horticultural farming funded by Agricultural Research and Development Programme (ARDEP). The Ministry of Trade and Industry trained members in business management apart from linking them to other organizations that would render them support. Through the training members will be able to operate factory machines on their own, manage the cooperative and use new farming methods to improve agricultural production. Such training will therefore enable members to continue producing quality vegetables that would fetch good prices on the market and properly manage their cooperative.

5.8.3.3 Distribution of Equipment and Technical Support

The cooperative greatly benefitted from material and technical support provided by various organizations. It would have been difficult for ZAPCO to establish itself without such external support. Since the cooperative is not yet fully established, participants in focus group meetings and key informant interviews felt the need for continued external support. In one of the focus group meetings this was what transpired:

Those helping us should not stop until the factory starts functioning. When the factory starts operating we will have the market where to sell our produce. This time when our tomato buyers tell us they have bought enough and we should take back the remaining tomatoes, we will be taking our tomatoes to the factory and not home to get rotten or to be given to livestock. This will enable us have enough income for us to stand on our own.

However, the cooperative has already been technically empowered through the provision of equipment from different organizations. Some of the organizations that provided equipment to ZAPCO include ARDEP and OVOP. ARDEP supported the cooperative with motorized pumps, treadle pumps, green houses, and sprayers. These were distributed to clubs and are communally used at club level. The equipment is kept by the chairperson of the club and club members have access to the equipment when they need it. In addition, ARDEP donated a cold room to the cooperative which will be used for preserving products when the factory starts operating. The motorized pumps, treadle pumps, green houses and sprayers are directly used in vegetable production. While motorized pumps and treadle pumps have promoted irrigation farming, sprayers have improved the application of pesticides and green houses have enhanced the production of rain-fed tomatoes. Figures 5.5a and 5.5b show a green house and rain-fed green house tomato plants.

Figure 5.5a: Green House



Figure 5.5b: Rain-fed Green House Tomatoes



Figures 5.5a is a green house in which rain-fed tomato is planted while Figure 5.5b shows the rain-fed tomatoes in the green house. In the rainy season pest and disease attack for tomatoes is very high and green houses protect tomatoes from such attacks. It is for this reason that the tomatoes in Figure 5.5b look very healthy.

Apart from ARDEP, OVOP has also provided equipment support to the cooperative. However the OVOP support is in the form of a loan amount to MK6, 000,000 which will be repaid when the factory starts functioning. Two types of equipment have been provided by OVOP for processing factory products. These are the solar driers which are used for producing *mfutso* and factory machines which will be used for production of tomato source, jam and juice. The solar driers are currently being used and help to generate income for the small scale farmers.

The setting up of a secretariat has also strengthened the administrative capacity and improved the operations of the cooperative. USADF through National Association for Business Women (NABW) financed the creation of a secretariat for ZAPCO⁹. USADF also provided office equipment and pays salaries for the personnel (manager, accountant and stores clerk) at the secretariat. It is expected that when the cooperative becomes fully fledged the costs of running the secretariat will be the responsibility of the cooperative itself.

5.8.4 Use of Local Resources

Local knowledge, skills and materials are highly used by the cooperative members in vegetable production. Apart from reducing expenditure on inputs, the use of local resources empowers community members to sustain implementation of project activities. ZAPCO members use local resources such as knowledge, skills and materials for production of vegetables. It should be noted that local communities in the study area have

⁹Banda, chairperson of ZAPCO, pers.com, 2011

been growing vegetables for a long time. Long experience in vegetable production has infused in them vast knowledge and skills for vegetable production. Such knowledge and skills include identifying pest and disease attack, when to plant a particular crop, production of pesticides from local plants, preparation of manure and production of *mfutso*. It transpired during one of the focus group meetings that farmers who have more knowledge and skills in vegetable production within the clubs advise others on how best to improve their vegetable production as well:

We have skills for vegetable production as we have been growing vegetables for a long time. We know when the crop is attacked and by what pests or diseases during the time of the year. We know what to plant in order to have more profit at different times of the year. We advise one another, especially those that are less knowledgeable, in vegetable production.

Local materials are highly used in the production of vegetables among members of the cooperative. Most inputs and equipment for agricultural production are made within the communities or by the farmers themselves using locally available materials. Members of the cooperative use hoes for cultivation and water cans for irrigation, and these implements are locally made and sourced. Plant pests are treated by insecticides made by club members themselves using locally found *zitsamba*¹⁰. The insecticides are produced at no cost and are not poisonous. Farmers in the study area also produce manure on their own. Cooperative members mostly use compost manure and animal droppings instead of chemical fertilizer. The locally made manure is sometimes mixed with animal droppings collected from farmers' own *kholas* or bought from poultry farmers in the area. The use of local resources reduces expenditure on farm inputs and increases income from

¹⁰ Medicinal leaves

vegetable production. Additionally, the use of local resources reduces dependency on external resources and ensures continued production of crops.

5.8.5 Access to Markets

Production of vegetables is at risk in the absence of unreliable markets for members of ZAPCO. Mwandira (2003) contends that for horticultural production to be promoted, marketing and production improvements need to be considered simultaneously; particularly since horticultural produce have a short shelf life. As a result of failure to meet required quality standards and competition from large producers, smallholder vegetable farmers in the study area have been selling their produce at local council and roadside markets or to middlemen. The quality of their produce has not been high and the prices have varied considerably. However, there are reported cases of exploitation of small scale farmers by middlemen in Malawi as they dictate the price of the farmers' produce and buy at very low prices and in turn they sell at very high prices (see, for example, Chirwa et al, 2005; Takane, 2007). Members of ZAPCO have not been spared by these problems. Moreover, instead of directly buying from farmers, schools, colleges and hospitals are purchasing from vendors who buy from farmers at very low prices (Bioversity International, 2011).

During focus group meetings ZAPCO members also complained about exploitation by middlemen as it is the middlemen who set prices for the produce while in turn they sell at very high prices. For this reason, the cooperative is putting in place mechanisms to find markets for its members. The cooperative has employed a manager who is mandated to

find markets for the farmers' produce. A committee of club members has been created to be responsible for finding markets for the products of ZAPCO¹¹. As already discussed, members will have a ready market when the factory starts operating and after the completion of the ZAPCO antenna shop. According to the chairperson of ZAPCO, the cooperative is in the process of getting accredited by the Malawi Bureau of Standards (MBS) to meet the required standards of potential markets. It is expected that accreditation by MBS will increase the demand for ZAPCO produce. In addition, through the key informant interview, it was reported that the cooperative also finds markets through participation in trade fairs. Through such initiatives, therefore, the cooperative is expected to find markets for its products and farmers' produce. It is expected that increased market access will improve vegetable production and sustainability of the cooperative.

5.9 Conclusion

The chapter presented the findings of the study. The results of the study show that both households with and without members of the cooperative had income remaining after meeting their food energy requirements. Although there were no differences between members of the cooperative and non-members in terms of household income and food security, it is evident that self-reliance development initiatives will benefit members when the cooperatives becomes fully functioning. This will especially be when the factory starts operating and the cooperative meets the required standards of the Malawi Bureau of Standards. Members will have a ready market for their produce and will be

¹¹Banda, chairperson of ZAPCO, pers. com. 2011

adding value to their commodities. The qualitative results showed that internal and external factors influence members to embark on self-reliant initiatives by forming clubs which later formed a cooperative. The qualitative results have also shown that mechanisms are in place that will ensure sustainability of this initiative.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.1 Introduction

Local communities in Malawi have participated in development projects aimed at developing rural communities, fighting hunger and increasing household income. Studies have been conducted on participatory community development projects but most of them have focused on infrastructure projects initiated by outsiders. To my knowledge few studies have been conducted on community initiated self-reliant livelihood projects. This is what motivated this study.

6.2 Summary of the Study Findings

This study was aimed at examining conditions that lead to emergence of self-reliant projects and the contribution of such initiatives to livelihoods of a community. A mixed methods approach was adopted. This involved the collection of both quantitative and qualitative data. The qualitative method was used to establish conditions that catalyze self-reliant projects and identify mechanisms that ensure their sustainability. On the other hand, the quantitative data collection used IHM to establish whether self-reliant projects promote household income and food security. The study found that ZAPCO members are able to access adequate food for their households and have income remaining for other household needs. The members are able to access enough food and income through own

production using local resources. However, as a cooperative, ZAPCO benefits from external support especially in areas where it cannot manage on its own such as procuring factory equipment, training and other technical support. In this thesis, it is argued that local community members have the potential to improve their standard of living but require external support for what they are not yet able to do themselves.

The cooperative comprises of farmers' clubs which were formed by the local farmers themselves after becoming aware of the economic problems they were facing and resolved to act on them. The local farmers were conscientised through their interaction with agricultural officials and their village leaders. After conscientization, the farmers organized themselves into groups (farmers clubs) and through these groups, they were able to participate in planning, implementing and managing activities of the cooperative using their own human and material resources. In addition, through the clubs, local farmers were able to share knowledge and skills and also access external support and services.

The development of human capital played an important role for the success of ZAPCO as a self-reliant project. The study found that the success of ZAPCO, as a self-reliant initiative, is partly attributed to improved knowledge, skills and confidence of its members. The group members have accessed different types of training through external support and are also able to share these skills as members of the same group.

The study also found that ZAPCO members manage to produce enough yields to meet their households' basic needs and have surpluses for sale. Using own resources, ZAPCO members are able to produce enough to meet their food energy requirements and having income remaining that could be used for other needs. Support from outsiders played an important role to enable the local community members to be able themselves to improve their standard of living.

From these findings, it can be concluded that self-reliant development initiatives at the grassroots are attainable if certain conditions are met. Such conditions would comprise but not limited to the following: awareness by a local community or group of the existing socio-economic problems and the motivation to act to address the situation; ability to organize itself and set its own goals to address the problems, use of own human and material resources is important.

This study has explored the role of self-reliant development projects in contributing to livelihoods and income of the rural communities. Few studies have been conducted in this area in Malawi. Therefore, the study contributes to the limited literature available on self-reliant livelihood development projects.

6.3 Problems, Limitations and Future Direction of Research

Smallholder farmers in the study area and, more specifically, ZAPCO members, are always busy throughout the year as farm activities are carried out all year round. It was difficult, therefore, to meet some of the club members for data collection. On two

occasions, the data collection team had to reschedule the visits due to a funeral and a visit to ZAPCO by a sponsoring organization. The data collection team relied on cooperative members based at Bvumbwe ZAPCO office to direct or escort them to where clubs are located. As such, clubs located in TA Thomas were excluded from the study because the data collection team was told that it was difficult to access these clubs. Since the quantitative data collection in this study relied on participants recalling previous year records, this might have negatively affected the quality of the data collected. Hence some participants might have not given accurate information. The IHM software used for quantitative data analysis would not account for production costs incurred by farmers. If the production costs were included, the disposable income per adult equivalent would have been lower than it is. Further research could be conducted on farmer clubs' access to markets including supermarkets.

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APPENDICES

Appendix 1: Clubs that Make up ZAPCO

TA TOMASI

	Club	Number of Members
1	Kuunika	12
2	Chigudu	5
3	Chafuta	2
4	Mpenda	8
5	Sikaula	6
	Total	33

TA CHIMALIRO

	Club	Number of Members
1	Nambuna	6
2	Titukulane	7
3	Misitu Iwiri	7
	Total	20

TA BVUMBWE

	Club	Number of Members
1	Umodzi	7
2	Chisomo	16
3	Chamwavi	7
4	Chisawani	8
5	Chembekezo	5
6	Chinkwende	10
7	Matenje	7
8	Mwaiwathu	7
9	Nabomba	7
10	Nkhalango	9
	Total	83

Appendix 2: Household Assets

Household Assets

Number of items per household

	1	2	3	4	5	6	7	8	9	10	More than 10
Cattle	5	4	3				1				
Houses rent out	5										
Goats		1	2	1						2	
Chickens			1				4	1	2	2	19
Pigs	1	3	5	2		1	2	3	9		
sprayer	10										
TV screen	6	1									
Radio	25	6	1								
Bicycle	18	5	4								
Mbila				1			7				
Cellphone	9	14	1	1							
Brick mould	1	1									
Doves				1		1					
Fridge	1										
Wheelbarrow	2										
Rabbit					1	2					
Brewing utensils	2	2									
Watering canes		2				4					
Sawing machine	1	1									
DVD player	1										
Water pump engine	1										
Solar panel	1										
Motorcycle	1										

Appendix 3: The IHM Form
Individual Household Economy: ZAPCO

AGRICULTURAL YEAR Oct 2009-Sept 2010

Date:.....

Household #.....

Place:.....

Interviewer:.....

Interviewee:

1. Name of current household head: Record the name they would use for ‘official’ purposes

--

2. Details of all household members: Include everyone who eats and sleeps here; also include ‘part time’ residents ie family members who work away for part of the year but contribute to household income. Record each person's relationship to household head. Ask if any of the adults in the household are not able to work. Ask why? (eg too old, blind, chronically sick etc). Finally, ask if any household members died during the study period.

Name	Sch.	Sex	Age	Full time or p/time resident	If part time, approx how many weeks present per year?	Note any adult in the household who is not able to work	Did any household member die during this period? If yes, note their age, sex and month in which they died [eg 65 yrs, Male, March 2009]

3. Land: Include information for each plot

Type of land (eg upland, dimba)	Area of each plot	Area cultivated	What inputs were used?	Area rented from others last year	Area rented out to others last year
1.					
2.					
3.					

4. **List major assets ie items that can contribute to household income** (eg bicycle, plough, house for rental, brick mould, sewing machine, land for rental, mobile phone, radio, crop processing machine, ox cart, brewing utensils etc)

Asset	Number

5. **Production:** With the interviewee, make a sketch of their plot/s and indicate the size of plot/s, crops grown and quantity produced in the last full agricultural year. Use the back of this sheet and indicate Season 1/ Season 2 where relevant. Indicate crops grown and quantity produced. Fill in the following table, indicating total production, amount sold, other uses and amount consumed by the household. Do not attempt to convert local measures to kg during the interview. Check if 'sacks' are 90kg or 50kg.

Crop	Total Production local measure.	Total Production (Kg)	Amount sold	Sale price/unit	Month sold	Other uses eg given away, saved for seeds etc	Amount consumed by household(Kg)

6. Livestock and livestock products. Include all livestock and poultry

Animal	No.	Milk consumed	Milk sold-when & price?	Meat consumed	Live sales-when	Price/unit	Eggs consumed	Eggs sold/w hen?	Other e.g. animals given away; kg sold: when & price

7. Employment: List all sources of employment, for each household member.

Month	Work	Who?	How many days/month?	Total value of work/month
1 Sept 2009				
2				

8. Wild foods Is any wild food collected? Include total quantity consumed and sold

Food: name and if necessary describe type of food eg dark green leaves	Kg sold per year	Month/s sold & price	Total kg consumed per year	Other comments

9. Transfers: Include all sources including relief, support from relatives who are not part of the household, neighbours etc

Source of assistance: NGO, neighbour, church, relative, government relief	Type of assistance. If food, record food type e.g. maize, cassava etc	Quantity: if food, total kg. If cash, total per year	If food, quantity sold	If food quantity kept for own consumption	Other information eg when assistance was received

10. Other food transfers: check if any food is gained by children or others eg gleanings after the harvest; begging etc

Food	Total kg consumed per year	Other comments – eg when the food is given to the family

11. Other sources of income not yet recorded eg from property rental, hire of oxen/ox plough, company pensions, other employment benefits etc. **Cross check for any remittances from ‘part time’ members of the household. These should be noted in the employment section of the form.**

Source of income/benefit	Value per year	Other information eg when income was received

12. Credit and loans

Source of credit	Purpose of loan	Value of loan	Repayment per month	Total repayment

13. Inputs

Membership of ZAPCO

Reasons for joining	Benefits of participation	Membership fee	Outside support/support agents