WOMEN POVERTY IN ZAMBIA, INCIDENCES AND CAUSES: A CASE STUDY OF SMALL-SCALE RURAL AGRICULTURAL WOMEN OF KALOMO DISTRICT, ZAMBIA

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Abstract

Women poverty debate has been part of the global poverty debates since the 1970s. Many research reports and publication on poverty reveals that women are disproportionary poorer than men (Jazairy et al 1992, World Bank 2000c, Momsen 2004). The incidences of poverty are high among rural women farmers than in urban area. The women poverty differential between rural and urban areas is attributed to the economic activities the said poor are involved in. Women farmers are said to be poor because they record low agro-yields and that this is the result of low productive asset ownership among them.

This study shows that there is widespread poverty among small-scale rural agricultural women of Muziya and that poverty is of different types. The major causes of the widespread poverty among women of Muziya is due to a number of shocks, among them are cattle mortality and morbidity, lack of farm inputs, ill health and poor rainfall patterns. These have resulted into low production among women farmers. The majority of the poor small-scale women of Muziya fall in the extremely poor category and belong to different households, are of different marital status, and have different land sizes.

However, the cause of the widespread poverty does not lie only in low agro-production but rather low production recorded from various livelihood sources. The productivity differential from the various livelihood activities among small-scale rural agricultural women of Muziya lie in the investment and type of livelihood activities small-scale rural women are involved in as well as asset holding particularly cattle.

Declaration

I hereby declare that this thesis is the result of my own research except for the references cited which I have duly acknowledged. It has not been presented anywhere in part or in full for the award of any degree.

……..

Getrude Siachiyako

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Abbreviations

ACMP	Agriculture Credit Management Program
ACP	Agricultural commercialization programme
AFC	Agriculture finance company
AIRF	Agriculture Input Revolving Fund
APC	Agricultural Producer Cooperatives
ARMB	Agricultural Rural Marketing Board
ASIP	Agricultural Sector Investment Programme
ASP	Agriculture Support Programme
CBHCC	Community based health care center
CCs	Credit Co-ordinators
CPRC	Chronic poverty research center
CSCRF	Crop Storage Construction Revolving Fund
CMA	Crop Marketing Authority
COZ	Credit Organization of Zambia
CBOs	Community Based Organisations
CSO	Central Statistics Office
CSPR	Civil Society for Poverty Reduction
CUSA	Credit Union and Savings Association
DAC	Development Assistance Committee
DBZ LTD	Development Bank of Zambia limited
DCUs	District Cooperative Unions
DFID	Department for International Development
EPAPB	Eastern Province Agriculture Produce Board
EPCU	Eastern Province Cooperative Union
FAO	Food and Agriculture organization
FELDA	Federal Land Development Authority
FGMB	Federation Grain Marketing Board
FRA	Food Reserve Agency
FSLF	Fertilizer Support Loan Facility
GAD	Gender and Development
GART	Golden Valley Agriculture Research Trust
GMB	Grain Marketing Board
IFAD	International Fund for Agriculture and Development
IFPRI	International food policy and research institute
LAB	Land Agricultural Bank
LPO	Local Purchase Order
MACO	Ministry of Agriculture and cooperatives
MACO-FSP	Ministry of Agricultural and Cooperative Fertilizer Support Programme
MAFF	Ministry of agriculture, food and fisheries
MCB	Maize Control Board
MCU	Muziya Cooperative Union
MCRF	Market Credit Revolving Fund
MCDSS-FSP	Ministry of community development and social services

	Fertilizer support programme
MFNP	Ministry of Finance and national Planning
NAMboard	National Agricultural Marketing Board
NAP	National Agricultural policy
NGOs	None governmental organizations
PA	Participatory Assessment
PAM	Programme Against Malnutrition
PEA	Participatory Extension Approach
PCUs	Provincial Cooperative Unions
PFLF	Peasant Farming Loan Fund
PME	Participatory Monitoring and Evaluation
PNA	Participatory Need Assessment
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
RAMB	Rural Agriculture Marketing Board
RRA	Rapid Rural Appraisal
SALCRA	Sarawak Land Consolidated and Rehabilitation Authority
SAP	Structural Adjustment Programme
SDDP	Strategic District Development Plan
SPCU	Southern Province Cooperative Union
T &V	Train and Visit
UNDP	United National Development Plan
USAID	United States Agency for International Development
VEGs	Village Extension Groups
WAD	Women and Development
WFP	World Food Programme
WID	Women in Development
ZADB	Zambia Agriculture Development Bank
ZCF/FS-CCS	Zambia Cooperative federation Financial Services-Co Operative credit services
ZCF-FS	Zambia Cooperatives Federation-Financial Services
ZNCB LTD	Zambia National Commercial Bank
ZNS	Zambia National Services
ZSIC	Zambia State Insurance Co-operation Limited

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CHAPTER ONE

1.1 Introduction

Poverty remains one of the main challenges that continue to confront Zambia even in the 21st century. From being one of the most prosperous country in Sub-Sahara Africa at independence, Zambia has experienced a sharp decline, a clash of its economy, which has had an adverse effect on the quality of the life of its people. A significant decline was recorded during the 1970s due to the rise of oil prices, the fall of the copper prices at the world market, and failure of the country to adjust its policies in response to the economic decline. This was followed with increased foreign borrowing to maintain the same standard of living of the average Zambian. From 1975, the country started facing serious economic difficulties, which have remained unsolved, despite the adoption of various corrective measures such as the import substitution and structural adjustment program. The adoption of the structural adjustment policies revealed for the first time the inadequacies of the these development strategies as the country continued to register increase in unemployment, persistent poverty, low income growth, deteriorating public services, large public deficits and huge foreign debt (Wold 1997; Central Statistics Office (CSO) 1998; Saasa 2003).

Today Zambia is among the poorest nations in the world. The World Bank classifies Zambia as the least developed country. The UNDP Human Development report 2005 ranks Zambia 166 out of the 177 countries having fallen from 130 in 1996 to 142 in 1997 to 146 in 1998. Its human index is lower than it was in 1975. A look at the social indicators reveals a declining trend over years, showing a worsening living condition of most of the Zambian. Life expectancy at birth is estimated at 37 years compared to 42 years in 1964 and 50 years the between 1970 and 1975. Mortality is among the highest in the world with infant mortality at 102/1000 live birth in 2003, under five mortality at 182 in 2003 and maternal mortality rate at 730/1000 live births between 1985-2003. Net primary rates enrollment have dropped from 79% in 1990/91 to 68% in 2002/03. Undernourished cases are widespread with about 49% of its total population in 2000/2003 classified under the under nourished, malnourished children under five was at

28% between 1995-2003, low birth weight for infant at 12% between 1998-2003, and stunted children at 49% (UNDP 2005).

Available literature on poverty incidences indicates that poverty level has steadily increased and deepened in Zambia since the1980s. National surveys on poverty and living conditions conducted by CSO in 1991, 1993, 1996, 1998, and 2000 use the money metric measure for poverty. According to the latest statistics, CSO (2004) estimates the poverty levels at 67% national wide. This was calculated using two poverty lines, the extreme poverty line and moderate poverty line. The extreme poverty line was constructed with reference to some minimum dietary requirement and calculated in relation to the monthly cost of food basket[1]. The moderate poverty line was constructed in relation to the monthly cost of all basic needs including non-food items. Both poverty lines were expressed in per adult equivalent terms (PAE). If a household or individual failed to meet the cost of food basket then he or she was classified as extremely poor. Conversely, if an individual meet the cost of the food basket but falls short of affording the cost implied by the moderate poverty line, that person was classified as being moderately poor. The total poor was arrived at by adding the extremely and moderately poor which was 47% extremely poor and 21% moderately poor (CSO 2004).

However, it is important to note that a poor nation does not imply a totality of poor people. The distinction between the poor nation and the poor people draws to the importance of examining who benefits from and who bears the cost of selected policy reform that restructure production environment and transform public expenditure. For what segment of the population does belt-tightening policy initiative mean more limited access to food, social services, and employment? For whom do they represent opportunities for increased access to credit, market, and incentives to expand production and thus accumulation and profit making opportunities? The differential class effects are critically important to disaggregate poverty levels for national, regional, as well as as for community, households and between men and women if we are to understand the unequal impact of national change and economic crisis on various constituencies. In light of this, poverty disaggregation between urban and rural areas shows greater concentration of poverty of various forms in rural areas than in urban areas. Poverty incidences stands at

[1] Food item included purchased food, own produced food, gathered food stuff, food received in kind

74% in rural areas against 52% in urban areas. These figures were arrived at by adding the moderately poor and extremely poor (Beneria and Feldman 1992, CSO 2004).

Differences in incidences and forms of poverty observed between urban and rural areas are associated to the livelihood activities the said poor are involved in. The high incidences of poverty in rural areas are linked to primary head employment in agriculture. Further poverty analysis by rural stratum reveals that the proportions of the poor are high among small-scale farmers, the figure stands at 76% against 64% among medium-scale farmers and 33% for large- scale farmers respectively. The people who even before the economic crisis had difficulties in providing necessities for their households feel the economic crisis more acutely. Out of the total poor people in rural agricultural communities, the majority are women and children (World Bank 1994, 1997, Alwang and Jorgensen 1996, Saasa and Carlsson 2002, Bigsten and Fosu 2004, CSO 2004).

The men and women poverty differential suggest that the poverty causal factors affect men and women differently. The number of poor women increased significantly during the implementation of structural adjustment programs (SAPs) in the 1980s. Although many women have advanced in economic structures, majority of them particularly those who face additional barriers, continuing obstacles hinder their ability to achieve economic autonomy and to ensure sustainable livelihood for themselves and those of their dependants (CSPR 2005).

1.2 Women poverty debate

The women poverty debate begun with the Ester Boserup's book "women's role in economic development" published in 1970. Since then a series of queries on this matter has been carried out. The intersection of development studies and women studies has shifted the theoretical paradigm from women issues to gender concerns. These frameworks comprise of three perspectives that are women in development (WID), women and development (WAD), and gender and development (GAD). As a response to Boserup's views that women has been left out in development, WID represents the view that modernization has not trickled down to benefit women and in some sectors has even undermined their social positions. It further sees modern societies as egalitarian and

democratic and traditional societies as male dominated and authoritarian, which discriminate against women (Moser 1989).

However, WAD developed in the late half of 1970s from the critiques of modernization and WID perspective. Proponents of this approach argue that the turning of subsistence economies into capitalist economies where production of goods for direct use were replaced by production for exchange has benefited men more than women. This has created an oppressive society for a working class excluding women because they are treated like commodities, part of the wealth, and resources controlled by a few. WAD advocates, places greater emphasis on classism than sexism, viewing gender inequality as part of class inequality perpetuated by the culprits of capitalism. These view the problem of women to be independent of men but rather of international structures, which are not equal. These concentrate more on the productive roles and gives scant information on reproductive roles in households. The analysis of women problem in isolation from the rest of the society has been viewed as incomplete. This led to the birth of gender and development (GAD).

GAD emerged in the 1980s to represents the convergence of various feminist views to challenge the inadequacies explanation of women's subornation in WID's liberal feminism and WAD's exclusive focus on a class analysis to account women's oppression. GAD provides a holistic approach to include all aspects of live and sees poverty as a complex process influenced by political and socioeconomic forces. It focuses on social relationships between men and women both in production of labor market, and reproduction in the households, both in informal and formal sector. It focuses on importance of patriarchy operations within and cross classes of the oppressed women and on how various state socioeconomic support systems discriminate against women (Razari and Miller 1995; Chow and Lyter 2002).

1.3 The problem statement

The women poverty debate, has resulted into number of research and documentation on the causes of poverty among women. Most of these researches or documents disaggregate the causes of poverty between urban and rural areas (Boserup 1970). In rural areas the high incidences of poverty among women farmers has been attributed to women's lack of

control over productive assets that results into low agro-productivity (Jazairy et al 1992, Saito et al 1994). In Zambia, several surveys and poverty assessment conducted such as the social dimension of adjustment priority surveys of 1991, and 1993, the poverty assessment 1994, living condition monitoring surveys 1996, 1998, and 2004 all reveals that most of women farmers are poorer than men. However, very little studies has been done on how these poverty causal factors (alluded to in Jazairy et al 1992, Saito 1994) affects women of various social status, different educational status, different marital status, different land holdings, de jure and de facto, and different family sizes. It seems there is a general belief that the poverty causal factors affect women farmers equally. This is a missing link in his in the women poverty debate. Furthermore, scant research and documentation on how various livelihood activities women farmers indulge in either perpetuates or reduces incidences of poverty. It is through this understanding that this study wishes to examine the prevalence and causes of poverty among small-scale rural agricultural women of Kalomo, Zambia in an effort to add to the available to this issue.

1.4 Aim

The purpose of this study is fourfold: first is to find out the prevalence of poverty; second to identify the degree and types of poverty among small-scale rural agriculture women, and thirdly identify the causes of poverty among small-scale rural agricultural women of Kalomo district, Zambia. The study will further look at the efficacy and inept of government agricultural policies in combating or promoting the incidences of poverty. The focus of the study is on small-scale rural agricultural women of Kalomo district, Zambia.

1.5 Objective

In order to achieve this, the following objectives need to be fulfilled.

- Identify the prevalence of poverty among small-scale rural agricultural women of Kalomo, Zambia.
- To find out the degree and the types of poverty experienced among small-scale rural agricultural women.
- To find out the views of women on the causes of the poverty and how these are linked to their involvement in agriculture.

- To find out from women if there are any other poverty causal factors that are not related to their involvement in agriculture.
- To find out from women how the government agricultural policies have either promoted or reduced the existence and extent of poverty among the small-scale rural agriculture women of Kalomo, Zambia.

1.6 Motivation of the study

Persistent poverty in rural areas, specially among small-scale rural agricultural women continue to hamper any effort to bring any development to such area, for people (women) are preoccupied with what they going to feed their family, what are they going to wear, what are they going to cover themselves and where are they going to sleep. This entails that poverty distracts the attention of the poor from focusing on to the future through investment and participation in economic development of their societies, but rather focuses their attention and efforts on meeting the daily needs. Despite the struggles the small-scale rural agricultural women go through in their efforts to meet the needs of their households, very little is known about the different survival strategies different social classes of small-scale rural women are involved in. The poverty assessment (PA), various living conditions studies as well as national surveys though recognize that fact that poverty is more prevalent among small-scale rural farmers and highlight the poverty causal factors; they talk very little about poverty among women and do not even disaggregate the poor women according to levels of poverty. This set the basis for the importance of undertaking this study. The findings among other things will help the various stakeholders involved in the fight against poverty to identify who the poor are, where they are found, what type of poverty is prevalent among which group of people, and what are the causes of poverty among them. Such information can act as a pointer to the adoption of the right policies, right poverty fighting strategies and adoption of measures directed towards the right target group.

1.7 Structure of the thesis

The thesis is organized as follows. Chapter two which follows after the introduction provides the profile of the study area and agriculture development in Zambia. Chapter three presents the conceptual and conceptual for understanding livelihood for small-scale

rural women. Chapter four looks at the framework for understanding poverty. The methodology chapter (five) looks at various methods used in data collection including sampling procedures, study population, ethical issues, limitation of the study, and validity of the study. Social stratification are provided in chapter six. Chapter seven explores farming among small-scale rural women of Muziya, Kalomo and shocks to agro-production and non-agro-production. Causes and incidences of poverty among small-scale rural agricultural women of Muziya are addressed in chapter eight, while the conclusion and way forward are presented in chapter nine.

CHAPTER TWO

DESCRIPTION OF THE STUDY AREA

2.1 Background information on Kalomo

Kalomo district is located in the southern party of the country and has a total area of 15000 square kilometres. It was the capital city of Northern Rhodesia in 1911 until 1935 when the capitalship was transferred to Livingstone. It lies in agro-ecological region i and iia which are further subdivided into three agro-ecological zones. These are:-

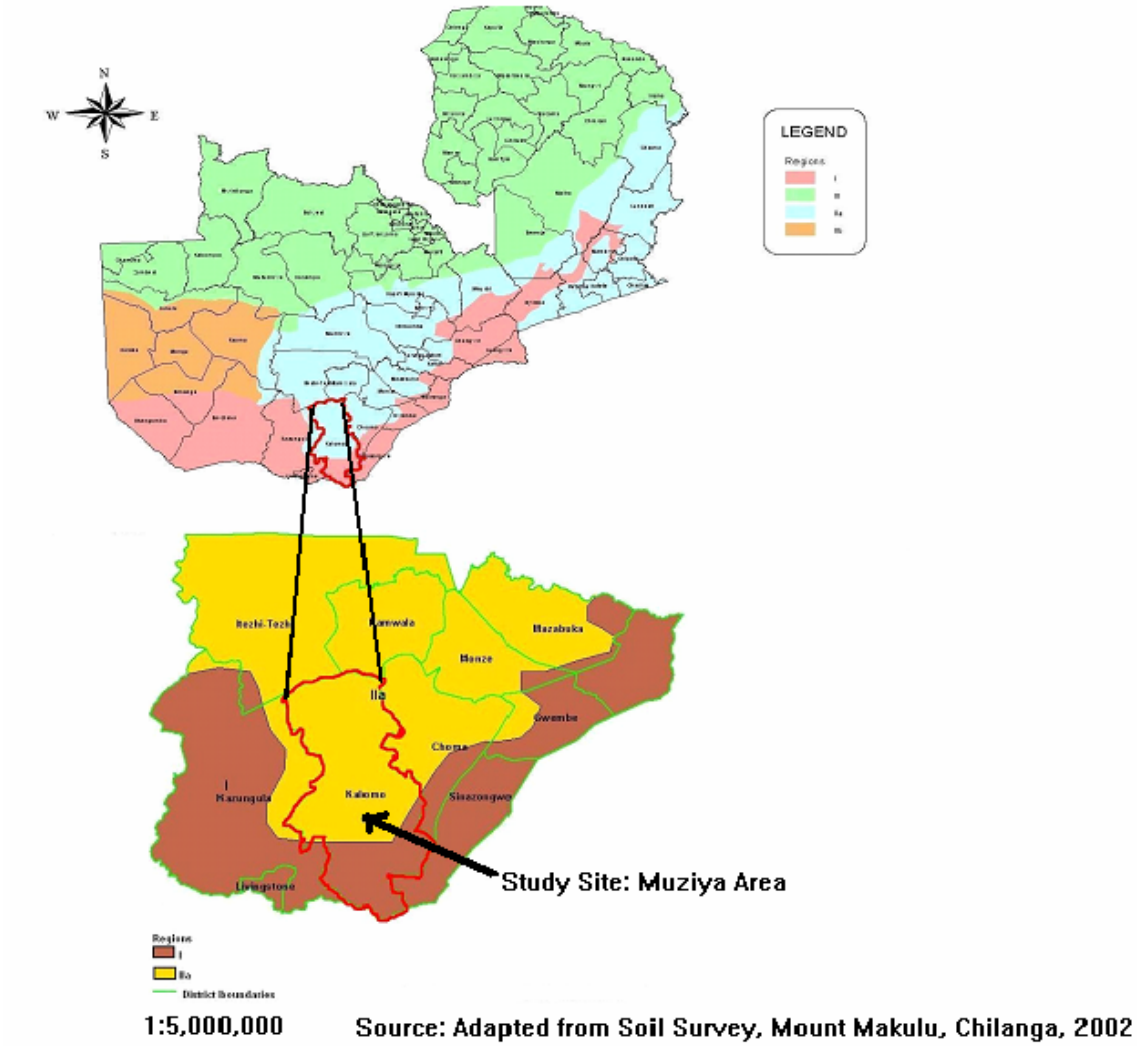
- The semi-arid which covers Siachitema and Chilala farming blocks north of the district.
- The plateau zone which covers the central farm block.
- The plateau/valley zone which covers Kanchele, Chikoyo, and Zimba farm blocks in the southern part of the district

Because of its geographical location, the district records between less than 800mm amount of rainfall to about 1000mm depending on the agro-ecological zone. The details of the geographical location of the study area is shown in the agro-ecological regions and study area map below. The growing season is between 80 to 140 days while the risk of drought ranges from high to high and medium to low.

Despite the fact that the district is one of the oldest, it has remained one of the most rural districts with about 93% of its people living in rural areas and the majority (90-95%) of its inhabitants depending on agriculture for their livelihood. The largest number of its farming community fall under small-scale farmers. The 1990/92 national census of agriculture for example recorded a total of 14,209[2] agricultural holdings. Of these 10,886 (77%) were small holders (GRZ/CSO 1994, Strategic district development plan (SDDP) 2000).

[2] Representing 25% of all agriculture holding in the province.

Map of Zambia, Agro-ecological Regions and Study area



Source: Adapted from Soil Survey, Mount Makulu, Chilanga, 2002

2.2 Position of agriculture

The agriculture sector is the key to the development of the Zambian economy and will remain the engine of growth for the next decade and beyond for a number of reasons. Among these is that in a country like Zambia where most manufacturing companies has been sold out, mining privatized, and the service industry fall in the private hands, agriculture remains the only window of hope. Agriculture will increase food security,

provide law materials for the establishment of industries, increase incomes in rural areas, promote non-farm economic activities, and reduce the food prices. Indeed Ashley and Maxwell (2001) argue that agricultural growth can lower food prices and thus provide cheaper wage goods, which stimulate industrial growth. Irz et al (2001) on the other hand contend that the benefit from agricultural growth are substantial and that for the poor, extra farm jobs and high wages may be the single most important benefit followed by the impact of additional spending in the rural economy and social welfare of reduced costs of food. Hazell in IFPRI (2005) further adds that contrary to the skeptics, the only viable prospects for most of the rural African and indeed in Zambia still lie in Agriculture.

Evidence from Zambia reveals that the agriculture sector generates between 18-20% of the GDP and provides livelihood to the majority of the Zambian population. The sector employs 67% of the labor force and remains the main source of income, and employment for rural women who constitutes 65% of the total rural population. Women farmers are the majority either in terms of sharing responsibility in male-headed households or by being solely responsible in female-headed households (Jazairy et al 1992, Saito 1994, Ministry of Finance and National Planning (MFNP) 2002a).

Table 1: Characteristics of the Zambian agricultural systems.

Characteristics	Small-small	Emergent	Medium	Large scale
Numbers (1999)	459,000	119,200	25,320	>40
Total Ha	0.5-9.0	10-20	20-60	>60
Crops grown	Food crops	Food/cash crops	Food/cash crops	Cash crops
Production focus	subsistence	Commercial/subsistence	Commercial/subsistence	commercial

Source Ministry of agriculture and Co-operatives (MACO) bulletin 2000.

The agricultural systems is subdivided into three categories based on size of the land under cultivated, type of crops being cultivated, and the focus of the production. These are small-small, emergent and commercial farmers. The summary of the composition of the agricultural systems are provided in Table 1 above. The majority of the farmers are small-small farmers. Saito (1994) argues that in Zambia, smallholders are the core of the agriculture sector. The sector contributes 60% of the total value of the national agricultural output and offers employment for 65% of the rural small-small farmers.

Women compose the majority of the smallholder household, provide most of the labor and manage many farms. They have the key role in revitalizing agriculture especially food production. Small-small women produce about 73% of the subsistence crops. This has led to the growing role of women in the economy (Sibalwa in Msango et al 2000, Saasa 2003).

2.3 Agriculture development

The agriculture sector in Zambia like any other sector has undergone changes over years in accordance with the general changes in the economic policies. Various agro-policies with specific objectives have been instituted over years. In light of these policies, various governments has put in place some interventions or support system to the agricultural sector. Some areas where this has been evident are agriculture marketing, pricing, credit provision, and extension services. This section discusses the development that has occurred in these four areas of the agriculture support system from colonial period up to date. In discussing this, various actors and institutions that have been involved in supporting the agriculture sector will be brought to light.

2.4 State and agricultural policy

2.4.1 Colonial Period

During the colonial period, agriculture was fulfilling a subservient, support role by providing a reliable and cheap supply of food for the urban population. This made investment by the state in agricultural restricted to specific areas and specific farmers as well as in total funds disbursed to the agricultural sector (Wood et al 1990).

2.4.2 Post Independence Reforms

After independence, the major aim of Zambian government on agricultural was to achieve food self-sufficiency and food security, increase growth in the agricultural sector, develop African small-scale commercial farming, reduce dependency on imported inputs in agricultural production and achieve a degree of regional balance in agricultural development. The goals pursued in this direction were based on the social diversification of production designed to increase the participation of African farmers in marketed agriculture. This was to reduce over dependence on the European commercial farmers

and improve the lives of the bulk of the rural population. The second goal was to increase involvement of the farmers in market agricultural in less agriculturally advanced provinces to redress economic imbalance and reduce out migration to Copperbelt and the line of rail. In pursuing these policies, the government had put into place different interventions. Among them, were guaranteed market for agro-products, credit facilities, extension services, and pricing on agro-products (Wood et al 1990).

The economic crisis that the country started to experience in the 1970s negatively affected the agriculture sector. Strong pressure emerged in the 1970s for the government to re-examine its agriculture policies with the view of making farming more dynamic. In response to this, the president declared the "Operation Food Production" in 1980 to address the food-cum-agriculture crisis. The goals were to achieve food self-sufficiency" increase agriculture export and creation of employment both in agriculture and through development of agro-based industries. This was to be achieved through the establishment of two 20,000 hectares state farms in each province and the Zambia national services (ZNS) rural reconstruction centres expanded their farming activities under state subsidies (Saasa 2003). This did not solve the problem, for this further drained the limited government resources through subsidies. The way out of this was the establishment of agricultural sector investment programme (ASIP) in 1996 with the help of World Bank.

This programme adopted an integrated sector approach as opposed to project approach and was market oriented. It was to provide an integrated and coordinated framework for the development of the agriculture sector. ASIP had five objectives and these were to ensure national and regional food security, generate income and employment, to ensuring maintenance of existing agricultural resources and improving them, contribute to sustainable industrial development and enhance agriculture's contribution to the national balance of payment. The strategies to achieve the objectives of ASIP focused on activities designed to enhance production through free market development, reduction of government role in commercial activity and provision of efficient public services. The intervention of ASIP were organized around sub-programmes which included extension, irrigation, research, agricultural training, animal production and health, agriculture finance, marketing, and trade, new product development, farm power and mechanization, policy and planning, standard and rural

investment funds. These created the broad outline for Ministry of Agriculture, Food, and Fisheries (MAFF) from 1996-1999. However, the delay in the implementation of these programme resulted in the failure of its completion as scheduled. This forced the government to extend it Implementation for another two years up to 2001 (MAFF 2001, MFNP 2002a, Ruralnet 2002).

By the year 2000, the government identified poverty reduction and economic growth as the overall objective for economic development. The ministry of finance and economic development initiated the formulation of the Poverty Reduction Strategy Programme (PRSP) that provided the national framework for poverty reduction and economic growth. Under this programme, agriculture's contributions to the components of the recommendations of PRSP were through the agricultural commercialization programme (ACP). The objectives of ACP were to promote development of an efficient, competitive and sustainable agricultural sector, which ensures food security and increased income in an effort to contribute to overall objective of the PRSP. This had to done through the facilitation of sustainable and broad based agriculture sector growth by focusing on increasing the generation of income from farming. This was to be attained through improved access to marketing, trade, agriculture-financing services for farmers, improved agriculture infrastructure, appropriate technology, and information on local and international markets. Its key operational principles included market linkages, commercialization, building a culture of business entrepreneurship and ethics among players in the sector and enhancement of stakeholder participation in the provision of demand-driven services. The services were to be provided through strategic partnerships between agribusiness enterprises such as out-grower schemes, commercial farmers, input suppliers, processors, traders, financial institutions and smallholder farmers. The main target group were commercially oriented farmers, particularly small-scale graduating from small-scale farming into commercial farming. The ACP was run from 2001 to 2004 and by 2004 the National agricultural policy (NAP) was instituted which was to guide the ministry of agriculture and co-operatives in accordance to the vision of the agriculture sector up to 2015 (MAFF 2001, Saasa 2003).

The objectives of NAP are to achieve food security for majority of the population, develop a commercialized agriculture with most farmers, promote a competitive and

efficient agriculture, develop a diversified agriculture, and sustainable agriculture. Its aim is to facilitate and support the development of a sustainable and competitive agricultural sector that ensures food security at national and household levels and maximizes the sector's contribution to the GDP. Maize, cassava, sorghum, millet, sweet potatoes, beans, and groundnuts are to be the target as food crop. Additionally, cotton, tobacco, groundnuts, paprika, cashew nuts, Soya beans, castor, sesame, marigold, herds, and spices are targets as cash crops. The evolution of the national agricultural policies and objectives influenced change in the agricultural support system. The areas were this has been prominent are marketing, credit facilities, extension, and pricing (MACO 2004).

2.4.3 Marketing

Marketing is the exchange of product for cash or other goods. In agriculture development, marketing is therefore the exchange of crops produced and harvested by farmers who owns it, and the passing it over to somebody who wants it in exchange for cash or other products preferably at a profit. Marketing of agro-products is in two forms; these are formal and informal models. In formal marketing system, agencies and organization appointed by the government are buyers of agricultural products. These operate under regulated conditions and buy crops at controlled prices. Informal marketing system by contrast includes a wide range of private enterprises operating at different scales and trading mostly under non-regulated conditions at local or inter-provincial levels (Chiwele et al 1996, MAFF 2000b).

The engagement of the government in agricultural marketing backdates from the 1930s when the maize control board (MCB) was established and given the mandate to buy all the maize offered to it in depot situated along the line of rail in the eight districts. At the same time Eastern province agriculture produce board (EPAPB) was established to provide marketing services to producer in that province and had same functions as MCB. The functions of MCB and EPAPB were taken over by the federation grain marketing board (FGMB) established during the federation period. Provincial co-operative unions (PCUs) in Eastern and Southern province were established as agent for the marketing board. All these institutions serviced the white farming community (Wood et al 1990, Chiwele et al 1996, Kokwe 1997).

The Zambian government under the leadership of Kaunda sought to rectify the marketing imbalance that existed during the colonial period by forming two marketing boards. These were grain marketing board (GMB) and agricultural rural marketing board (ARMB). The two boards replaced the FGMB and were responsible for purchasing of Maize. GMB operated along the line of rail while the ARMB provided market to remote areas and brought the maize from the remote areas into the cash economy. The two boards were dissolved in 1969, due to inefficiencies and replaced with national agricultural marketing board (NAMBOARD).

The board was to carry out the marketing services of its predecessor and was also given additional functions to purchase, sell, import, export and store maize on countrywide scale. From its inception, Namboard operated in parallel with the two existing provincial co-operative union (PCUs) of Eastern and Southern Province. Later on, its operation were expanded to other provinces and 52 major depots and 43 district managers were established in the process. In 1980, the primary marketing and intra-provincial trade become the responsibility of PCUs while Namboard became responsible for international and inter-provincial trade in maize and handling of national reserves including export and import of maize. However, the relationship between PCUs and Namboard were not clearly defined, this resulted into duplication of responsibilities and conflicts between the two institutions. This compiled the government to resuscitate Namboard as the principle buyer of maize. PCUs continued existing but as agents for Namboard. However, in 1988 the decision was reversed once again, Namboard was dissolved and the co-operatives took the full responsibility for all marketing. The adoption of liberalized agro-marketing system in 1990s allowed farmers and traders to sell and buy agro-products from anywhere. This made co-operatives to buyers of last resort (Chiwele et al 1996, Kokwe 1997).

The progression in the implementation of structural adjustment programme of IMF and World Bank, resulted into the gradual withdraw of government involvement in marketing of agro-products. Subsequently subsidies for operation of the marketing processes and purchasing agents were removed, and marketing institutions eliminated or privatized. This was to create an enabling environment for the private sector to take a leading role in crop marketing, correction of agro-products and the resell of the agro-

products to processing companies. This was the time when marketing of agro-products were fully liberalized; though the 1991/92 drought and the 1992/93 bumper harvest delayed the liberalization process as the government was forced to intervene. Hunger in 1991/92, compiled the government to purchase maize grain to feed the hungry population while the 1992/93 bumper harvest forced the government to buy the excess maize, as the private sector was not yet ready to handle large amounts of maize stocks. Zambia co-operative federation finance service (ZCF/FS), Lima, and credit union savings association (CUSA) were appointed as government principal maize buyers while PCUs like SPCU, EPCU and district co-operative unions (DCUs) were sub-agents to principal buyers (Chiwele 1996).

However, in 1994/95, no agent or sub-agent was involved in the marketing of crop and all subsidies at all points of production cycle were with drawn. The only support offered by the government was through the establishment of crop storage construction revolving funds (CSCRF) and market credit revolving fund (MCRF). The CSCRF was designed to promote on-farm storage in order to reduce the amount of grain marketed at once so as avoid over stretching the capacity of the new market system. MCRF was to be given to private buyers as loans and was accessible through commercial banks. The two funds were to be phased out by the end of 1996 (Chiwele et al 1996, Kokwe 1997).

By 1996, the time ASIP programme was introduced, the country was already under a free market economy. However, the government through the food reserve agency (FRA) continued to intervene in agro-marketing for the purpose of national food reserve. It has continued to do so up to date, though plans are under way to replace FRA with the crop marketing authority (CMA) (Ruralnet associates 2002, Saasa 2003).

2.4.4 Pricing

Pricing is the process of fixing the cost of farm produce that farmers sell. The pricing can be pre-determined or negotiated between the seller and buyer. In agriculture marketing, both processes apply depending on whether the selling and buying in done officially or unofficially. In the early days of government arranged agro-marketing, the institutions (MCB, EPAPB, FGMB, GMB, ARMB and early years of Namboard) responsible for buying agro-products from farmers were given the mandate to decide the prices for agro-products. The differences in their operating areas made the prices offered to same agro-

products different. The price differential offered to same agro-products was eliminated in 1974/75 when the government introduced uniform floor prices. The government fixed the price for various agro-products at the beginning of every marketing season. The equity pricing became an enshrined principle of the policy by 1982. All the PCUs were required to pay the national producer price to all farmers and then sell the maize intra-provincially to millers or Namboard at a prescribed pan-territorial price. This had a negative effect on profit making on institutions involved in maize purchasing and selling. This subsequently made these institutions to depend on government subsidies to offset the losses incurred in the process of purchasing and reselling (Wood et al 1990, Kokwe 1997).

The fixing of prices for agro- products have been criticized as having distorted the actual value of various agro-products and has consequently made farmers to record losses over their farm products. The remedy for this has been the adoption of the liberal policies that reduces the involvement of the government in crop pricing. The liberal market policies allow the seller (farmer) and the buyer to decide on the price of various farm produce through bargaining process. This meant that the price of the farm produce were to depend on demand, supply, quality of the produce and the place where the exchange was to taking place (Wold et al 1996, Wold et al 1997, Maff 2000b).

2.4.5 Credit

The provision of credit facilities to the farming community has been changing over years in accordance to the changes in the agriculture policies. The institutions involved in the provisions of credit to the farming community have been changing equally over years. The land and agricultural bank (LAB) is the first institution to have offered loans to the white farmers' farming community in the 1940s. Its successor, the credit organization of Zambia (COZ) of the 1960s, serviced the small-scale farming community and it worked through co-operatives. The disbandment of most co-operatives in the late 1960s resulted in the liquidation of COZ and its functions were transferred to the agricultural finance company (AFC). AFC offered many forms of credit facilities, but the most common type of credit facility offered to small-scale farmers were seasonal loans for financing farmers' seasonal inputs. The 1980s saw the increase in the number of credit institutions that served the farming community. These included Zambia Cooperative Federation Financial Services-Cooporative credit scheme (ZCF/FS-CCS), which later became Zambia

Cooperative Federation-Financial Services (ZCF/FS), Lima Bank, Zambia State Insurance Company Limited (ZSIC LTD), Zambia National Commercial Bank Limited (ZNCB LTD), and CUSA.

The changes in economic policies in the 1990s resulted in the disengagement of the government support to these institutions by 1994. The government introduced two types of funds to sustain the credit provision during this period. These were Fertilizer Support Loan Facility (FSLF) and Agriculture Input Revolving Fund (AIRF). The FSLF was accessible through Lima Bank by local manufactures, importers, and suppliers of fertilizer, while Lima Bank, CUSA, and Program Against Malnutrition (PAM) accessed the AIRF (Harvard and Mungoma, MACO et al 2002).

The liquidation or privatization of the credit institutions led to the birth of Agricultural Credit Management Program (ACMP) as an ad hoc and transitory to full-liberalized credit market and was to run from 1994-1997. The government remains engaged on transitional basis in providing credit to resource poor small-scale farmers. Government institutitions, collaboration private partners, and non-governmental organizations (NGOs) became the principle suppliers. The government was gradually to with draw from provision credit facilities as the private sector capacity in credit provision grows. In line with this, the two fertilizer support programmes were introduced under the new deal government. These are ministry of agriculture and co-operative fertilizer support program (MACO-FSP) and ministry of community development and social services fertilizer support program (MCDSS-FSP) (Siegel and Alwang 2005).

2.4.6 Extension service

The successes in agricultural development depend largely on decisions made by farmers on what to grow, where to sell, how to maintain soil fertility, and how to manage common resources. Decision making among million rural households along these lines depends on knowledge and information available to them. Knowledge and related information, skill, technologies, and attitudes play a key role. This is provided through main avenues. However, in the agriculture sector, extension services are vital. Extension services are offered to the farming community in different forms as well as in different approaches (Rivera and Alex 2004).

Evolution of the extension theory

Extension theory has evolved in four stages over years. This part highlights these changes. These included the classical or conventional top-down, one-way transfer of technology model (TOT) in the production stage in the extension theory of 1900-1975, transfer of technology in a two-way communication mode (1975-1985), ecological stage (1985-95), and institution stage (1995- on ward). During the TOT model, farmers were seen as recipients of technology. Under the two-way transfer technology communication mode (the economic stage), the farmers were viewed as sources of information and technological design. The extensionists established a two-way dialogue with farmers, extracting information in a consultative mode. For the ecological stage, farmers contributed their traditional knowledge and were seen as both victims and causes of unsustainable development. The extensionists were to facilitate in knowledge development and was to act as catalysts in promoting real participation. Farmer were recognized as experimenters and equal partners in knowledge development. In the institutional stage, farmers were viewed as collaborators in research and extension. Alliance was to be developed between different institutions (Chambers et al in Haug 1998).

Just as the extension theory has been evolving over years, so are the extension systems and services. They are a whole range of different extension systems and approaches that has been developed in the world today. However, FAO identified eight main extension approaches and these are general agricultural extension, commodity specialized, Train and Visit (T&V), farming system and other participatory extension, project, private extension and cost sharing, the educational institution, and farmer organization extension approaches. Within each approach, there are also sub-approaches. Farming systems and other participatory extension approaches is used as example. Within this approach, seven sub-approached has been identified and these are farming systems research and extension (FSR), farmer participatory research/farmer first approach, rapid and participatory rural appraisal/participatory learning and action (RRA and PRA/PLA),participatory action research (PAR), development education and leadership teams in action (DELTA), farmer-led extension and farmer-to-farmer extension (Axinn in Haug 1998). The evolution of extension theories and approaches influences the various

national approaches in extension provision. These approaches also determine largely the key players in providing these services.

In the case of Zambia the influence of these evolutions are apparent. During colonial period, extension services were only available to the white farmers who settled along the line of rail. At independence, the government of Zambia redirected the extension services towards the African to enable them participation in market-oriented agriculture. During this period a few emergent farmers, were identified and these received the attention of the extension agent who even helped them to keep farm records and obtain loans. This type of extension service approached was based on individual farmer approach and the source of knowledge was from extension worker to farmer.

In the 1970s, the government policy on agricultural increasingly stressed on the need to involve majority of the rural farmers to increase agricultural production. This was to be achieved through adoption of improved farming techniques based on timely planting, use of composite seed, improved spacing of seed, better weeding, efficient harvesting, and storage. The increasing demand for extension services led to adoption of the train and visit (T & V) type of extension service approach in 1978 as opposed to individual farmer contact. The approach had a programmed, disciplined approach based on regular visit to selected contact farmers[3] by the trained staff who delivered key impact points and rapid feedback from farmers to researchers. The guiding principle was that improved agricultural technology offered to the village extension group would trickle-down to the rest of the farming households automatically through the process of diffusion. The programs and information delivered to farmers were prepared at head office. The extension workers offered both crop and livestock services, and specialized extension services supplemented their efforts. Some examples are Litco for cotton, soya, and coffee. Other support system was through training program facilities and by national farming information services (GRZ 1984, Wood et al 1990, Roling et al in Van Leeuwen 1999, GRZ 1984, William and Alex 2004).

In 1979, the Lima[4] extension training and research program was introduced at national level as part of the new T&V organization and methodology. The fundamental

[3] The number of contact farmers per sub-unit ranged from 6-9 and were carefully selected in consultation with field supervision, local leadership, and other farmers.
[4] The most common message used in the lima program was based on hybrid maize and fertilizer.

principle of this program was to facilitate the recommendation of proven technological packages for small holders adapted to their local situation. This was based on standard unit of land, standardized seed, and fertilizer. Included in the Lima kit was a marked measuring rope and calibrated fertilizer dispenser[5]. The work of the extension workers was supplemented through residential and day courses[6], in-service training, mobile farmer training, field days, radio broadcast, and exhibitions. This information was targeted towards male farmers by the extension workers. The Women extension information was more on home economics[7] while that of youths was broad based. These services were channeled through clubs, or projects (Stocking 1985, Wood et al 1990, Joy 1993, Kokwe 1997).

The T & V extension approach was modified to village extension groups (VEGs) in the 1990s. Though the T&V model was based on two-way communication, the reality suggest that this approach was still based on top-down approach, in which the extension workers were viewed as sources of knowledge and farmers as receivers. The extension services were viewed as public good and therefore it had to be provided by public sources (government). However, this view was challenged by liberal proponents, these focused on the changing role of the state while focusing on decentralization and participatory approaches.

The changes in extension services approaches have also modified the role of the government in the provision of extension from that of being the provider to that of providing regulatory framework. This is to ensure all farmers have accesses to appropriate and low cost extension services, ensure fair competition, and maintain quality standard. The main actors are private extension service providers, which include agribusiness, private consulting firms, farmers association and NGOs (William and Alex 2004).

The demand-driven, participatory and farmer led extension services which means different needs of people need to be included in every development programme and project. Different level of participation have been categorized by several authors which

[5] The calibrated rope and cup for spacing and application of fertilizer without calculating.
[6] These were offered at farmers training centres.
[7] Extension services for rural women concentrated on nutritional standards of rural population, food storage and preservation, and child care.

includes contractual, consultative, collaborative, or collegiate participation depending on the level of participation whether deep or shallow, wide or narrow. Under this system, information, advice and other services offered by extension professionals should be tailored to the expressed demands of the clients or recipient of the services not just to needs as identified by various stakeholders, but things they say they want (Haug 1999, Tripp 2001, Williams and Alex 2004).

The global evolution trend in the extension services provision over years has also influenced the extension services provision in Zambia over years. The major change that has occurred in extension services has been evident during the ASIP days. These changes occurred in organization structure, objectives, approaches in extension information dissemination, methods of extension services provision, providers of the service, and the relocation of the sub-programme under the department of field services, delinking it from the research branch that was placed under research and specialist department. The objectives of extension services were to assist farmers increase production through adoption of proven agricultural technologies. This was to be achieved through adoption of proven technologies and disseminating of improved farming methods through electronics and print media, while targeting women and youth groups. The approach adopted in extension provision was the Participatory Extension Approach (PEA). This was adopted as official extension approach in the year 2000 away from VEPs. Under the PEA extension approach, various methods are used in light of the bottom-up approach objectives. Some examples are rapid rural appraisal (RRA), participatory rural appraisal (PRA), participatory need assessment (PNA), participatory monitoring and evaluation (PME). These are used for various purposes; among them are problem diagnosis, community empowerment, or facilitating farmer led research (MACO 2002).

The provision of the services is based on public-private partners. The role of the government as an extension provider was progressively to reduce with the expansion of non-state extension services provider. The role of the government extension branch is that of facilitatory and raising the capacity of the communities, recognizing key development issues and demand for appropriate services. PEA is to be used to help farming communities identify their own priorities and the kind of services they needed. Service providers including government institutions and the services to be provided

should be based on priorities set by communities and the solving of these problem is to come from local resources (MACO 2002).

The provision of these services expanded further at the time of ACP in that the number of providers increased. These included partnership with the farmers, out growers, the private sector, NGOs, community based organization (CBOs) and cooperating partners. On part of the government, the ministry of agriculture and co-operatives provides extension and information through a network at national, provincial, district, block, and camp levels. The information collected and dissemination is done through persons, farmer-training centres, electronic and print media to reach all stakeholders in the sector and to cover women and young farmers. The technology being promoted is based on better and sustainable practices including conservation farming, low input agriculture, and increased use of draught power through participatory approaches. This is different from the traditional conventional approach were the emphasis was based on organized extension and research without giving due attention to the organization of the client system. The participatory extension approach focuses on the full involvement and participation of the entire community in the development processes and technology adoption. This brought change in people's attitudes towards their environment and adoption of interventions for agricultural and rural development.

Conservation farming was introduced in Zambia in 1996. It was developed by farmers for farmers. The objective of this technological pack is to make the best use of what farmers have and what they can afford. The out mate goal is to maximize productivity and minimize wastes. This type of farming system is suitable for annual crops because it involves rotation and practicable to all types of farming system that is farmers who use hoes, oxen, and tractors. For hoe farmers, the potholes are dug at 90cm by 70cm at the depth of 35cm in the first year. Once the correct spacing is followed, a farmer can make 4000 basins in a Lima. Oxen-farmers who do not make ridges before plating can practice conservation farming. The land preparation for planting involves reduced tillage. The whole field is never ploughed but the farmer only opens furrows at 90cm spacing across the field. The ox-farmer who adopts conservation farming needs different equipment depending on the type of the soils in his or her field. For the hard soils, the farmer will require a shaka ripper to rip the soil and break the pans, the magoye

furrower to make furrows, and a cultivator for weeding. Once the furrows are made, compost manure or basal fertilizer is placed in the planting hole or furrow before planting. The manure or fertilizer is covered, leaving a depression or furrow to catch the rainwater and to plant the seed once it rains. When the weeds germinate, the farmer removes them in between rows using a hoe for hoe farmers or a cultivator for ox-farmers. A correct measurement creates permanent grid of basins or furrows that can be used yearly to plant different crops in a cycle (MAFF 2000a, Gart 2000, Haggblade and Tembo 2003).

2.5 Summary

Kalomo district is located in the south region which is characterized with erratic rain pertain. Agriculture is the main stay for the majority of the Kalomo population and small-scale farmers are the majority among all categories of farmers. Agriculture sector like other sectors of the economy has undergone changes over years in terms of policies guiding it, institutions providing services to it and the approached to provision of these services. The major shift has been from that of government controlled (pan-territorial) where the approach has been top-down approach to that of market determined and the approach is of bottom-up. The details of these changes are reflected in Appendix A.

CHAPTER THREE

CONCEPTUAL AND THEORETICAL FRAME WORK

3.1 Introduction

In examining the conceptual and theoretical framework of this study, the main assets are examined and thereafter related to the dominate livelihood analysis. Understanding the linkages between poverty, incidences and causes are both phenomena forms of this study. The conceptual and theoretical framework provides the basis for understanding the incidences, causes, reformulating, relating, and discussing other frameworks. The discussions on poverty, incidences, causes and its different forms has become part of the focus in the development discourse. The asset endowment and entitlement accentuated over the last decade provide the raw material for understanding and discussing the poverty incidences and causes among the small-scale rural community.

3.2 Women's livelihood in rural agricultural communities

Women in rural communities are involved in a number of activities to earn a living**.** Women in this context refer to women who are aged 18 years and above and have some social responsibility. This is to say they have people to look after and provide them with basic needs (cloths, shelter, and food). The people they look after could be either their own biological children, dependants, or the aged. The activities they are involved in to construct this living are what are called the livelihood. Livelihoods are defined capabilities, assets, and the activities required for a means of a living for an individual or households (Ellis 2000, Francis 2000, Wood house et al 2000). It refers to various economics activities people involve themselves in order to live. A livelihood in this context refers to a means to a living. Women in rural agricultural communities pursue diverse livelihood activities. The focus of this thesis is on small-scale rural agricultural women's livelihood activities. These are subsistence women farmers who grow crops and rear animals for consumption with occasional surplus for sell. This makes them to venture into food crops mostly. The size of their farmland ranges from 0.5 to 9 hectares.

Most studies conducted in developing countries reviews that small-scale rural agricultural women pursue a diversified kind of livelihood because it has become

increasingly difficult for them to guarantee livelihood through subsistence. The diversification of livelihood activities reflects a strategy of unit to minimize risks associated with one activity or to satisfy subsistence requirements that cannot be met with the previous traditional sets of activities. The livelihood activities are in three types and these are on- farm, off-farm, and non-farm. The on-farm incomes are incomes generated from own account farming, off-farm income are income derived from wages or exchange of labor, while non-farm incomes refers to non-agricultural incomes (Saito et al 1994, Ghorashi and Belanger 1996, Jaiyebo 1996, Ellis 2000, Francis 2000, IFAD 2004, Buhl 2005).

3.2.1 On-farm

On-farm livelihood is generated from crops, livestock, or the combination of the two. Small-scale rural agricultural women in most third world countries practice mixed farming system in which crops and animals are integrated on the same farm. This provides the greatest opportunities for the increased food production and income to meet essential households' needs. The crops cultivated and animals reared are equally diverse. The sizes of the livestock vary from small, medium, to large livestock. Each category of livestock kept has a purpose, which serves complementary roles. The small livestock includes chicken, ducks, turkeys, or a goose, the medium livestock include goats, pigs, and sheep, and the large livestock includes Buffalos, Donkeys, and cattle. The small livestock serves as current savings to meet daily cash needs of a household. For example when a child is sick, a chicken, geese, or turkey is sold to buy medicine, to buy soap, or salt. Medium size livestock save as medium term savings. They are sold for example to obtain money to pay school fees for the children, while large livestock save as long term savings.

During important family, social event or emergencies, cattle for example is sold for Cash to pay off big bills or exchanged for big services. An example is the paying of a cow in exchange with transport for taking a patient to the hospital. A summary of on-farm livelihood generating activities are given in figure 1 below. It suffices therefore, to say big livestock are essential for agriculture and household securities, while small and

medium size livestock are important for nutritional and current savings (Devendra and Chantalakhana 2002, Andresen 2003).

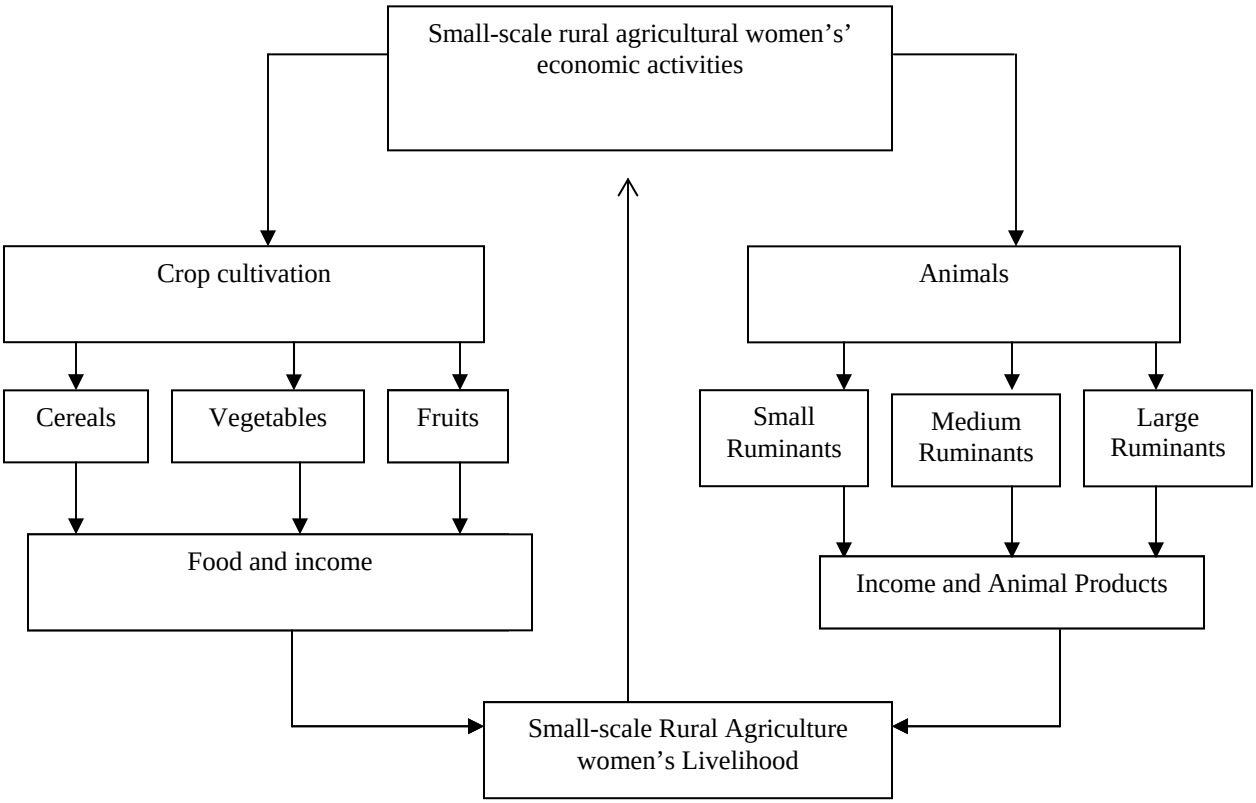


Figure 1: Small-scale rural agricultural women's on and off-farm livelihood

Source: Devendra and Chantalakhana (2002); Andresen (2003)

3.2.2 Off-farm income

Women are involved in a number of off-farm economic activities to supplement the on-farm incomes. These include marketing of agro-products, provision of agricultural causal labor, and sell of collected wild products. These activities become concentrated in the post harvest dry season when agriculture work is in the low ebb. In the marketing of agro-products, women sell their own agro-products as well as their husband's for cash or in kind. These products are sold in different forms, which include processed and unprocessed products. Some examples of the processed agro- products are oil extraction from sunflower, or groundnuts, beer, or snacks. Around the farms, women gather different wild roots, fruits, and grass for sell or exchange with agro-products that can be

valued. Additionary, women also sell their labor in the neighboring farms in exchange for cash, food, or clothes (O'Laughlin 1998, Saito 1994, Bryceson 2002, Ellis and Bahiingwa 2003).

3.3.3 Non-farm livelihood activities

The non-farm livelihood activities includes making of handcrafts, remittances, long distance trading, tailoring, hair dressing, knitting, and house repairing. Some examples of handcrafts; women make are mats, clay pots, baskets, crochets, or dories. These handcrafts are sold or exchanges with agro-products that are later sold or used for home consumption. Some women are involved in tailoring activities, where they make cloths for sell or people bring materials to them to make clothes and they are paid for that. Women also make different products through knitting. These could be baby sweaters, shocking, head cape, or decorations for the house. These are sold or exchanged with grain crops or livestock particularly chickens. These are used for home consumption or sold for cash to meet other household requirements. Other women who have the capital engage in long distance trade, this is trading between the urban and rural areas. These women normally buy goods from towns that they exchange or sell for cash in rural areas. Some of the common products traded by long distance women traders are salt, clothes, shoes, and dried fish. The products realized from the barter system are later sold on the urban market. The common products being bartered with urban goods are grain crops, chicken, goats, or pigs. Other women still work for money, food, or clothes in non-farm related activities. Some example is in house repairing and mid wifely (Jazairy et al 1992; Saito 1994; World Bank 2000; Jaiyebo 2003).

3.3 Agricultural productive asset

Agricultural productive assets are resources which are directly invested in agricultural production activities and services which are designed to increase agricultural productivity. These assets can either be owned or claimed (Scoones 1998, Ashley 2003). The assets (resources) required by small-scale rural agriculture women in pursuing their livelihood are: - animals, land, extension services, credit facilities, labor, technology, and the road infrastructure. Each of these save different purposes but has complementary

roles. Countries from South Asia and Sub-Saharan Africa are used as examples to demonstrate how lack of these assets hampers women's productivity.

3.3 Animals

The animals among small-scale rural agriculture women service many purposes. McCorkle argues that without animal agriculture, plant agriculture would not be viable in much of the world today[8]. Among the services animals provide are draught power for the cultivation, dung for manure, and transport for agro-products from field to home and to market places. They also provide cash for purchasing other farm input like chemical fertilizer, ploughs, and certified seed (Devendra and Chantalakhana 2000, Andersen 2003).

3.3.1 Access to animal

Throughout the developing countries, women have the right to own domestic animals. These are acquired through inheritance, gift, bride wealth payments or purchasing. However, inheritance has been the main avenue through which most women acquire large livestock. Inheritance rules differ from society to society, depending on which traditional inheritance norms are upheld in a given society. The three types of inheritance are patrilineal, matrilineal, and bilateral. Patrilineal inheritance system passes the estate of the deceased through the paternal line, for the matrilineal system, inheritance of property is passed through matrilocal uncle, where as bilateral inheritance of property is gender neutral but power on decision making and resources control is vested in men (Heyzer 1987, Munalula and Mwenda in Stichter and Hay 1995). This suggests that though some kinship descent give women an advantage in term of inheritance of property like cattle, buffalos, and donkeys, control over these assets are still limited among women. This is clearly demonstrated during land preparation and planting where men use and control the cattle, donkeys, and Buffalos and plough. There fore access to use of these livestock is always through dependency on men either as husband or relative, and this has made small-scale rural agricultural women not to fully realize the benefits that could be derived from possession of these beasts[9].

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[8] http://www.ilri.org/ilripubaware/Uploaded%20Files/2004811933470.01BR_ISS_Acc...
[9] http://www.iirr.org/saem/page78-82.htm

Just as animals are important to small-scale rural agricultural women so is land.

3.4 Land

Land, a natural resource plays a vital role in the farming community. Having access to land and other land based resources is crucial in determining how people will ensure secure livelihood because farming communities rely on land and land based resources for their livelihoods. They are critical determinants of survival and wellbeing. Land in itself has many attributes, which includes providing farmers' space upon which various crops can be cultivated. Food stuffs gathered and collected around these places includes mushrooms, wild tubers, fruits, leaves, rodents, and caterpillars for home consumption or for sell. Further, more, land in several instances is used as collateral in loan acquisition. The secure tenure system, fertility, and size of the land are central in this respect. The size of the land holding is important to farmers in two regards. These are the size enables the farmer to diversify cropping, that is to grow different types of crops to spread risks and to use the land as a collateral to acquire loans. The secure tenure system too enables farmers to use land as collateral to acquire loans from lending institutions (Byrne 1994, Saito et al 1994, Blackden and Bhanu 1999).

3.4.1 Access to land

Land is held under different tenure system, in third world countries and indeed in Sub Saharan Africa. The dominant systems are mutative communal system and emerging privately owned land. Mutative communal system is the common type of land holding among small-scale rural agriculture communities. Within the mutative communal land, they are various tenure systems. These range from complete ownership, customary freehold, leasehold, and tenancy. Under all these tenure systems, women's access to land is depending on whether the society is patriarchal or matrilineal society. In patrilineal society, wives clearly has no right over land except through there husbands. In the matrilineal group, land is held by the matrilineage, but administered by men, these are mothers' brother, or sister's sons. Studies from Kenya, Gambia, Zambia, and Uganda demonstrate the landownership and control towards men. In societies where the law gives women impartial access to land like the Tanzania Village Development Act of 1975, the customary laws of inheritance, ownership and control of property tend to prevail. These

rights allow women to farm on their husbands or family plots in exchange for labor (Jazairy et al 1992, Mwaka in Momsen and Kinnard1993, Saito 1994).

The situation is not too different in those communities that have undergone agrarian transformation. Examples from The Federal Land Development Authority (FELDA) and Sarawak Land Consolidation and Rehabilitation Authority (SALCRA) from Peninsular Malaysia, the accelerated Mahaweli Scheme in Sri Lanka, and Philippines reveals that women were disproportionably disadvantaged as these reforms were men bias In the new system, women were overlooked in favor of men. It was assumed that since women farmed land as part of the family, they would not be disadvantaged if land belonged to husbands. The law under which the Mahaweli Scheme alienated land recognized male or husband as head of the household and landowner. The FELDA in recognized only married men as eligible settlers, while the SALCRA gave the share certificates for the produce to the household head (husband). The common avenues through which women acquire land are through husband, natal, inheritance, allocation by local traditional leaders, borrowing, and purchasing (Heyzer 1987).

However, most small-scale rural agriculture women acquire land through husbands, natal, inheritance, and in certain instances borrowing from neighbors. Despite the method used acquire land, gender inequalities in the amount and quality of land is evident. Women tend to own small and poor quality parcel of land. These are the results of discrimination against women in inheritance and gender bias in community program on land distribution. Women's low land holding hurts their ability to participate fully in development and to contribute to higher living standard for their families (Byrne 1994, Kajoba 2002, Deere and Leon 2003). In order for small-scale rural agricultural women to exploit fully all these attributes associated with land, they need labor in the various stages of agricultural production activities.

3.5 Labor

Labor contributes positively and significantly to agricultural out put. This is realized from the fruits of different forms of labor. In most traditional communities, there has been clear division of labor according to gender and age. This has been evident too in farming communities where men, women, children, and the aged performed different tasks. Men were involved in hard work, which constituted construction, land clearing,

herding large livestock, and land preparation. Women were more involved in planting, weeding, harvesting, transporting farm products, processing of agro-products, and marketing of farm products. Children and the aged were involved in scaring away animals and wild birds from fields (Boserup 1970, Saito 1994, IFAD 2000, World Bank 2000). The introduction of the money economy and urban employment disturbed the rural labor balance as most men left the villages to take up urban jobs. This deprived agricultural woman of the much needed farm labor and compelled them to take up the used to be men's jobs narrowing the gender labor gap. This has created more work among women farmers increasing further their workload. However, other agricultural jobs still remained in the men's domain.

3.5.1 Access to labor

The major source of labor at household level are the household members, these includes boys, girls, women and men. This labor can be provided in kind or reciprocity on either men or women's livelihood activities. Women's accesses to male labor depend on their relationship to men as husbands or natal. However, household disruptions resulting from male absence in rural agricultural communities have deprived these communities of the much-needed male labor. This forces women small-scale rural farmers to hire the male labor for those particular kinds of jobs that need male labor. Hired labor especially to alleviate seasonal bottlenecks depends on the availability of both financial resources and the right kind of labor to march needs; both of which could be a problem. Research from Kenya and Nigeria for example, revealed that hired labor contributed positively to total out put on female managed plots. However, hired labor particularly male labor is costly and is out of reach for most small-scale rural women. In order for the productivity of labor to be fully realized, there is need to constantly update their farming skills, knowledge, technology, and should be in good health. The technology to be adopted should be appropriate and designed increase productivity (Jazairy et al 1992).

3.6 Technology

Technology includes genetic innovation, physical inputs and implements, and management techniques. Genetic research continues to be the main stay of agricultural technology. It results into development of new crop varieties or animal species with

specific characteristic suitable for specific conditions (areas). In order for these new genetic breeds to yield desired results, they have been complemented with the development of new agricultural inputs and implements. These are characterized with new management techniques. These technologies vary as well as their emphasis. Some emphasize on resource conservation through reduced tillage, control of soil erosion, and input efficient. Most of these technologies can be described as information intensive. Technological information is in two forms, which are technological ideas and technological capital. The technological ideas comprises of the know-how on the appropriate inputs and implements for a particular condition and how to use them appropriately while the technological capital consists of inputs and implements that can be adopted for various types of farming (Mayer 2001, Tripp 2001). All these different components of technology are vital for increased agricultural productivity. A number of recent studies on the determinants of agriculture productivity highlight the importance of total factor productivity (Saito et al 1994, Blckden and Bhanu 1999, Easterly and Levine in Mayer 2001, World Bank 2000). Several factors impact on changes in total factor productivity, among them is technology. Indeed studies on contribution of technology on agricultural productivity affirm this (Narayana and Parikh in Mwangi 1997 1994; Djarfeldt and Larson 2005).

Agricultural technology is dynamic; its changes are a result of new invention. In order for farmers to benefit from the positive attributes of technology, they should be kept abreast of new agricultural technological changes. In most developing world, small-scale farmers are involved in a highly complex and diverse system of mixed farming and multiple cropping. This type of technology results in production levels that only meet the basic subsistence requirement of small farmers. New technology needs to be introduced if the productivity of small-scale holders is to improve substantially and make a significant impact on agricultural output and income and indeed on their livelihood. These results can be attained, if technology is appropriate, sound in basics as well as aspects, relevant to actual production, and needs of farmers. Technological advancement holds a great promise, but the full benefits of this scientific break through will not be realized without the dissemination and adoption of these new technologies (Jazairy et al 1992, United States department of agriculture 2003).

3.6.1 Access to technology

Accesses to technology mediated by various factors. This depends on whether one needs the knowledge part of technology or the physical part. The physical part of technology in form of improved implement and inputs are obtained with cash from own sources or a loan. Small-scale farmers who only get cash in lumpy after the sell of their crop, credit form the most important source of avenue for acquiring farm inputs and implements. The most dependable source of loans to small-scale farmers are co-operative unions. For one to be eligible to get a loan from a co-operative union, he or she needs to be a member. However, the limited membership to co-operative union by most of small-scale women put them to the disadvantage. This leaves them with no option but to resort to informal credit services that is not only unreliable but has high interest rates (Jazairy et al 1992, Bryne 1994).

The knowledge party of technology is derived from formal or informal extension services. The extension services provide farmers with the updates on new development in technology. This is in form of ideas (knowledge) on improved and appropriate generic varieties, and the right farming implements and input to use. The major sources of formal technological knowledge are government employed extension workers, private agri-consultance firm, and agribusiness. However, because of expenses involved in private sources of technological knowledge, small-scale farmers depend largely on government employed extension workers. Therefore, access to this knowledge depends on contact with extension worker.

3.7 Extension services

Extension services offer out of school educational services to rural producers, these are farmers, foresters, fish folks, and herders. Extension services have different meanings. It includes technological transfer or delivery and agricultural advisory services. They are closely linked to research activities to get the updates on improved technology aimed at increasing productivity and accelerating overall economic growth[10]. Agricultural extension services are the processes through which these ideas and information about agricultural practices and technological changes are disseminated to farmers. Knowledge and information are powerful tools in the processes of change. It strengthens human

[10] http://www.fao.org//docrep/x0171e/x0171e05.htm

capital and production of knowledge for a framework of action to promote sustainable agriculture and food security (Haug 1999). This is achieved through extension services bridging the gap between technical knowledge and farmers practice. Extension is generally cost effective and has a positive and significant impact on farmer's knowledge and adoption of new technologies. Therefore, the contact with extension positively affects the diffusion and adoption of new technologies. This can be facilitated with the availability of financial capital (Saito et al 1994, Rivera-Batiz and Romer 1991 in Mayer 2001).

3.7.1 Access to Extension services

The sources of extension services are many and have undergone changes over time. Haug (1998), argues that agricultural extensions is continually going through renewal processes where focus includes the whole range of dimensions varying from institutional arrangements, privatization, decentralization, partnership, efficiency, and participation, to role of the extension agent. The providers of extension services can be grouped into two; these are private and public extension services. The private extension includes agribusiness, private consulting firms, farmers association, and NGOs. The public extension services are government employed extension workers. Most of the small-scales farmers cannot afford to pay for the services from the private extension services and therefore, the major source of extension services for small-scale remain in the public domain (Tripp 2001).

Contact with extension increases the probability of farmers adopting new technologies. Extension is generally cost effective and has a significant and positive impact on farmers' knowledge and adoption of new technologies and subsequently on farm productivity (Saito 1994; Dorward et at 2004). However, the use of new and improved technologies has not had this desired effect on women because the training for the use of these technologies has been directed to male farmers and not to women. In Sri Lanka and Somoa new technologies on new varieties of seed, application of fertilizer, pesticide, diseases, use of tractors, and seeders were directed on men as chief cultivators. The failure by the extension services to cater for the needs of women deprived women small-scale farmers of knowledge on improved farming methods and technology has hampered women's production (Boserup 1970, Heyzer 1987, Bryne 1994, United states

department of agriculture 2003). Women in most cases were trained in home-related matters. Example of the Asian and Pacific Development Centres (APDC) trained women in home making in Malaysia, home economics in Zambia, Nigeria, and Kenya. The adoption and putting to practice of the technological knowledge and technological capital is dependant on the farmer's financial health. Therefore, the widespread ill financial health among small-scale rural agriculture women puts them to the disadvantage. This makes access to credit facilities vital to offset the deficit (Heyzer 1987, Saito 1994, Okojie et al in Ghorayshi and Belanger1996).

3.8 Financial capital/ credit facilities

Financial capital is crucial in the adoption of improved technology, which is central for the improvement of production among small-scale farmers. It facilitates access to agro-productive resources and services. For individuals with few assets, access to finance serves main purposes. They smoothens consumption over time, payment for extension services, finance technological and capital improvements, acquire working capital which includes input in form of seed, fertilizer, labor, and transport and accelerates timely acquisitions of them. All these characteristic of financial capital are vital to small-scale farmers considering their nature of production that only enables them to have lump some cash once in a year. The opportunity to save surplus income and to borrow at the beginning of the planting season is important for short-term financial needs of farmers. Additionary long-term credit is required for fixed capital improvements (Byrne 1994, Saito et al 1994).

3.8.1 Access to financial/credit facilities

Farmers can acquire finance or credit facilities from different sources. These broadly grouped into formal and informal sources. The formal financial (credit) lending institutions are equally diverse in character. The main formal lending institutions are banks, co-operative and credit union, NGOs, and individuals. Each of these have different rules which govern credit acquisition, mode of payment, type of loans, and the amount to be obtained as well as their target area. The banks normally require collateral for one to get a loan. This could be land, insurance, or machinery, for co-operative and credit union, one needs to be a member, for NGOs they normally have their own target while

individual could provide loan on contract basis. The most reliable source of credits to small-scale farmers are co-operative unions. Evidence from Sri Lanka, Nigeria, and Kenya show low rates of women farmers accessing formal credit. Women small-scale farmer's low participation in the co-operative as mentioned somewhere puts them at a disadvantage (Bryne 1994).

This leaves them with no choice but to resort to informal credit sources. These includes borrowing from relatives, friends and informal credit arrangement which though important source of credit has many disadvantages. Among them is undependability, consist of short-term loans, high interest rates, and the terms of payments are not fixed. The lack of access to loans reduces the cost effectiveness of financial services, which is critical among small-scale rural women. This further reduces women farmers' access to inputs and physical capital and harpers their productivity, (Byrne 1994, Saito et al 1994). In order for small-scale rural farmers to advantage of these financial services, farmers need to be connected to some financial sources that is achieved through transportation.

3.9 Transportation/ communication

Transportation and communication act as a conveyer belt between the farming community and the other sectors of society. Transport, communication and agricultural development are inextricably linked. The improvement of small-scale rural agriculture production calls for a better integration of agriculture production with the market, delivery of affordable inputs, and timely delivery of high quality agricultural products. This can be achieved through the availability of transport and communication facilities. This enables small-scale agriculture women to take advantage of new opportunities offered by technological development and market expansion. Transport in terms of the state of the road infrastructure, adequacy of the infrastructure, availability of transport services, and affordability are vital if the desired benefits are to be realized. However, transport and communication will not bring about the desired results unless they reach the poor and are complemented by credit, research support, and extension (Jazairy et al 1992, Davis 2000, Ellis 2000).

3.9 Access to transportation

Access to transport is intermediated by various institutions. These fell in the various domains which includes private companies, individuals, and government. Historically provision of transport in most third world was provided mostly by governments during the pan-territorial days. The adoption of the liberal policies by most developing countries resulted in withdraw of most government in provision of these services. Transportation nowadays is provided mostly by private companies and individuals. However, the poor state of road infrastructure particularly feeder roads discourages most private transport providers to reach rural areas. The unavailability of transport in rural areas disadvantages small-scale rural agricultural women producers who do not own other modes of transport[11] but depend on public transport (World Bank 2000).

3.10 Summary

Small-scale rural women are involved in a number of economic activities. These include on, off, and non-farms activities. In pursuing these economic activities, small-scale rural agriculture requires various productive assets (resources). These include land, Draught animals, financial capital, extension services, technology, and transportation. All these assets are vital if increased productivity is to be realized. The acquisition and access to them is intermediated by different institutions and governed by different rules. These are formal as well as informal institutions. Available literature reveals that the operations of these institutions work to the disadvantage of small-scale rural agricultural women. The problem of land shortage, lack of institutional support in form of credit, extension services and appropriate technology, and inadequate transport infrastructure hampers small-scale women's productivity and indeed their contribution to economic development (Jazairy et al 1992, Byrne 1994, Mwaka in Momsen and Kinnard1993, Saito et al 1994, Blackden and Bhanu 1999, World Bank 2000).

[11] Other modes of transport referred to are bicycles.

CHAPTER FOUR

FRAME WORK FOR UNDERSTANDING POVERTY

4.1 Poverty Assessment

A number of poverty frameworks are used for assessing poverty and its different types. These has been updated over years and are based on different parameters, which include material, money metric, food metric and social indicators to show the multi-dimensional concept of poverty. Each set of these parameters are used by different institutions, individuals, and disciplines for various reasons and purposes and each set has both advantages as well as disadvantages. Poor people everywhere experience material and social-economical deprivation. The concept of poverty is used to cover a wide range of various interrelated life needs that are valued differently in diverse cultures and sub-cultures (Bevan and Joiremen 1997, Kanbur and Squire 1999, World Bank 2000, Hulme et al 2001, FAO 2004).

Conceptualization of poverty requires a full analysis of the poor's sources of livelihood and their interlinkages. In this context, the livelihood diagnostic approach is adopted. This helps to gain insights into the life needs of small-scale rural women of Muziya, resources they require to construct livelihood to meet life needs, results of various livelihood activities (creation of social groups), analylizing important livelihood components and constraint, and vulnerability of these different social-economic groups. This approach ensures that the understanding of poverty is founded on the understanding of the livelihood of the poor (DFID 2001, IFAD 2001).

Livelihood comprises of assets (tangible and intangible assets) and capabilities. They are a base upon which people build their livelihood. These include a wider range of assets, but the livelihood framework approach categorizes them into five. These includes natural, physical, financial, human, and social assets. These create different types of stocks or capitals used directly or indirectly to generate livelihoods. They give rise to a flow of output possibly becoming depleted as a consequence or may accumulate as a surplus to be invested in future productive activities. They (assets) mediate in the construction of a living as revealed in the components and flows in a livelihood (figure 2)

below (Chamber and Conway 1991, Woodhouse et al 2000, DFID 2001, Khan 2001, Adato and Meinzen-Dick 2002).

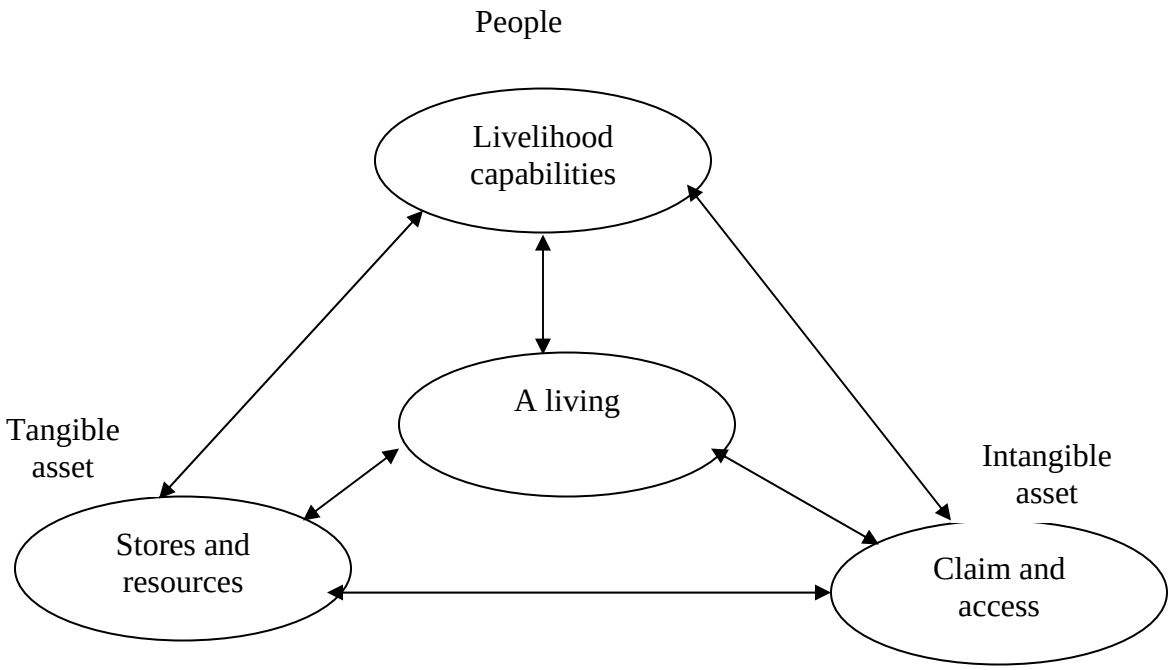

Figure 2: Components and flow in a livelihood

Source: Chamber and Conway 1991:7

However, the construction of a viable livelihood is dependant on the interlinkages between asset endowment, entitlement, and the capability approach and on how each of these contributes to a living. Endowments (resources/asset) are legally owned resource by a person conforming to the established norms and practices, while entitlement are a set of alternative commodity bundles that a person can command in society using the totality of rights and opportunities that he or she faces. The interaction between these two creates livelihood capabilities (Chamber and Conway 1991, Nayak 2000, Deverevus 2001).

The results of these interactions on a livelihood are diagnosed using different methodological approaches, which are broadly grouped into objective measurement and subjective views (Ellis 2000). Any discussion on poverty is not complete without addressing the issue of vulnerability and its two components, resilience and sensitivity.

4.2 Vulnerability

Poverty is about not having enough now, where as vulnerability is about having a probability now of suffering a short fall (susceptibility to fall over the edge), but the two are interrelated, though not always the case. The rising levels of poverty is the factor contributing to rising levels of vulnerability, while vulnerability on the other side is the cause and symptom of poverty. The idea of vulnerability originates from the realization that shocks of both external and internal nature can exacerbate the problem of poverty. At any time, there are people though not poor but live in parlous state or live on the edge. Living on the edge evokes the sense of a small push sending a person or people over the edge. Vulnerability seeks to describe the knife-edge that is the ability to survive and thrive, or sudden loss of the ability to do so. These people are vulnerable, even if not poor. Similarly, many people who are already in poverty may be at risk of falling into deeper poverty when faced with shocks. In the former category, vulnerability implies the risk of falling into poverty, while in the later; it implies the risk of falling into deeper poverty under adverse shocks. This makes vulnerability to be a forward-looking concept that makes it to be an important aspect in understanding poverty, incidences and causes (Ellis 2003, Osmani 2003, Thorbecke 2003).

The causes of falling into poverty, remaining into poverty, and falling into deeper poverty are multiple. However, these can be broadly be categorized into three, which are shocks, trends, and cycles (seasonality). Vulnerability is an elusive concept to assess or measure because it is a condition that is easily recognized in oneself or one's neighbor and there is no consensus about how to assess the concept among a cross-section of people. In the livelihood analysis, the asset index can be a better measure of falling into poverty or into deeper poverty for assets acts as shock absorber. These are the assets households or individuals build their livelihood upon which they own or claim. The vulnerability of an individual or household is dependant on the asset balance. This is the value of stocks of assets minus household or individual liabilities. Liabilities include remittances from kins and debts (social capital). The asset balance of a household or an individual is the key indicator of long-term security and resilience to shocks. This is because the asset balance accords households or individuals greater chance of upward

mobility through investment in and adapting to new opportunities. A small or negative asset balance is one indicator of household or individuals' vulnerability (rising vulnerability) as any adversity on these individuals or household is likely to absorb a large share of their limited resource base making them defenseless (Moser 1998, Blackden and Bhanu 1999, Ashley et al 2003, Ellis 2003, Hulme and Shepherd 2003, Nino and Marini 2005). The vulnerability sequence below explains the interlinkages between asset and response to shocks that can yield to disaster (failure) or success.

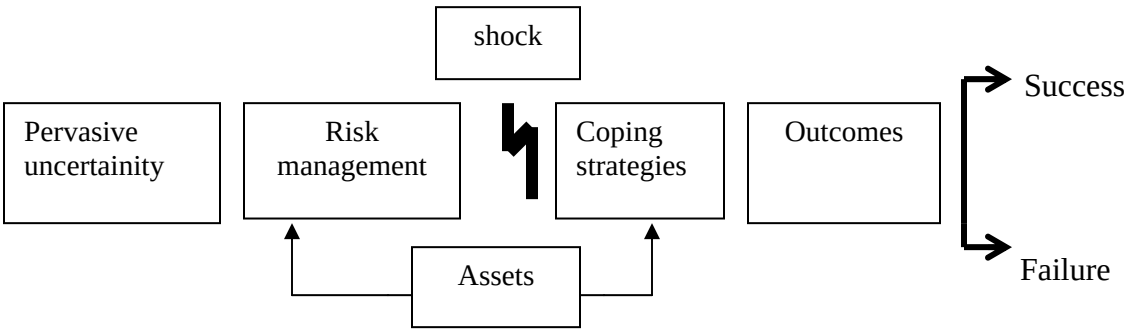

Figure3: Vulnerability as a risk sequence.

Source: Davies in Ellis 2003.

The other important thing depicted in the sequence is the asset status of an individual or household and how this is changing over time. The asset, activities, and outcomes are associated with the construction of a viable and robust livelihood. The relative success of achieving a robust livelihood is dependant on an individual or household's capacity to deal with adversities before and after they have occurred. This makes Vulnerability not to be the result of exposure to shocks alone but also to reside in the sensitivity and resilience of an individual or household experiencing such a shock (Moser 1998, Ellis 2003, Turner et al 2003).

4.2.1 Resilience

Resilience signifies an individual or household's ability to bounce back to a reference state after a disturbance and the capacity of the individual or household to maintain certain structures and function despite disturbances. The individual or household

resilience offers a useful framework to identify and forty key processes that enable individual or households to surmount crisis and persistent stresses. A resiliency-based approach situates each individual and household in relation to its particular challenges, constraints, and resources. How an individual or household deal with these adversities are crucial to recovery. This takes many varied and recursive processes over time, from an individual or household's approach to a threatened crisis through disruptions in the immediate aftermath and long term adaptations. Processes effective in handling one type of adversity might differ for another. However, the availability of assets at the disposal of individuals or household's is essential for resilience. The recognition of this fact entails that different individual or household exhibit different resilience trait because of the differences in claims or access to assets. It then suffices to conclude that the incorporation of asset resilience differential is critical in the analysis of vulnerability and poverty because it allows the classification of individuals or households of having either a low or a high resilience to shocks. The high resilience of an individual or household is synonymous to robust livelihood, while low resilience is associated with vulnerability. The robustness or vulnerability of a livelihood is also a function of sensitivity of the individual or household to shocks (Walsh 1996, Turner et al 2003, Lister 2004, Nino and Marini 2005).

4.2.2 Sensitivity

Sensitivity refers to the magnitude of a system's response to an external event. It signifies failure or success of households or individuals to cope with immediate aftermath of a shock. The failure or successes of an individual or household to recover from a shocks entails that individuals or households exhibit different degrees of sensitivity to shocks. This characteristic feature of an individual or household is a function of entitlements, legal and customary rights exercised over livelihood assets. Entitlement helps to explain why certain social groups are differentially at risk to shocks. The more claims or accesses an individual or household make or have over assets, the more they are likely to successfully recover from shocks, while the less the claims or accesses to assets, the more they are likely to fail to recover from shocks. In this respect, it is also important to acknowledge that different individuals or households have different coping capabilities, which enable them to respond to registered shocks and avert potential harm of the shock.

Entitlements as well as endowments are connected to these capabilities and either concept can be expanded to include a range of social institutions. The difference in entitlement and endowment are crucial in the classification of individual or households as being either lowly or highly sensitive to shocks (Moser 1998, Turner et al 2003).

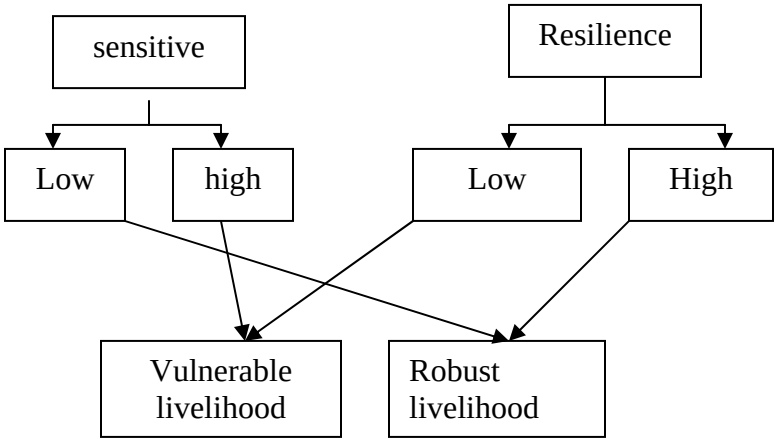

Figure 4: Robust and Vulnerability as dimension of livelihood.
Source: Author's interpretation of Ashley et al 2003.

Both resiliency and sensitivity permit the classification of livelihood either highly robust or highly vulnerable. The most robust livelihood is the one that displays high resilience and low sensitivity, while the most vulnerable displays low resilience and high sensitivity as depicted in figure 4 above (Moser 1998, Ashley 2003, Ellis 2003).

The asset index of resilience and the endowment-entitlement[12] aspect of sensitivity entails that some individuals within households are more vulnerable to shocks because of their low asset index, entitlement, and endowment. Among these are women who have a low asset base as well as entitlement and endowment as was reviewed during the intra household asset analysis in Muziya. Indeed Lister (2004) argues that irrespective of the material living standard a woman may enjoy at a time, she is vulnerable to poverty if she lacks control over resources and independent means to support her self. Vulnerability

[12] This is the interlinkages between tangible and intangible asset in constructing a livelihood.

refers to degree of exposure and sensitivity to livelihood (Devereux 2002). It is clear here that assets form the integral part of a livelihood and is a means to move out of poverty. These are assets (owned or accessed) that are put to productive use and forms the cornerstone of the capability of the poor themselves to construct route out of poverty, while complementarity between assets facilitates the process. Once this scope is curtailed due to changes in government policies, livestock diseases, ill health, and droughts, climbing out of poverty becomes an arduous undertaking (Moser 1998; Ellis and Bahiigwa 2003). Asset too can be used to determine the level of well being or poverty situation of an individual or households. Ownership and lack of ownership are central. Indeed Ellis (2000) argues that asset holding provides a fairly accurate predictor of relative levels of poverty in the livelihood framework.

CHAPTER FIVE

METHODOLOGICAL APPROACH

5.1 Research design

The study was conducted using qualitative research. This is a research strategy that usually emphasizes words rather quantification in the collection and analysis of data. As a research strategy, it is inductivist, constructionist, and interpretivist (Bryman 2004). Inductive in that theory is created out of research findings. Constructionist in that social properties are out comes of the interactions between people. Interpretive stresses the understanding of the social world through an examination of the interpretation of that world by its participants. Therefore, qualitative research provides methodologies that enable the researchers to develop an in-depth understanding of the lives and experiences of others and can provide explanations to it. The choice of the research method is based on the research questions that require an in-depth understanding of women poverty, its incidences and causes among small-scale rural agricultural women in Zambia.

5.2 Study area and population

5.2.1 Study sites

Since it was not possible to study the whole population, this research was limited to eleven villages of Kalomo districts in Muziya area. These were Lifalale, Sioni, Mungala, Dindi, Siameja, Siadwazi, Lumuno, Siambozo, Siambala, Mukwalatila and Sindowe. However, Mukwalatila and Siambala were dropped out because their leaders never turned up for either of the two meeting called for the village headmen by the chairperson for the village headmen committee. These two villages were dropped because it is unethical to enter the villages for any activity without prior permission from the local leaders. The nine villages were jointly called Muziya area because they fall under Muziya ward. During these meetings with village headmen, the research topic, researcher and research assistant were introduced. Muziya was established in the 1940s with village Lifalale. The area has since expanded with the increase in population and has further been subdivided into eleven villages. The nine villages of Muziya has a total 511 households. Lifalale has the largest number of households with the number standing at 81 households. This is

followed by Siameja with 78, Siadwazi 69, Mungala 68, Sindowe 58 Siambozo 50, Sioni and Dindi 49 each, while Lubuno the smallest has 9 households. Each of the household, on average has 7 members.

Selection of area

Kalomo has remained a predominant agricultural community with majority of its farmers falling under the category of small-scale farmers. Additionally, the region has potential for both crop and livestock production. Infact most farmers practice mixing farming but, poverty among small-scale farmers is widespread.

Within Kalomo, Muziya area was selected because of the following:-

- Representativeness of rural small-scale farmer pattern in Zambia who practice mixing farming
- To capture the effect of livelihood gradient of various kind. The key livelihood gradient that determined village selection were livelihood diversification (reliance on, on, off, and non-farm income)
- The dual characteristic of the agro-ecological zone, which has both the plateau and semi arid characteristics
- Remoteness from public infrastructure,
- The villages were close to each other making it easy for access.
- Further, more the area is located in an area with the history of high production in both crop and livestock.
- Besides this, the area is known to have experienced widespread poverty.

This provides a virgin land for research that seeks to understand women poverty, incidences and causes.

5.2.2 Study population

The study population consisted of various categories of people. These included small-scale agricultural women, the agricultural extension officer, veterinary officers, NGOs, and co-operative union officials working with small-scale women of Kalomo district. This was to collect various opinion, experiences, and perceptions on women poverty, incidence and causes. This was further to identify similarities and differences in opinions

and perception that creates a foundation for further inquiry. Further, more diversity in research participants allowed for supplementary of information on the topic under study.

Since the study area was in Muziya, Kalomo, it follows therefore that the small-scale rural women, agriculture extension services officials, co-operative union officials, NGO official; and the Veterinary officials were also selected from the same area. However, since there was no veterinary officer working in the area, the veterinary laboratory technician from the boma was included on the list of the key informants. This person was included on the list of respondent as a referral because he was the person who usually visited Muziya to treat their livestock. Additionary, the officer was based at the boma, the centre where the testing, diagnosis of livestock diseases were conducted, and programs aimed at combating livestock diseases in the district are generated. This made him the right person to be interviewed on livestock related issues. The area also had equally no agriculture extension service officer working in the area. The only organization working in the area with the farming community was the agriculture support programme (ASP), an agriculture commercialization programme under the auspices Ministry of agriculture and co-operatives (MACO). The ASP facilitator base at Zimba sub-boma visits the farmers in Muziya every fortnight and was included on the list of the key informant. The introduction of ASP programme in Muziya predates June 2005.

The researcher involved various actors in farming to verify, seek clarification, and collect various perceptions of what constitutes women poverty. This was done in consideration that they were various governmental and non-governmental institutions working with small-scale rural agricultural women and that the rules governing these institutions may not be fully understood and explained by women. This made the employees for these institutions suitable candidates. The researcher also anticipated that rules governing access to services provided by these institutions could not fully known to farmers and there fore experts were sought to shade light on these areas.

5.3 Respondents

5.3.1 Small-scale rural women

Because this is a qualitative study, I got a large and varied group of women for interviews. A total of 115 women were selected for interviews from the following

categories:- women of different levels of education, (no education, from grade 1-4, grades 4-7, grades 8-9 and above), Different land holdings, (1-3 hectares, 4-7 hectares, and 8-10 hectares.),marital status (single, married, divorced, and widow), those who have access to credit facilities and those who don't have, those who have no labor, and those who have, those who have access to extension services and those who don't have, the de jure or de facto, different family sizes, (1, 2-3, 4-5, and 6-9 persons).

5.3.2 Officials working with the farming community

The ASP facilitator, chairperson for Muziya co-operative union (MCU), chairperson for Children in distress (CINDI), and the veterinary laboratory technician for Kalomo district were included in the study. The ASP provided information on services they provide to farmers, their target group, goals of their services, and the challenges faced in delivering these services. The chairperson on for MCU provided information on procedures followed to become a member of the co-operative, membership of the co-operative in terms of gender, explanations on membership disparity, and the barriers to joining the co-operative. As for the chairperson for CINDI, she provided insight and perceptions of NGOs on what constitutes women poverty, the causes and challenges in fight women poverty. The veterinary laboratory technician provided information on livestock diseases, challenges of curbing down livestock diseases, and on how the livestock diseases have contributed to the increases in poverty levels among small-scale rural women. All this information is vital to have a full understanding of women poverty, incidence and causes. The composition of the key informants interviewed in terms gender is attached as Appendix D.

5.4 Data collection

The data for this study was collected from August to September 2005.When collected the data, Interviews, focus group discussion and documentary review were used while ethnographic content analysis was used for analyzing the content. Some participatory rural appraisal tools were employed during the interviews or focus group discussion, to get an in depth understanding of the study. A researcher assistant was involved in data collection. He was a 29-year-old man a teacher but had similar experiences before while collecting data for a base line survey on government and public service delivery under the

auspices of Ministry of legal affairs in 2002. He was trained for two days since he was already used to most of the research techniques. The conditions and payments agreement were made before going into the field. The research assistant and the researcher worked together in the field in organizing focus groups and conducting the discussions and interviews. During the focus group discussions he helped in notes taking as the researcher guided the discussion. During the individual interview, the research assistant worked with village committee members to get permission from men whose wives were identified as potential respondents so that could allow them to be interviewed.

5.4.1 Focus group discussions

Focus groups are group discussions exploring a specific set of issues. The group is focused in that it involves some kind of collective activity. It uses group interaction to generate data. During a focus group discussion, participants talk to each other, ask questions, exchange anecdotes, and commenting on each others' experiences and points of view (Barbour and Kitzinger 1998). Focus group discussion guides were used to collect data (see appendix B). The guide provided the themes for discussion. Each groups consisted of two categories of respondents. This type of composition allowed the observation of differences or similarities in the opinions held by the two different categories of women. This therefore, allowed follow up questions in the discussion to solicit for more information and clarification. During the focus group discussions, ten women sat round together with the researcher and the research assistant for teamwork and eye contact.

Focus group discussion meetings opened with welcoming remarks and thanking the participants for responding positively to the request and for sparing their time to come and attend this meeting. Opening player followed because it is the culture of these people to have a word of prayer before starting any meeting. A volunteer from among the participants upon request offered the prayer. This was to make them feel free and to create rapport. Introductions about the research topic, research assistant and researcher followed. The techniques for gathering data, and stages under which the topic was be discussed were revealed. This was to prepare the mind of the participants and to enable them start thinking about the topic. The participants were also informed that the information being gathered was going to be used in the writing of the thesis to be

submitted to the University of Oslo in partial fulfillment of master degree in development geography and nothing else. The participants were also assured that no ideas generated was to be associated to an individual present in the meeting, that the information will be kept confidential, and that no any identifying personal information will be used or kept. Participants were also encouraged to state any idea or opinion deemed important to the topic for there was no idea or opinion that was right or wrong and that it was allowed to agree or disagree with other responses during the discussion. The duration of the discussion was stated from the onset to encourage people to participate. Permission was also sought to record the discussion using a tape recorder (Catterall and Maclaran 1997, Winter 1997).

Once all was agreed, the attention of the participants was drawn to the topic and the discussion was initiated using the pre-prepared focus group discussion guide. The guide begun with more general question and more specific questions were introduced as the discussion progressed. During the discussion, the researcher directed the discussion in the line with the study topic, by probing in for clarity or redirecting the discussion, if the discussion was going out of topic. The problems experienced during the focus group discussion is that in every focus discussion some group members wanted to be dominant. This was corrected by seeking views from other participants. In correcting information on the various research questions, different participatory tools (PRA) were employed. Twenty minutes before the end of the discussion, if there were no other new issues coming up; a summary of key points of the discussion were given, providing a sense of completion and allowing participants to clarify or correct the summary. The participants were thanked for their time, participation and contributions. The meetings were ended with a player from any volunteer from the participants (Catterall and Maclaran 1997, Hay 2000).

Nine focus group discussions in total were conducted. One or two focus group discussions were held in each village depending on the size of the village, population size, and density. The selection of focus group discussion participants was based on meeting the selection criteria depicted for particular village and a summary of focus group discussion and composition are given in appendix D.

5.4.2 Interviews

An interview is a face-to-face verbal interchange in which one person, the interviewer elicit information or expressions of opinion or belief from another person or persons (Siedman in Lecompte and Preissle 1993, Maccoby and Maccoby in Hay 2000). It is a data collection method under which there is spoken exchange of information and requires a direct access to the person being interviewed. This method is used to gain access to information about opinions, events, feelings, and experiences (Hay 2000, Kitchen and Tate 2000).

In conducting interviews, different women and key informants were sought. The categories of women considered are those reflected under the focus group discussion timetable and in each category five respondents were interviewed. This gave equal coverage to women of different characteristic to ensure explanations of events encompass the views of all the sectors of women. The key informants interviewed included the chairperson for an NGO called Children under distress (CINDI), chairperson of Muziya co-operative union, Veterinary laboratory techniciation for Kalomo district and ASP facilitator working in the Muziya with farmers. Key informants are individuals who possesses special knowledge, experience, status, or communicative skills and who are willing to share that knowledge and skill with the researcher (Lecompte and Preissle 1993, Morse 1994). Each the informants was interviewed on four different occasions and each interview lasted for one hour

In all these interviews, interview guides were used. These were previous pre-tested in Muchila area in Namwala district. Muchila area was chosen for pre-testing the interview guides because it had many things in common with my study area. It is found in the same agro-ecological zone with my study, the population depends on agriculture for survival and all the farmers were small-scale farmers. The interview guide were re-phrased and rearranged according to the responses given during the pilot study. The interview guide was subdivided into three sections[13] and each section was used to solicit information from different categories of people. This type of guides allowed for

[13] The first section had question for small-scale women farmers and chairperson for cindi, section two had questions for ASP facilitator, while section three had questions on for veterinary officer.

clarification of the question where the respondents did not understand the question. It also allowed free response and probing in for more information and for clarification.

The interviews with small-scale women farmers and the chairperson for CINDI were conducted at their respective homes where the respondents were able to answer questions without fear and this increased rapport. At the beginning of every interview, the respondent was asked if it were fine with them to conduct the interviews in the presence of the male research assistant. Every interview started with a small talk on life in general to improve the rapport. During the interviews, the researcher asked the questions while the research assistant recorded the responses using a paper and pen. The interview was conducted in Chitonga, the language locally spoken and both the researcher and the research assistant were conversant. The responses immediately were prescribed into English language. The interview guide used is attached as appendix C.

The interview with the ASP and the veterinary laboratory technician was conducted in their respective offices and English language was used. The use of English during these interviews shows the dominance of English as an official at work places. The interviews were held in the informants' offices to create an enabling environment for the respondent, for confidentiality and privacy. Hay (2000) records that interviews in which both the interviewer and the interviewee feels at ease generates more insightful and more valid data than otherwise be the case and this also improves communication. The role of the researcher during these interviews was to keep the interview flowing through probes, seeking clarification on unclear responses and nodding the head in approval of the responses.

5.4.3 Participatory rural appraisal (PRA)

Different participatory (PRA) tools were employed during the focus group discussions and interviews to elicit qualitative data on poverty incidences and causes among women (Freudenberger 1994). PRA are visual tools that are used to get the visual impression of the respondents on the issue under investigation. They are found to be more effective in getting the perception of the women without limitation in vocabulary. The summary of the PRA used and the kind of information sought is provided in table 2 below

Table 2**:** Issues and Methods used to collect women's views on what constitutes women poverty, incidences and causes.

ISSUE	METHOD
Perception of poverty, causes of poverty and interlinkages	Causal flow diagram
Perception, indicators of wealth, well being	Social mapping
Comparing of the well off, average well off, and the extremely poor based on asset holding	Classification matrix
Economic activities of small-scale rural women in the Rain season, cool dry season, and warm dry season	Calendar
Identifying cattle population, credit facility provision and extension service provisions over time	Historical matrix
Perceived magnitude of the well off. Average well off and the extremely poor	Quantification method
Peoples' perception of staying into, falling into, and emerging out of poverty	Trend analysis
Government policies on marketing, extension service provision, and credit facility provision	Review of government policies on these services over time

Source: Field work 2005.

5.4.3 Data analysis

Ethnographic analysis approach comprises a searching-out the underlying themes in the materials being analyzed. Altheide (1996) describes it as a process through which the researcher is constantly revising the themes or categories distilled. This is attained through recursive and reflective movements between concept development sampling data, collection-data, coding-data, and analysis interpretation. This allows the researcher

to make inferences by systematically and objectively identifying special characteristics of a message (Berg 1989).

5.4.4 Selection of focus group discussion and interview participants

Snowballing was used to recruit participants for focus group and individual interviews. One person was identified in a particular category of the study group, approached, and requested if she was willing to take part in the focus group discussion or interviews. They were told of the date, venue, (the place were they normally have their village meetings) and time for the focus discussion or interview as earlier arranged with the village headman. If they were agreeable, further details were given on the timeframe for the discussion. The reason for giving all these details in advance was to try to see if these (the date, time and venue) were appropriate for the potential participant. This was also to allow the potential participant to plan her activities for that day so that none of them was to collide with the time for the focus group discussion or interview. Once this was agreed, the potential participant was asked some general question to find out if she was a person who could express her self. Further, more she was asked if she could help in identifying another potential participant of her category. Lindlof (1995) argues that getting referrals from others through world of mouth is a good means of gathering respondents The starting point for identifying potential participants was dynamic in nature in that different starting points were identified, ranging from the village headmen, the village committee members, relatives and friends. This minimized biasness that would have arisen from referrals to quittances only. The selection of the place where the village usually had their meetings was to make the participant feel comfortable since they were used to the place and does not belong to an individual (Lecompte and Preissle 1993, Hay 2000).

5.4.5 Justification for Sampling and data collection procedures

In the collection of data, the respondents were selected through snowballing; while the data was collected through focus group discussion, individual interviews and documentary review. Snowballing was appropriate to select the participants in data collection because of the mult-diversity of categories of women that were to be interviewed. This eased the process of identifying the right candidates since women of

different characteristics know themselves better and once one was identified, they helped in identifying the next participant with similar traits like them. Focus group discussion and individual interviews were combined with participatory tools to provide deeper and sufficient information. The combination of method is required, each serving different but edifying each other within the overall research design (Scoones 1998, Ellis 2000). Focus group discussion generated data based on group interaction. The interaction synergistic the focus group and widened the range of responses, activating forgotten details of experiences and releasing inhibitions that cannot be released by individual respondents. This makes the focus group data rich in details that are difficult to achieve with other research methods (Asbury 1995, Merton et al in Catterall and Maclaran 1997).

The interviews were used to fill the gap on individual knowledge, investigating sensitive issues that could not be discussed during group discussion, collect information on events, opinion and experiences. The other positive attribute of interviews is that it allows you to discover what is important to the informant and the researcher's opinions and conclusions can be checked, verified, and scrutinized (Schoenberger in Hay 2000). This minimizes biasness and prejudices.

The inclusion of the participatory investigative tools in the research was to explore a number of issues. These included capturing the multiple facets of poverty, stratify women in different social group, compare asset holding among women of different social groups, explore women's economic activities throughout the year, to quantify the magnitude of women in different social group, to analyze asset holding trends over time, access to credit, and extension services. This highlights the opinion and perceptions of the researched that cannot fully be explained verbally due to limitation in vocabulary.

5.4.6 Secondary data

Secondary data provided the base material for the study though most of it was scanty. These provided cues worthy for further investigation especially on contradictory information. The study objectives included how lack of extension services, credit facilities, changes in marketing systems, and land holding had affected the productivity of women. These policy issues could not be fully covered by field interviews and focus group discussion but rather by analyzing government policies pertaining to the provision

of these services. The review of government policies on these services provided insight on these issues. Equally, issues pertaining to climatic characteristics which influences farming systems could not be fully comprehended by first hand information. Therefore, the review of documents from the meteorological station and land survey department at Mount Makulu research station were of great importance in understanding climatic characteristic of the study area.

Ideas and explanation of the topics under consideration were collected from numerous authors. This helped me to conduct the research in a more efficient manner. Similar studies done India, Latin America, and Africa provided the background information for the study and acted as a tool for checking the research work.

5.5 Ethical consideration

The ultimate aim of any research is to produce new knowledge. This makes it imperative that the process is done with integrity and rigor. The researcher is in the power position to generate new knowledge and this process goes with responsibilities and obligations expressed as ethical consideration. Ethics in research are modes of right behavior of a researcher from research design, data collection, analysis of results, and publication of research findings. Ethical consideration is vital in ensuring integrity of the knowledge produced, dignity, and well being of the researched (O'Leary 2004, Mikkelsen 2005). In light of this various ethnical consideration was observed during data collection. Among them are entry and access to potential participants was sought from the gatekeepers. These were the District agriculture coordinator, the chairperson for the village headmen, and the village headmen. Individual permission was sought form the sample under study. Permission to tape record the interview or discussion was equally sought. Participation in the study was after explaining the importance and purpose of the study. Confidentiality was assured to all the participants in the study because it is central in social research ethnics (Mikkelsen 2005). This involves the protection of the identity of individuals who provided research data from the third person. Hence, in the study no public association of information and individuals was made in exception of certain pictures taken and permission to do so sought. All personal and individual identifying data was securely stored and kept by the researcher and the manner of publication of results does not allow the reader to identify persons or individuals who provided information. The time for

conducting the research, for conducting focus group discussion and interviews were other areas of ethical consideration. The times selected for all these activities were at the time when the labor for women was not on high demand. That was not during the planting or harvesting season of the year and not in the morning or evening when they are supposed to prepare meals for their families. Cultural observations in the area of code of dressing and general conduct could not be ignored during the data collection period. It was imperative that the researcher and the assistant dressed appropriately. When offered with food (sign of generosity and courtesy), it was polite to accept it. In situation were circumstance could not allow, heart sincere appreciation for the offer was shown and reasons for not taking the food politely explained to participant. Furthermore, during funerals and ceremonial activities that follow the death of the person, no data collection was done.

5.6 Limitation and reliability of the data

The study was only limited to small-scale rural women of land holdings ranging from 1 hectare to 10 hectares and those who depend on animal draught power or hand hoes. Some of the problems experienced in the field were people not keeping time, breaking appointments and contact persons wanting only the close relatives to be included in the study. Further, the issues of women poverty was difficulty to assess among the married or those who were living under the care of male relatives because the social position of women was shielded by the social standing of the household head, who were the husbands or a natal. The problem of people not keeping time resulted in the start of the programs late than scheduled and their fore limiting the time allocated for other activities of the day. For example the late starting of the focus group discussion in the morning made us to finish late around 11:00 if we started around 09:00 hours or 12:00 hours if we started at 10:00 hours. The breaking of the appointments meant finding alternative time for those particular activities. An example was the failure of focus group discussions to take off on the day they were scheduled for on the working timetable in Mungala and Dindi villages. This meant finding alternative time for those activities. The breaking of the agreement by some potential interviewees meant looking for replacements and finding appropriate time for them. This was not only difficult task but a draw back which delayed my data collection unnecessary. Additionally, the time factor and limited

resources could not allow me to conduct at least two focus group discussions per each category of women. However, the use of various methods in data collection compensated for this deficit.

In order to capture the social position of married women, or those unmarried women who lived under the roof of a male natal, a systematic intra household asset holding was conducted and assessing authority discretion on the use of assets like land, disposition of livestock like cattle. The use of every piece of land has to have the blessing of the husband or a male relative. The same applies to use of cattle.

The data collection process had difficulties and flaws. The PRA tools used had to be modified to suit the local environment. For example wealth ranking using card had to be replaced by social maps. This was done because participants were skeptical to classify others as well as off or extremely poor by way of categorically sorting them by name in wealth groups. Furthermore, the naming and classifying people to different social classes was viewed by many as the method that has been employed by many NGOs working in the area to discriminate against certain section of people not to benefit from the services provided by such NGOs. This made me to drop this method of wealth ranking to social mapping. This is major advantage qualitative research method as it allows adaptation. The problem encountered on data collection was starting a discussion and keeping it flowing. The solution lies more in the researcher's ability to provoke a discussion and keep the discussion by probing in question, seeking clarification on unclear thoughts, or directing the discussion. The method used in solving these problems ensures some degree of reliability and confidence of the data.

In the case of interviewing key informant, the sample size and composition was altered from the original preposition. Initially the agriculture extension worker (s) working in the area was be interviewed on agricultural policies and how these policies have improved or reduced women farmers' agro-production or what they perceive as the cause of poverty among small-scale agriculture women. The data gathered during orientation to the study areas and the focus group discussion made me to change to include other key informants to verify on certain issues. An example was the lack of farm inputs because of the difficulties women were facing in accessing credit made me to include the chairperson for Muziya co-operative union to shade more light on the

procedures to be a member of the co-operative and subsequently qualifying to apply for input credit. The problem of cattle diseases made me to include the Kalomo district laboratory technical assistant to provide information on cattle diseases in the area. The involvement of different informants helped me to verify some information that women farmers did not know or not understand. The data collected through this approach enhanced the quality of the study.

In summary most of the data collected was reliable and where there were some suspicion or data lacking, verification of information from independent sources was employed to remove uncertainties. Triangulation involving data from focus group discussion, individual interviews accompanied with PRA techniques, secondary data and maps increased the reliability of the data used in the research. Furthermore, the researchers' personal knowledge of the area and background of the people was vital in soliciting clarification or information, which some people were not willing to give or thought was not important to issue under study.

5.7 Validity of the data

Validity refers to the closeness of a finding to the reality (Chamber 1994). However, there is always a risk in every research to divert from the focus of the study. This could be a result of pressure from the respondents, who might be having other pressing issues that they fill need agent attention. Primary data gathering was done through the use different data collection techniques and some participatory rural appraisal (PRA) tools. The PRA method minimizes the researcher's involvement in the generation of data but listen to what the people had to say and control the discussion. This was not an easy task, as many adjustments had to be made on time duration per activity. This was to enable participants to discuss and come to consensus. Further modifications on the methods were made to reflect the reality of fieldwork experience and to come closer to the reality.

The focus group discussion and interviews with women of different categories was meant to discuss women poverty and the causes. However, there was a tendency by most women to talk much about individual vulnerability. It is paramount to take extra care when dealing with the poor women who might perceive the researcher as potential person to liberate them or to lead them out of destitutions. The hunger situation in the area made it more difficult to solicit diverse views on women poverty and its causes as

most of the women saw this research as a window of hope for some relief food. This was constantly checked by referring respondents to the indicators of poverty earlier identified, which included cattle ownership, food insecurity, failure to send children to school, education, lack farm implements and inputs. At times verification was done through neighbors or key informants.

In ensuring validity of the data to the research objective, questions were constructed in each section to correspond to each objective of the study. Each objective had a link to women poverty: incidences and causes. The issues not directly linked to research objectives but deemed important in understanding women poverty: incidences and causes were fitted were appropriate in the focus group discussions or individual interviews. The use of different methods in data collection added to the validity of the data. This concurs with the Brock-Utnes (1996) recommendation that, a conventional way of treating validity in the recourse to triangulation. Triangulating refers to crosschecking and progressive learning and approximation through plural investigation. It involves assessing and comparing findings from several, often three method (Chamber 1994).

In summary, the systematic probing, seeking of clarification and the use of visual (PRA) tools during both focus group discussions and individual interviews generated ample data that will enable me analyze the issue of women poverty, incidences and causes.

CHAPTER SIX

SOCIAL STRATIFICATION

6.1 Introduction

In this chapter social stratification and the major characteristics of the small-scale rural agricultural women of Muziya community will be described and analyzed to allow subsequent analysis in the ensuing chapters. Household and individual unit of analysis underlies the stratification process.

The social mapping exercise conducted in the nine case study villages identified three social groups. Overlaps were exhibited in the definition of poverty across villages. Since the approach was contextual, no pre-articulated poverty definition was imposed on women; instead, the understanding of poverty was elicited from the local people. This approach was deemed appropriate because it is assumed that the poor are better placed to define their own poverty situation for they understand it better. Indeed a man from Adamayo, Ghana liken poverty to heat, which cannot be seen but can only be felt, so to know poverty, one has to go through it (World Bank in World Bank 2000, DFID 2001, Krishna 2004).

During the facilitating process for social mapping exercise, small-scale rural women of Muziya came up with their own criteria for differentiating women into different social-economic groups, which included better off, average poor, and the extremely poor. Since poor women earn a living from different sources, exhibit different asset holding, dress differently, and live differently in their homes, the emerging criteria for classification was based on assets, livelihood activities as well as appearance in terms of dressing. Livestock ownership, period of food available from own production, use of chemical fertilizer, certified seed, and ability to send children to secondary schools emerged as the consistent variables that various social mapping groups used to differentiate women into three different social groups. However, in certain instances additional variables were included as additional criteria. The manner the small-scale rural agricultural women of Muziya explained the poverty causal factors and their interrelationships was in agreement with the assumption that different forms of

disadvantage tend to be mutually reinforcing so that people or individual jammed by one log are likely to face another one as (De haan and Lipton in Mehta and Shah 2001).

Furthermore, the social mapping exercises reviewed that Poor individuals or households live in different localities, constitutes of diverse demography, social conditions, as well as exit in households of different headships. However, these individuals and households experiencing deficit demonstrate many similar characteristics as regards to asset holding and capabilities. A household was defined as a group of people living together, eating the food prepared from the same pot and helping one another in work. In general, the well off in Muziya area are distinguished by having some of the following characteristics:-

6.2 The better off

6.2.1 List of criteria

- Own cattle
- Have life skills like tailoring
- Cultivate with the onset of rainfall
- Have enough stocks of food crops and excess for sell
- Access to chemical fertilizer and hybrid seed
- Can send children to secondary schools
- Has hammer mills
- Own a car
- Dress properly
- Free to express their views in village meetings
- Grow and rear different types of crops and animals
- Many posses some education
- Trade in valuable goods
- Some work with the local NGOs
- Can hire labor

6.2.2 Interpretation

The better off are the most prosperous economically and are the most influential in social-political matters. Since it is not possible for women of this category to have all these attributes, cattle ownership, labor hiring, use modern chemical fertilizer and hybrid seeds, sending children to secondary school. Furthermore, these have enough stocks of food crops and extra for sale, cultivate with the onset of the rain season, and benefiting from seasonal increase in crop prices[14] were put as the cut-off point to the better off. The other cases considered under this group, was the educated. These included NGOs employees, community based health organization (CBHO) workers, teachers employed by the government or the locally hired teachers by the community to help in the government schools to offset the teaching staff deficit in the two schools located in these areas. Other assets acquisition or livelihood strategy activities are ventured into once this levels are attained.

The size of better off has been reducing over years because of the impact of a number of shocks on the livelihood sources. The details of this are discussed in chapters six and seven. Those officially employed diversify into agriculture to provide their household with food and excess for sell.

These are usually the first to cultivate their land because they possess oxen or make cultivation arrangements well in advance before the own set of the rain season and hire labor. Fertilizing of their plots is not a problem because they easily covert livestock into money or sell the stored food crops to buy the commodity or to join co-operative union. The average poor posses less of these attributes.

6.3 Average poor

6.3.1 List of criteria

- Feed themselves all year round from there own stocks but cannot sell
- Able to plant crop at the appropriate time
- Have brothers, uncles, sisters who work and assist them

[14] This is associated with rain season when the food is in short supply and prices for agro-produces increases.

- Cultivate more than one food crop and rear medium and small livestock (goats, sheep, and pigs)
- Can send children to primary school
- Most vulnerable to fall into poverty
- Use family labor
- Can visit the hospital when need arises

6.3.2 Interpretation

The average poor are the second group that follows the better off group of small-scale rural women of Muziya. The major classifications factors are ability to feed their households from own stocks[15], ownership of medium livestock, sending to children to primary school, and usage of family labor. They are also able to access draught power animals through relatives or friends. This enables them to plant their crops on time. The average poor refer to food sufficient. Food adequacy in Muziya is an important indicator of well being.

6.4 Extremely poor

6.4.1 List of criteria

- Inadequate food from their own stocks
- Poor clothing
- Lack of beddings
- Own mostly chickens
- Worn out kitchen utensils
- Don’t own large livestock like cattle
- Chronically ill, disabled, barren women
- Unable to send children to school
- Use hand hoe for farming
- Lack agriculture inputs
- Work for others for cash, food, or clothes

[15] Own stocks refers to own stocks of food crop and supplementing it with the purchase of the commodity in case of a deficit.

- Collect wild fruits, leaves, and roots for home consumption, for sell or exchange with grain food crops
- Beg for food

6.4.2 Interpretation

Due the difficulties in exclusively identifying women who categorically meet all the criteria, specific criteria were chosen in guiding the identification process. Food insecurity, limited access or claim over cattle, and dependency on labor to derive food emerged as determining factors. The extremely poor, are characterized with food insecurity, even during years of good harvest. They are locally described as "*ba mulya lyoolokwa*" which simply means those people who only feed from their own sources of food crops only at the time when crops are in the fields. They experience severe food shortages particularly during the rain season. The most important assets they own are their labor, chickens and a few goats. Effort to offset any food deficient forces them to draw from these resources. They also supplement their food sources through collection and gathering of wild fruits, roots well as begging.

Land preparation is done by hand hoe and at times by plough through the help by the merciful[16]. Further, more this group of women does not use hybrid seed or fertilizer but depend on recycles seeds and the natural nutrients from the soil because they cannot afford to buy these inputs.

6.5 Explaining social stratification

A closer look at the social-economic class distribution pattern of small-scale rural agricultural women of Muziya depicts a disturbing picture. The women of Muziya have similar background, live in the same agro-ecological region, social-economic environment, affected by same livelihood shocks, but social-economic status difference persists. Explanation of this discrepancy is not possible without assessing factors that were common in describing well being among all the social-economic groups. Social stratification of small-scale rural agricultural women in Muziya is analylized by discussion the cross cutting indicators of social-economic status. These are cattle ownership, crop yield, credit acquisition, and types of non-farm incomes according to the

[16] People who help them to cultivate a portion of their land with draught power without paying.

small-scale rural women's perception of what constitutes of poverty. This is to capture the local peoples' own understanding of poverty and what they perceive to be the cause of poverty. It should be remembered that what it means to be poor can be very different in different societies not just as between North and South, US and Scandinavian. Social-economic structural and cultural context shape the experiences and understanding of poverty, it is a construction of specific societies as well as universal (Lister 2004).

6.5.1 Asset Holding

Different societies view some asset to be central in their lives than others. The value attached to specific assets is closely associated with its importance to the concerned people's livelihood (Ashley et al 2003). Among the Tonga people where this research was conducted, cattle have a very special place in their lives because of its multi-functional roles. It is perceived as a symbol of wealth and social standing in the society, (Zambia Daily mail 02/12-05). The wealth and social standing of a household or individual in this society is associated with the number of cattle the household owns. The more cattle a household or individual owns the more wealth he or she is and this gives him/her a high position in the community. The value attached to cattle made other household or individual that owns other large livestock like donkeys to fall off this category. In fact, the ownership of donkeys is viewed as sign poverty (problems). This made women who live in households that own cattle be classified as better off. The women argued that once you have cattle then it becomes easy to acquire other resources, which includes labor, transportation, money, and food. The reason for taking a household as a unit of analysis is based on the assumption that people living in a household pool their resources and sharing living standard at least to the some extent (Lister 2004). The limited number of household that own cattle reduced the number of the better off, while lack of access or claim on cattle increased the number of the extremely poor.

However, this approach overshadowed the intra household cattle ownership and underestimated the number of women living in poverty. Poverty is experienced by individuals because it is the individuals that strive to live. This makes an individual to be an appropriate unit of analysis, if poverty is to be understood in terms of right to a minimum level of resources. This was evident in the intra household asset ownership analysis. It was found that very few women own cattle, a symbol of wealth and social

standing in the Muziya area. This further reduced the size of the women of Muziya who fall under the better off. The low ownership of cattle among women of Muziya is a result of reduction in the sources of cattle. The cattle, for examples, though acquired through different ways, inheritance has been the many source through which most small-scale women farmers acquire them. The reduction and disappearance of cattle among the old folk in Southern province and Muziya in particular has made most women to be poor and has deprived them of the benefit derived from cattle. This fact was confirmed by one male agriculture farmer of Muziya whom was interviewed to verify this point during the meeting with the agricultural support program facilitator of Muziya. The farmer was asked how many cattle they owned as a household and how they were acquired. His response was that they had one and that it was bought after the sell of agro-products. However, when asked on who owned the animal, his answer was that it belonged to him because he was the one who was governing the household resources and the land upon which the crops were cultivated which brought in the money that was used to purchase this animal was his. He further pointed out that those women who own animals realized from the sell of agro-products are those who dwell in households which are under the rule of the pit cot government, implying those households where a woman, in this case wife has control over the husband and subsequently over household assets.

6.5.2 Crop yield

Crop yield particularly maize is synonymous to food security. Women are responsible for feeding their households. This makes their crop yield to be a vital indicator of food security. Most women of Muziya are not able to feed their households from their own stores of crop throughout the year. This makes most household to experience food deficit. The low crop yield among most small-scale agricultural women of Muziya contributed to majority of them being classified as poor.

6.5.3 Credit acquisition

Credit in form of a loan has a vital role in the farming community. It provides farmers with capital to purchase physical capital (farm implements), fertilizer, seed, and pesticide. Credits are offered buy different institutions, which are either informal or formal. The co-operative unions are the major sources of credit for the small-scale rural farmers as

mentioned elsewhere. The ability to access these credit facilities from co-operative is dependant on one being a member of the co-operative that requires money. The failure to raise membership fees by most of women has reduced the membership of women in co-operatives and indeed, in few numbers of women who get seasonal loans.

6.5.4 Non-Farm incomes

African small-scale farmers are currently embarking on a dual strategy involving experimentation with non-agricultural subsistence fallback. These two tactics are complementary, reducing the likelihood of total production failure (Brycenson 2002).The small-scale rural agricultural women of Muziya like other small-scale farmers are involved in a number of non-subsistence fallbacks. Long distance, working with NGOs, and teaching are perceived to be more rewarding. Very few women of Muziya are involved in these types of income generating activities. This has equally contributed to large number of women considered as poor.

6.6 Summary

In understanding poverty, poverty assessment and vulnerability analysis were adopted. In both aspects, asset holding was the key indicator of either poverty or vulnerability for local people views those concepts more in relation to what a household or person own. This made small-scale rural agricultural women to classify themselves into three different groups of, better off, average poor, and extremely poor. The situation of these different social groups is further explained using physical asset, crop yield, credit acquisitions and non-farm economic activities. This pushed further most of them into the class of the poor for very of them own cattle, record high crop yield, access credit, or involved in more rewarding non-farm income generating activities.

Chapter Seven

Livelihood of small-scale rural agricultural women of Muziya, Kalomo

7.1 Introduction

Small-scale rural agricultural women of Muziya, like other small-scale rural agricultural women in developing countries pursue diverse livelihoods. The productivity of each of the livelihood activities has changed over years due to changes in the factors that influence production. These negatively affect the livelihood activities production. In discussion the livelihood activities of small-scale rural agricultural women of Muziya, changes in agro-production at household and individual level as well as shocks that negatively affect both agro and non agro-production are addressed.

7.2 Livelihood activities

Some livelihood activities pursued tend to be seasonal oriented though others are none as reflected on the economic activities calendar Appendix G. They are classified as on, off, and non-farm based. The on-farm livelihood activities take the form of crop cultivation and livestock rearing or the mixed farming livelihood and carried out mostly during the rain season, particularly for crop production. The off and non-farm livelihood generating activities are diverse. These are based on natural resources, skills and abilities. The natural resource based livelihood activities apart from mixed farming, includes gathering of wild roots, tubers, fruits, leaves, grass, and fishing. The skill and ability livelihood activities include beer brewing, knitting, and pottery, making of mats, baskets, snacks, and house repairing. Most of the off and non-farm income generating activities intensify in the post harvest season.

7.3 Changes in the agro-production among small-scale rural agricultural women of Muziya

The agro-production trends were traced during focus group discussion and individual interviews using the historical matrix from the Kaunda era to present. Agro-production refers to crop yields and animal production to secure a living as well as for a secure livelihood. Animal production is closely linked to animal numbers (population). Both crop yields and animal production has been reducing over years. This was evident in all

interviews and focus group discussion. Small-scale rural agricultural women lamented that it is surprising how an area that used to produce enough stocks of crop products for home consumption and excess for sell all of sudden started recording deficits in recent years. The degree of reduction though not uniform throughout the entire community, shows a general negative trend of output.

7.2.1 Household productivity

Household production[17] has not been spared by the general negative production trend. Figure H and I in the appendix depicts this general picture, though variation is observable across different crops and livestock. Small-scale rural agricultural women of Muziya belong to different households that pursue different kinds of mixed farming livelihood activities. The most common crops that have been cultivated in this area are maize, sorghum, millet, cotton, sunflower, groundnuts, monkeynut (bambaranuts), cassava, and sweet potatoes. Cotton and sunflower has been cultivated specifically for sell. The difficulties in finding market for these crops have resulted into the abandonment of the cultivation of them. Monkeynuts initially cultivated for home consumption has equally been abandoned in preference to other crops for two reasons. These are because Monkeynuts were considered to be a less important crop particularly among men because it was only cultivated specifically for consumption. The second one is lack of well-organized and readily available market, which made it to contribute very little to the household income. Maize, millet, sorghum, cassava, groundnuts, and sweet potatoes, though still being cultivated has been reducing in yields over years as shown on the historical matrix in appendix H. However, intercrop productivity difference reveals that sorghum, millet, and cassava production records a slightly high yield than the rest of the crops over years because the area brought under cultivation for these crops has expanded in recent years. The provision of cassava seed to the farming community by Care International contributed to the increased cultivation of cassava in recent years. Just as crops are recording a negative productive trend, so are livestock.

The population of livestock has been on the decrease, though various are apparent across different types of livestock. Cattle population has constantly been on the decrease

[17] Household production refers to crop and animal reared at household level but under the control of men as husband or relative.

over years. From being the most widespread type of livestock during the Kaunda era, cattle today in Muziya area has become scarce among most households. In most cases, households have completely lost the entire herd. The pigs and chicken, though reducing in number, their reduction is not very substantial, while the goats which reduced between the Kaunda and Chiluba era shows a positive growth trend in the Mwanawasa period as depicted in the historical matrix on animal production in appendix I. The empowerment of households who keep orphans by CINDI with 4 goats to the orphan and another 4 goats to the guardian in 2002 led to the increase in the goat population in the area.

7.3.2 Individual production level

Just as there have been changes in agro-production at household level, so is the case at individual level. Small-scale women of Muziya have been involved in the production of various types of crops and the rearing of different animal. The crops cultivated and livestock reared are in most cases the same as those of the households though there were also crops which are specific for women farmers. Some examples from Muziya area are Monkeynuts (Bambaranuts) and sweet potatoes. The production of maize, groundnuts, sweet potatoes, millet, and sorghum has been reducing over years, while monkeynuts production has completely disappeared. Cassava cultivation among women cultivators has increased in recent years (see appendix H). The reduction in production is also paramount in livestock. Cattle production among small-scale rural women of Muziya has constricted over years. The same picture is depicted for pigs and chicken. It was only the goat production, which shows a positive trend in the current period. Nonetheless, the intra household productions differences are evident. Both livestock and crop under the household domain surpasses the individual production in nearly all cases, apart from groundnuts yields and chickens rearing.

7.4 Shocks to agro-production and non agro-production

The changes in agro-production at household and individual level are viewed to be the consequence of various shocks. Shocks are events which negatively impact productivity. Shocks vary along a number of dimensions. These are durability, predictability, generalizability, and severity, as well as on the source of the cause whether external or internal. Out of the many shocks that affect small-scale rural agricultural women, this

section addresses ill health, drought, livestock diseases, and changing government policies on credit provision (Barnet and Blanikie in Baylies 2002).

7.4.1 Ill health

Ill health hampers small-scale rural agricultural production in Muziya in a number of ways. Many diseases and symptoms are used to describe ill health. Among the diseases and symptoms mentioned are malaria, diarrhea, fever, swelling of legs, chest related problems, backaches, and HIV/AIDS. These diseases affect the rural population throughout the year, though cases of sickness are high during the rain season. The impact of any one of these illnesses on production depends on the duration of the illness on an individual and on how the illness of an individual destructs the operation of the rest of the household production activities. Based on this argument, illnesses are viewed as having greater impact on production when they persist while short illnesses have less impact. This conclusion resulted into the classification of the illnesses into two; these are illnesses with long duration and those with short duration. The long duration illness which small-scale rural women of Muziya stressed to have negative impact on their production are chest related problems which are associated with season, backaches, swelling of legs, and HIV/AIDS. These illnesses are described as having an age dimension for certain types tend to be more prevalent in certain age groups. Chest congestions, swelling of legs and backaches are more common among the old age, while HIV/AIDS is more prevalent among the productive age group (men and women who are still in child bearing age).

Out of these two, HIV/AIDS was ranked number one health challenge because of its multi dimensional nature. HIV/AIDS as already mentioned affects the mostly the productive age group. The illness of such member of household deprives the household of the much needed labor in agriculture. If the person effected was formally employment, his/her sickness deprives the household of the remittances they used to received from him or her. During the illness period, household members particularly women who are traditional caregivers are forced to withdraw their labor from production activities to nursing. Furthermore, the household resources are redirected towards hospital, medical, and transport expenses of the patient. The redirection of these resources reduces the chances of the household involved of investment. In the crop production, it means failure

of the household to purchase chemical fertilizer or farm implements. In the non agro-based production, it implies failure to plough back the money into business to generate more income. It also means failure by women to carry out the non-farm activities, which includes basket and mat making, pottery, knitting, food processing, market gardening, and glass cutting that contributed to their livelihood. This deprives households of the income that can 'be derived from the sell of such products. Additionally the children of the patient moves into the household of the grandparents, creating more pressure on the limited food reserves, finances for schools as well as medical attention. When this person finally dies, the household members have to meet the funeral expenses.

Grandparent of Muziya bemoaned this situation. They argued that the sickness or death of children has many negative effects on them. It deprives them of social security in old age. Furthermore, they are left with a burden of looking after grandchildren at the time when they no longer have the energy to fend for them, or assets to help them. The burden of looking after grand children in the midst poverty makes them to lead a life of worry and misery which in itself has a negative effect on their health and indeed on the physical appearance. As one old grand parent lamented,

> *"If one looks at our bodies, one would be made to believe that we are naturally small bodied, these bodies you are seeing are not our bodies. We were a people who had fresh, people with big bodies, a people who could be admired, but these HIV/AIDS compounded problems are eating us from insides as we keep on worrying about what we going to feed our grand children, what we are going to dress them, what we are going to cover them, and how we are going to send them to school".*

The situation has been made more difficult with the diminishing social networks. This is the result of increase in number of orphan cases where each household has its own set. The nursing of the sick, medical expense, diversion of household resources, the sell of household assets, and increase in dependency ratio all contribute to the low production returns of either agro or non agro- production base. HIV/AIDS disproportionately affect small-scale rural agricultural women because of their weak economy, low asset holding,

and low likelihood of replacing the lost human resources. These research findings have been evident in other researches that has been conducted elsewhere within or outside Zambia (Baylies 2002, UNDP 2003, USAID 2003, FAO 2005, Madhavan and Schatz 2005, Mutangadura 2005, Nino and Marini 2005).

7.4.2 Drought

Zambia experience periodic drought and has particularly been drought prone over the past decade. Since 1991, the country has recorded three major droughts. These are 1991/92, 1994/95, and 2001/02 farming seasons with partial droughts recorded in specific region within this period and outside this period. The effects of these droughts are not uniformly felt throughout the country but tend to be more in certain regions than in others. The intensity of drought tends to exhibit some geographical dimensions depending on the rainfall distribution pattern. The Northern and North western part of the country record high rainfall. This reduces to half towards the southern and western parts of the country. This makes southern province among other provinces to be more prone to drought. The province receive sporadic rainfall supply characterized with regional differential, making other parts of the province to receive normal and other areas below normal rainfall. The amount of rainfall recorded per region depends on the agro-ecological zone in which the particular area is located. Kalomo district in which this study was conducted is divided into three agro-ecological zones. Muziya area where the data was collected from is located in the plateau/valley agro-ecological zone. This region experiences frequent drought of varying magnitudes (Mount Makulu soil survey map 2002, Saasa 2003, FOA/WFP 2005).

The effect on any of these droughts on the livelihood of the farmer depends on whether the farmer pursues rain fed or irrigation farming. The small-scale rural agricultural women of Muziya practice rain fed type of farming. This put their agricultural production at the vagaries of its highly variable weather. The negative effect of drought on small-scale farmers is diverse. The first and immediate results are low crop yield and low water reserves. The low crop yields are not only a function of poor rainfall supply but also, also a consequence of lack of chemical fertilizer, drought resistant crop varieties, and draught power (Osei-Hwedie and Ndulo1985, Kajoba 1993, Muliokela

1995, MAFF et al 1998, IFAD 2000, Saasa 2003, USAID 2003, Commission for Africa 2005, SDDP 2000, Kozel et al 2005).

The low water reserves hinder the small-scale farmers' ability to diversify their livelihood sources through vegetable cultivation. It further increases the work burden on women through water fetching for home use and domestic animals. Low water supply is one of serious problem that negatively affect the livelihood of small-scale rural agricultural women of Muziya. Out of the nine villages of Muziya that I visited during the data collection period, only two villages (Mungala and Lifalale) has dams servicing the surrounding villages and their livestock. Sindowe on the other side is located near Kalomo River that provides water for village. Dindi, Siono, Siambozo, and Siameja each has hand pumps, while Siadwazi has none. These water sources are not without problems. The hand pumps in Siambala and Dindi has a limited water supply capacity. The situation is worse in the dry season and worse still in drought years when the water table goes down and the water pipes can no longer reach the water table. One old woman in Siambala village commented that the hand pumps do not bring water when you pump, but instead bring air. It is only in Sioni village and Siambozo where this problem is not apparent.

The dams in Mungala and Lifalale have equally problems. The sizes of the dams are small and the dams have suffered from siltation over years reducing their water holding capacity. The water reserves in these dams are very low and constantly threaten to dry up in drought years. This makes the use of the water reserves restricted. The village headmen in the two villages (Mungala and Lifalale) control the exploitation of these water resources to ensure that the limited water sources are not exploited to extinction. The problem of water resource is not uniformly felt.

The inter village analysis identified Siadwazi village to be in a critical water problem. During the dry season, women of Siadwazi village walk for 5 to 7 KM in search of water. This forces them to wake up early in the morning around 04:00 AM and only to be back home at round 08:00 to 09:00 AM. After launch women go back to fetch water for evening use, and they normally back home around 06:00 PM. The time spent in water drawing is not only a function of distance, but also the size of the population these water points serve. Women have to queue for water, which in itself takes up a lot of their time.

This entails that even those women who stay near to these water sources have to join queues for drawing water.

The burden of water fetching takes up much of the time for small-scale rural women of Muziya to an extent where they fail to prepare themselves for the farming season, through land clearing, manure application, and timely seed acquisition. One women of Siadwazi village argued that the problem of water makes them fail to exploit the virgin land for throughout the dry they are engaged in water fetching business, the time when other people are clearing fields. This makes them to continue using old fields with low nutrient base, which negatively affects their yields even in years of good rainfall. Furthermore, the problem of water discourages women to rear more domestic livestock that needs to be provided with water for drinking like chicken and pigs.

It suffices to say drought disproportionately affect small-scale rural women of Muziya in that it directly reduces their crop yield. Further, more, women feel the impact of water shortage more acutely because they are the ones who carry it, wash and clean with it. This increases the heavy burden of drudgery and subsequent reduces women's time required to prepare for the farming season and for other livelihood activities.

7.4.3 Livestock diseases

The livestock sector of small-scale farmers is not only at the messy of the vagaries of climate, but also tropical diseases. A number of tropical livestock diseases have been prevalent among different types of livestock in tropical Africa in general and Zambia in particular. These diseases seem to be livestock specific. In Zambia, a number of cattle, pig, goat, donkey, and chicken diseases have been diagnosed. Most of these diseases tend to be regional specific in the beginning but later spread to other regions through livestock movement and the spread of the vector that cause them. Cattle are the most important domestic animal among the people of Muziya. A number of diseases have affected the cattle. Among these diseases are anthrax, east cost fever (corridor), gall sickness, red water, foot and month. East cost fever (corridor) has been widespread and the major cause of morbidity and mortality on the cattle population. The first case of the disease was diagnosed in 1922 in Nakonde district, Northern part of Zambia. The disease has since spread to Southern Province of Zambia. The disease is widespread in the province and has since killed a lot of cattle in the province. Just as the disease is widespread at

provincial level so is the case at district level. Denkete as it is locally called is reported to be the major cause of mortality among the cattle in Muziya area. The disease become widespread in 1980s and has since then become persistent such that it has been difficult for farmers to restock their cattle (GART 2000, Bengils et al 2002, Makala et al 2003, UNDP 2003)

Kalomo district laboratory technician described this disease as nuisance in the area for it has persisted and very difficult to control. The effect of this disease on the cattle morbidity and mortality has been constantly supplemented by the clipping in of new other cattle diseases from other provinces and districts[18]. Among them are foot and month, anthrax and red water, which spread from western province through the neighboring Namwala district. These diseases have been reported in different parts of the district. The district laboratory technician argued that the combination of all these diseases has a negative trend on the cattle population in the district. He further added that even the comparison of the cattle population for 2002 and 2004 would clearly demonstrate this trend. Indeed the strategic district development plan for 2002 to 2004 records that the cattle population in the district was at 188, 372 in 1985 and the figure stood at 96,124 cattle in 1997, a decline of about 50% over a 12 year period. This picture is not too different from the one demonstrated by small-scale rural agricultural women of Muziya in a historical matrix in appendix I under three different periods (Kaunda era, Chiluba era, and the Mwanawasa era). Cattle mortality in Muziya creates a sad episode in that most farmers have completely lost the entire herd. Any effort made to bring back the lost glory among most household, and individuals are hampered by its persistence. The disappearance of cattle among the old folk has a forth-telling consequence on women. They have lost their source of cattle[19] and their low financial status makes it difficult for them to replace them. In fact, out of 115 small-scale women of Muziya interviewed, only 10 owned cattle and the number ranged from 1-5 cattle. The lack of cattle among these women deprives them of the benefits derived from cattle towards their livelihood.

Lack of cattle deprives farmers of draught power and manure that contributes directly to increase and sustainable crop production in particular and agricultural

[18] Interview with the Kalomo district laboratory technicians.
[19] The most important source of cattle for small-scale rural women has been through inheritance.

production in general (MACO 2004). The general reduction in cattle population at household level[20] has resulted in reduction in the number pair of cattle used in the cultivation. The household who have lost the entire herd has to hire oxen from those who still have or has to work for draught power[21]. It is men who are always involved in these contracts because they are perceived to be more knowledgeable in operating the plough and can herd the cattle. The other category of farmer who cannot either hire or engage into any contract, cultivate the land by using the hoe.

The change in cattle population has two immediate implications on farming. These are reduction in the size of land brought under cultivation per farming season and increase in time spent in land preparation. The effect of low cattle holding is severe among women farmers because they lack control over cattle and their own labor. This is clearly demonstrated during the rain season when men are in charge of the plough and the cattle while women are in charge of the hoe. This gives men more advantage than women farmers in that the cultivation work starts from their fields. This is true also to hand hoe cultivators, where women has to provide labor in the family field[22] before their own. The control over the cattle and women's labor by men gives them more advantage in that they cultivate their fields first and plant early. This is the opposite situation for women who in all cases given are second priority making them to loss the best planting period, which in most instances results into poor crop yield[23]. The loss of cattle has also deprived households and women of milk for household consumption and extra for sell, and the cash realized from the sell of the cattle (Saasa 2003).

Just as a number of diseases have affected cattle, so are the other livestock that are largely reared by women. Some examples of these diseases are swine fever among pigs, rift valley disease among goats, blue tongue and rift valley among sheep and new castle among chicken. The disease outbreak among these livestock has reduced the population of these livestock.

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[20] Households with cattle refers to households who still have their own herds of cattle and those that have been given cattle by relatives or friends to use for cultivation.
[21] By contracting with households who still have the cattle and in turn they cultivate their fields as well as.
[22] The field under the control of the husband, brother, uncle or father depending on whom the women concerned is considered to be residing under.
[23] The crops planted late are in most cases left by the rains before they reach maturity.

7.4.4 Changing government policies on credit provision

Credit provision offers the most important form of finance for agriculture development. The credit facilities are of different duration and purposes. Their duration ranges from short, medium, to long term[24]. These facilities are provided by different institutions, which include banks, credit lending institutions, donor projects, NGOs, church organization, and individuals. They are also funded and governed by different policies. This part addresses the changes in government policies on credit provision. Out of the many categories of credit provider listed above, the most important source of credit to small-scale farmers has been credit lending institutions and to lesser extent Banks, NGOs, churches, individuals due their geographical specificity. Credit in form of loans takes different forms. The most common and widespread form has been the local purchase order (LPO) and inputs[25].

The provision of loans to the farming communities by government started with the land board. This responsibility was later transferred to the land Bank. This provided seasonal credit to settlers to supplement the commercial Banks, which was previously the major source of credit to settlers. In 1960, the peasant farming loan fund (PFLF) was established which served though to a lesser extent the African farming community (Woods et al 1990, MACO 2004).

After independence, COZ gave grants to small-scale producers who were members of the agricultural producer co-operatives (APC). AFC took over this responsibility after the collapsing of COZ. The 1980s saw the boom of various other credit-lending institutions to supplement AFC. This was in accordance with the national policy on food production[26] and food sufficiency and the realization that shortage of capital was the main constraint to developing agriculture to the outlying areas. Among the credit institutions that sprung up, among them are ZCF/FS, Lima Bank, ZSIC LTD, ZNCB LTD, and CUSA. Out of all these, it was the CUSA, ZCF/FS, and Lima Bank that provided loans to small-scale-farmers. The increase in the number credit lending

[24] Short term credits are to be paid within a year, Medium credit are to be cleared between a period of 2-5 years, and long term credit are to be cleared within 30 years. The purpose ranges from seasonal financial back up to long term investment.

[25] Seed and fertilizer has been the most common and widespread form of credit that has been accessible to small-scale rural women farmers of Muziya.

[26] Maize was the food crop referred to.

institution had a dualistic kind of results. They made small-scale farmers' to be dependent on seasonal credit for their farming and the over all increase in credit available to small-scale farmers. An example of 1985/86 and 1986/87 farming season, reveals that loans disbursed to farmers increased by seventeen fold. These institutions supplied inputs to farmers, which were subsidized by the government. This made farmers particularly small-scale farmers to be dependant on subsidized farm inputs.

The economic crisis, which the country started to experience in the 1970s made it difficult for the government to continue providing these services. By 1990, the government announced its plans to liberalize the economy. This saw the partial liberalization of the credit institutions[27] and maize marketing in September 1990 (Biseth 1987, Wood et al 1990, Kokwe 1997).

In 1991 when the MMD government took over power under the leadership of Chiluba, they embraced this idea and embarked on widespread policy reforms in accordance to the IMF and World Bank recommendations. This resulted into the slow disengagement of the government support to credit lending institutions. The partial liberalization of maize marketing in 1990 made the recovery of the loans from farmers difficult and a number of farmers defaulted. This made most farmers and co-operatives societies to be disqualified from obtaining loans in 1990/91 due to defaulting and subsequence reduction for credit distributed to farmers in 1990/91 and 1991/92 farming season in general and the amount of fertilizer given to each applicant farmer in particular. Semi-parastatal lending institutions handled the loans. By 1993, the government completely withdrew support to these credit-lending institutions. They were now to operate on their own account. This made it difficult for these credits lending institution to continue serving the rural small-scale farmers. This reduced the participation of the traditional lending organizations in input marketing and administration of credit. An alternative input lending institution was sought to fill up the gap.

This saw the introduction of agricultural credit management program (ACMP) in 1994/95 farming season. This was an ad hoc and transitory arrangement designed to promote alternative conduit in the short term and to promote a network of private traders capable of taking over from government the business of financing and delivering input to

[27] The partial liberalized credit institutions are ZCF-FS, Lima Bank, and cusa Zambia.

small-scale farmers. The fertilizer bought by the government and donors was delivered to depots for collection by a network of traders or credit co-coordinators (CCs) who made cash or credit deliveries at government controlled prices to individual farmers. During this period of rapid policy reform, subsidized fertilizer became acute. This was a great blow to small-scale farmers who depended on government-subsidized inputs (MAFF 1994, Tviland 1996, Copestake 1998).

The credit managers appointed by MAFF were Covmont Merchant Bank Limited and SGS Zambia limited. SGS operated in Southern province among other provinces. This was intended to commercialize agriculture lending institution. During this period, loans in form of fertilizer[28] were distributed through commercial banks to small input supply companies and saving association. The new creditor providers did not reach distance farmers. These services were now only available to the vicinity of Kalomo, Livingstone, and Choma districts respectively. These changes also saw the emergency of private players in the credit service provisions. The coming of the independent credit lending institutions on the agriculture market with uncontrolled input prices made it expensive and difficult for most farmers to access the commodity. Most of these inputs were exchanged[29] with maize grains[30] or in certain instances with cattle and sold for cash. The shift from pan-territorial input supply to market input supply could not fill up the input gap for small-scale rural farmers. Women farmers were hit hardest with this change for a number of reasons. Among them is the low cattle holding which entails that they could not purchase the seed and fertilizer available on exchange with cattle just as the other one available for exchange with maize was beyond their reach because their maize stocks are meant for household consumption. The fertilizer for cash was only available on the black market around the vicinity of Kalomo district. Under this system, lack of money[31], distance and exorbitant price were a hindrance. This made the fertilizer and seed available on the market for exchange or cash beyond reach for small-scale rural

[28] The seed was eliminated as part of input loan package.
[29] Fertilizer and the seed were exchanged because most small-scale rural farmers had no cash to purchase them.
[30] The exchange rate was at two 90kg bags of maize grain to one 50kg bag of compound "D" or urea fertilizer.
[31] Women's low financial status was attributed to demand of financial requirement in meeting immediate household needs.

farmers and worse still for women farmers who were already working with input deficit (Keller-Hertzog and Munachonga 1995, Milimo et al 2004).

The turning point is the implementation of SAP policies of World Bank and IMF in the 1980s and 1990s. This saw the replacement of government supported and controlled credit institutions with private traders (market-led-input-supply). The performance of market led input providers reveals mixed results over time and space, but amounting evidences suggests that they have not lived up to hopes vested in them by IMF and World Bank. This has been evident in the farm input deficit and the skyrocketing of input prices (Jambiya and Meagher in Bryceson 2002, Hazell in IFPRI 2005). The input supply and credit services contracted tremendously during this period. By the 1999/2000 farming season, fertilizer usage among small-scale farmers reduced to less than 20% nationally though geographical and genders differences were apparent (Siegel and Alwang 2005).

This is the kind of input support system that the new deal government of Mwanawasa inherited in 2001. However, the New Deal government of Mwanawasa recognized the failure of the private sector to provide adequate input services to small-scale farmers who derive their livelihood from farming to be the major contributor to low productivity, food insecurity, and cause of widespread poverty in rural areas (failure of the agricultural sector to provide a sustainable livelihood). Self-sustaining export led agricultural sector that ensures increased household incomes and food security was identified as the solution. Strategic programmes and activities of action is the focus while timely, accessibility and affordability of inputs and credit to farmers are the integral part of it. Ministry of Agriculture and Co-operatives fertilizer support programme (MACO-FSP) and Ministry of Community Development and Social Services fertilizer support programme (MCDSS-FSP)[32] were introduced to improve farm level productivity and ultimately reduce poverty (MFNP 2002b, MACO 2004, CSPR 2005, Siegel and Alwang 2005). Out of the two the most widely and commonly accessible type of the FSP is MACO-FSP in Muziya. In order for a farmer to access this fertilizer, he or she has to be a member of the co-operative, in this case Muziya co-operative union and has to be a paid

[32] The MACO-FSP is a 50% sudsized fertilizer programme, while the MCDSS-FSP is at 100% government grant.

up member. The membership fee is K50, 000 and should buy shares of up three at K50, 000 which comes to K150, 000. The farmer is also supposed to raise half of the mount of money required to buy fertilizer and seed[33] for a hectare. These conditions have made it difficult for most farmers to join the co-operatives and subsequently to benefit from this programme. Women who are already constrained financially have so far not benefited much from this programme. Muziya co-operative union that was formed in 1998 had a total a membership of 60 by 2003/04 farming season and only 10 were women. Out of the 10 women who were member of this co-operative union, only 4 were members in their own right[34]. They were three reasons provided for the low membership of women to the co-operative union. Women complained of lack of money as the hindrance to joining the co-operative while the chairperson for the MCU cited general fear among women of the consequences of defaulting, lack of finances and difficulties encountered by women to acquire draught animals as the discouraging factors. Since these running programs (MACO-FSP and MCDSS-FSP) are still new, there successes or failures to fill up the input gap cannot be over emphasized. However, available evidence suggests that they are working at a deficit. On aggregate, both programmes have so far failed to seal the fertilizer deficit gap, and indeed input shortages come out as one of the major factors hindering crop productivity[35] among small-scale rural agricultural women of Muziya (CSPR 2005 Siegel and Alwang 2005). Bryceson (2002) argues that while government policies were vital for fostering peasant commodity production, they are now instrumental in their undermining by altering a peasantry's access to essential means of production, among them inputs or what he calls capital. This has detrimentally affected small-scale women producers of Muziya.

7.5 Summary

Livelihoods activities of small-scale rural agricultural women of Muziya have been changing over years from that of exclusivity to that of diversitism. These changes are

[33] The seed varieties being provided for under the FSP package are only two, one going at K47, 000 and the other for K63,000 per 10kg.

[34] Women who joined the co-operative and had to pay for membership fee, buy the shares and pay the half of the money needed to get a fertilizer and seed loan of one hectare. The other 6 women joined the co-operatives but their husbands had to meet these expenses. This information was provided by the MCU during the interview with him.

[35] Interview with small-scale women.

linked to the process of depeasantization and de agrarianization of the African farming communities (Bryceson 2002). They have altered the agro-production among small-l scale rural agricultural farmers in Muziya from high to low. The changes are observed at both household level and individual level and are apparent both in crop and livestock production. The agro-production negative trend is a result of different factors. Among them are ill health, drought, livestock diseases and changing government policies on credit provision. These shocks affect more, small-scale rural agricultural women of Muziya.

CHAPTER EIGHT

INCIDENCES AND CAUSES OF POVERTY AMONG SMALL-SCALE RURAL WOMEN OF MUZIYA, KALOMO

8.1 Introduction

Poverty is widespread among small-scale rural agricultural women of Muziya. Its incidences and causes across households and within households vary extensively. This section discusses the incidences and causes of poverty in light of the five study objectives reflected in chapter one. This is done under four subheadings which are incidences, causes, livelihood analysis, and intergenerational of poverty. Under each subheading, a subjective[36] situational analysis is adopted. The point of departure is the poverty causal flow chart (figure 5 below) created by small-scale rural agricultural women of Muziya.

The analysis of the poverty flow chart reveals that there are a number of factors, which act together and reinforce each other in causing poverty. However, some general conclusions[37] drawn from the chart are that:-

- Poverty among small-scale rural agricultural women of Muziya emanates from various sources.
- The effect of one poverty causal factor results into the birth of one, two or more poverty causal factors
- Some poverty causal factors emanates from within the household[38] as well as out side
- Poverty causal factors belong to five different assets of the livelihood pentagon.
- Poverty causal factors are passed from one generation to another (intergenerational of poverty)

[36] Based on local people's perception.
[37] The selection of these conclusions are based on the fact that they will be used in the text for discussion later.
[38] Barrenness, death of a spouse.

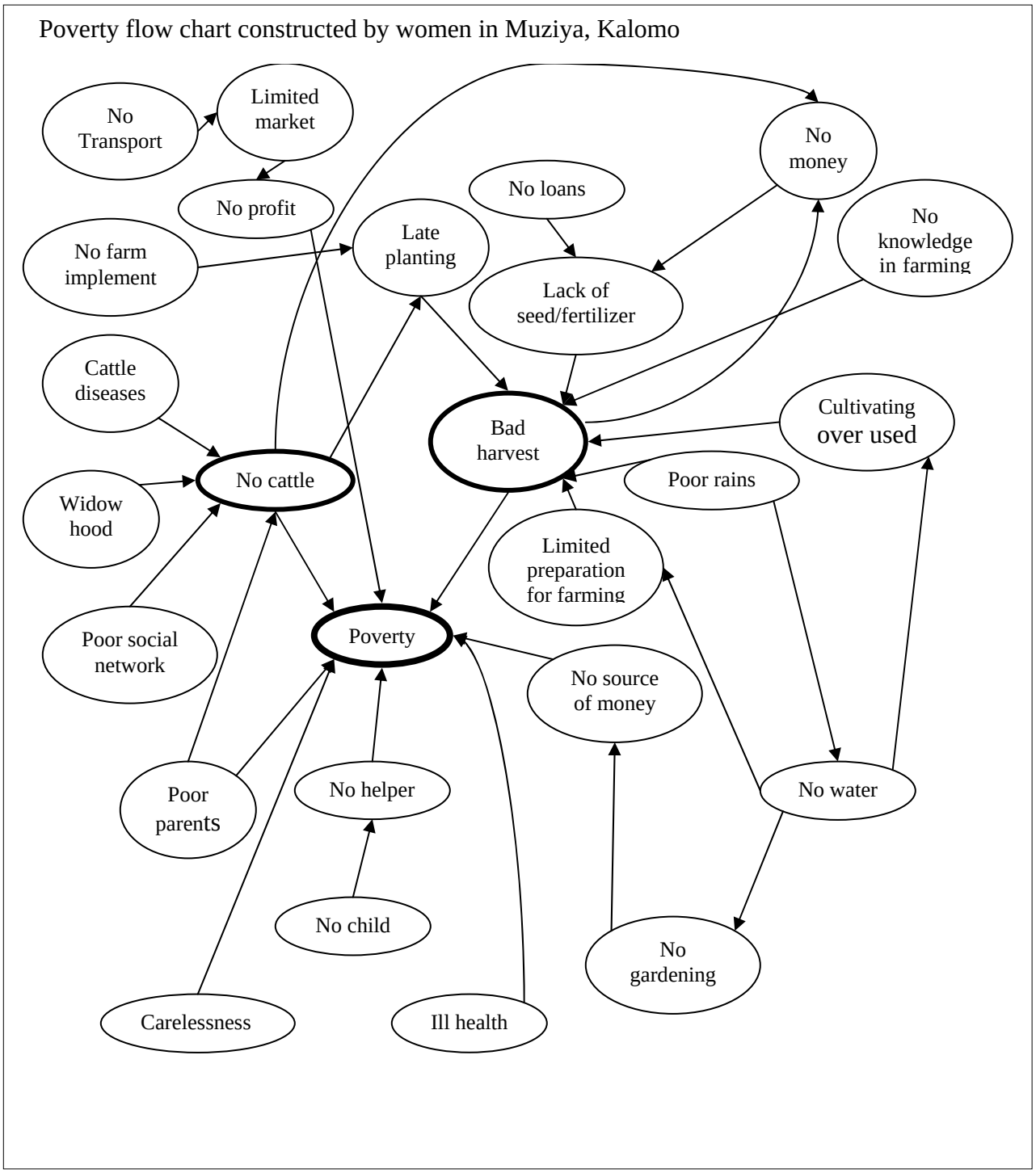

Figure 5: Multifaceted nature of poverty, Small-scale rural women of Muziya point of view

8.2 Incidences of poverty

The action of the poverty causal factors has created different social groups of women in Muziya. These are the extremely poor, average poor and the better off as revealed during social mapping process. The magnitude of each of these categories was arrived at during the quantification exercise and the results are shown in figure 7 below

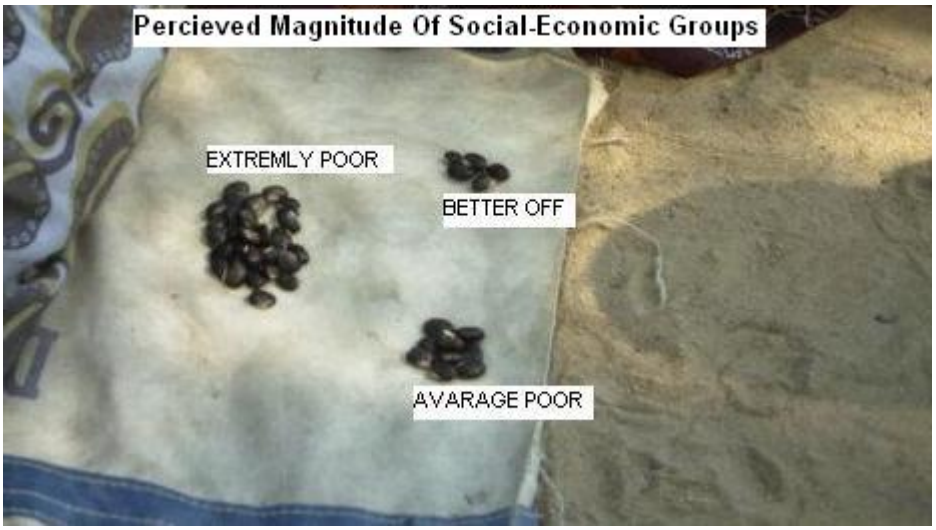

Figure 6: Magnitude of different social-economic groups

Most of women in Muziya were categorized as poor[39] and within this category the extremely poor were the majority. Factors causing small-scale rural women to fall into any of the three social groups are many as evidenced in chapter five. Crop and livestock productivity are used here for the sake of comparison. The classification matrix (appendix J) shows striking difference in crop and livestock production among the three social groups. On aggregate, the better off small-scale rural agricultural women of Muziya rear different types of livestock and grow different types of crops. The size of each herd of livestock is more than for the rest of the social categories. This is also true for crop production. This group of women grows different types of crops and the yields per crop are higher than the rest of the other groups of women or social groups. The average poor rear different types of livestock but the size of the herd per type is small. For the crops, diversity is limited only to few crops (two crops). The extremely poor have

[39] The average poor and extremely poor.

no cattle, the only livestock they own are chicken and goats and specialize in maize cultivation. The inter livestock and crop analysis reveals that goats and chicken are the most common while maize is the most widely cultivated crop among all the three social groups.

8.3 Causes of poverty

Just as the social groups for women in Muziya are scattered across the various villages, so are the poverty causal factors. There is no single explanation to the cause of widespread poverty among small-scale rural agricultural of Muziya. Choices have to be on which factors to consider depending on the sources of livelihoods in a given situation and the resources needed to pursue that livelihood (Hulme et al 2001). The poverty causal factors are vast as revealed in the poverty causal flow chart as well as in the text. The poverty causal analytical framework focuses on specific sets of these factors and examines the ways in which they interact to explain the nature of poverty. The framework ranges from a simple specific (small pictures) framework[40] to livelihood framework[41]. Both approaches are used in this thesis because its individual (simple) poverty causal factors that contribute to widespread poverty while the livelihood framework reveals how the simple interact to cause poverty (Ellis 2000, Hulme 2003). The specific framework brings to light specific poverty causal factors that are overshadowed under the livelihood framework. The livelihood framework synthesizes the specific poverty causal factors into a broader context. Out of the poverty causal factors listed in the table below, some factors were eminent in all the focus group discussions and individual interviews, while others were category specific as well as village pronounced. This is true also in the prioritization of the problems, which are social status pronounced and category specific. Generally poor rainfall pattern, cattle diseases[42], lack of transport, lack of extension advice, lack of farm input, ill health, lack of water for gardening and domestic use were cited as having caused widespread poverty among small-scale rural agricultural women of Muziya.

[40] These are category specific factors which includes natural, social-political, financial, human, and physical factors.
[41] The holistic framework looks at the interlinkages between the different category specific factors.
[42] A cattle disease has wiped out cattle in most households as well as for individuals in a household.

However, average and extremely poor view lack of cattle as the number one factor perpetuating their poverty situation, while the better off view lack of farm input, transport and capital for business as the most important factors causing widespread poverty among them. Nevertheless, there is an agreement among all women on the negative effect of rainfall and ill health on their sources of livelihood. The inter village and intra category analysis revealed water to be the number one factor retarding progress among women of Siadwazi village as mentioned elsewhere while lack of extension was emphasized among women who went to school from 8 and above. Category specific[43] poverty causal factors included on the flow chart are big family among women married to polygamous husband[44], lack of labor, market, poor social network is prevalent among alien[45] wives and widows, the situation was actually worse for widows who after losing husbands suffered property[46] grabbing (locally referred to as property inheritance). Property loss was also cited among local widows and divorcees as the blow to their livelihood. The married women particularly those married to locally classified better off husbands complained of land relocation and constriction[47] over years to have negatively affected their productivity. Labor and market as constraints to women's productivity in their livelihood activities are explored further here.

8.2.1 Labor

Small-scale rural agricultural women of Muziya suffer from lack of labor in pursuing various livelihood activities. This problem emanates from lack of control over men's labor. Though labor between men and women is exchanged on reciprocity basis, the exchange rate is not equal. Men tend to have more control and command over women's labor as decision makers, but this is not the case with women. However, differences on command over men's labor various across different classes of women and household

[43] Specific poverty causal factors are not reflected on the poverty causal flow chart because these were not the general consensus of all women but came out during individual interviews.
[44] Polygamous husbands has left the responsibility of raising and fending for children to their wives in the face of widespread poverty.
[45] Alien wives or widows are those women who married men of Muziya but they come from far away places which makes it difficult for them to go back to their natal to seek help.
[46] Property referred to here is cattle and ploughs.
[47] Husbands allocate land to their wives for cultivation and relocate them after they have cleared it and used it once or twice to new plots or over used land and in this process the land allocated to them is constantly reducing.

headship. For married women, their husbands control their wives' labor as well as those of the children and dependants within the household. This entails that in executing duties; the husband's work is given first priority and that of their wives second. For the widows, divorces, separates, and solo mothers, the lack of men's labor depends on the age of the male children within their households. Those who have boy children (biological or dependants) in the ages of 13 years to about 18 years and not married have no problem over male labor. The problem of male labor begins to emerge as the male children marry and become responsible to their own families because at this, stage they stop being responsive to the biological mother or guardian headship. Once all male in household reaches marriage age, then the mother or former guardians begin to experience the problem of male labor because at this stage they cease to exercise control over their labor. This implies that women farmers who have children below 13 years and those with married sons experience critical male labor shortage. However, it is important to substantiate the type of households to highlight the issue of male labor shortage among women farmers. Women farmers embedded within the extended family, though they may have male children will not exercise total control over their labor because the over role heads' decision supercedes. However, the single parents (widows, divorces, separated, or never married) who have no boy children or have small boys experience male labor shortage more. The situation is worse for barren women. This forces women to hire male labor for clearing the field, construction of panes for goats or pigs, gardens, barns, and houses which is very expensive for them. This is true also for women who are married to polygamous men with small boys or no male children. The husbands leaves the work of field clearance, construction of gardens, pens and at times even houses to respective wives for they cannot afford to provide all these services to all the wives.

8.2.2 Marketing in agro-products

The common types of markets for agro-products are formal and informal market systems. Informal markets are the commonest and take different forms. Examples includes the exchange of agro-products with processed commodities or food staffs from other parts of the country particularly dry fish and beans from Northern or North Western Provinces are widespread. Other goods that commonly exchanged with agro-products are chitenge material, shoes, clothes, plates, pots, basins, buckets, and cups. These flood the villages

during the harvesting season and just after harvesting. Towards the beginning of the rain season, farm inputs, which include fertilizer, seed and spare parts for ploughs, take the lead. However, the barter system goes along side with cash buyers. The government FRA and private individuals forms the main cash buyers of agro-products. The private buyers includes local farmers (who buy to resale later in the year when the prices goes up), contracted buyers distance businesspersons, long distance traders (these who buy agro-products from rural areas to resale in towns).

The private businesspersons buy the agro-products at varying prices. During harvesting period and in years of good harvest, the prices for the agro-products are very low because the products are in abundance and the buyers are few. The buyer in this situation determines the prices limiting the bargaining power for farmers. In years of poor harvest, the prices for agro-products are generally high though this depends on the number of buyers available. The prices hike, particularly towards the rain season when agro-products are in acute supply while the demand is high both in rural and urban areas. This situation provides an opportunity for farmer to bargain for the prices of their agro-products. Supply and Demand rule becomes the principle determinant of agro-product price.

The FRA on the other hand has contracted Kalomo co-operative union to purchase maize on its behalf from the surrounding villages under a government prescribed price. Their operating ground is Kalomo boma. Farmer from surrounding villages who want to sale their products (maize mostly) to them have to deliver the commodity at the boma. The comparison of prices between FRA and private buyers reveals that FRA offer good price. However, access to this market is not without problems. Farmers are supposed to organize their own transport to deliver the commodity at the boma. The difficulty in finding transport among farmers, particularly women makes FRA not a viable alternative. Worse still farmer in most cases are supposed to organize their own empty bags where to put their products. Empties are mostly available in urban areas and the difficulties women face in transportation makes it difficult for women farmers to acquire them. Though in Muziya in 2004 marketing season for example, farmers sold their maize products to FRA as a co-operative, it was difficult for female farmers to do so because of the difficulties they encountered in logistics.

Worse still FRA begin the purchasing of the agro-products very late[48] when the private buyers would have long been in the rural areas and already exploited the farmers. The failure in most cases of the FRA agent to reach the remote areas has made most farmers to loss trust in the promises made about FRA's ability to reach them and buy their products. These problems have made FRA not to be a viable buyer and have left farmers with no alternative but to depend on private buyers who continues to exploit them. Despite these problem associated with marketing, small-scale women farmers of Muziya do not view market of crop products to be a serious problem to begin with because they do not cultivate enough that needs selling. The few who grow enough and extra for sale easily sell their products locally. This makes lack of export market for crop products not a matter of concern among small-scale rural women of Muziya because they do not have any thing to export to start with. The only area where small-scale rural women of Muziya complained of lack of market in general is on livestock particularly for chickens, goats, pigs and non-farm livelihood products like mats, baskets, clay pots, and crotchets.

Table 3: Summary of Poverty causal factors

Financial capital	Human capital	Physical capital	Social capital	Natural capital
Savings Credit Cash	No Skill No Knowledge Ill Health Lack of labor	Cattle Ploughs Lack of transport hand operated hand mill processor	Poor social network Friends Member of NGO Member of co-operative remittances	Rainfall Water Land Poor soils

Source: Field Work 2005

The summary of the poverty causal factors among small-scale rural agricultural women of Muziya is provided in table 3 above in relation to the livelihood pentagon. How the

[48] Interview with ASP officials and MCU chairperson

poverty causal factors has resulted into widespread poverty need to be explored. This is attained by the use of the livelihood analysis.

8.3 Livelihood Analysis

The livelihood analysis approach focuses it attention on exploring diverse livelihood activities that small-scale rural agriculture women of Muziya are involved in, the resources they draw from in constructing these livelihood, and the out come of these livelihood strategies. The point of departure is the identification of resources that women of Muziya require in pursuing the diverse livelihoods. These are the resources discussed in chapter three. Chapter six and seven reflects the importance attached to each of the resources generally and among specific category of small-scale rural women of Muziya. These various resources are used in different livelihood activities which includes on, off, and non-farm livelihood activities as mentioned elsewhere. The Women of Muziya's involvement in diverse livelihood has roots in the reduction in crop-livestock production (on-farm) over years The negative trend in agriculture production has fostered change from on and off-farm livelihood activities which are exclusively dependent on farming to inclusion of non-farm livelihood sources (Barrett et al 2001). All the three groups of the social classes of small-scale rural women of Muziya construct their livelihood from these three sub-groups of livelihood activities. It can be assumed that women constructing livelihood in the same agro-ecological zone, same social-economic environment and being affected by similar shocks can record similar livelihood results. However, evidence from the research findings reveals that there are differences in the results realized from these livelihood activities. The causes of result differential need to be explored. Addressing one form of livelihood activity at a time is appropriate to shade light on what causes differences in the results realized by two or three people involved in the same form of livelihood activity.

8.3.1 On-farm livelihood activities

On-farm livelihood activity is appropriate and maize cultivation as source of livelihood is used as an example because all small-scale rural agricultural women of Muziya grow maize. However, the yields from the maize vary that's why some women within the same area have enough stocks of maize for consumption and extra for sell while other women record a deficit even for their own household consumption. The explanations to this result differential lie in the timely cultivation, early planting[49] use of chemical fertilizer[50], and new hybrid seed[51]. The timely cultivation and early planting are a function of availability of draught power while the usage of chemical fertilizer and new hybrid seed are a function of availability of credit or cash to purchase them. The better off category of women of Muziya are advantaged than the other two categories of women because they own cattle and are able to access chemical fertilizer and new maize varieties. Access to information on modern maize varieties also contributes to the rate of adoption of maize varieties suitable to the climatic condition of the area. The source of information on modern maize varieties is through observing what male counterparts plant and imitating from them or contact with the extension officer.

The contact with extension has been limited in this area because there has never been an extension worker since the 1980s following the shifting of the extension worker from Kandondo (the neighboring ranch farm). At this time, Muziya was placed under the care of the extension worker who was based in Manyenyemu about 7-8 Km away from Muziya. After the demarcation of Kalomo district into two districts, Kalomo and Kanzungula, the extension worker in Manyenyemu was assigned to serve in Kanzungula district but Muziya remained in Kalomo district. The government relocated Muziya under the care of the extension officer who was based in Mayoba, some 15-20 Km. This extension worker died in the 1990s and has since not been replaced. However, even before his death, he rarely visited Muziya. The few times he visited the area, most women were not able to attend the meeting because of their busy time schedules.

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[49] Timely cultivation and planting is associated with the first rains.

[50] Chemical fertilizer is central in Maize production due to low fertility of the soil which has been in use for a long period.

[51] New hybrid was described as being appropriate because maize varieties are constantly modified to suit the changes in environmental factors as well as having good germination percentage.

Under the current ASP programme, most women have so far not benefited much though it could be too early to make a judgment because very few attend ASP meeting. This was evident during one of the ASP meet we attended during data collection as revealed in appendix J. What was portrayed during this meeting was verified by looking at the register for members who has been attending the meetings since the inception of this program in June 2006. The register equally confirmed this fact. Men present in the meet when asked why their wives do not attend meeting they gave two answers. These are that women are too slow at doing their duties, which makes them fail to finish their household chores on time and attend the meeting. The second reason is that their wives just do not want to attend ASP meetings. However, women cited lack of time as the hindering factor as they spent much of their time fetching water. The failure by most women to attend these meetings suggests that there has never been a time during extension service development when women benefited or their views captured. This makes women to lag behind men in their access to information, a gap that jeopardizes their ability to realize their full potential (William and Alex 2004). Nonetheless, the adoption of new maize varieties particularly drought resistant varieties, use of chemical fertilizer, and timely planting make the better off record high maize yield.

The average poor on the other hand who do not own cattle but access them through relative or friends take advantage of the first rains as well as but are disadvantaged because they fail to access chemical fertilizer and new maize varieties. This category of women fails to access the input because of their dependency on crop production to meet all their livelihood needs. This makes them dispose off their crops immediately after harvest to private buyers. This period is the bad season for selling of agricultural products because the prices are low. The seasonal fluctuations in crop prices in many cases penalize poor households who are unable to hold some of their crops to sell at peak prices. Further, more the season is flooded with scrupulous businesspersons[52] who exploit farmers through exchange of agro-products with other products and to less extent sold for cash. This makes these women fail to save money to enable them join the co-operative and buy shares to enable access the MACO-Fertilizer or to purchases these input with cash with the onset of the rain season (Wold et al 1996; Bryceson 2002).

[52] Interview with the agricultural support programme facilitator and small-scale rural women of Muziya.

The disposal of the agro-products make this category of women to experience food deficient particularly during the rain season and are made to buy the same commodity at an exorbitant price. The ASP facilitator gave an example where a second hand blouse bought at K2000, 00[53] is exchanged for maize grains at a rate of one blouse to one 20 litres container of maize, sorghum, or millet and latter in the year to buy the same commodity and same quantity at K15, 000, 00 or K20, 000, 00. The food deficit and high price for food grains forces these women to draw from any savings they would have made to meet the deficit because women are responsible for providing for the household food requirement (Mencher in Ellis 2000). This makes their production always to be oscillating between slight above sufficient and below sufficient (deficient).

The situation is worse for the extremely poor women who do not own or accesses cattle, chemical fertilizer and hybrid seed. There access to draught power is dependant on what they called the merciful[54] or otherwise land preparation is done by the hand hoe is done by the hand hoe. This makes them to plant late for they intensify the land preparation with the onset of the rains making them fail to take advantage of the first rains (MAFF 2000a). This has resulted constantly into their crop being left by the rains before maturity or their crops suffering from drought spells experienced during the course of the rain season. The working in their field during the farming season is constantly disruption as they oscillation between their field and other people's field in search for food. This intensifies in the rain season when their own food stocks are completely dry.

Work for food has also become scarce in the face of general agricultural production reduction. Once the work is found, it is very odious to execute in that the area apportioned for say a 2.5 litres, 5 liters or 20 liters[55] of food grains has increased over years. The area they are given to weed in most cases has a weed locally called zinza[56] or Kapinga in other quarters of Zambia, a weed that is difficult to uproot (Vienna institute for development and co-operation 2005; Kozel et al 2005). The increase in the area designated for exchange of food crop and labor makes it difficult for the laborer to finish the work within a day or two but goes for an average of one week. The extremely poor

[53] This can be interpreted as selling a 20 litres container of maize for K2000, 00.
[54] Merciful refers to those farmers who has cattle and decide to cultivate a piece of land for them.
[55] 2.5, 5, or 20 liters containers are the locally used scales used in measuring grain crops for any exchange transactions.
[56] This weed fall in the family of the cynodon weeds.

women explained that this situation further send them into deeper poverty because the time they spend working in other people's fields makes them abandon their own fields. By the time, they go back to their own fields; they find the weed had grown taller than their crop. This makes the remover of weed even more difficult and the weed in most cases destroy the crops. The combination of lack of farm input, draught power, food shortages result into crop failure, which culminates into food deficit. The picture depicted from on-farm livelihood generation activities are not enough to warrant conclusion as to what causes poverty differential among small-scale rural women of Muziya. Other livelihood sources need to be examined as well as in order to capture a complete picture.

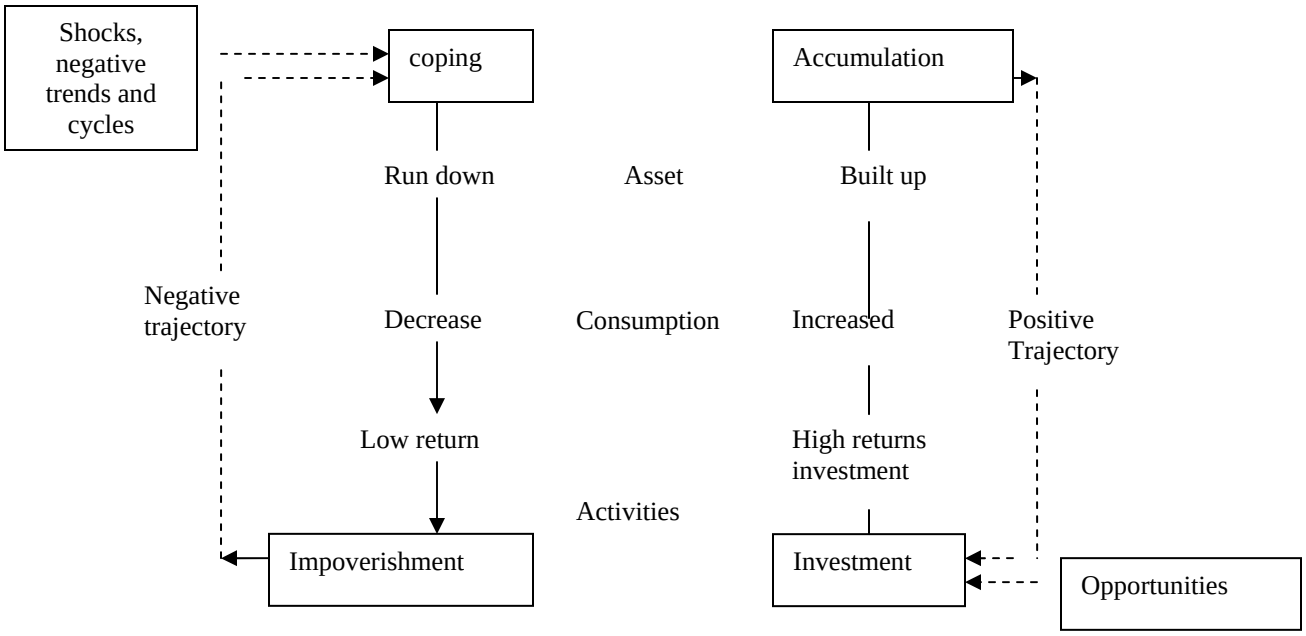
8.3.2 Off-farm livelihood activities

The off-farm livelihood activities listed in chapter six though pursued by women of different social status, some of them tend to be practiced more among specific social class of women. Taking trading as an example though practiced by all the three social groups of women, the intensification period of trading across social groups and the commodities sold differ. The better off women and average poor are both involved in crop-product trading. The disposal of crop products among the better off waits for the hike of the crop products prices. This normally occurs towards rain season or during the rain season when the crop products are scarce. The picture is different for the average poor who sell their crop-products immediately after harvesting as mentioned elsewhere. The extremely poor on the other hand are involved in the sell of their labor in processing of crop-products as well as collected fruits, leaves, glass.

For livestock trading, the picture is the opposite. Many chickens, pigs, goats, or goats are sold during the food deficit period. At this time these livestock (chickens and pigs) have low weight because they are not well fed. Worse still many people are disposing their livestock to in order to meet the food deficit, making the market to be flooded. All these factors contribute to low prices these livestock fetch on the market. The major buyers are the local people who further exploit them through manipulation of prices.

The situation for non-farm is not too different. The better off are involved in diverse livelihood generating activities, inter alia are working with local NGOs, distant trade, tailoring, owns a hand operating grinding mill where they charge other women who

uses it to process their grains. A closer look at these livelihood entrepreneurs in comparison with what other classes of women indulge in gives these women a better footing because of high profit realized as compared to the other social groups in the area. The average poor who are involved in hair dressing, scones or bans making, and knitting seem to realize more profit than the extremely poor whose non-farm livelihood are dependant on products from natural resources. Their most common form of non-farm livelihood activities are basket, mats, clay pot, grass, masabe, (sweet beer sweeteners) busala (relish) and house repairing. The transactions are still locally based. This makes them to realize low returns like in other livelihood activities. It suffices to say that cause of poverty as well as poverty differential among small-scale rural women of Muziya is not only a function of low agro-productivity. It emanates from low returns realized from various livelihood activities women pursue. This then implies that the cause of the social status differences lie in number of factors. Indeed Chrishma et al (2004) argue that household and individuals who decline into poverty face situations that collectively constitute some fundamental reasons for falling into poverty.



Source: Ashley et al (2003).

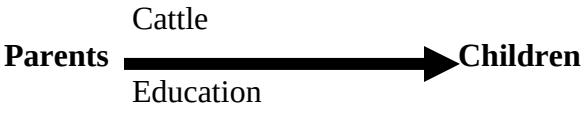
Figure 7: Cycles of impoverishment or accumulation

These factors (situations) send household and individual women into abiding poverty. In the case of small-scale women of Muziya, the cause of poverty lies in low return in livelihood activities (on, off, and non-farm activities): This reduces their chances of investing in high return livelihood generating activities to increase their productivity which send them into negative trajectory while the opposite is true of better off women.

The other important issue that needs inquiry is why different groups of women diversify. A closer look at the livelihood activities of women of Muziya review that although all the three categories of small-scale rural women of this area are going into the diversified because of the general reduction in the agro-production that has been experienced over the last 15 years (1990s-present), the purposes differs. From the picture constructed above, it is clear that the better off women of Muziya go into diversification to spread risks (pull or positive diversification) and to manage uncertainty, while the extremely poor adopt this to cope with insufficiency (push or negative diversification). The pull diversification has resulted into investment that yields into the cycle of accumulation, while the push diversification results into un investment, which results into cycles of impoverishment. This makes the poor small-scale rural farmers to languish in poverty. Figure 7 above demonstrates this relationship (Barrett et al 2001, Francis 2000, MFNP 2002a, Ashley et al 2003).

8.4 Intergenerational of poverty (IGP)

The other sector of the extremely poor women of Muziya views their situation not to be a function of any shock to their assets or low productivity of their livelihood activities but rather a function of IGP. This is the poverty that is passed on from parent to children and onto grand children. What matters is what is passed on (Moore 2001) and this is locality related. The women who view their situation from this perspective argue that the failure by their parent to pass on cattle and education haunts them throughout their lives.



These two factors are influential in pursuing on and off-farm livelihood as well as as non-farm livelihood activities.

Cattle provide draught power, income from sell of milk, or sell of the beast itself and labor. The draught power allows them exploit the land. Lack of them there for has made them to be hand caped and to constantly be in deficit, and are vulnerable to a number of shocks, among them HIV/AIDS as they seek to earn a living.

8.4.1 Education

The effective way of pursuing on and off/farm livelihoods should be supplement with the knowledge and skill they acquire through formal education and adult education (post school education) provided by extension workers. This sect of small-scale farmers of Muziya who perceive their situation from this perspective argue that illiteracy has made them failed even take advantage of this post school education. Education further gives people a chance to pursue non-farm livelihood activities. Among the non-farm, livelihood activities identified are seeking payable jobs, which are more rewarding. Education can also enable a person acquire some life skills like tailoring because in learning this skill, one need to know how to read and write. Therefore, high levels of illiteracy among small-scale rural agricultural women of Muziya deter them from acquiring these skills. This is also true for long distance trade that requires some bit of calculation.

However, a cross examination of this issue using their own experience, of the positive attributes of inherited cattle and education and well being revealed that there are incidences, when children have inherited both cattle and education from parent but fall into poverty. The cause of such incidences is described as the carelessness of the children or what Engle et al (1996) calls the influence of the environment. They further pointed out that it was impossible for a child coming from the poor family to become better off because there is no investment done for these children in form of physical capital and human capital. Because of their situation, (extremely poor women) will also pass over poverty to their children. Lack of longitudinal data hampered any effort to explore this issue further and therefore needs future consideration. However, available literature seems to suggest that resilience focus and preventative approach are vital in the life of a child. The two strategies differ in timing and purpose. The first approach being one of the processes of identifying resilience in situation of risk where resilience is a function of

asset (chapter 6), while the later tries to mitigate the effects of existing risks by equipping children to deal with them (Engle et al 1996; Moore 2004).

8.5 Summary

Poverty is widespread among small-scale rural agricultural women of Muziya. The majority of the poor fall in the category of the extremely poor. The causes of poverty in this community are diverse but interlocking. Out of the many poverty causal factors that has been cited to have caused widespread poverty, lack of farm inputs, cattle, transport and drought. These led to low production both in agriculture and in non-agricultural livelihood sources, which reduces their chances of investment. This in turn sends them in the cycle of impoverishment. Lack of investment by parents in their children in form of education or passing on cattle perpetuate poverty among small-scale rural women of Muziya.

CHAPTER NINE

CONCLUSION AND WAY FORWARD

9.1 Introduction

The results of the analysis in the preceding three chapters suggest that the current poverty reduction strategy based on economic growth and poverty reduction objectives will not be achieved, if rural small-scale agricultural women are not the target in implementing it. The following are the main issues revealed in the analysis which ought to be considered in the fight against poverty if poverty reduction is to be a reality: -

That poverty among small-scale rural agricultural of Kalomo is a reality, but the extents of poverty differs. This makes women to fall into three groups of social classes, which are better off, average poor, and extremely poor, of which the majority are in the extremely poor category. Low agriculture productivity is but one factor that has caused widespread and increases in poverty levels .The effect of low agricultural productivity is not uniform among all classes of women since it is subject to variation whose intensity is crucial in the analysis. The degree of reduction in agricultural production has a higher explanatory value than low agricultural production as a single variable. The extremely poor in the study area record low crop yield, own few livestock and even there non-farm sources of livelihood do not yield high returns. Hand hoe cultivation, lack of use of modern farming input, working for others, gathering and collection characterizes this group. The better off group records a high crop yield for home consumption and extra for sell. Plough cultivation, use of chemical fertilizers, own cattle, and involvement in long distance trading are a common feature among this group. The average poor, though they cannot afford to acquire chemical fertilizer, do not own cattle, have relatives or friends who provide them with cattle for cultivation and therefore are able to produce enough to feed their households.

Various shocks such as drought, ill health, livestock diseases, and changes in government policies on agricultural support system negatively affect small-scale rural agricultural women. The effect of any of these shocks on the social-economic status of women seems to lie on their vulnerability (living on the age of the knife).

9.2 Counter-Argument

As opposed to the low agricultural productivity and women poverty argument, livelihood sources offer a sufficient explanation to the women poverty. This is because there are several activities that women indulge in to live and not just in agricultural.

An analysis of women poverty reveals that poverty among women emanates not only from low productivity in agriculture but rather low returns realized from all sources of livelihood. The fight against women poverty needs to adopt a holistic approach that encompasses all sectors of livelihood sources. This suggests that there is need for policy makers and implementers to identify with the local people so that they can get to know what is obtaining and workable on the ground instead of just importing foreign policies which are alien to the local situation. In this regard, key important factors that influence livelihood activities have to be identified. Among these are credits, water, transport, education, ill health, cattle ownership and control over resources.

ASIP, ACP, and NAP states that women should be target in agriculture support system (credit) services but the reality on the ground reveals that such services has not yet benefited women, though they are the major food producers and providers for households. There fore, government with its cooperating partners supporting agriculture should have clearly defined guidelines and plan of action that ensures women are a target and beneficiary to these services. One workable solution is that the fertilizer support programme under ministry of community development and social services (MCDSS-FSP) meant for the vulnerable should be targeted on women farmers for credit is crucial if women farmers are to producer above subsistence level. Chiluvumbo (1984) argues that subsistence farmers cannot realistically expand her production to the level of commercial producer without credit. This then suggest that the liberal policies should wait until such a time when 75% of the women will be able to finance their agricultural production without external help.

The difficulties women of Muziya encounter in sourcing water needs to be addressed. This is a result of frequent droughts as well as limited water source. This call for a need to make water available in this area to cut down on the number of hours spent on fetching water. This will create room for women to prepare for their farming season.

This also provides them with a resource that they can use to invest in alternative livelihood through vegetable growing. Vegetable cultivation will contribute to household nutritional sources as well as income through the selling of vegetables. Availability of water will also give women of Muziya time to pursue other income generating activities like knitting, basket making, and enable them to attend extension services meetings which they mostly miss because there busy time schedule of which water fetching is the integral part. Water can be increased by expanding on the already existing water points and introduce new other water sources to reduce pressure on the already existing one and reduce the chances of over exploitation sources to point of extinction. Because of the frequency of drought in the area, there is need for research institution to develop seed varieties that are drought resistant. These should be made available to the women farmers at any affordable price. The provision of the seed should be done by established institution, which are regulated and monitored to avoid case of sell of counterfeit seed varieties.

Poor road infrastructure which are impassible during the rain season and lack of transport has been identified as hindrance to access farm inputs, market for both agro and handcraft products and access to the hospital. Lack of transport has made women of this area to depend on local market where they are in most cases manipulated by the local bourgeoisies who are the major buyers. Lack of transport; make women walk long distances to the nearest hospital (Zimba mission hospital) particularly during the rain season to seek medical attention for their children and sick relatives. The feeder road linking rural areas with the rest of wider society need to be graded and bridges across streams fixed. This will encourage motorist to piloting the area. The will in return increase the follow of goods and services between the rural areas and urban areas, creating even market for agro-products as well as easing access to farm inputs.

The poverty is associated with lack of certain key assets. Among the case of the Tonga speaking people[57], cattle is a vital asset. The cattle-restocking programme which is running in the country to replace the lost cattle should be designed in way that will make women as beneficiaries particularly because they have lost their dependable source of cattle. The programme should be accompanied by clearly explained guidelines. One

[57] The tribe were the data was collected from

important guideline that should accompany this programme is that every set of cattle given to a particular area should include 50% women and 50% men beneficiary. This is to ensure that there are no manipulations done to the implementation of this programme to the benefit of men only. Evidence available now, though it could too early to make a conclusion is that very few women have so far benefited from the project. In Muziya at least out the eleven animals that were given, all were taken by village headmen and it is likely that when these will multiply the next set might be passed over to another set of men and not women because of the traditional belief that cattle fall in the domain of men.

The fight against poverty cannot be accomplished without reducing the loss of working hours and resources due to ill health. Ill health, particularly HIV/AIDS robs women of productive hours through nursing the sick, resources through divergence towards medical expenses, increases in the burden of looking after orphans, and deprivations of social security for the aged. The fight against such pandemic requires time as well as finances. This suggest that such venture a long-term projects. However, looking at the devastating effects of the pandemic and its widespread consequences, suggests that there is a need to adopt short-term interventions. One such practical step would, establishment of community based health care centers (CBHCC) that will take care of the chronically ill people. This will relive most women who are burden with the duty of looking after the sick and give them time to pursue livelihood activities. These centers should also be involved in the teaching of the local people of unhealthy practices that puts their lives at risk of contracting diseases. Issues of sexual behavior, particularly multiple sexual partners[58], safe sexual practices, sharing of shape tools like razor blades which are still widely practiced by many should be some the areas where these institutions should address. These institutions should include both men and women so that each sex would take care of their sex's interests.

The fight against poverty should tackle the patriarchy systems of operations. This has been evident too in property ownership and claim. Women in most cases loss access or claim on property they acquired together with their husbands in case of divorces, widows, and those on separation because the customary law which governs the marriage

[58] This is very common among the productive age group where most men are still marry more than one women

institutions does not guarantee women the right to inherit or claim ownership of property acquired together. All such property is classified under the domain of the husband. This makes most widows, divorcees, and those on separation live a difficult life despite the good life they would have enjoyed at the time they were together with their husband. This suggests that there is need to strengthen the laws governing marriage institutions. Zambia had a bi-law system; these were customary and civil law laws. However, these laws were revised in 1989 and two laws were passed. These are the intestate succession act (chapter 59 of the laws of Zambia) and wills and administration of testate estate act (chapter 60 of the laws of Zambia). The former harmonized, replaced, and codified all the customary laws while the later simplified and replaced the British wills of 1837. The codification of the customary law implies that dualism of the legal system ceased. Choices have to be made been intestate and wills act (Milimo et al 2004). However, majority of the Zambian people particularly the rural dwellers are ignorant of these laws and still follow their customary laws of inheritance. Among the Tonga custom, a wife is not supposed to inherit from the property of the husband. This is still the case in terms of divorce or separation. There is need to train, educate and sensitize the local people (women, local leaders, and local court leaders) about the vital role women play at both household and national level in agriculture production and the need to support institutions that promote women interests.

These steps are crucial in building entitlement among women. This will reduce their vulnerability to shock, to those of their household, and those of the nation given the central role they play both in household economies as well as national economies.

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Appendices

Appendix: A

Marketing	• 1936 Maize control board (MCB) established to buy maize in eight districts along the line of rail • 1952 Eastern Province agricultural produce board (EPAPB) established to buy maize in the province • 1954 MCB and EPAPB extended there operation to include groundnuts • 1957 Federation grain market board (FGMB) established and replaced MCB AND EPAPB • During this time, provincial co-operatives were organized in Southern and Eastern province. These acted as agents to FGMB • 1964 Agricultural rural marketing board (ARMBoard) and Grain marketing board (GMB) established, ARMB serviced the remote community, while GMB serviced those communities along line of rail • 1967 The functions of the grain marketing board were expanded to purchases of various types of beans, cow peas, sunflower seeds, sorghum and soybeans in the line of rail provinces • 1969 MCB and ARMB were amalgamated into national marketing board (Namboard) and also inherited the functions previously performed by these institutions • 1980 primary marketing and intra provincial trade of crop and input transferred to PCMUs • 1981 PCMUs established in six other provinces were they never used to exist and these purchased crops from primary societies and sold within the province • 1985 Namboard resumed the purchasing of maize and PCMUs become its agency • 1986 liberalization of maize marketing and Namboard become buyer of last resort • 1989 Namboard dissolved and PCMUs become the principal buyers of maize, deregulation of agricultural products and inputs • 1992/93 ZCF-Finance services, lima bank and CUSA Zambia appointed as principal government maize buyers and some PCMUs and DMUs (SPCMU and EPCMU) were appointed as sub agents for principal buyers • 1994 no government buying agent nor sub agent was appointed • 1996 Food reserve agency (FRA) established to manage national food security by purchasing maize as buyer of last resort
Credit/input	• 1947 land board established which later became land bank in 1953. These provided credit to settler to supplement banks • 1960 peasant farming loan fund (PFLF) established to service to a

	lesser extent African community • 1966 credit organization of Zambia (COZ) established to service small-scale farmers and operated through co-operatives • 1967 most societies disbanded and COZ liquidated and its functions taken over by agricultural finance company (AFC) in 1970 • 1975 ZCF/FS which later was taken over by ZCF/ FS in 1984 • 1976 Zambia state insurance company established • 1981 seed and pesticide distribution transferred to Zamseed and most of this seed was distributed through PCMUs and small proportion sold through through stockists and Zamseed retail shops • 1983 Zambia national commercial bank established • 1984 AFC and ZADB merged to form lima bank and Lima loan scheme initiated • Economic reforms based structural adjustment, liberalization, and privatization • Agricultural input revolving funds (AIRF) introduced and was accessible through Lima bank, CUSA, and Program against malnutrition (PAM) • Fertilizer support loan facility (FSLF) introduced and was accessible through Lima bank, local manufacturer, importers and suppliers of fertilizer for the benefits of both commercial and small-scale farmers • Trade/Agency training for capacity building for local fertilizer traders • 1992 private cargill started selling seed • 1994, Agriculture credit management program introduced, cusa and ZCF-FS demised, while Lima bank liquated. Covmont merchant bank and SGS Zambia limited appointed as credit managers • A crop storage construction revolving funds introduced to promote on-farm storage in order to reduce amount of grains marketed at once and avoid over stretching the capacity of the new marketing system • A marketing credit revolving fund to be provided to private buying agents to accessed through commercial banks were established • At this time fertilizer bought by government/donors distributed to farmers through credit managers • Panar and Pioneer entered the seed market • 1997 government transferred the responsibility of credit managers to FRA • 2002 ministry of agriculture and co-operative and ministry community development and social services fertilizer support programme introduced
Pricing	• 1948 A new pricing system was introduced based on double payment • 1971 A uniform pricing system was introduced

	• 1974 All regional prices differentials of crops were eliminated • By 1982 equity pricing was a enshrined principle of policy • 1989 government made a decision to liberalize the pricing policies 1990 (September) liberalization of maize announced, however announcement of floor prices continued until 1992/93 marketing season • 1994, no floor price was announced • 2002/03 marketing season floor price announced by the government
Extension services	• The African farming improvement scheme was introduced for Southern Province • 1978 introduction of training and visit (T & V), under this system, various extension services were provided for various sectors of people in the farming community. These were field crops, hort culture and husbandry, rural women, and youth • Specialized departments were responsible for specific extension services which included livestock handled by the veterinary and tsetse control, soya, cotton, and coffee handled by Litco • 1979/80 lima extension service technological package introduced • 1990s Village extension group adopted • 1996 a pilot conservation farming introduced in central Zambia based on a lima • 2000 Adoption of participatory extension approach as an official methodology that the sub sector would apply

Appendix B

Focus group discussion guide.

1. Meaning of poverty (use causal flow diagram)

2. Existence of poverty among small-scale rural agricultural women
   Social map

3. classes of social group

(Classification matrix)

4. Magnitude of each social group

(Quantification matrix)

5. Level of poverty

Classification matrix

6. Manifestation of poverty in families (households)

7. Causes of poverty

8. Major economic activities for rural small-scale agricultural women

Calendar

Activities	Wet season	Cool dry season	Warm dry season

9. Other economic activity

10. Problems experienced in conducting these economic activities
11. Government policies on the following:- (review of government policies on these matters)

    a. Agro-product marketing

    b. Credit facility provisions

    c. Extension services provision

d. Land holding

12. Effects of the following on farm productivity

a. Lack of physical capital

b. Lack of human capital

c. Lack of financial capital

d. Lack of natural capital

e. Lack of social capital

13. Changes in the following: - land under cultivation, extension services provision, credit facilities, and crop yield

Historical matrix

	Kaunda period	Chiluba period	Mwanawasa period
Land under cultivation			
Extension service provision			
Credit facilities			
Crop yield			

14. Falling into poverty, staying into poverty, emerging out of poverty (Trend analysis)

15. Any other thing not discussed

Appendix C

Interview guide for women

1. Village
2. Status in households
3. Educational level
4. Marital status
5. Household head
6. Wealth group of your household
7. How people live in your household

	Below 18 years	Above 18 years

male		
female		

8. School attendance

	Primary	Secondary	Tertiary
Boys			
Boys			

9. Income generating activities
Seasonal calendar

	Activity	Period of the year
Farm income		
Off- farm income		
Non farm income		

HOUSEHOLD LAND AND LIVESTOCKS

10. Size of land holding
11. Tenure system
12. Acquisition of Land
13. Adequacy of the land
14. Kind of livestock

Size of herds (quantify)			
	Kaunda period	Chiluba period	Mwanawasa period
Cattle			
Pigs			
Goats			
Poultry			
others			

15. Farm implements
16. Farm inputs
17. Access to farm inputs

Historical matrix

Input	Kaunda period	Chiluba period	Mwanawasa period
Fertilizer			
Certified seed			

18. Crops cultivated
19. Crop yield trend

	Period of time		
Crops yield (quantify)	1980s	1990s	2000s

20. Causes of crop yield changes over time

Cause	Effect
Financial capital	
Natural capital	
Human capital	

21. Uses of agro-products
22. Adequacy of food reserves
23. Coping strategies in times of food insufficiency
24. Marketing of crop products

HOUSEHOLD BUDGET

25. Use of your income at home
26. Other expenses
27. Distribution of expenses

Expenses	Quantify
Food	
Medical expenses	
School fees	
Groceries	
Others	

28. Changing trend in expenses
29. Reasons
30. Contribution of each income activity to the total income
31. Social support

PERCEPTION OF POVERTY

32. Definition of poverty (use causal flow diagram).
33. Prevalence of poverty among small-scale rural women (social maps)

34. Degrees and types of poverty (use classification matrix)

Social classes of women		

35. Amounts of women in each social class (Use quantification using beans seeds)

	Social classes of women		
	Well off	Average poor	Extremely poor
Size in each category			

36. Causes of poverty among small-scale rural women related to their involvement in farming
37. Other causal factors
38. Effects of government policies on women's agricultural productivity
39. Staying into, falling in and coming out of poverty (use trend analysis)
40. Coping strategies
41. Challenges in coping with poverty

42 Extra questions for ASP facilitator

A. Meaning of ASP
B. Objectives of ASP
C. Service offered to farmers
D. Purpose of such services
E. Target group
F. Accessibility to the service by gender
G. Policies changes on the provisions of such services
H. Negative or positive results of such policy changes
I. Problems encountered in carrying out the work
J. Any other issue not discussed

43 Interview guide Veterinary laboratory technician

A. Livestock diseases
B. Frequency
C. Challenges in curbing diseases
D. Livestock diseases and women poverty
E. Changes in the livestock population from the 1980s to present

44. Government policies on livestock

A. Disease control measures
B. Expenses for controlling livestock diseases
C. Provision of veterinary personnel
D. Cattle restocking program
E. Challenges experienced working with the farming community

45. Any other problem

Appendix D

T able 1: Focus group discussion and composition

Village	Category	No. of focus groups
Lifalale	Education and family size	Two
Mungala	Widow and access fertilizer	One
Dindi	Married and divorces	One
Siambozo	No credit and de jure	One
Sioni	Grades 5-7, 8 and above, One child family, and De facto	Two
Siadwazi	8-10 hectares and single women	one
Sindowe	1-3hectares and 4-7 hectares	One
Siameja	Has labor and 6-9 children	One
Lumuno	No labor and have extension services	one

Source: Field work

Appendix E

LIST OF REPONDANTS FOR KEY INFORMANTS

List	Women	Men
ASP	-	1
CINDI	1	-
Muziya co-operative union	-	1
Kalomo veterinary laboratory technian	-	1

Field work 2005

Appendix: F

Figure 1: Donkeys as source of transport
Source: Fieldwork 2005

Appendix G

	Beer brewing, tailoring, trading, digging masabe, and livestock rearing Knitting		
ACTIVITIES	Cultivating, weeding, collecting mushroom, ndelele, fertilizer application	Collecting inji, cutting grass, digging busala, harvesting, processing of agro-products, pottery	Collecting, njenje, making mats, baskets, house repairing
Seasons	Rain Season	Cool Dry Season	Warm Dry Season

Appendix:G

Period / Crops	Kaunda era 1964-1991		Chiluba era 1991-2001		Mwanawasa era 2001-present	
	Household level	individual	Household	individual	Household level	Individual level
Maize						
Sorghum						
Millet						
Cassava						
Groundnuts					—	
Sunflower				—	—	—

Figure 3: Historical matrix on crop production at household and individual level in Muziya, Kalomo. Zambia
Note. Dots represent crops productivity over years. More seeds = high yield, while – means nothing was cultivated.
Source: Field work 2005.

Appendex: H

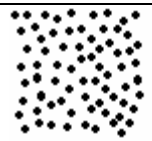
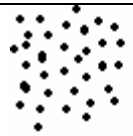
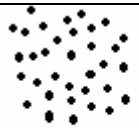
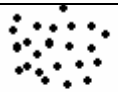
Period / Livestock	Kaunda era 1964-1991		Chiluba era 1991-2001		Mwanawasa era 2001-present	
	Household Level	Women level	Household Level	Women level	Household level	Women level
Cattle						
Goats						
Pigs						
Chicken						

Figure 4:Historical matrix on animal production at household and women level in Muziya, Kalomo, Zambia.
Note: Dots represent the number of beans seed. The dots depicts the livestock population trend, i.e. More dots = large population

Appendex: I :Classification matrix for the better off, average poor, and extremely poor

	Livestock				crops			
	Cattle	goat	pig	chicken	Maize	Sorghum	Millet	G/nuts
Better off								
Average poor								
Extremely poor								

Classification matrix for the better off, average poor, and extremely poor
Source: Fieldwork

Appendex: J

Attendants for an ASP meeting
Source: Field work 2006