



**EMPOWER:
INCREASING ECONOMIC AND SOCIAL EMPOWERMENT FOR
ADOLESCENT GIRLS AND VULNERABLE WOMEN IN ZAMBIA**

**A MARKET NEEDS ASSESSMENT FOR VOCATIONAL AND
TECHNICAL SKILLS AND LIVELIHOOD OPPORTUNITIES IN
EASTERN PROVINCE, ZAMBIA.**

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ABBREVIATIONS/ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BDS	Business Development Service
CBO	Community Based Organisation
CSO	Central Statistical Office
CFU	Conservation Farming Unit
COMACO	Community Markets for Conservation
DBA	District Business Association
DFA	District Farmers Association
EMPOWER	Increasing Economic and Social Empowerment for Adolescent Girls and young women in Zambia
EPFC	Eastern Province Farmers’ Cooperative
FBO	Faith Based Organisation
FGD	Focus Group Discussion
FISP	Farmer Input Support Programme
HEPS	High Energy Protein Supplement
HH	Household
HIV	Human Immunodeficiency Virus
IAPRI	Indaba Agricultural Policy and Research Institute
KII	Key Informant Interview
M&E	Monitoring and Evaluation
MEG	Management Environment Governance
MFI	Micro-Finance Institution
MLF	Ministry of Livestock and Fisheries
NATSAVE	National Savings and Credit Bank
NGO	Non-Governmental Organisation
OPV	Open Pollinated Variety
PROFIT+	Production, Finance and Improved Technology
QAS	Quality Assurance System
RA	Research Assistant
SADC	Southern Africa Development Community
SILM	Sustainable Integrated Land Management
SNV	Netherlands Development Organisation
SPSS	Statistical Package for Social Science
TEVET	Technical Education Vocational Education and Training
TEVETA	Technical Vocational and Entrepreneurship Training Authority
TOR	Terms of Reference
VCA	Value Chain Analysis
ZACCI	Zambia Association of Chambers of Commerce and Industry
ZNFU	Zambia National Farmers Union

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SUMMARY

Zambia like other countries in southern Africa is faced with major challenges of providing education, employment, health and an environment for the growth of businesses. The limited access to education has led to high illiteracy and numeracy which makes it difficult for people to find employment while insufficient land for agriculture, late delivery of agriculture inputs and the high HIV/AIDS infections which have contributed to the break-down in the family unit and reduced labour. These problems are more pronounced in the rural compared to the urban areas and affects adolescent girls in the ages 15 – 17 and vulnerable women. The result is that more and more adolescent girls are engaging in prostitution and there has also been an increase in child labour.

The aim of this study is to conduct a district-level and community-level market assessment for goods and services to better understand current market gaps and opportunities for adolescent girls ages 15-17 and vulnerable women in targeted areas of Eastern province in Zambia. It is meant to conduct a Value Chain Analysis (VCA) of selected agricultural and non-agricultural products to identify the opportunities and challenges, identify the knowledge and skills gaps of adolescent girls and young women in business development (demand side) and the capacity of the training and livelihoods service providers in meeting the business development needs of adolescent girls and young women. Further, this study identifies the opportunities that business enterprises in the districts provide for the growth of entrepreneurship for adolescent girls and young women.

The needs assessment was undertaken in selected chiefdoms of five (5) districts of Chipata, Chadiza Katete, Petauke and Lundazi of Eastern province, Zambia. The justification for the selection of these areas is that these are earmarked for the implementation of the EMPOWER project by Winrock International but it is recognized that these locations may have variations on the cultural, economics and gender perceptions.

Multiple qualitative and quantitative methods were used in the collection of primary data for this assessment. This included the use of Focus Group Discussions (FGD) and Key Informant Interviews (KII). Further, a questionnaire was applied to a sample of households targeting household heads in all the districts. This was complimented by the review of secondary information.

The findings indicates that there are few adolescent girls in the households because they are either married or have moved to the urban areas in search of employment. The poverty situation is such that the households do not have sufficient agricultural assets. A situation which has led to most households having a period of up to four months with food insufficiency.

The main livelihood opportunities are agricultural related with a focus on crop and small livestock production. The main crops which are suitable for women and adolescent girls are soybeans, groundnuts, sunflower and the small livestock are goats and village chickens. These do not only have a market but are promoted by various public and non-governmental organisation. They do not require a lot of labour and are suitable for soils and climatic conditions of most of the areas in the target districts. These are the products which have been proposed based on the value chain analysis. Vegetables are grown in “*dimbas*” throughout the year. The main vegetables grown are tomatoes, cabbages, onions, green peppers and carrots. The main market for the vegetables are in the urban areas. However, the availability of “*dimbas*” is limited due to certain areas of the districts and these are mainly accessed by men.

Related to agriculture, some households provide labour to other farmers for a fee through what is called “*piece-work*” i.e. work provided for a short period of time. This is common especially for those crops produced for sell. The households which provide “*piece-work*” are categorised as those with insufficient assets to grow their own crops for sale. There are households which are engaged in non-agricultural income generating activities. These includes adolescent girls working as maids at Government workers homes at the local schools and health centres or in the urban areas.

Employment opportunities for young girls are minimal in all the sectors. However, the hospitality industry despite being faced with high competition provides the most possible employment opportunities. The conditions that have to be met is that the adolescent girls need to have training to enable them perform optimally.

The number of skills and vocational training institutions compared to the number of people who need enrolment is very low. Whereas the training institutions provide the appropriate skills for the different sectors, they do not have sufficient teaches, teaching and learning materials and boarding facilities. These are essential for learning. These institutions have a focus on building the ability of the students to be self-employed. This is why the training institutions have a provision of linking their graduates to service providers and financial institutions.

Based on the findings of this study, the recommendations are improving on the management of the selected values starting from production to marketing. Improving the employability of adolescent girls by improving their numeracy and literacy and addressing the sector needs and skills gaps. The other recommendation is to take advantage of the business opportunities by building on the existing business opportunities and creating and improving on institutional linkages between different businesses using the platforms of the ZNFU, DFA and DBA.

1. BACKGROUND

Zambia is one of the countries in the southern Africa Region. Adolescent girls ages 15-17 and vulnerable women in southern Africa as with the rest of the world are faced with many challenges. They are faced with major difficulties in the realms of education, employment, health, and participation in decision-making processes. The recent global financial crisis affected young people and women much more than the rest of the population, given the fact that most of those presently unemployed are youth and women.

Zambia's population of more than 10 million consists 24 percent of the population between 15-24 years. Such a high dependency ratio clearly has negative implications for the social and economic development of the country. Approximately 67 percent of the population live under conditions of poverty. Among young people, orphans are the most vulnerable, insecure and voiceless people. Not only are they orphaned but some of them are infected by HIV¹.

The economy of Zambia relies primarily on the export of copper. Despite the rise in the copper prices on the global market, Zambia is still considered among the poorest countries in the world. Employment in the mines and other economic areas is a source of livelihood for a majority of people in Africa. However, the global economy experienced the most severe case of unemployment during the recent economic crisis—the worst since the Great Depression—and unemployment remains high today². Entrepreneurship and self-employment, thus, is a source of new jobs and economic dynamism that improve youth livelihoods and economic independence in developing countries³. Small and medium scale enterprises create linkages between youth entrepreneurs and other economic actors through subcontracting and franchising⁴. Furthermore, small new firms raise the degree of competition in the product market, bringing gains to consumers as well as provide valuable goods and services to society⁵.

A major issue on rural Zambia is child labour. It is an acknowledged challenge and is still rampant in Zambia despite a number of important commitments made by the Government of Zambia, civil society, and donor agencies. The harsh economic and difficult social circumstances push children into work, usually in hazardous conditions. According to the Child Labour Survey of 2005 by Central Statistical Office (CSO) the number of working children was estimated at 1,200,000. . It is estimated by the same 2005 survey that of the children in child labour, 53 percent are boys and 47 percent are girls. The situation of children being left alone in the family as orphans and being responsible for looking after their fellow young people in the society is making it difficult for children to continue with education. These young people are shouldering heavy responsibilities of looking at the small members of the family, so they are getting engaged in child labour for survival of the remaining members of the family.

¹ Ministry of Community Development and Social Services. 2006

² International Monetary Fund, Factsheet, April, 2014

³ Maxwell (2002)

⁴ White and Kenyon (2000),

⁵ Chigunta, Schnurr, Wilson and Torres (2005)

2. INTRODUCTION

This is a district-level and community-level market assessment for goods and services to better understand current market gaps and opportunities for adolescent girls in the ages 15-17 years old and vulnerable women in targeted areas of Eastern Province, Zambia.

2.1 RATIONALE FOR THE STUDY

The rationale for this study is that there is insufficient knowledge on the following:

1. Needs, skills gaps, and profitable value-chain opportunities for adolescent girls and women;
2. The functionality of skills and vocational training centres;
3. The scope of livelihoods service providers; and
4. The strength of private businesses and formal business networks.

2.2 SIGNIFICANCE OF THE STUDY

This study will contribute to achieving the “Increasing Economic and Social Empowerment for Adolescent Girls and young women in Zambia” – EMPOWER project objectives. In particular, it will contribute to objective (1) and (2):

1. Increase access to acceptable work and high-quality training opportunities for adolescent girls engaged in or at high risk of entering child labour,
2. Increase access to livelihood opportunities among vulnerable women whose households have children engaged in or at high risk of entering child labour,
3. Increase public awareness on child labour and gender equality,
4. Increase collaboration by government and the private sector on the promotion of acceptable work for adolescent girls and vulnerable women.

2.3 AIM OF THE STUDY

The aim of this study is to conduct a district-level and community-level market assessment for goods and services to better understand current market gaps and opportunities for adolescent girls ages 15-17 and vulnerable women in targeted areas of Eastern province in Zambia.

2.4 SPECIFIC OBJECTIVES.

The specific objectives are:

1. To conduct a Value Chain Analysis (VCA) of the selected agricultural and non-agricultural products to identify the opportunities and challenges,
2. To identify the knowledge and skills gaps of adolescent girls and young women in business development (demand side),
3. To identify the capacity of the training and livelihoods service providers in meeting the business development needs of adolescent girls and young women.
4. To identify the opportunities that the business enterprises which exist in the districts provide for the growth of entrepreneurship for adolescent girls and young women.

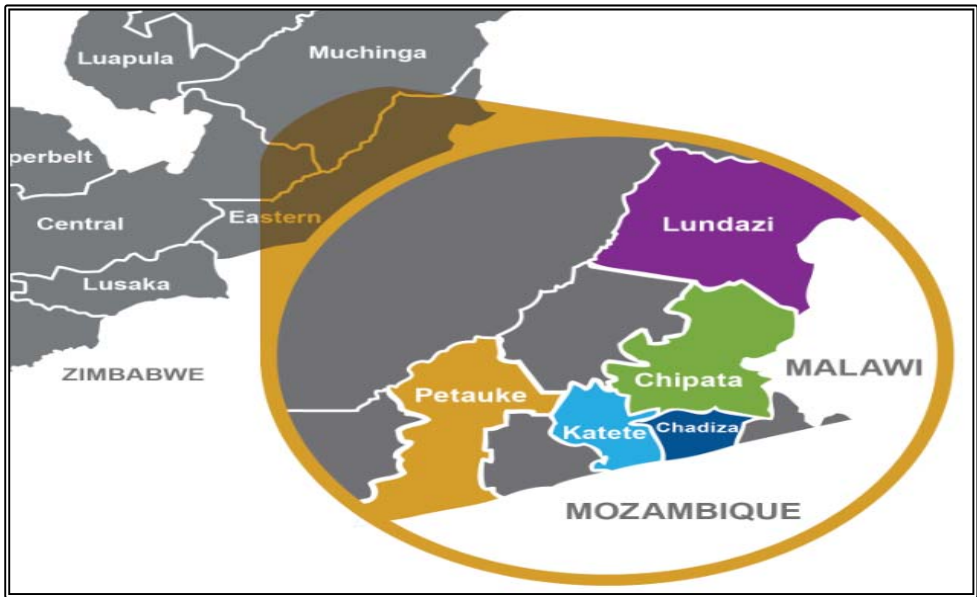
2.5 ORGANISATION OF THE REPORT

This study is presented in seven chapters. The first chapter provides the background to the study. Chapter Two introduces the study indicating the purpose and objectives of the study. Chapter Three is the methodology of data collection while Chapter Four presents the research findings. Chapter Five discusses the lessons learned and on the basis of this chapter, Chapter Six makes recommendations for project intervention. The last chapter, Chapter Seven is the conclusion to the study.

3. METHODOLOGY OF RESEARCH

The needs assessment was undertaken in the chiefdoms of five (5) districts of Chipata, Chadiza Katete, Petauke and Lundazi of Eastern province, Zambia. The justification for the selection of these areas is that these are earmarked for the implementation of the EMPOWER project by Winrock International but it is also recognized that these locations may have variations on the cultural, economics and gender perceptions which need to be appreciated. Picture 1 shows the location of the target districts in Zambia.

Map 1: EMPOWER Zambia Target district, Eastern province, Zambia



Source: Winrock Zambia

3.1 LITERATURE REVIEW

The literature review preceded and anchored the field data collection for this needs assessment. This reviewed documentary literature on agricultural and non-agricultural value chain and poverty analysis, access to vocational and skills education and development of businesses in Zambia and Eastern province in particular. It also reviewed empirical literature on sustainable livelihoods, business development and vocational and skills development. Documents reviewed formed a basis for preparation of tools and validation of primary data.

3.2 PRIMARY DATA COLLECTION

Multiple qualitative and quantitative methods were used in the collection of primary data for this assessment. This included the use of Focus Group Discussions (FGD) and Key Informant Interviews (KII). Further, a questionnaire was applied to a sample of households targeting household heads in all the districts. The Assistant Team Leader supervised the household and FGD data collection while the KIIs were done by the Team Leader.

3.2.1 Household Data Collection

Data was collected serially from district to district in order to build capacity and experience with time. This meant one team was fielded and covered all five districts. This way, the quality of data improved with experience and time. Seven Research Assistants (RA) and a supervisor for purposes of data collection and quality checks were recruited. The whole exercise was led by the Team leader.

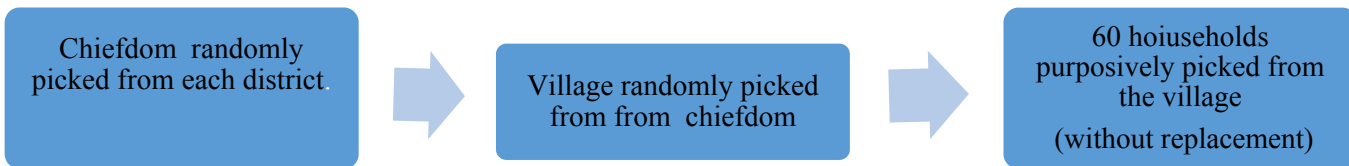
Picture 1: A Research Assistant interviewing a respondent



Source: Household survey data, 2017

Selection of Household Respondents: To minimize bias, the Study Team used a multiple stage sampling methodology. The summary of the sampling procedure is presented in Figure 1 and the details are thereafter presented:

Figure 1: Summary of the sampling procedure



- a) The starting point was to randomly select one chiefdom from five. From each chiefdom, one or two villages were randomly selected. The decision to have more than one village was taken when one village did not have 60 households with adolescent girls in the ages 15 -17 Years.
- b) A total of 60 households were purposively and randomly selected from the villages selected from the village records taking into consideration that they had among their children/dependents adolescent girls in the ages 15 -17years but also that 50 percent are female headed households.
- c) This means that the first step was to get names of all those households in the selected villages who had adolescent girls in the ages 15 – 17 years. From these households, 60 were randomly selected per chiefdom.
- d) The sampling was that of random sampling without replacement.
- e) All the names of the respondents in the selected villages was put in a box and 60 households were sampled for the household data,
- f) The village headpersons were able to state among those on the register who were available in the village at the time of data collection and those who may have moved to avoid spending time going to a household which were not be available at the time of data collection.

Sample Size: For the purposes of this study a sample size of 60 households per district (Chiefdom) was used. Thus the five (5) districts provided a total of 300 households. Bearing that the project is skewed to women and adolescent girls caution was taken that at least 50 percent of female headed households had an opportunity to participate in the survey. This was done during the selection of the villages and households as stated under the sampling procedure.

3.2.2 Focus Group Discussion

The FGDs run concurrently with the Household (HH) survey for each respective district. Experienced staff were recruited to facilitate the FGDs.

Participants to the FGD: Each district had a set of five (5) different FGDs (thus men and women aged between 35 – 50 years and two FGDs for adolescent girls aged 15 – 17 years). Further, two FGDs were held for lead farmers; one in Lundazi and the other in Petauke. Each FGD had an average of 7 – 9 participants resulting into a total of 27 FGDs for all the districts. For all the 5 districts 218 persons participated in the FGDs. All FGDs were conducted in the same Chiefdom/village for the purposes of triangulation between the information from the FGDs and that from the household survey. A total of 113 adolescent girls participated in the FGDs.

Selection of FGD Respondents: The participants for the FGDs were selected using the same approach as that of the respondents for the household survey after the selection of the respondents for the household survey. The sampling frame was derived from the village registers. In this regard, the sampling approach was as follows:

- a) In consideration that the sampling for the household survey was sampling without replacement, selection of the sample households for the FGD in the selected villages took into account those who had already been selected for the household survey. These were not selected for the FGDs.
- b) Thereafter, only those households of men and women aged between 35 – 50 years and/or with adolescent girls’ ages 15 – 17 were purposively selected from among all the sampled households in the village(s).
- c) Participants in the FGDs were purposively selected. This meant that for each household selected, one male could be selected or a female or an adolescent girl.
- d) Men, women aged 35 – 50 years and adolescent girls were not be selected from the same household.
- e) The selection of participants for the FGDs were done with the support of the village headmen who were able to state which men, women aged 35 – 50 years and adolescent girls aged 15 – 17 years who were available during data collection and would be selected.

3.2.3 Key Informants

During data collection, key informant interviews were conducted at the district level. The key informants come from private sector institutions and public institutions. All key informants were purposively selected from the employment sectors and those providing vocational and livelihoods related activities/services. These organisations were identified at the de-briefing stage with staff from Winrock Zambia in each district. Further, six lead farmers; one in each district except for Katete where two were interviewed as key informants. The Lead Consultant or/and Assistant Lead conducted key informant interviews. The target organisation included the following:

Table 1: The number of key informant interviews

Districts	Lead farmers	District Based KII	TOTAL
Chipata	1	25	26
Chadiza	1	16	17
Lundazi	1	13	14
Katete	6	17	23
Petauke	1	19	20
TOTAL	10	90	100

3.3 DATA COLLECTION INSTRUMENTS

A household questionnaire was administered in *Chinsenga/Chichewa*, the language commonly used in the study areas. The household questionnaire was translated in *Chinsenga/Chichewa*. The *Chinsenga/chichewa* translation ensured that there was no mistranslation by the RA. However, the open- ended responses were written in English to enable coding in Statistical Package Social Sciences (SPSS). The target respondent were household heads. By administering the questionnaires in these languages, the researcher warranted that all respondents understood the questions in the same way. On the other hand, FGD and key informants guide questions were developed to be used and guided the FGDs and Key informants. All FGDs were conducted in a local language.

3.4 ENGAGING AND ORIENTATION OF RESEARCH ASSISTANTS.

Seven RAs were recruited and trained specifically on the administration of the data collection instruments. To enhance data quality, RAs were picked based on having;

- a) Completed Grade twelve or/and tertiary education,
- b) able to speak the local language in the respective district,
- c) having conducted some a similar survey and,
- d) Preference was with those that reside in the province/district and had good track record with MEG Associates or any well-known firm.

A three day training was conducted and included the pre-testing of the developed tools. The focus of the RA training answered the following:

- a) The purpose of the research,
- b) Approach to the data collection and tools to be used,
- c) The responsibilities of the researchers and those of the RA,
- d) Expectations of the RAs and Ethical considerations,

3.5 DATA MANAGEMENT PLAN

All the questionnaires and interview scripts were coded. This saved on time in the long term because there was no need to re-organize, re-format, or try to remember details about data. It also increased research efficiency since the RAs, the Data Entry Clerk and Consultants were able to understand and use well-annotated data. Each questionnaire and interview script was provided with a code for identification.

3.5.1 Quantitative Data Analysis

Statistical Package for Social Science was used for quantitative data analysis to generate descriptive statistics. Data sets were analyzed per district. Data entry templates, entry and analysis were prepared. A Data Entry Clerk was employed who travelled along with the data collection team. The Data Entry Clerk and the RAs all signed a pledge of confidentiality. All data is a copyright of Winrock International and will not be shared with anyone without written permission of the organisation.

The questionnaires did not include names of the respondents but instead each was coded with household/questionnaire codes of the chiefdom and village where they are from. Information, Consent and assent forms are not be part of the data analysis and shall be stored safely only for use when needed.

3.5.2 Qualitative Data

The analysis of the interviews employed qualitative analysis by the use of exploratory and interpretive methods to gain insights into the depth and complexity of people's views about the issue in question. This data analysis was done according to the procedure suggested by Hutchinson and Sawyer (1994). Hutchinson and Sawyer (1994) note that qualitative data analysis can be done in three stages which was guided by the following requirements:

- (i) In-depth understanding of each individual interview,
- (ii) Identification of cross-cutting and emergent phenomena (those not conceived of in the early stages of the study),
- (iii) Linking of analyses conducted during the different stages of the interview process to ensure a continuing dialogue between data and interpretation.

Comparison analysis was used because it is ideal for multiple focus groups within the same study, which allows to assess saturation in general and across-group saturation in particular⁶. This analysis of data helped to assess if the themes that emerged from one group also emerged from other groups.

⁶ Charmaz, (2000)

3.6 DATA QUALITY ASSURANCE CONTROL

Quality Assurance System (QAS) and standards and good practice of the surveys was applied. This involved building in steps for quality assurance and templates for needs assessment products. The QAS was systematically applied during the course of this study. The following were the QAS guidelines;

3.6.1 Use of a Single Team

As indicated earlier, one team moved to all the five districts. This way, the quality of data improved with experience and time.

3.6.2 Research Assistants Selection and Trainings

To enrich data quality RAs selection was based on having completed Grade Twelve or/and tertiary education, able to speak the local language in the respective district and having conducted a similar survey. The trainings and pretesting enhanced a common understanding of the tool.

3.6.3 Supervision

The Consultants shared the supervisory roles during the data collection phase. The Team Leader focussed on KIIs and overall supervision, while the Assistant Team Leader was responsible for coordination of household and FGD data collection. Emphasis was on major tasks that entailed:

- a) Leading a group of enumerators and ensuring quality and integrity of the data collected,
- b) Household sampling or selection,
- c) Household numbering and checking questionnaires for errors on a daily basis,
- d) Correcting and advising on mistakes,
- e) Recommend corrective Action any enumerator who may be failing to perform duties.

Quality of data collected from the field was improved by daily meetings by the Team Leader, Assistant Team Leader and the Supervisor to review the daily challenges faced and to seek corrective measures which needed addressing. The Supervisor met with the RAs prior to the day's data collection to correct identified errors made the previous day. The FGDs quality was enhanced by day's group coming together for a plenary and entry at the end of the individual FGDs. This ensured transparency and remove eventual misunderstandings.

3.6.4 Data Entry

Key in data quality assurance was data entry and cleaning as indicated earlier, Data was directly entered in SPSS Computer Programme Data View to save time, able to run initial analysis for key or/ indicative descriptive statistics and be able to easily clean data sets.

4. RESEARCH FINDINGS

This chapter presents the research findings. The research findings are based on the review of literature, the household data, the information from the FGDs and the key informants. This chapter is presented in six sections, the human population statistics and poverty analysis, the likelihood opportunities, the value chain of agricultural products, the capacity livelihoods service providers, opportunities for the growth of entrepreneurship and capacity of the skills and vocational training institutions.

4.1 HUMAN POPULATION STATISTICS AND POVERTY ANALYSIS

This section makes an analysis of the human population statistics based on the 2010 Central Statistical Office (CSO) information and compares this to the household survey information. The second part of this section makes a poverty analysis based on the Living Condition Monitoring Survey Report, 2015 taking into consideration the household data, FGDs and the key informant interviews.

4.1.1 Human population statistics for the target districts

The human population for the five target districts constitute 90.33 percent of Eastern province with Lundazi having the highest growth rate and Chipata the lowest according the CSO data. With 28.62 percent Chipata has the highest population amongst the districts.

Table 2: Human population statistics in the target districts

District	Total population	Growth rate (%)	Percentage	Population density
Eastern province as a total	1,592,661	2.6		30.9
Chadiza	107,327	2.5	6.74%	41.7
Chipata	455,783	2.2	28.62%	68.1
Katete	243,849	2.6	15.31%	61.1
Lundazi	323,870	3.2	20.34%	23
Petauke	307,889	2.7	19.33%	36.8
TOTAL	1,438,718		90.33%	

Source: Central Statistical Office, 2012

Of the total population in the province, 49.3 percent (784,680) were males and 50.7 percent (807,981) were females. There were more females than males in both rural and urban areas. Rural areas had 50.7 percent (705,761) females compared to 49.3 percent (686,577) males, while urban areas had 51.0 percent (102,220) females compared to 49.0 percent (98,103) males.

The most densely populated district in the province was Chipata District with a population density of 68.1 persons per square kilometre. This was followed by Katete District with 61.1 persons per square kilometre and Chadiza District with 41.7 persons per square kilometre.

The CSO data (2012) further indicates that;

- (i) The total number of households and sex of the household head in Eastern Province. The total number of households in Eastern Province as captured during the 2010 Census of Population and Housing was 305,198. Male headed households made up 77.5 percent (236,449) of the total number of households, while female headed households made up 22.5 percent (68,749).
- (ii) The youth population, age group 15-24 years, made up 19.9 percent of the provincial population. This age group constituted 19.4 percent of the rural population and 23.1 percent of the urban population. The population aged 15-64 years constituted 49.4 percent of the total population in the province. This age group constituted 48.4 percent of the rural population and 56.0 percent of the urban population.

4.1.2 Household demographic characteristics

The household survey and the FGDs data indicates the following findings:

Marital status of the respondents: The majority of respondents during the household survey were married. The average was 66.7 percent. However, there were high levels of widows observed at about 19.3 percent on average across the districts. Petauke and Lundazi registered the lowest numbers of widows and highest number of married couples. There were few single headed respondents as observed on average at 3.7 percent across all the districts. The FGD for women revealed, the high number of divorces in Chadiza and Chipata was attributed to the limited support provided by men towards their wives and high level of drinking among men.

Table 3: Marital status of the respondents

Marital status	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
Single	3.7%	8.3%	1.7%	8.3%	3.3%	3.3%
Married	66.7%	78.3%	41.7%	73.3%	83.3%	93.3%
Separated	2.7%	1.7%	10%	1.7%	0%	0%
Divorced	6.0%	6.7%	11.7%	3.3%	1.7%	1.7%
Widowed	19.3%	5.0%	35.0%	13.3%	11.7%	1.7%
	N=300	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Number of males and females in the household and the average family size: On the average, the number of males and females in each of the sampled households was the same in all the target districts i.e. 3.1 as indicated in Table 4. However, Lundazi has a higher number of females on average (3.5) per household compared to male (3.3) while Petauke has on average more male in the household on average (3.2) compared to female (2.8).

Picture 2: Chiboma Musitini Village, Chief Madzimawe, Chipata



Source: Field data, 2017

The average household size in all the target districts was 6.2 with Lundazi having an average larger household size (6.8) and Petauke having the least (6.0). Table 4 provides the details of the average household size per district. In comparison, according to the CSO (2012) data, the average household size for Eastern Province was 5.2 persons. Male headed households had a larger average household size of 5.5 persons compared to 4.3 persons for female headed households.

Table 4: Household demographics

	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
No. of Males in households	3.1	2.9	2.9	3.3	3.3	3.2
No. of Female in households	3.1	2.9	2.9	3.3	3.5	2.8
Average family size	6.2	5.8	5.9	6.6	6.8	6.0
	N=300	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

The average number of family members per household per age group: The average household size revealed 6.2 persons across the districts with the highest in Lundazi at 6.8 persons – According to the FGDs, this was attributed to the cultural practice of polygamous marriages practiced. The average household size as found by LCMS 2015 is 5.3 for Eastern Province and 5.1 for Zambia.

Table 5: Average number of family members per household per age group

Average members per household per age group	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
Average Age below 14	2.8	2.5	2.6	3.1	3.2	2.5
Average Age between 15 and 17	0.8	0.6	0.8	0.8	0.9	0.8
Average Age above 18	2.6	2.6	2.5	2.6	2.6	2.8
	N=300	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Demographic characteristics of the adolescent girls: Of the total of 113 adolescent girls interviewed in the FGD, of age 15-17 years, 47.8 percent where enrolled in school, while 17.6 percent said they were out of school. Those of ages less than 15 but greater than 11, and enrolled in school were 23.9 percent while 7.1 percent of same age range were out of school. Of the total (N=113) 3.5 percent said they had a child. Most of them said they got pregnant while they were at school or/and were forced to leave school to get married. Among the adolescent girls who had children, the average number of children was one while their average age was 16.06 years. See Table 6 for details.

Table 6: Educational Enrolment of adolescent girls

Districts	Number of girls	Age 15-17			Age 11 - 14			Girls with children
		In school	Out of school	Total	In school	Out of school	Total	
Chipata	22	60.0%	40.0%	100.0%	57.2%	42.8%	100.0%	0.0%
Chadiza	21	90.8%	9.2%	100.0%	88.8%	11.2%	100.0%	4.8%
Lundazi	26	81.3%	18.7%	100.0%	89.0%	11.0%	100.0%	3.8%
Katete	16	66.7%	33.3%	100.0%	74.9%	25.1%	100.0%	0.0%
Petauke	28	70.0%	30.0%	100.0%	66.8%	33.2%	100.0%	7.1%
	113	73.0%	27.0%	100.0%	77.1%	22.9%	100.0%	3.5%

Source: Focus Group Discussion (Adolescent girls), Field data, 2017

A key informant noted that child marriage prevalence varies widely in the province but noted that it was the highest prevalence in rural areas.

Table 7: Average number of children and age of adolescent girls

Average number of children and age of adolescent girls	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
Average number of children	1.28	1.20	0.10	2.10	1.00	2.00
Average Age of the adolescent girls	16.06	15.80	16.10	2.10	1.00	2.00
	N=300	N=60	N=60	N=60	N=60	N=60

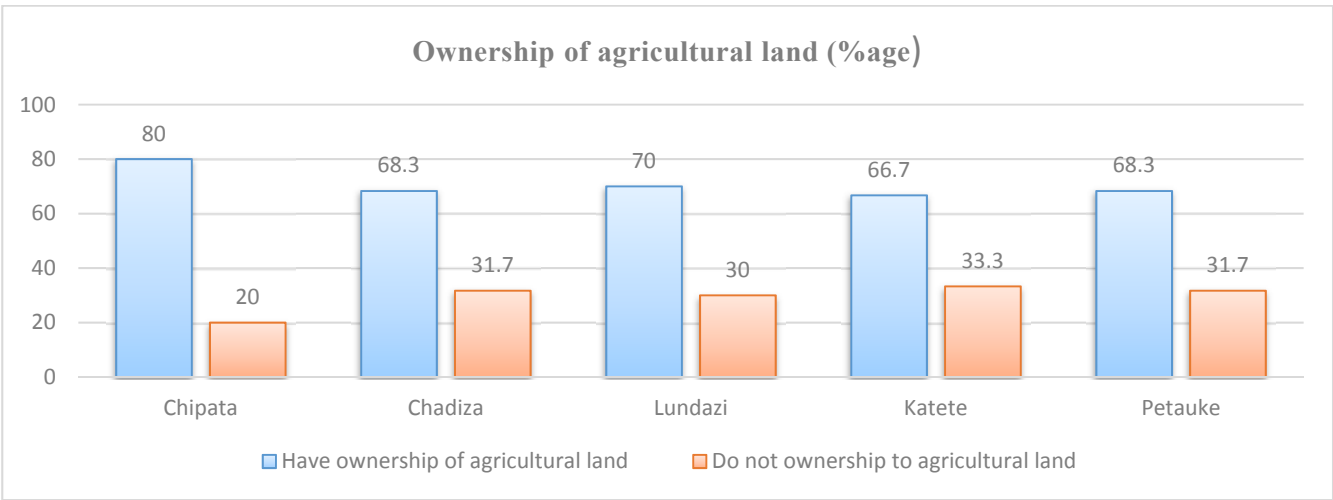
Source: Household survey data, 2017

4.1.3 Poverty analysis

One of the major challenges Zambia is facing today is exactly how to reduce poverty and economic inequality among the population. Although there has been a positive turn around in the economy over the last few years with real GDP growth of more than 5 per cent, the majority of Zambians continue to live in poverty⁷. This CSO (2016) survey indicates that 70 percent of the population in the Eastern province are poor and that 55.9 percent (the percent for Zambia is 40.8) are extremely poor. The CSO has adopted the material well-being perception of poverty in which the poor are defined as those members of society who are unable to afford minimum basic human needs, comprising food and non-food items, given all their total income.

Ownership of agricultural land and assets: Figure 1 below indicates that most respondents had access to agricultural land. Chipata with 80 percent had the highest number of respondents who had access to land while Chadiza and Petauke with 68.3 percent each had the least. The other respondents noted that they had access but did not own the land which they used for agricultural purposes.

Figure 2: Ownership of agricultural land by the households



Source: Household survey, 2017

⁷ CSO (2016)

Assets owned by the household: Most households as indicated in Table 8 below owned agricultural assets which included hoes and ox ploughs. However, it should be noted that a lot of households also owned bicycles. The high ownership of bicycles was attributed in the FGD for men to the bad roads which makes it difficult for motor vehicles to get to the rural areas and thus the use of bicycles. Further accessing motor vehicles as a means of transport is very expensive. Other assets owned by the respondents are indicated in the Table below:

Table 8: Assets owned by the respondents

Household assets owned	Chipata	Chadiza	Lundazi	Katete	Petauke
Radio	10%	43.3%	18.3%	25%	43.3%
Bicycle	21.7%	50%	48.3%	43.3%	55%
Motorcycle	0%	1.7%	1.7%	1.7%	0%
Hoes	86.7%	91.7%	95%	98.3%	98.3%
Ox plough	3.3%	23.3%	10%	23.3%	50%
Sewing machine	1.7%	6.7%	0%	0%	0%
Ox cart	0%	6.7%	5%	13.3%	21.7%
Tractor and implements	1.7%	6.7%	0%	0%	0%
Television and Accessories	5%	6.7%	3.3%	0%	8.3%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Vulnerable women and adolescent girls in the community: As indicated in Table 9 below, most respondents noted that they were vulnerable women and girls in their communities who were susceptible, exposed to an extent of being vulnerable. All the respondents (100 percent) in Lundazi noted that there were such women and adolescent girls and the least was Chipata and Lundazi where 95 percent of the respondents recognised the presence of vulnerable women and adolescent girls who were vulnerable to the extent of being vulnerable.

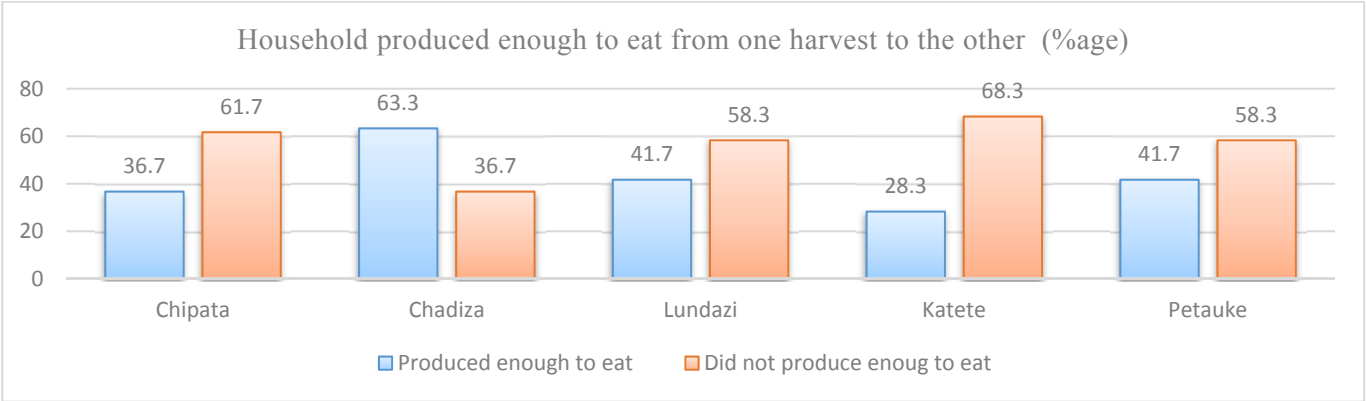
Table 9: Presence of vulnerable women and adolescent girls in the community.

Presence of vulnerable women and adolescent girls in the community.	Chipata	Chadiza	Lundazi	Katete	Petauke
Yes	95%	98.3%	95%	100%	98.3%
No	1.7%	1.7%	3.3%	0%	1.7%
Don't know	3.3%	0%	1.7%	0%	0%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Household Food sufficiency: As indicated in Figure 2, Chadiza is the only district which had more households which did not produce enough food to eat from one harvest to the other. Most respondents in all the districts noted that two to three months in which they did not have enough food to eat while some mentioned a period of four to five months of the year. Most respondents indicated that the months when they did not have enough food was from November to March. The critical months which was mentioned was January and February. The FGDs noted that these were the months before the harvest and the food from the previous harvest had finished. The respondents from Chipata noted that they had a period of six months or more when the household did not have enough food to eat because, most of them sold all their produce in the urban areas.

Figure 3: Household produced enough to eat from one harvest to the other



Source: Household survey, 2017

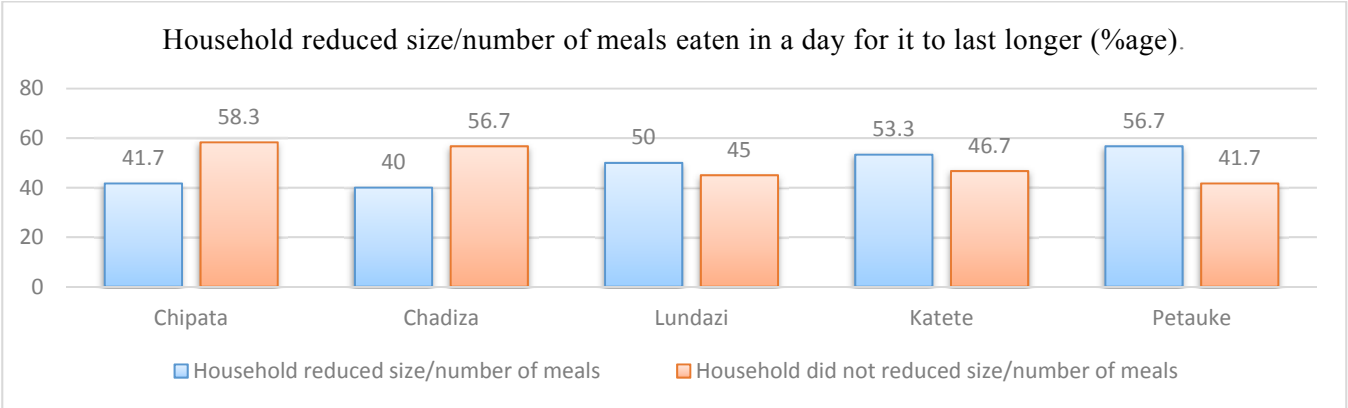
Table 10: Number of months in a year when household does enough food to eat

Number of months in a year when household does not have enough food to eat.	Chipata	Chadiza	Lundazi	Katete	Petauke
1 Month	5%	11.7%	13.3%	11.7%	8.3%
2-3 Months	45%	21.7%	28.3%	35%	23.3%
4-5 Months	10%	5%	23.3%	31.7%	21.7%
6 Months and more	6.7%	0%	0%	0%	0%
Not Applicable	33.3%	61.7%	35%	21.7	46.7
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

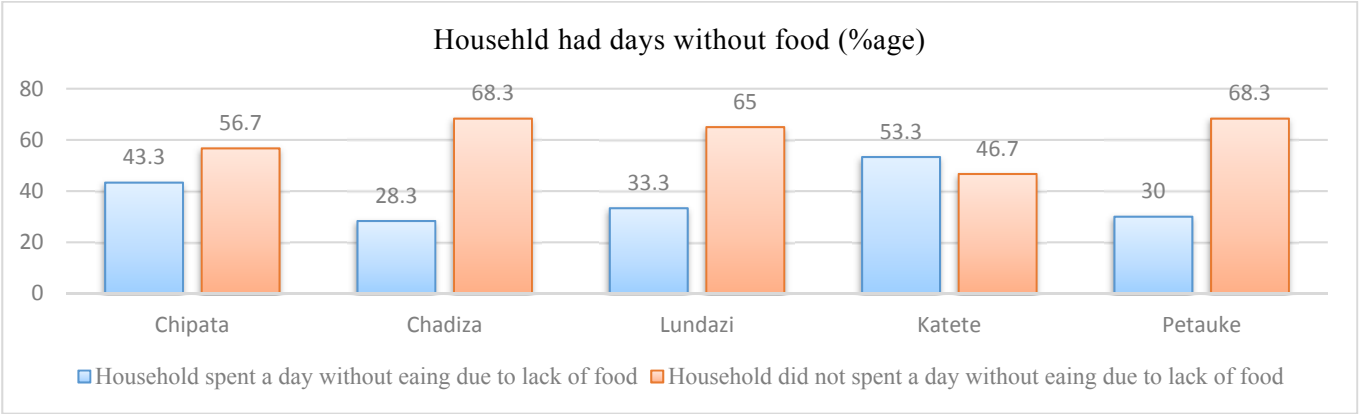
In order to mitigate the food insufficiency, Figure 4 illustrates that respondents in Katete and Petauke reduced on the size/number of meals eaten in a day for the food to last longer while Figure 4 notes that more (53.3 percent) respondents in Katete stated that they had days when they would go without eating the whole day due to lack of food.

Figure 4: Household reduced size/number of meals eaten in a day for it to last longer



Source: Household survey data, 2017

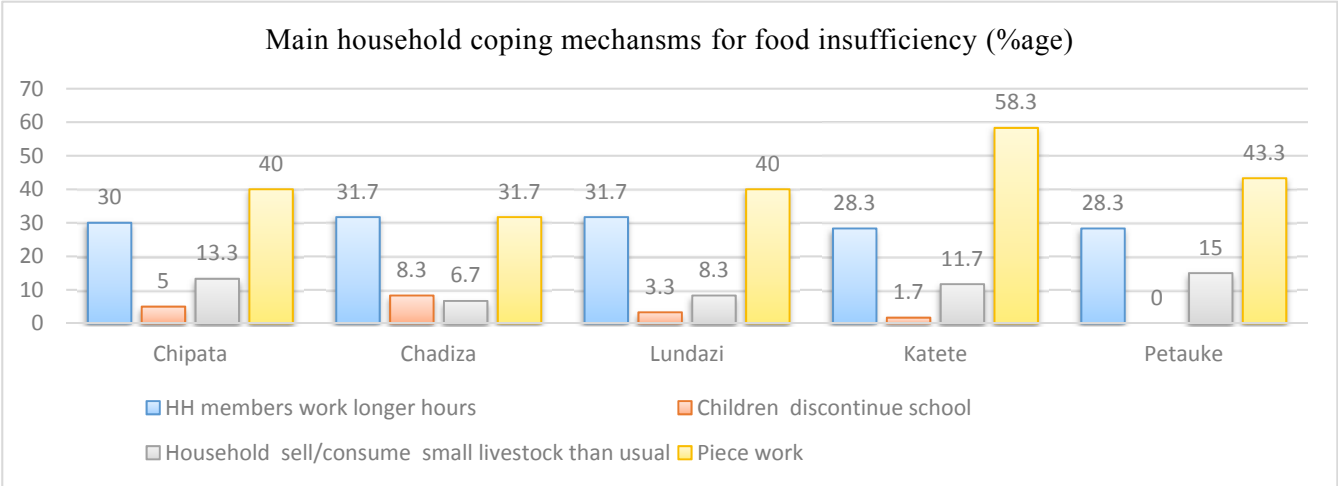
Figure 5: Household with days without food



Source: Household survey data, 2017

Household coping mechanisms: The respondents in the household survey mentioned a number of coping mechanisms to food insufficiency. The most common among them was in the first place “*piece work*” followed by the household members working long hours. Another coping mechanism is that of the household selling or consuming a lot more of their small livestock. Figure 6 illustrates the household coping mechanisms.

Figure 6: Main household coping mechanisms

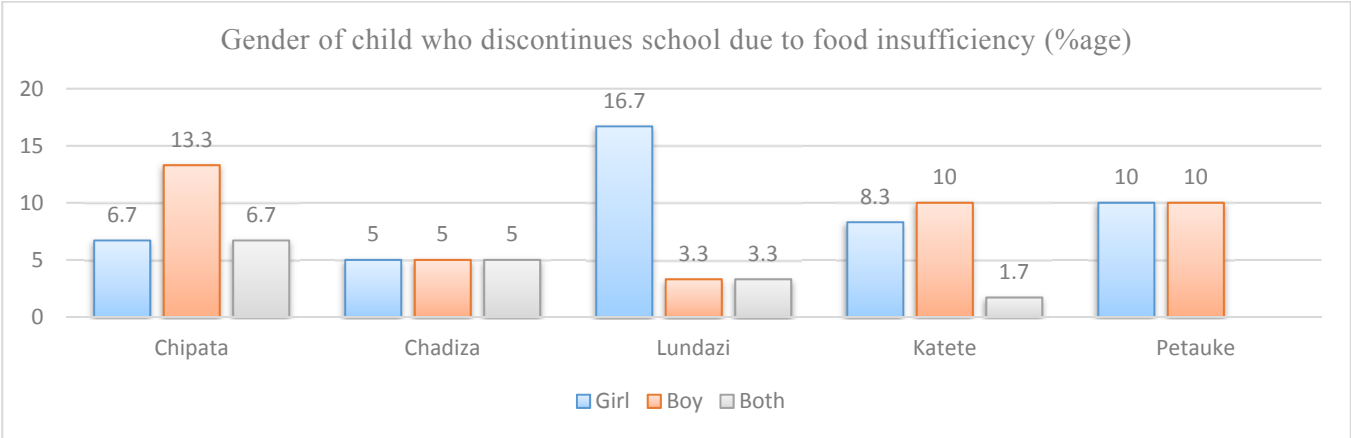


Source: Household survey data, 2017

As indicated in Figure 6, one of the coping strategies is that of a child or children discontinuing school. Figure 6 provides the gender of the children who discontinue school per district. It indicates that in Katete and Lundazi, more households would get the girl child to discontinue with school while in Chipata it would be the opposite. The FDGs for women noted the role of traditional leaders such as Senior Chief Mazamawe and NGOs like PLAN international and Worldvision (WVZ) in returning girls to school after being withdrawn and restricting early marriages.

In Chadiza, the FGD for women mentioned PLAN International while in Chipata the FGD for women mentioned WVZ. Department of Community Development was mentioned in all the districts as the organisation which supports girls on many areas which includes eliminating early child marriage. The respondents in Chadiza and Petauke had the same percentages for boys and girls with respect on whom they chose to withdraw from school when there was food insufficiency. The Figure also indicates some households did not use gender considerations on who discontinues school when there is insufficient food.

Figure 7: Gender of child who discontinues school due to food insufficiency



Source: Household survey data, 2017

4.2 LIVELIHOOD OPPORTUNITIES

This section makes an assessment of the livelihood opportunities in Eastern province but more especially in the target districts. It covers the assessment of agricultural and non-agricultural livelihood opportunities. A livelihood comprises the capabilities, assets and activities required for a means of living. Livelihoods also contribute to net benefits to other livelihoods at the local and global levels and in the long and short term. Essentially, livelihoods refer to the means used to maintain and sustain life⁸.

4.2.1 Key livelihood opportunities

The household survey and FGDs indicate that all households are either involved in crop production and/or rearing of livestock. Off-farm activities are considered as being secondary means of livelihood. The Table below gives the distribution of responses from the household survey. Table 10 indicates the distribution of responses.

Table 11: Key sources of livelihoods for the respondents

Key sources of livelihoods	Chipata	Chadiza	Lundazi	Katete	Petauke
Agriculture	83.3%	90%	93.3%	96.7%	85%
Trade and small business	16.7%	8.3%	6.7%	1.7%	6.7%
Catering/restaurants/hotel	0%	0%	0%	0%	1.7%
Carpentry	0%	0%	0%	1.7%	0%
Welding	0%	0%	0%	0%	1.7%
Construction	0%	1.7%	0%	0%	0%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey, 2017

The study in particular assessed the livelihood opportunities for women and those for adolescent girls in the communities. The study findings indicate that the most common livelihood opportunities for both women and vulnerable girls can participate in are agricultural. However, in this case there is a high percentage of vulnerable women and adolescent girls being engaged in “*piece work*” as a livelihood mechanism. Tables 12 and Table 13 depict the common livelihood mechanisms for vulnerable women and adolescent girls respectively.

⁸ De Vriese, 2006

Table 12: Most common livelihood activities that vulnerable women participate in

Most common livelihood activities	Chipata	Chadiza	Lundazi	Katete	Petauke
Crop farming	51.7%	56.7%	51.7%	36.7%	41.7%
Poultry farming	3.3%	1.7%	3.3%	1.7%	0%
Small livestock	5%	1.7%	0%	3.3%	3.3%
Trade and small business	5%	6.7%	6.7%	6.7%	3.3%
Catering/restaurants/hotel	0%	1.7%	0%	1.7%	0%
Horticulture/gardening	1.7%	3.3%	3.3%	3.3%	1.7%
Transport/driving	0%	1.7%	0%	0%	1.7%
Communication	1.7%	0%	3.3%	1.7%	0%
Piece work ⁹	43.3%	40%	35%	56.7%	45%
Other	1.7%	1.7%	5%	6.7%	1.7%
No answer	1.7%	0%	5%	0%	1.7%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Table 13: Most common economic activities that adolescent girls participate in.

Most common livelihood activities that adolescent girls participate in.	Chipata	Chadiza	Lundazi	Katete	Petauke
Crop farming	51.7%	53.3%	45%	35%	36.7%
Poultry farming	3.3%	1.7%	0%	0%	0%
Small livestock(goats, sheep and pigs)	0%	1.7%	3.3%	0%	3.3%
Trade and small business	6.7%	6.7%	5%	3.3%	6.7%
Cartering/restaurants/hotel	0%	1.7%	0%	0%	1.7%
Horticulture/gardening	1.7%	3.3%	0%	1.7%	0%
Piece work	40%	33.3%	51.7%	63.3%	48.3%
N/A	1.7%	0%	1.7%	0%	5%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

The FGDs for adolescent girls indicated most “*piece works*” where on-farm and as other jobs like working in restaurants required them to relocate to the urban areas and it was very difficult for them to find employment. The participants noted that they were forced to engage in “*piece work*” because they had children to take care off and in most cases the father to the child either denied fatherhood or they were so irresponsible to provide any support. The participants further stated that they engaged in all the stages of crop production from ploughing to harvesting especially for cash crops. However, most adolescent girls stated that they were mainly engaged as “*piece workers*” during weeding and at the time of harvest. As a FGD for adolescent girls in Petauke noted “*at the time of harvest, most of our homes do not have sufficient food and this forces us to look for opportunities to get some income*”. While the exchange enables households short of food to navigate through the rainy season, supplying “*piece-work*” during this time can have longer term consequences as their ability to cultivate a sustained food supply becomes restricted¹⁰.

⁹ “*Piece-work*” is a commonly used term to refer to any form of work which is provided for a short time by people in the low income bracket disregarding the sector. It is not “*piece-work*” when a person is doing their own activities such as making handicrafts for themselves to sell even if it is for a sort time.

¹⁰ Moore and Vaughn (1994)

4.2.2 Crop production

Cropping systems: There are generally two cropping systems practiced across the five districts namely the permanent fields (*munda*) where rain-fed crops are grown and the “*dimba*” (usually low lying areas with residue moisture after a rainy season) whose moisture retention range from April to September depending on the quality of the previous rainy season. Based on the household data, the main crops which are grown per district are the following:

Table 14: Crops grown by the respondents in the 2016/17 agricultural season

Crops grown (2016/17 season)	Maize	Soybeans	Groundnuts	Cotton	Beans	Sunflower
Chipata	91.7%	5%	71.1%	26.7%	1.7%	16.7%
Chadiza	98.3%	63.3%	76.7%	1.7%	6.7%	60%
Lundazi	98.3%	81.7%	28.3%	18.3%	1.7%	46.7%
Katete	98.3%	41.7%	55%	13.3%	3.3%	58.3%
Petauke	100%	10%	83.3%	6.7%	1.7%	38.3%
	N=60	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

The FGDs, for men and women noted that “*when people are married, they both contribute in terms of labour to all the crops as they view themselves as a single household*”. However women tend to work more on the ground groundnut fields due to their importance in the diet of households. Further, the FGD for women noted that maize, groundnuts, beans and sunflower as the crops they preferred due to the use of the crops as a source of food for the household as well as providing income. The women in the FGDs also said mainly made the decisions on the production, selling and use of these crops as food. The FGDs for Adolescent girls noted that they were considered part of the household until they are married as such did not own their own fields.

The FGDs for men and women indicated that not all farmers had access to “*dimbas*” due to increasing population pressure and nature of the soils and topography. In Chipata and Lundazi which are mainly uplands, “*dimbas*” are few compared to Chadiza, Katete and Petauke. The main crops grown in “*dimbas*” include tomatoes, rape, cabbage, onions, *impwa*, egg plants, green peppers, sweet potatoes, cassava, water melon and green maize. Bananas, sugar cane and papaws are also grown on the “*dimbas*”. Due to the nature of the crops and fruits grown in the “*dimbas*”, this is an important source of farm income apart from rain-fed crops of maize, sunflower, soya and ground nuts

Picture 3: Different types of beans from Lundazi



Source: Field data, 2017

Sizes of fields varied significantly but the common size mentioned was 1-2 acres. The FGDs indicated that the size of “*dimbas*” was determined on the need to fence off these gardens which demands a lot of labour. “*Dimbas*” are mostly owned by men due to amount of work involved but once created, wives also grow their crops. However one outstanding comment which was echoed in all FGD is that “*why does the Government promote us farmers to grow crops which they cannot buy*”? For example many farmers have heeded the call to diversify the crops they grow like soybeans and sunflower but the marketing is chaotic leaving us farmers at the mercy of “*vendors*”.

Source of farm labour: The most commonly source of farm labour according to Table 15 are all family members, the household head and the household head and the wife. The last two were according to the FGDs manly applicable when the other family members were too young to participate in the farming. In the FGD for adolescent girls, they noted that they also participated in the agricultural activities at the household sometimes even herding cattle.

Table 15: Source of farm labour

Source of farm labour	Chipata	Chadiza	Lundazi	Katete	Petauke
All family members	38.3%	50%	53.3%	45%	35%
Household head	36.7%	28.3%	16.7%	23.3%	30%
The children	5%	1.7%	1.7%	1.7%	3.3%
Household head and wife	13.3%	18.3%	23.3%	23.3%	30%
Other family members	6.7%	1.7%	5%	6.7%	1.7%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Challenges in crop production: The challenge in crop production include pests and diseases which requires effective insecticides and fungicides respectively. These though do not come cheap. Although profitable, the market for exotic vegetables and fruits are the district markets which in all sampled chiefdoms were on average far-off.

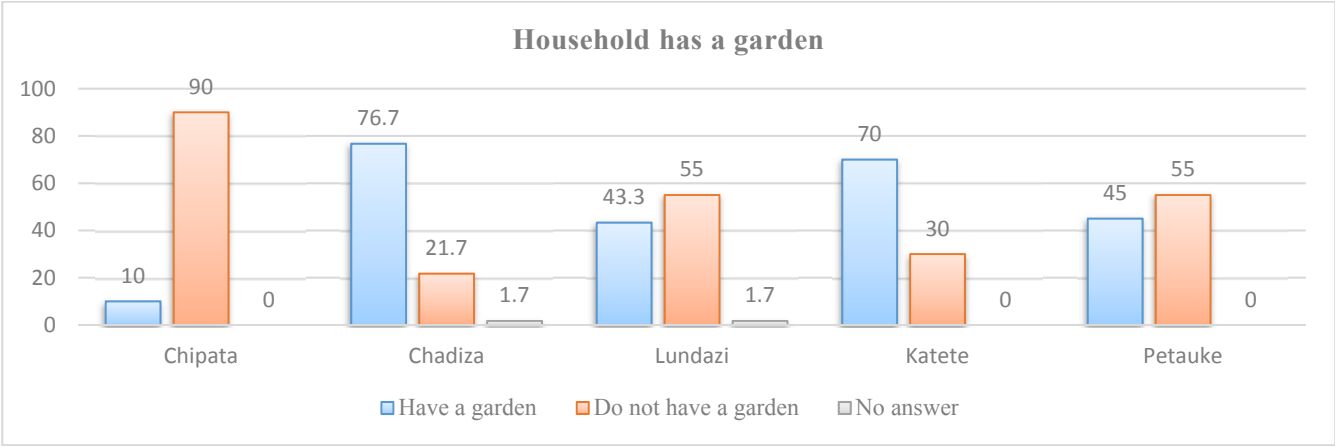
Marketing of farm produce was commonly cited as the main challenge.

- (i) Farmers in all cases sated “*kulibe musika*” this covered aspects such as: long distances to the nearest market depots mostly the District main market trading Centre, depressed prices, cost of transportation. In the end “*mafarmer bama odesa zolima zawo osati kugilitsa*” meaning that farmers just sell their produce at low wholesale prices. The final result is low returns for their labor and purchased inputs.
- (ii) The second recurring main challenge that was mentioned in crop production was the lack of capacity to purchase commercial seeds of maize, groundnuts and sunflower. In most cases seeds are recycled leading to low yields.
- (iii) The third common complaint across all the districts was the apparent decline in soil fertility saying that “*minda zalema*” literally meaning that the fields are tired from continuous use from time immemorial. Asked how this could be solved? Fertilizer application was the most frequent response.
- (iv) The effect of climate change was aptly understood and brought out as having a disastrous impact on agriculture in both crop and livestock production.
- (v) Other challenges mentioned were include lack of latest agriculture technologies, agriculture training, pests especially last season for both females and males headed households alike. The FGDs for women indicated cotton was labour intensive even when there when companies supplied the inputs and provided the market.

4.2.3 Gardening and horticulture

Gardening: As indicated in Figure 8, Chadiza had the most number of respondents (76.7 percent) who owned a garden, followed by Katete with 70 percent of the respondents and Chipata had the least number of respondents who owned a garden. The FGDs and the key informants stated that the availability of a garden depended on the physical environment. Some environments made it possible to have a “*dimba*” while others especially the mountainous environment of Chipata did not. The FGDs for women and the adolescent girls noted that they would like to have access to “*dimbas*” so that they could grow vegetables for sale but these are mainly for the men.

Figure 8: Ownership of a garden



Source: Household survey data, 2017

Most respondents who had gardens grow vegetables. These were 61.7 percent for Chadiza, 55 percent for Katete, 40 percent for Lundazi and 35 percent for Petauke. Among the few who had a garden in Chipata, 3.3 percent grew vegetables. Other crops which were grown in the gardens were water melons and sugar cane. The main reason why some respondents did not have a garden were that there was lack of suitable land, availability of labour and the lack of water.

Horticulture production: There were fewer respondents who mentioned that they had a fruit garden than those who did except in Chadiza where it was an equal number. Table 15 gives a distribution of the responses. Most of the fruits which were grown were mangoes and bananas but there were respondents who grow oranges and lemons. There was an equal number of respondents who used the fruit garden as a source of income as those who used it for consumption (14 percent of the total number of respondents).

Table 16: Household ownership of a fruit garden

Household with a fruit garden	Chipata	Chadiza	Lundazi	Katete	Petauke
Had a fruit garden	10%	50%	13.3%	33.3%	28.3%
Did not have a fruit garden	90%	50%	86.7%	66.7%	71.7%
	N=60	N=60	N=60	N=60	N=60

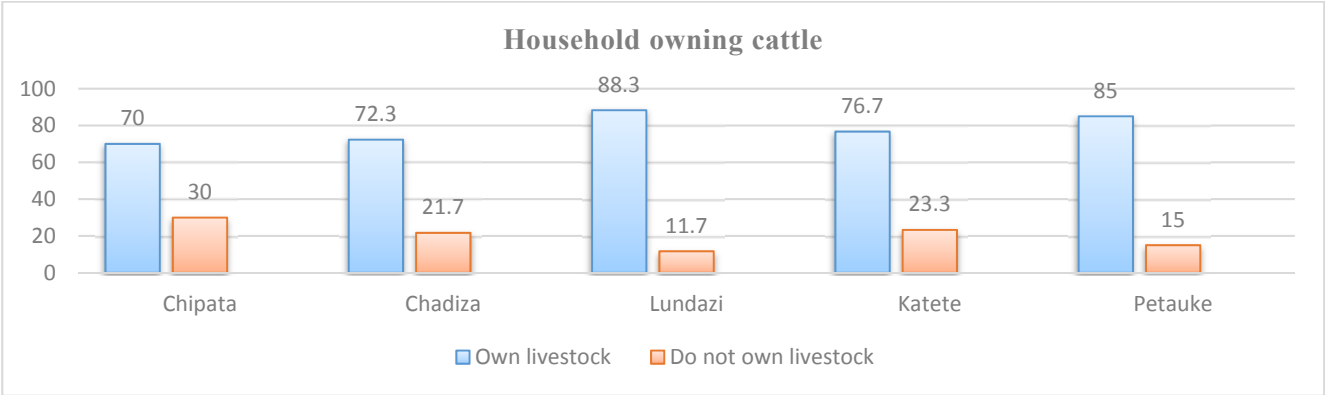
Source: Household survey data, 2017

All the FGDs, for men, women and adolescent girls noted that there were very few people who established fruit gardens. Most fruit trees grow on their own. In one FGD, it was noted that “*even bananas, people did not grow them intentionally for sale but more for consumption*”.

4.2.3 Livestock production

Ownership of livestock: Lundazi had the largest number of respondents who owned livestock (88.3 percent) with Petauke being second (85 percent) and the least is Chipata with 70 percent. The reasons for most respondents owning livestock according to the FGDs for men was that Tumbukas who are mainly in Lundazi are traditional cattle keepers. Figure 8 illustrates the number of respondents who own and do not own livestock.

Figure 9: Household owning livestock



Source: Household survey data, 2017

Types and number of livestock kept: The most common livestock owned by the respondents was poultry. Poultry included ducks, guinea fowls and local chickens. These were owned on average by 70 percent of the respondents in all the selected districts. The highest number of respondents who owned poultry were in Lundazi while the least as in Chipata. Cattle was on average owned by 31.7 percent of the respondents with the highest being in Petauke (48.3 percent) and the least number of respondents being in Chipata with 11.7 percent. Despite the presence of African Swine Fever and the ban of movement of pigs, these are being kept by 24.7 percent of the respondents. The Table below gives the details of the distribution of responses.

Table 17: Type of livestock owned by the respondents

Households owning respective Livestock	Cattle	Pigs	Goats	Sheep	Poultry	Rabbits
Chipata	11.7%	10%	20%	3.3%	61.7%	0%
Chadiza	31.7%	13.3%	40%	5%	63.3%	1.7%
Lundazi	25%	18.3%	20%	0%	81.7%	0%
Petauke	48.3%	15%	20%	0%	78.3%	0%
Katete	41.7%	66.7%	33.3%	0%	68.3%	0%
	N=60	N=60	N=60	N=60	N=60	N=60

Source: Household Survey data, 2017

In Chief Madzimawe chieftdom, the FGD for men noted that there is a policy that all pigs should be enclosed in pigsties throughout the year. This has reduced the number of pigs as many farmers cannot/find it difficult to afford to feed pigs. In the past the pigs used to be raised in traditional free range system to scavenge for feed.

Opportunities in livestock: In the past and even now, project such as CARE have been promoting stocking programmes in goats and chickens on pass-on basis. The challenge is how well these programmes have worked in the past or provided an entry of women in the commercial value chains.

No FGD complained about lack of market of their goats. In Katete farmers have positioned themselves for the Saudi Arabia market through formation of Katete Goat Association. They have formed women groups in villages in which it trains women farmer groups in modern goat rearing.

Training in improved animal husbandry can pave way to reducing challenges of diseases, animal nutrition and breeding. But whoever is training should make sure that there is a market for farmers to complete the value chain.

Picture 4: Cattle in Malungama Village, Chipata, Chief Madzimawe



Source: Field data, 2017

Challenges in livestock production: The main challenge cited was the outbreaks of diseases especially Newcastle Disease in village chickens and pigs known as “*chipumpu*” in Nyanja. The main source of veterinary services is Department of Veterinary Services and in some cases vendors. Lack of nearby water for livestock especially in the drier months forcing livestock owners to pump water to give cattle. The competition for land use for settlement, crop production and grazing land is also an eminent threat due to human and livestock population pressure in especially Katete and Lundazi.

Many farmers would like to go into bee keeping but according to them the cost of commercial beehives is beyond reach an average farmer. The traditional method of using a bark of a tree (which tends to kill off the barked tree) is being discouraged by local leadership as one of the climate change mitigating strategy to avoid deforestation.

In aquaculture, the dependence on rains to fill the fish ponds is a big challenge. For example in Chipata the floods destroyed the ponds on the other hand in Petauke – the ponds had dried up in October.

4.2.3 Off-farm income generating activities

Featuring prominently was piece works commonly known as “*Ganyu*”. These took many forms but mostly in farming related like land preparation, weeding and harvesting. Adolescent girls were engaged in piece work especially during harvesting. Others included making bricks, “*Kantemba*”, making crafts. Local Beer brewing was apparently not mentioned among the men FGD. Table 18 gives the distribution of responses from off-farm activities. One off-farm income generation activity which did not come out of the household survey but in all the FGDs was that of prostitution among the adolescent girls. In the FGD for adolescent girls, they mentioned that this was the main way in which they could get income to buy what they needed especially since most of them had children out of wedlock.

Table 18: Source of household income from off-farm activities

Source of household income	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
Sale of merchandise	7.7%	3.3%	10%	5%	11.7%	8.3%
Charcoal burning	1.0%	1.7%	0%	3.3%	0%	0%
Brewing beer	2.7%	1.7%	1.7%	5%	3.3%	1.7%
Attending workshop	0.0%	0%	0%	0%	0%	0%
Sale of forage nurseries & seed	0.3%	1.7%	0%	0%	0%	0%

Sale of wood poles	0.7%	0%	0%	1.7%	0%	1.7%
Piece work	24.7%	33.3%	20%	35%	20%	15%
Other	2.3%	3.3%	3.3%	1.7%	1.7%	1.7%
Formal employment	2.3%	1.7%	0%	5%	0%	5%
	N=300	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Other sources of household income from off-farm activities included remittances from relatives in the urban areas, selling of opaque beer which is brought by companies from the urban areas and sale of used clothes; what is referred to as “*salaula*”.

4.3 VALUE CHAIN ANALYSIS

This section makes an assessment of the technical skills gaps and profitable value chain opportunities for adolescent girls and women. It also makes an assessment of the labour market (opportunities for formal and self-employment), the existing value chains including key players, returns at various value chain levels and analysis of skills provision and gaps. The profitable value chain which have been identified for women are:

1. Groundnuts,
2. Soybeans,
3. Sunflower,
4. Goats and
5. Village chickens.

4.3.1 Groundnuts Value Chain

Groundnuts are one of the most important cash and food crop in Zambia. The Eastern province is the largest producer of groundnuts and accounts for 30 percent¹¹ of Zambia’s total production. This was underscored by the results from household survey that found that groundnuts were the most widely grown crop after maize (97.3 percent) showing that 68.9 percent cultivated groundnuts. This is echoed by the IAPRI¹² and the study by Ross and de Klerk of 2012. Groundnuts offer one of the greatest opportunities for vulnerable women. Groundnuts have multiple uses including porridge, peanut flower in relish, confectionery and other products for human consumption.. The household survey of this study showed that households on average obtained 0.25 tons/hectare compared with a potential of 1-2 Tons for small-scale farmers using improved seed varieties.

Main Actors: The main actors in the groundnut value chain are the following. These were obtained from the household survey, the FGDs, the key informant interviews and the review of literature:

1. Legume seed Research – Msekera Research Institute
2. Input suppliers (Seed companies comprising of MRI, ZAMSEED, PANNAR, SEEDCO),
3. Localized small scale agro-input/output traders
4. Localized large-scale agro-input/output traders; SHIFA and MANIA in Chipata, ALIBOO in Lundazi, KESON in Katete, SHAIN in Chadiza
5. Traders from Lusaka and Copperbelt,
6. Exporters from within Zambia,
7. Companies with Inter Linked-Transactions e.g. COMACO and EPFC.

¹¹ Ross and de Klerk (2012)

The roles of the actors which were identified were the following:

1. Small-scale farmers are the main primary producers of groundnuts
2. Small and large traders are involved in assembling and trade and sometimes processing of groundnuts.
3. Processors: crushing raw groundnuts into oil, production of peanut butter and confectioneries. There is no known groundnut oil crushing plant in Eastern province. This is mainly due to the high cost of processing raw groundnuts.
4. Exporters: there are a number of exporters of raw groundnuts in the SADC region; however the low quantities 45 percent which are sold by farming households.

Main challenges of the groundnut value chain

The challenges for small-scale farmers to expand their profits and hence improve their livelihoods include:

1. The household survey revealed that the respondents on average got 0.25 tons/hectare,
2. Small areas under cultivated. This study found on average the respondents cultivated 0.76 hectares were under groundnut production,
3. Poor quality seeds and varieties inappropriate for various uses,
4. Poor quality at harvest with peanuts i.e. inconsistent size and coloration,
5. Inadequate threshing techniques and post-harvest drying and storage which reduce quantity and market quality,
6. Insufficient quantities of acceptable quality on the market. The dominance of groundnut sector almost entirely by smallholders makes sourcing of large quantities extremely challenging.
7. The issues of high level of inflation¹³ caused by poor drying and storage methods of groundnuts in in Zambia limits it to enter world markets,
8. Poor market for improved seed,
9. Lack of trust between producers and buyers.

Opportunities for women and adolescent girls in groundnut value chain

1. Generally Zambia's exports volumes lower than potential,
2. Inclusion of groundnuts FISP can solve the problem of using recycled seeds,
3. Easy to participate as groundnuts can easily be grown from recycled "commercial seeds" with acceptable average yields (this quality is not up to standard),
4. The demand by traders and processors is not met by supply implying there is still room for more farmers to engage in groundnut production,
5. Bulking (collective marketing) to reduce transaction costs,
6. Formation of associations/clusters,
7. Availability of homestead small-scale peanut making machines,
8. Smallholder farmers with strong social network can draw upon their social capital to strengthen their position within the value chain. For example, an effective producer organization or cooperative can help:
 - a) Smallholder farmers (including women and adolescent girls) increase their bargaining power by helping them enter into groundnuts value and provide support for acquiring information on market prices and requirements.
 - b) Homestead processing and packaging technologies,
 - c) Education and training in product marketing.
9. Small and large Traders are involved in assembling and trade & sometimes processing
10. Processors turning raw groundnuts into oil, peanut butter and confectioneries

¹³ Mofya and Shipekesa, (2013)

Groundnuts value chain returns

Table 19: Groundnut value chain returns

District	Area in Ha	Average Harvested in Kgs	Yield/Ha in Tons	Average Qty sold in Kgs	Average Sold as a % of Harvest	Average price/kg	Actual Average Revenue for sold Crop
Chipata	0.65	161.98	0.25	54.55	34%	3.90	758.25
Chadiza	1.03	234.07	0.23	52.25	22%	3.00	156.75
Lundazi	0.32	67.62	0.21	30.87	46%	2.00	61.74
Katete	0.67	125.37	0.19	32.15	26%	2.39	76.84
Petauke	1.15	408.98	0.36	67.30	16%	2.44	164.21
Average	0.76	199.60	0.25	47.42	29%	2.46	114.89

Source: Household survey data, 2017

There are generally high returns for every actor in the groundnuts value chain. For example what limit farmers to get high returns for their labour is low yields per hectare. Peanut butter and peanut confectionaries fetch premium prices. Current market price for peanut butter for one kilogramme is about ZMK28 whilst one kilogram of raw groundnuts were fetching ZMK6.5) in Lusaka and ZMK4.5 in Eastern province. However according to the study findings, the average yield was 246 kilograms per hectare which is WITHIN than the standard for traditional small-scale farmers at 150-300 kilograms per hectare using recycled seed. Therefore the returns to labour are above average although these can be improved. The average price at which groundnuts were trading at according to the study was ZMK2.46/kg. The cash income per hectare of saleable portion (29 percent) of the harvested groundnuts obtained was therefore ZMK244.00. Seventy One percent was retained for home consumption and seed.

4.3.2 Soybean Value Chain

Soybeans was identified a priority value chain, based on a number agronomic and nutritional attributes, as well as its income generating potential for poorer farmers especially women. In Zambia, Soybean is mostly used as an industrial crop. It is used in oil production and products such as soya chunks and soya meal. The by-product cake is fed directly to animals or processed with other ingredients into animal feeds.

The main actors: The Soybean value chain in Eastern province is comprised of six key stages¹⁴: input supply, product assembly, wholesale, processing and retail.

1. Input suppliers (seed companies and agrochemical companies),
2. Localized large scale agro input/output traders,
3. Localized small- scale agro input/output traders,
4. Companies with inter linked-transactions such as COMACO, EPFC and
5. Processors.

Main challenges of Soybean value chain

1. Use of recycled seeds which lowers the production potential by small-scale farmers,
2. Market volatility,
3. Fluctuation productions from small scale farmers,
4. Low mechanization especially amongst small-scale farmers,
5. Access to established and stable markets,
6. Limited availability of high yielding soya seeds and limited incentive for private investment in smallholder soya seed multiplication,
7. Low yield improving input usage by small-holders.
8. Uncoordinated markets for the product. Most of the buyers are what are referred to as briefcase businessmen who by the products at very low prices.

¹⁴ Lubungu *et al*, (2014)

Opportunities for women and adolescent girls in Soybeans value chain

1. Zambia has unmet demand for locally produced Soybeans,
2. The main opportunities for women participation is in input supply of agro dealership to address limited access to inputs especially among farmers in remote areas of rural districts,
3. Soybeans production has been shown to be highly profitable with an unmet demand for processing in industries like oil crushing, stock feed manufacture,
4. Some of the farmers could also be linked (or could themselves integrate vertically) to other value chains like the manufacture of High Energy Protein Supplement (HEPS), soy chunks,
5. There is an important role to be played in facilitation of clustering of smallholder farmers to enable economical access to harvesting and threshing equipment,
6. Support could be provided to women/adolescent girls-owned/run enterprises that could be hiring out harvesting and threshing services provide bulking facilities and also provide market information that assists farmers determine when to offload their produce,
7. Support in Soybean processing at both household and industrial levels,
8. Promotion of consumption of soy products through scaling up nutrition programmes.

Soybean value chain returns

Table 20: Soybeans value chains returns

District	Area in Ha	Average Harvested in Kgs	Yield/Ha in Tons	Average Quantity sold in Kgs	Average Sold as a % of Harvest	Average price/kg	Actual Average Revenue for sold Crop
Chipata	0.10	3.33	0.03	3.33	100%	-	-
Chadiza	0.93	272.08	0.29	211.25	78%	2.76	583.05
Lundazi	1.17	418.67	0.36	352.83	84%	2.84	1,002.04
Katete	0.52	162.33	0.31	96.67	60%	2.78	268.74
Petauke	0.13	21.50	0.17	15.00	70%	2.00	30.00
Average	0.57	175.58	0.23	135.82	78%	2.60	470.96

Source: Household survey data, 2017

According of the survey findings the average yield was 232 kilograms or 0.23 Tons per hectare which is WITHIN the standard for traditional small-scale farmers at 100 - 400 kilograms per hectare. Therefore the returns to labour are on the lower side of returns. With Soybean trading at the average price obtained from the survey of ZMK of 2.60/kg farmers were getting ZMK471 per 0.37revenue. In terms of per hectare value this would be ZMK337/HA. It must be noteworthy that not all the harvested Soybeans were sold. The average retained soya for home consumption and seeds was on average about 22 percent leaving the 78 percent for cash sales.

3.3.3 Sunflower Value Chain

Sunflower is grown in nearly all the parts of Zambia, though production levels vary. Like soybean, the Eastern province has lead the country in smallholder sunflower production in every recent harvest season. In fact, from 2001 to 2010, over 40 percent of all sunflower produced by Zambian smallholders was grown in the Eastern province. The total sunflower production in Eastern province ranges from about 4, 500 tonnes to about 25,000 tonnes depending on the year, while average yields have usually remained less than 0.6 tonnes per hectare planted¹⁵. The average yields are much lower than the yields achieved by commercial famers or hybrid seed users .Average commercial yields for OPV s vary between 1.5 to 1.8 tonnes / ha while hybrid seeds can even go up to 2 tonnes /ha . Sunflower is a crop that could potentially improve income levels of smallholder farmers in Eastern province. It can be fairly easily grown with relatively little use of inorganic fertilizers though land productivity is probably much lower than

¹⁵ Lubungu *et al*, (2014)

potential yields. In addition, sunflower can be locally processed to near commercial quality oil on the farm or at nearby small –scale processors

Main Actors

- 1. Small-scale farmers,
- 2. Seed companies,
- 3. Localized large scale agro-input/output traders,
- 4. Localized small- scale agro-input/output traders,
- 5. Companies with inter linked-transactions such as COMACO and EPFC.

Main Challenges of the sunflower value chain

- 1. Use of recycled seeds hence low productivity by small-scale farmers. This study found that farmers on average had 0.24 Tons/ha from average fields of 0.5 hectares,
- 2. Poor management practices by the majority growers e.g. late planting, high weed competition,
- 3. Large scale processors operating at low capacity due limited supply of sunflower seeds,
- 4. Large scale animal feed manufacturers focus on high protein soya cake,
- 5. The large –scale and feed processing are of fringe importance to the current sunflower value chain in eastern province,
- 6. In addition to low quantities of sunflower seed, sunflower cake produced mechanical extraction is considered of low quality by large feed companies,
- 7. Poor markets for sunflower. Most of buyers are middlemen who exploit the farmers.

Opportunities for women and adolescent girls in sunflower value chain

- 1. Running of small mechanical oil expellers,
- 2. Aggregating of sunflower cake to sell to feed manufacturers,
- 3. Aggregating oil of semi refined oil for sale to refineries,
- 4. Since sun flower oil offers more benefits compared to selling sunflower seed, there is need to promote commercialization through education on how to identify potential markets,
- 5. Also smallholder sunflower yields have remained stagnantly low. This is mainly due to production challenges associated with low yield improving input use, especially seeds. In addition to the focus on using local or recycled seeds.

Sunflower value chain returns

Table 21: Sunflower value chain returns

District	Area in Ha	Average Harvested in Kgs	Yield/Ha in Tons	Average Qty sold in Kgs	Average Sold as a % of Harvest	Average price/kg	Actual Average Revenue for sold Crop
Chipata	0.14	41.7	0.30	14.23	34%	1.75	24.90
Chadiza	0.85	164.92	0.19	72.42	44%	2.00	144.84
Lundazi	0.55	119.83	0.22	0	0%	2.40	-
Katete	0.68	165.17	0.24	119.5	72%	1.48	176.86
Petauke	0.45	100.67	0.22	37	37%	1.42	52.54
Average	0.53	118.46	0.24	60.79	47%	1.81	99.79

Source: Household survey data, 2017

According to the household survey findings, the average yield per hectare was 235 kilograms which is far BELOW the standard for traditional small-scale farmers of 800-1000 kilograms per hectare. Therefore the returns to labour are poor. The potential is 3,000 kilograms per hectare. Sunflower was trading at an average price of ZMK1.83/kg translating into an income of ZMW100. The returns to labour make sunflower farming a worthwhile within current value chain ONLY IF it is crushed and selling the two by-products of sunflower cake and oil instead of sunflower seeds only. This partly explains why the study found out that the farmer was holding back 53 percent of the total harvest for this purpose.

1. For small-scale rural miller, after deducting all into mill costs and other running costs, the revenue is somewhere US\$1900 TO US\$63,000 PER annum according to IAPRI study,
2. First, the income generating potential of investments in the production and sale of sunflower oil is potential of investments in the production and sale of sale of sunflower is potentially very large.

3.3.4 Goats Value Chain

There is an estimated one million of goats of which Eastern province is the third largest producer after Southern and Central province. About 25 percent of households own goats in Zambia¹⁶. Studies have shown have shown that the majority of the world's rural poor keep and use livestock in a variety of ways that extend income generation. Livestock including goats act as a store of wealth, a risk management tool against draught and providing income. Farmers in Zambia use four predominant market channels for their goats¹⁷: local sales, local trader, and district urban trader and Lusaka/Copperbelt traders. The most common channel is the local market. The marketing of goats is over 80 percent informal¹⁸, this affects prices that farmers receive as they is no minimum prices.

Main Actors

1. Small-scale farmers,
2. Input suppliers of veterinary drugs,
3. Goat restocking NGOs,
4. Service providers : MLF- Department of Veterinary Services, Department of Livestock Development, Private Veterinary Practitioners ,Zambia Police,
5. Localized local traders,
6. Localized butcheries,
7. Restaurants/lodges,
8. Traders from Lusaka and Copperbelt provinces.

Main roles of actors

1. Small-scale farmers are the main primary producers of goats,
2. Small and large Traders are involved in assembling and trading of goats,
3. Localized butcheries: sale of fresh goat meat.

Main challenges of the goat value chain

1. Small-scale farmers lack general technical skills in goat husbandry for the market, disease control, and lack of local veterinary services. All these result small low weight goats,
2. Production of goats affected by high disease incidences and mortality rates,
3. Non-Governmental Organisations: there is scarcity of breeding stock as farmers tend to hold back their breeding stock especially females forcing to be NGO involved in stocking and restocking programmes to go out of the province in search of goats,
4. Many smallholders raise goats on semi-intensive system with little all no supplementary feeding and proper breeding programme in mind.
5. Goats are sold mostly when farmers had problems to solve and thus they tended to be seasonal or in good harvest there is a shortage of goats as farmers do not see any need to sell.

¹⁶ Ministry of Agriculture and Livestock (2013)

¹⁷ Chipasha (2017)

¹⁸ Namonje-Kapembwa, Chiwawa and Sitko (2016).

Opportunities for women and adolescent girls in goat value chain

1. Unlike beef marketing channels, goat marketing is mostly informal and dominated small-scale farmers and traders,
2. Since households sell their goats largely to meet their immediate needs for cash, this therefore implies that goat marketing is very liquid with a lot of buyers and sellers..
3. Formation of small farmer groups and association has potential to increase participation of small-scale goat farmers in formal markets

Returns in goats value chain

1. The value chain clearly identifies the existence of commercially value business.
2. The analysis of gross margins suggests that commercialization of goats yields positive net income, however, the magnitude of margins accrued too the producer is lower than other actors ion the value chain.

3.3.5 Village Chickens Value Chain

Village Chickens are widely produced across all provinces in Zambia with an average of 13 birds per household. In Eastern province on average 73.8 percent of households own village chickens.¹⁹ Chickens are kept for home consumption, selling but very few solely for business. The FGD for women indicated that chickens were a key product during traditional ceremonies such as initiation ceremonies of girls. At this time they are in high demand. They also mentioned that there was a growing demand for village chickens in the urban areas.

Picture 5: A Women Group Village chickens Project, Chadiza, Kamseche Village Zingalume Chiefdom



Source: Field data, 2017

Main actors

The value chain for indigenous chickens is simple and under developed with no infrastructure, save for some market stalls in district centres. The main actors' are small holder farmers, primary collectors and live bird traders or consumer (informal marketing²⁰). The main marketing channels are from farmer to retailer and then to consumer. Some sell directly to restaurants while other to traders (middlemen) who take their chickens to ether to secondary markets and urban markets. The final end of market of village chicken is domestic consumption through retailers.

¹⁹ IAPRI (2015)

²⁰ Bwalya (2014)

Challenges of village chicken production

- 1. Most common is semi-intensive type of poultry production in rural areas with very little supplementary feeding or usage of improved technologies for producing village chickens in large volumes,
- 2. No deliberate breeding programmes,
- 3. High mortality in chicks,
- 4. High disease prevalence especially Newcastle disease which discourages investing much of the time in village chickens,
- 5. There is general lack of extension and veterinary services in the rural areas,
- 6. Village chickens housed in unconventional houses/trees leading to high mortalities,

Opportunities’ for women

- 1. Training in profitable village chicken production (proper hosing, nutrition, disease control),
- 2. Village chicken don not require much capital,
- 3. Credit to women to expand their businesses/flocks,
- 4. The absence of processors long value chain for village chickens means the majority of chicken are sol live and consequently can be sold through formal channels like supermarkets leading to exclusion of potential customers,
- 5. The village chicken value chain has positive gross margins for all players along the chain, there is need to improve the chain hence lead to increased incomes for value chain actors,
- 6. The village chicken value chain is rudimentary making it possible for the product to enter modern marketing system such as broilers,
- 7. Supporting value addition activities such as slaughtering, dressing and packaging.

Returns along the value chain

Other than the famers who are assumed to almost get 100 percent margins from the enterprise because it is assumed that they incur zero cost of production], processors get the next highest margins (83.2 percent) followed by the assemblers (44.5 percent). In conclusion, it is worth noting that across the value chain, all the players get positive gross margins with the farmers getting the highest followed by processors

4.4 CAPACITY OF LIVELIHOODS SERVICE PROVIDERS

4.1.1 Location of livelihood service providers

Livelihood service providers are categorised into Government and non-governmental institutions. All Government institutions who are in the category of livelihood providers are located in all the target districts while non-governmental institutions are located in one or more districts. The Table below is a list of Government and non-governmental institutions which are livelihood service providers in the target districts.

Table 22: Location of the livelihood service providers

	District	Non-Governmental Institutions	Government Institutions
1.	Chipata	1. Plan International 2. Chipata District Business Association 3. Eastern Chamber of Commerce	1. Department of Livestock and Fisheries 2. Department of Agriculture 3. Ministry of Community Development 4. Department of Social Welfare 5. Ministry of Commerce, Trade and Industry.
2.	Chadiza	1. Chadiza District Women’s Association 2. District Farmers Association 3. Zambia National Farmers Union	
3.	Lundazi	1. SNV-Netherlands Development Organisation 2. COMACO 4. Lundazi District Women’s Association	
4.	Katete	1. SNV-Netherlands Development Organisation 2. COMACO 3. Worldvision	
5.	Petauke	1. COMACO 2. Zambia Honey Council	

		3. Zambia National Farmers Union 4. Petauke District Farmers Association 5. Conservation Farming Unit 6. Food and Nutrition Security and Enhanced Resilience 7. Plan International	
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Source: Key informants, Field data, 2017

4.4.2 Livelihood services provided

The livelihood services provided include agricultural credit, inputs, extension, linkages for financial services and markets, capacity building in savings and lending and provision of small livestock.

Provision of credit facilities: The Department of Community Development in the selected districts promote what they call Village Banks. These are loans amounting from ZMK500 – ZMK2, 000. The loans are given to selected groups in a districts. The main challenge with these loans is that loan repayment is very low as a result other people cannot benefit since it is a revolving fund. The other challenge is that despite a lot of women applying for the loan facility, the Government disbursement of funds has been low and erratic. This loan can used for any form of business.

Zambia National Farmers Union has three credit facilities:

1. *Bunjimi* (“translated as farming”) Asset+. This is a loan facility which is being managed by National Savings and Credit Bank (NATSAVE) on behalf of ZNFU. It provides for loans which can be repaid in three years and farmers can obtain livestock and equipment. An example which was given was that a women’s groups was given a loan to purchase an oil expeller,
2. Lima Credit Scheme; this is a seasonal input loan which needs to be repaid in the same agricultural season,
3. Women Empowerment Loan Facility; this is given to women groups at information centers. An example is a women group which was given to purchase a solar powered incubator to increase on the number of local chickens which they had.

Agricultural input support: The Government through the Department of Agriculture has been providing agricultural inputs through the Farmer Input Support Programme (FISP) on an annual basis. The purpose of FISP is to increase private sector participation in the supply of agricultural inputs to small scale farmers and contribute to increased household food security and income. The challenges which are faced with FISP which were mentioned by the key informants are the following:

1. Failure to graduate farmers from the programme,
2. Inputs received by farmers are inadequate and unsustainable,
3. Late delivery of farm inputs which is attributed to practice and cumbersome procedures,
4. Fake co-operatives which have been formed for the sole purpose of accessing inputs,
5. Some farmers collecting farming input from more than one input provider are other major challenges,
6. Some farmers have completely no access to the programme and yet it is meant to serve the vulnerable but viable small scale farmers.

Through the Food Security Programme, the Department of Community Development provides agriculture inputs to selected farmers who are considered vulnerable. It uses its community based groups (Area Food Security Committees) to identify the farmers. The essence is to support vulnerable but viable persons. The criteria used is as follows:

- (i) Single or child headed household,
- (ii) Widow headed household,
- (iii) Youth headed household,
- (iv) Households with persons with disabilities and/or those who are terminally ill.

The selected farmers under the Food Security Programme are each given two bags of urea and another two bags of D-Compound and a bag of maize seed. Like in the FISP, the concern was that these agriculture inputs are distributed too late in the farming season and there are situations where the deserving farmers do not use the inputs on their farms but sell them. There are also times when a full pack is not provided.

There are four products which COMACO promotes; these are maize, cowpeas, honey and groundnuts. For the agricultural products, COMACO provides the seeds and since it promotes organic farming, it does not provide fertiliser. In its programmes, COMACO works more with female farmers. SNV-Netherlands Development Organisation through Sustainable Integrated Land Management (SILM) links farmers to COMACO and Cotton Companies to obtain farming inputs and in this particular case for the production of cotton. In this particular case in Katete and Lundazi, NWK provides the farmers with cotton seed and purchases the produce thereafter. However, unlike COMACO, the SILM project supports the provision of fertiliser to the farmers. The target for the SILM project is 30 percent female farmers.

Agricultural extension: To improve agricultural production and productivity for both crops and livestock, most livelihood service providers support the rural households with extension messages. The most common extension approach that was identified during the study was the use of the lead farmers.

According to the lead farmers in the KII and the FGDs, their main role was to train other farmers in “*ulimi wa tsopano*”, i.e. promotion of conservation farming and livestock production. However, lead farmers also conduct gender awareness, food and nutrition promotion, community growth monitoring promotion, HIV prevention, and health and sanitation promotion. All lead farmers spoken to represent a particular institution to serve its objectives. They have 2 – 3 groups consisting about 20 follower farmers depending on the project requirements.

Being a lead farmer as mentioned during the KII and the FGDs was voluntary and they can decide to stop what they are doing. Previous projects for example MAWA and PROFIT⁺ bound them to two to three year contract. In this case they could not leave when they wanted.

As noted earlier, although lead farmers are selected by community leaders or elected amongst farmers, they work within a framework of a particular organisation. The lead farmers interviewed in this study were linked to: (i) Community Market for Conservation (COMACO), (ii) Conservation Farming Unit (CFU), (iii) Cotton Association of Zambia (CAZ), ZNFU, Production, Finance & Technology Plus (PROFIT+), SNV-Netherlands Development Organisations, MAWA, CARE and cotton grower schemes owned by a number of companies such as NWK and Cargill. Some organisation and project such as MAWA and PROFIT+ have since closed. However, since the lead farmers work in conjunction with the area Agriculture Camp Officer, it is possible to locate and link up with the “old” lead farmers when a new project was introduced.

Main challenges faced by lead farmers as identified during the KIIs and the FGDs were;

1. Lead farmers normally cover distances of their member portfolio on foot. Not all lead farmers have bicycles from their organizations they represent,
2. Being a lead farmer requires that they are always expected to be presentable to other farmers in good appropriate clean attire – which is demanding,
3. Leading farmers let alone training them is a hard task which requires patience, good temperament, humility, benevolent and service oriented,
4. Lack of teaching aids and materials,
5. Farmers are taught but some do not implement thus requires one to constantly monitor farmers which time consuming.
6. Usually little or no crop demonstration inputs are given which is demoralizing
7. Being a lead farmer is a purely community service “*pindu leni leni mulibe mu lead farmer*” meaning there is really no benefit from being a lead farmer”.

How to improve the role of lead farmers

1. Need for continuous training in various aspects of agriculture because farmers tend to ask questions on gardening, crops livestock,
2. Provision of training materials and updated versions,
3. Provision of transport (bicycles) to cover the long distances.

Conservation Farming Unit uses an approach similar to that of a lead farmer. They work with Field Officers who are on the organisation's payroll. Each of these works with 33 Farmer Coordinators who are selected by the traditional leaders. Each Farmer Coordinator supports 50 farmers in each particular season. Female participation is encouraged especially at the Farmer Coordinator level. The challenges identified with this extension approach is that farmers want hand-out even when it is clear that the organisation is assisting them and that there is inadequate collaboration amongst organisations involved in conservation farming.

Both the Department of Agriculture and that of Livestock and Fisheries provides extension through its field staff in all the target districts. These are staff who are based in camps which are located in the communities. The challenges which were identified in the KIIs and the FGDs with agriculture and animal health and husbandry extensions are those of inadequate extension staff, lack of appropriate extension messages and that farmers are so used to hand-outs such that they would not attend a meeting unless food or some form of cash is provided. The Veterinary Assistants do not have equipment which could support the "cold chain" to store the vaccines such as Newcastle Disease vaccine.

The Department of Livestock and Fisheries in Katete and Petauke supports farmers with aquaculture extension. In this regard, they support farmers with pond construction and where to source for fingerlings. The fingerlings are bought at 50 ngwee from the Departments' fish ponds. The farmers are also taught on how to prepare fish feed. This is important as there is no fish feed sold in shops. The key informants however, noted that despite the availability of a market, fish farming in the districts was very low especially in Petauke where the soils could not hold water. They are encouraging fish farming by integrating it with the management of goats, pigs and ducks.

Zambia National Farmers Union provides farmers with a system which is called e-extension. The system provides the farmers with:

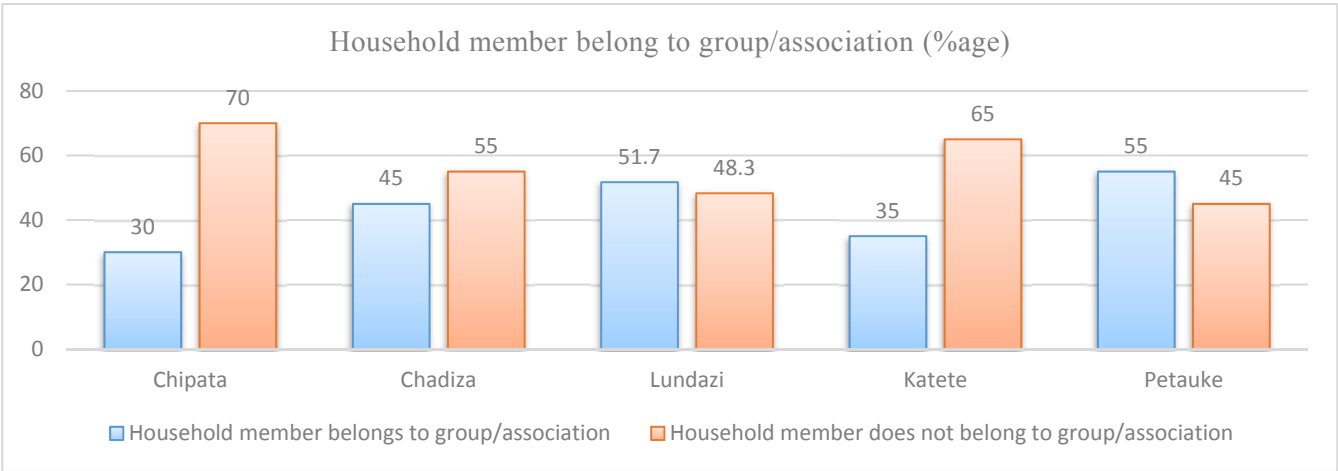
- 1) Access to reliable up to date extension information. This information provides farmers with daily updated information on weather, meetings, field days, alerts on disease outbreaks, cases of theft, new legislations and business opportunities,
- 2) Input prices: the system provide prices on inputs from various companies and the location of where to buy them.
- 3) Contact information- This system provides farmers with contact details of the relevant agriculture support players in their area. This could be inputs suppliers or an extension officer.

Capacity building in savings and lending: Several organisations promote savings and lending among the rural communities. PLAN International as an example is promoting in Chipata and Petauke and Worldvision in Katete communities to save some of their income through group savings and lending. The communities on their own decide the interest on the savings and how they would lend each other from the savings. SNV-Netherlands Development Organisation in Lundazi and Katete also supports women saving groups in all the agricultural camps they are working. The essence is that the groups could use the savings as collateral to get agriculture inputs. The District Women Development Association in Lundazi and Katete also supports women working in groups to learn how to save money and lend amongst themselves.

The Government through the Departments of Community Development and that of Social Welfare provides money to poor and vulnerable people in the communities based on a programme called the Social Cash Transfer. Its purpose is to increase consumption, improve health and facilitate access to school, social transfers support the strengthening of household livelihoods. A beneficiary is provided with ZMK170 every two months to assist them with their household income.

Figure 11 below indicates that in Chipata most respondents did not have any member of the household who belonged to a group/association while Lundazi had most respondents who stated that they had a household member who belonged to group/association. Figure 9 provides the distribution of responses.

Figure 11: Household member belongs to group/association



Source: Household survey data, 2017

Most respondents in Chadiza and Petauke indicated that they had household members who were in production-focused groups/associations, while most respondents in Lundazi stated that they had household members who were in savings and credit groups/association. The details are provided in Table 23.

Table 23: Type of group/association household member belonged to

	Chipata	Chadiza	Lundazi	Katete	Petauke
Production-focused	10%	26.7%	15%	15%	31.7%
Marketing association	5%	6.7%	8.3%	8.3%	8.3%
Saving and credit	6.7%	1.7%	11.7%	5%	6.7%
Other	13.3%	10%	15%	8.3%	8.3%
N/A	65%	55%	50%	63.3%	45%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Market linkages: Most of the respondents in all the study areas noted that they sold their product/services at the local market. Table 24 indicate the distribution of responses with Chipata having the highest number of responses (75 percent) and Chadiza with the least with 45 percent. Table 21 further notes that some respondents sold their products/services at the Boma although as indicated this was very low for Chipata. As the key informants and the FGDs noted traders from Chipata also sell to Malawi.

Table 24: Household market for products/services

Where households mostly sell/provide good/services.	Chipata	Chadiza	Lundazi	Katete	Petauke
Local market	75%	45%	55%	60%	53.3%
At the district (Boma)	1.75	46.7%	30%	21.7%	36.7%
Outside the district (In the Province)	0%	0%	0%	0%	0%
Outside the Province	1.7%	3.3%	15%	15%	10%
Other	16.7%	3.3%	0%	3.3%	0%
N/A	5%	1.7%	0%	0%	0%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

According to Table 25, the major factor which influences the respondents in accessing the markets are the transport costs and its availability. Other factors according the Table below are that there are insufficient buyers and that the markets are too far. Lack of market information and low quantities of produce were also mentioned as factors which affected the respondents on accessing the market.

Table 25: Major factors to accessing market for products/service

Major factors to accessing market for products/services	Chipata	Chadiza	Lundazi	Katete	Petauke
Transport cost	13.3%	20%	18.3%	18.3%	41.7%
Transport availability	8.6%	13.3%	5%	5%	15%
Bad roads	3.4%	1.7%	1.7%	1.7%	11.7%
Markets are too far	11.7%	15%	13.3%	13.3%	18.3%
Markets are too small(not enough buyers)	16.7%	6.7%	16.7%	16.7%	8.3%
Lack of market information	3.4%	0%	20%	18.3%	15%
Low quantity of produce	16.7%	8.3%	6.7%	15%	10%
Other	13.3%	18.3%	10%	8.3%	6.7%
N/A	18.3%	8.3%	10%	6.7%	1.7%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Through the Veterinary Assistants, the Department of Livestock and Fisheries supports the farmers with market linkages as to where they could sell their cattle, goats and other livestock. They also facilitate the provision of Stock Movement Permits.

Through the SILM Project, SNV-Netherlands Development Organisation links farmers to viable markets. An example in Katete was that the project was able to link farmers producing groundnuts to NWK Company. This project also works with organisations such as COMACO to provide a market for the farmers.

Farmers who are provided with seeds by COMACO also sell to the organisation. In this way the farmers have a ready market for their products. However, the products have to be organically grown. At the time of purchase of the products, COMACO sends evaluators to determine if the farmers comply with the conditions which were given to them in conserving the environment and also growing the crops organically. The crops which are grown organically by the farmers are bought at a higher price than those which are grown using inorganic fertiliser. Farmers are able

to get a favourable price for their products because COMACO controls the value chain. COMACO is located in Lundazi, Katete and Petauke among the target districts. Support to market linkages according to KIIs and FGDs assists women who cannot travel to sell their products.

Zambia National Farmers Union uses the SMS system to link farmers to viable markets. The platform serves as a tool to help farmer's access actionable up-to-date market prices on their own, within their vicinity, and allows them to have a better negotiating position. They can avoid the daunting task of going out of their way to look for a market. The system can be accessed by farmers even those who are not members of the Union through the DFA.

Provision of livestock: With the support of Heifer International, Katete Womens Development Association supports its groups with goats based on the “*pass-on*” concept. The focus on the goats as a “*pass-on*” activity is that in the first place goats have a ready market and do not have disease problems. Other organisations which have a “*goat pass-on*” activity are PLAN International and Worldvision Zambia. The idea is that each viable household is provided with six goats among them one is a male in the first year and in the second year, this particular household is supposed to “*pass-on*” the same number of goats in the same composition of one male and the rest females to another household.

Animal disease control: The Department of Livestock and Fisheries provides disease control support through provision of vaccines for African Swine Fever for pigs and Newcastle Disease for village chickens to the farmers for free. This is provided through its structures of Veterinary Assistants who are located in the local communities. The Department also controls the movement of livestock within the province and those coming into and going out of the province. An example is that pigs are not allowed either live or carcass out of Eastern province due to African Swine Fever.

The challenges faced with animal disease control are that there are insufficient Veterinary Assistants to support the farmers and that availability of vaccines and veterinary drugs is erratic. This situation is compounded by the fact that very few agro-dealers stock veterinary drugs.

Training in entrepreneurship skills: The Department of Community Development train women in entrepreneurship and business management skills. This is a pre-requisite for being given a loan. Only those women who already have a business are eligible for training and accessing the loan. Worldvision Zambia and Katete Womens Development Organisation also trains farmers in entrepreneurial skills.

Introduction of improved and alternative farming methods: SNV-Netherlands Development Organisation through the Sustainable Integrated Land Management (SILM) project teaches farmers improved methods of cultivation. The project operates in Lundazi and Katete. They teach them to improve on the production of the following crops and assist them in identifying viable markets: Ground nuts (ii) beans (iii) soybeans and (iv) cotton. This project uses a market approach where the crops grown have a viable market. Thus, through this project, farmers are taught how to negotiate prices of agriculture products.

Worldvision Zambia in Katete promotes conservation farming using the biblical principles and calls it “*Farming God's Way*”. This is based on the biblical principles of conserving the environment and uses lead farmers to provide demonstrations on the conservation farming methods and their benefits.

Conservation Farming Unit is in operation in Lundazi, Chipata, Katete and Petauke among the target districts. It trains farmers in improved methods of soil conservation. In doing this it promotes crop rotation among farmers.

Agricultural processing: Katete District Women's Development Association and Zambia National Farmers Union in Petauke through a grant from the same donor (United States African Development Foundation) purchased an oil processing machine. The organisations buy sunflower from their members and this is processed into cooking oil. The sunflower oil is packaged and the cake is sold on the open market. Both organisations indicated that originally they used groundnuts to extract the oil but the yield was half of that from sunflower.

In providing a service to the farmers, COMACO supports them through the various stages of the value chain. Of interests to agricultural processing, COMACO processes sunflower and groundnuts into cooking oil, groundnuts into peanut butter, honey and honey by-products such as wax and packages rice.

Lobbying and advocacy: Two related organisations were identified who lobby and advocacy for the improved welfare of the farmers. These are the ZNFU and the DFA. The two, one working at the national level (ZNFU) and the other at the district level (DFA) compliment each other in their advocacy activities on behalf of the farmers. The main advocacy issues are the prices of commodities especially maize and the delivery of agriculture inputs.

4.5 OPPORTUNITIES FOR THE GROWTH OF ENTREPRENEURSHIP

This section assesses the opportunities for growth of entrepreneurship in the target districts. In this regard it makes an inventory of the business and entrepreneurial networks and their strengths. It also maps the business development service providers, the financial service providers and the private sector organisations.

Main business of the household survey respondents: The household data indicates that most households i.e. 70 percent for Chipata, 86.7 percent for Katete and Lundazi respectively, 85 percent for Petauke and 83.3 percent for Chadiza were into agricultural related businesses. Among the respondents 16.7 percent of the respondents in Chipata mentioned trading while in Chadiza 83 percent and in Lundazi and Petauke, 6.7 percent mentioned trading. Only 1.7 percent in Katete mentioned trading as the main business.

The FGDs noted that the main business related problems was the lack of capital and need for a lot of labour for certain crops such as cotton. Among those who were engaged in businesses, Table 26 indicates that most noted that instability in the demand for services/products, limited capital and labour intensive services/products were their biggest problems with their businesses.

Table 26: Problems with respondents’ businesses

Problems with your form of business	Chipata	Chadiza	Lundazi	Katete	Petauke
Competition	10%	20%	13.3%	5%	5%
Unstable in demand of service/products	35%	43.3%	40%	41.7%	43.3%
Limited capital	28.3%	23.3%	25%	31.7%	20%
Too much labour	16.7%	13.3%	18.3%	16.7%	20%
N/A	10%	0%	3.3%	5%	1.7%
	N=60	N=60	N=60	N=60	N=60

Source: Household Survey data, 2017

4.5.1 Inventory of business and entrepreneurial networks

There are three broad categories of private business and formal business networks which are recognized for this study. These are:

- (i) Those which promote a single product such as cotton or groundnuts,
- (ii) Those that promote multiple products or businesses,
- (iii) Those which perform the function of being a “*mother body*” to business networks such as the Zambia National Farmers Union.

Four business and entrepreneurial networks were identified and these were Zambia National Farmers Union (ZNFU), the District Farmers Associations (DFA), the District Business Association (DBA) and the Cotton Association. It must be noted that both the DFA and the Cotton Association are members of ZNFU.

Zambia National Farmers Union's core functions include; (i) lobbying and advocacy; (ii) members services provision and support; (iii) information dissemination and communication with members. These are also the core functions of the DFA and the Cotton Association of Zambia.

The DFAs are located in all the districts of Eastern province while the Cotton Association has a representative in Chipata. Although there is a lot of cotton being grown in Petauke, Katete and Lundazi which is evidenced by the number of cotton ginneries, the key informants noted that that was no representative of the Cotton Association. The district farmers associations was made up of pre-dominantly small-scale farmers' n general while the membership of the Cotton Association is mainly composed of cotton farmers. The cotton ginneries are represented by the Zambia Cotton Ginneries Association (it was not possible at the time of the study to set up and interview with them).

The DBAs are located in all the target districts. District Business Associations are affiliates of Zambia Association of Chambers of Commerce and Industry (ZACCI). District Business Associations are "*a voice of the private sector that strives to create a conducive business environment for economic growth in Zambia*". The services the DBAs provide to its members are the following:

1. Effective networking and linkages,
2. Businesses of a similar nature can access BDS more effectively and efficiently when they come together and to create a critical mass,
3. The DBA provides for free:
 - Listing on website.
 - Listing in printed Membership Directory
 - Business referrals and
 - Promotion of the business.

4.5.2 Strength of Private businesses and formal business network

The key strengths of ZNFU is that it has a broad members in the agricultural sector who are located nationwide. These include large, medium and small scale farmers. The strengths for the DFA and the Cotton Association which were mentioned by the key informants were the following:

1. The Networks are able to mobilise for grants to support their operations,
2. They are able to support farmers through capacity building and share production and market information with them.
3. Support the members with market and linkages to financial institutions.

However, the diversity of its membership is also as the key informants indicated its weakness. The Union is dominated by the large scale farmers at the expense of the small scale farmers. The key informants noted that even if the DFAs are primarily for small scale farmers, it is only those who are able to read and write and are able to pay the subscription fees who are members.

The strengths of the DBAs is that it is district based and supports a broad range of businesses. This means that different business organisations can share information and collaborate along the value chain. However, inadequate funding to support the operations of the DBA at the district level was identified as its most critical issue. This has resulted with the inability of the DBAs to meet the aspirations of their members.

4.5.3 Mapping of business development service providers

This assessment recognised that business development service (BDS) providers both public and private organisations contribute to the growth of small and medium scale enterprises in the districts level. Business development services are thus defined as those non-financial services and products offered to entrepreneurs at various stages of their business needs²¹. These services are primarily aimed at skills transfer or business advice.

There is a gap in the provision of BDS in all the districts. The only actor who could be considered a BDS provider was the Cooperative Officer under the Ministry of Commerce, Trade and Industry. This person is tasked with

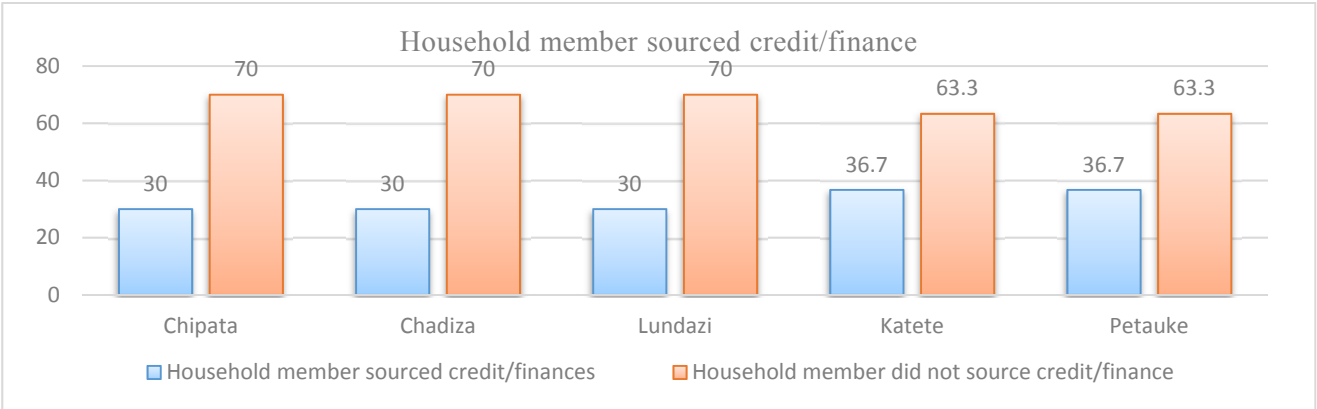
²¹ SME toolkit Zambia: Deciding on a business. <http://zamcom.smetoolkit.org/zambia/en/>

supporting the growth of cooperatives in the district but as one key informant noted, “they are underfunded and do not have the capacity to do their work”.

4.5.3 Mapping of financial service providers

Figure 12 indicates the number of respondents who had members of the household who were able to source for credit/fiancé. The Figure indicates that in all the districts, there were more respondents who stated that they did not have a household member who was able to source credit/finance. This indicate the difficulties which the rural communities have in sourcing credit/finance because of the conditions attached. The mapping of the financial service providers provides an overview of the opportunities and challenges for rural households to access credit/finance.

Figure 12: Household member sourced credit/finance



Source: Household survey Data, 2017

The assessment identified two categories of financial service providers. The first category were the commercial banks which included Finance Bank, Zambia National Commercial Bank, NATSAVE and Barclays Bank. The second category were the micro-finance institutions (MFI) and these included IZWE, Bayport, MFinance and VisionFund.

Category One (Commercial Banks): In the interviews with the Commercial Banks, they mentioned that they provided loans to companies and individuals but the conditions which were difficult to fulfil by adolescent girls (15 – 17 years old) and vulnerable women was that of having to produce what they called a “bankable” business plan and collateral. However, NATSAVE in partnership with ZNFU is managing a fund where it provides loans to farmers. The loan repayment is up to a maximum of three years can covers purchase of livestock and farming equipment.

Category Two (MFIs): The MFI which were interviewed (except VisionFund) all mentioned that a key condition for accessing loans from them as that a person was supposed to be in formal employment thus needed to produce a pay slip and had a bank account. Each of these MFI could provide loans ranging from ZMK200 to ZMK 25, 000. These can be re-paid in the period of four months to five years. These conditions cannot be met by adolescent girls and vulnerable women who are in the rural areas. The key formants from these MFIs stated that most of their clients are Government employees. However, VisionFund which is a micro-finance partner of Worldvision has four categories of loans and these are (i) Business loans (ii) Agriculture loans (iii) Bicycle loan and (iv) Asset loan.

VisionFund unlike the other MFIs has a focus on supporting women especially in the rural areas. Thus although it requires collateral to be able to provide the loans, it is much flexible. It agriculture and business loans are accessed by many rural households. As mentioned during the key informant interviews, “because VisionFund works with Worldvision, it is able to assist even the vulnerable to access the loan to improve their agriculture”. VisionFund is located in all the target districts. The business and agriculture loans are provided only to those already in business and into farming respectively. The loans can go up to ZMK5, 000 and the collateral includes the Blue Book for a motor vehicle or title deeds for a house.

4.5.4 Mapping of private sector organizations

At the district level, the private sector organisations are categorised into; (i) agro-dealers (ii) those in the hospitality industry which include guesthouses, lodges and restaurants, (iii) retail in consumer goods, household goods and garments and the service industry.

Agro-dealers: The agro-dealers sold feed for broiler and layers chickens, day old chicks, seeds especially for maize. This is because seeds for cotton, groundnuts and beans are sold by the companies which promote the product. Other products which are stocked by the agro-dealers are fertiliser, agro-chemicals and veterinary drugs. All these products including the feed for chickens are obtained from Lusaka and this was the explanation for the high prices which could not be afforded by most people. The key informants noted that adolescent girls and women mainly work as sales persons but they can only engage a few at a time if they are to break-even. They had a concern that agro-chemicals were toxic thus preferred men to handle them.

The hospitality sub-sector: The hospitality sub-sector includes lodges, guesthouses and restaurants. These could be owned by private individuals, the Council or by National Hostels, a parastatal body. The key informants mentioned that the hospitality is growing. However one of the constraints which they face is that the human resource is not qualified for the jobs they are doing. They noted that there are very few people who are working in the lodges, guesthouses and restaurants who have the appropriate qualifications. As a key informant noted, *“we do not have vacancies, but all these you see do not have the right qualification because it is difficult to find the right people”*. The sub-sector needs people who are qualified to be receptionists, accountants, housekeepers and working in the kitchen. They further mentioned that those who are trained in skills centres in Chipata and Petauke always find employment but there are still a lot who come from as far as Lusaka. The suggestions which as provided by the key informants that the starting point is to upgrade the skills of the adolescent girls and women in the needed skills for the industry and then link them up with the lodges and guest houses.

Consumer Goods Retail outlets: Consumer Goods Retail outlets are either large scale businesses such as Shoprite, Choppies and SPAR which are located only in Chipata and medium scale retail outlets such as ZONSE in Petauke. The size of the retail outlet also indicates the number of staff which it can employ and the variety and amount of products it can sell. However, there are differences between Shoprite and SPAR. Whereas SPAR is a franchise, this means that it has the ability to make decisions at the local level. This means that they can buy products from the local people whereas all products in Shoprite come from Lusaka. An example is that vegetables in Shoprite are supplied through an agent called Freshpick. Any farmer in Eastern province who would like to sell to Shoprite would have to sell through Freshpick. The differences between SPAR which is a franchise and Shoprite which is not means that the former is able to make decisions to employ without referring to another authority.

The challenges which large scale retail outlets face is that there are insufficient people who are qualified to work in their stores and secondly, farmers do not provide the required quantities and qualities of products. An example which was given was that one farmer was given a contract to provide one tonne of carrots and in three months brought a truck load of one tonne of carrots. In the first place, the intention was to have one tone over a period of time but secondly, most of the carrots were of poor quality. The main challenge which was faced by medium and small scale enterprises was that of the cost of transportation of products from Lusaka as there are insufficient wholesale facilities especially in Chadiza.

Service sub-sector: What could be considered the service sector for the purposes of this study are all at the level of the small scale farmers. This includes internet café and business centre (for photocopying of documents), hair salons for women to have their hair done and barber shops. Other businesses in the service sector are taxi and mini-bus owners and drivers. For Chipata, taxis also include bicycles. Other than hair salons, all the other services are provided by male. As key informants noted *“women find it difficult to own or drive a taxi, it is too difficult for them to keep track of where it is”*.

The key informants from the training institutions noted that those students who study auto-mechanics did not have problems either finding employment or establishing their own businesses. However, they mentioned that only male students studied this subject. This was reflected in the gender of people who either owned or worked at auto-garages. The key informants in this case noted that most of them were not formally trained and they were all male.

Wholesale outlets: Chipata was the only place where there was a wholesale which could be considered at the level of large scale and that was Kavulamungu. The wholesale outlets are key in retail and service value chains as it means that these businesses do not have to order products from Lusaka. There was a complaint from the retail and service outlets that they could not get all they needed from the wholesales and thus resorted to buy some of them from Lusaka and in certain cases from Malawi.

Communication sub-sector: This sub-sector includes private radio stations and the mobile phone communication companies. The main intention of the radio stations was to inform, entertain and educate. The opportunity for adolescent girls and women which can be provided by the radio stations is that of providing a platform for them to be heard. The key informants noted that it was difficult to employ the adolescent girls and women in the first place because they do not have the skills to work in the different departments of the radio station (marketing, accounts, research and presenters) and secondly, radio station are too small and only require few members of staff. The radio stations have challenges finding sponsors for programmes. However, the key informants noted that there were possibilities within the radio stations for the adolescent girls and women to start working as volunteers and could be taken on the full time after they have gained the experience and there is a vacancy. The radio stations have at least 60 percent of unsponsored time which could be used by the adolescent girls to practise being a presenter.

The other component of the communication sub-sector is the mobile phone communication providers. These include Airtel, MTN and ZAMTEL. These companies are centralised and decisions are made in Lusaka in terms of strategy and operations. They are not able to recruit locally except for sales agents. The key informants noted that the main qualification for sales agents, which is those persons who are provided with phone to sell on behalf of the company is that being able to read and write. The companies also provide opportunities for person to sell re-charge cards on their behalf but this at the initiative of the individuals. The individuals just need to have sufficient capital to purchase the re-charge cards.

For all the private sector organisations, the main threats was that of competition. The key informants mentioned it was very easy for persons to establish a business but not to provide quality services.

4.6 CAPACITY OF THE SKILLS AND VOCATIONAL TRAINING INSTITUTIONS

This section assesses the capacity of skills and vocational training institutions in the target districts. It recognises that the number of skilled graduates entering work and participation of girls and women in such areas remains low. However, to address this issue the Government, is now prioritising access to secondary education, vocational and skills trainings. It further aims to create a two-tier system of general and vocational secondary schools to tackle the shortage and poor quality of skills in the Zambian economy.

Skills and vocational training in Zambia is regulated by Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA). The TEVETA was established by legislation as the national body for setting standards, accrediting and regulating the activities of training providers in both the public and private sectors.

4.6.1 The Policy Environment

The expansion of the economy has increased demand for a more flexible, innovative, client-oriented workforce. Thus the Government policy for technical and vocational training has been that of being responsive employment patterns of the economy²². However, this policy is currently under review. Coupled with the review of the policy for technical and vocational training, in 2017, the Government announced the introduction of a Skills Development Fund to address the challenges of inadequate skills among craft individuals, artisans, technicians and technologists.

²² TEVET Policy (1996)

This will be jointly managed with the private sector to ensure that the skills that were being developed were relevant to the requirements of industry.

The 2015 National Youth Policy and the National Gender Policy both prioritise skills and vocational training for adolescent girls and women. The 2015 National Youth Policy is particular advocates for increased access to Technical Education, Vocational Entrepreneurship Training (TEVET) Institutions; skills development including opportunities outside of mainstream education, for instance, workplace skills development, distance learning skills development and adult literacy; and for the incorporation of literacy, numeracy, life and communication skills in the skills curriculum for those who cannot return to mainstream education. The 2014 Gender Policy encourages enrolment of girls in technical skills and organising functional literacy initiatives for women and men.

4.6.2 Skills and Vocational Training of the household members in the selected districts

Educational attainments by the household members: The household data depicted in Table 27 below indicates that on average 1.2 children in the school going among those who have attained seven years have been enrolled in school. Katete had the highest with 1.5 children per household while Petauke had the lowest with 1.0 children per household. The reasons which were given for the low number of children who attained seven years not having been enrolled in school by the FGDs was the cultural practise of “*chiweta*”. This is a practise where a boy has to first herd cattle for one to two years. He then can be released to go to school after been given a heifer. The Table further indicates that there were more household members who attended primary education than primary, secondary and tertiary.

Table 27: Educational attainments by the household members

Educational attainments by the household members	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
Average number of household members enrolled as per Government age.	1.25%	1.2%	1.0%	1.5%	1.2%	1.0%
Average number of household members enrolled in schools	1.7%	2.0%	1.7%	1.4%	2.1%	1.4%
Average number of household members not enrolled in schools	1.5%	0.9%	1.8%	1.9%	1.6%	1.5%
Average number of household members attended primary education	0.8%	1.1%	1.1%	0.7%	0.7%	0.5%
Average number of household members attended secondary education	0.2%	0.4%	0.1%	0.1%	0.2%	0.3%
Average number of household members who attended tertiary	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Average number of household members who attended training / currently enrolled	3.8%	3.3%	5.4%	3.5%	3.6%	3.2%
Average number of household members never attended school	2.0%	1.7%	1.4%	2.8%	1.6%	2.4%
	N=300	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

Table 27 indicates that the average number of household members who attended training/currently enrolled is 3.8 percent with Chipata having the highest average with 5.4 percent and Petauke with the lowest. The average number of household members who have never attended school in the selected districts is at 2.0 percent with Katete have the highest average of 2.8 percent and Lundazi had the lowest with 1.6 percent. Table 26 provides a distribution of responses on the skills adolescent girls and women need for their economic opportunities to increase.

Table 28 indicates that on average 21.20 percent of the adolescent girls who participated in the FGDs were enrolled in school but that 51.4 percent had attained primary education as their highest level of schooling but were not in school. Fourteen percent of the adolescent girls who participated in the FGDs stated that they had never attended any

form of schools because they did not have anyone to support them while some said the school was too far and their guardians did not allow them. Table 28 provides the details.

Table 28: Educational attainment of adolescent girls

Educational attainments of adolescent girls	Average	Chadiza	Chipata	Katete	Lundazi	Petauke
Average number of adolescent girls enrolled in schools	21.20%	17.00%	27.00%	14.00%	21.00%	27.00%
Average number of adolescent girls attended primary education	51.40%	56.00%	49.00%	51.00%	54.00%	47.00%
Average number of adolescent girls attended secondary education	13.00%	11.00%	14.00%	21.00%	8.00%	11.00%
Average number of adolescent girls never attended school	14.40%	16.00%	10.00%	14.00%	17.00%	15.00%
	N=113	21	22	16	26	28

Source: Focus Group Data (Adolescent girls), 2017

Table 29: Skills girls and vulnerable women need for their economic opportunities to increase

Skills girls and vulnerable women need in their economic opportunities are increased	Chipata	Chadiza	Lundazi	Katete	Petauke
Entrepreneur skills	53.3%	48.3%	53.3%	45%	56.7%
Marketing skills	6.7%	18.3%	15%	8.3%	13.3%
Production skills	40%	38.3%	35% ⁰⁰	46.7%	41.7%
N/A	71.7%	46.7%	48.3%	55%	46.7%
	N=60	N=60	N=60	N=60	N=60

Source: Household survey data, 2017

4.6.3 Location of skills and vocational training institutions

All districts except Chadiza²³ have either Government and/or private skills training institutions. The Table below gives an overview of the different skills and vocational training institutions identified during the field data collection:

Table 30: Inventory of training institutions

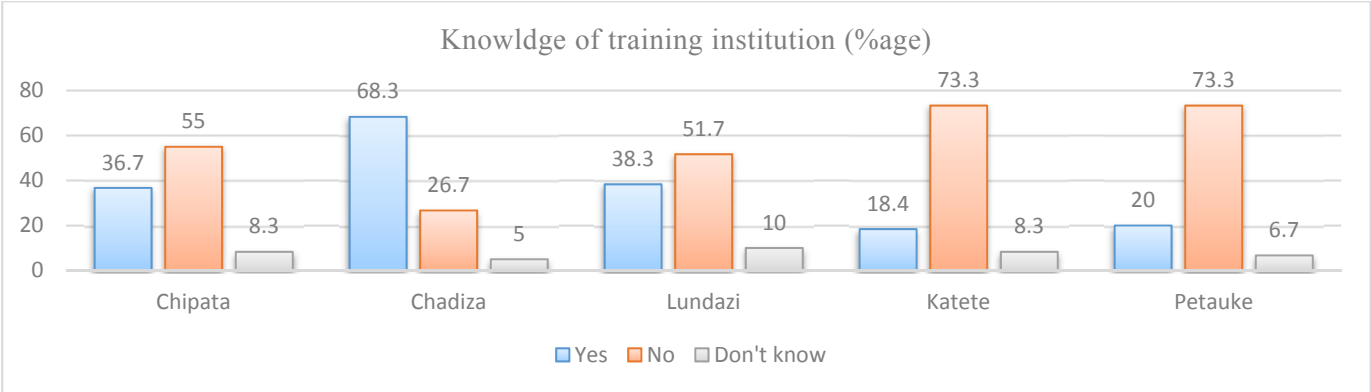
No.	District	Government Institutions	Private Institutions
1.	Chipata	1. Chipata Trades Training Institute 2. Chipata School for Continuing Education 3. Chipata Vocational and Technical Secondary School 4. Chiwoko Zambia National Service Training Centre	1. Jesus Care Ministries
2.	Chadiza	NONE	NONE
3.	Lundazi	Ziyangami Kachinga (Department of Youth and Sports)	1. Zambia Agriculture Support Programme
4.	Katete	1. Katete Collage of Agriculture Marketing	NONE
5.	Petauke	1. Ukwimi Trades Training Institute (in Petauke and in Ukwimi)	1. Covenant College

Source: Key informants data, 2017

²³ Until recently, Chadiza was a sub-district of Chipata district.

Efforts were made to interview key informants from Chiwoko Youth Skills Centre and Chipata Vocational and Technical Secondary School from Chipata, Zambia Agricultural Support Programme in Lundai and Covenant Collage in Petauke but they were not available at the time of the data collection. Most respondents except in Chadiza stated that they did not know of a training institution which provides skills and vocational training. Katete with 73.3 percent had the highest number of respondents who did not know of a skills and vocational training institution. Figure 13 provides the details.

Figure 13: Knowledge of training institution



Source: Household Survey data, 2017

4.6.4 Capacity of the skills and vocational training institutions

Technical Vocational and Entrepreneurship Training Authority (TEVETA) has low capacity to train many eligible candidates in various related careers. The number of both craft persons and technicians graduating from the TEVETA accredited schools cannot meet the demand for the industry²⁴. Labour force survey at national level indicated that only 6.8 percent of working population received skills training²⁵.

As noted in 4.3.1, five skills and vocational training institutions were interviewed in the target districts. These training institutes have similarities and differences in the courses they provide, the conditions for admittance and the fees the charge for tuition. All these institutions are TEVETA registered. The focus of the training institutions is not for them to seek employment but for them to be self-employed which in line with the TEVETA Policy. Thus the training have developed linkages with different stakeholders who could assist the graduates. These include the Ministry of Youth and sports (for the Youth Fund), Citizen Economic Empowerment Commission, Barclays, Zambia National Commercial Bank (ZANACO) and a partnership with United Nation International Childens Fund (UNICEF) (Ziyangami Kachinga).

Course offered: The Table below indicates that there are a lot of similarities between the training institutions in what they offer as courses such as Bricklaying and Plastering which is offered at Ukwimi Trades Training Institute, Chipata Trades Training Institute and Chipata Centre for Continuing Education but they are also some differences such as at Chipata Centre for Continuing Education, they do not only provide a course in general agriculture but they also have a specific course on “mushroom growing”.

²⁴ Key informant interview

²⁵ CSO, (2012)

Picture 6: The woodwork workshop: Ziyangami Kachinga (Department of Youth and Sports), Lundazi.



Source: Field data, 2017

It was noted during the KII that there was a gender division in the courses, boys tended to take auto mechanics and power electrical related courses while girls tended to take secretarial services, tailoring and design courses. However, girls are interested in general agriculture and in the case of Chipata Trades Training Institute, there are usually more girls enrolled in General Agriculture than boys.

Table 31: Course offered per institution

Ukwimi Trades Training Institute	Chipata Trades Training Institute	Chipata School for Continuing Education
Full time certificate courses: <ul style="list-style-type: none">- General agriculture,- Automotive mechanics,- Bricklaying and plastering,- Carpentry and joinery,- Plumbing and sheet metal,- Computer studies,- Secretarial and office management,- Power electrical,- Social work,- ZCA Technician Part-time courses: <ul style="list-style-type: none">- Information technology and short computer courses,- Front Office Management,- Business Management and Control,- Business Plan Preparation,- Hospitality and housekeeping,	Certificates in: <ul style="list-style-type: none">- Power Electrical- General Agriculture- Automotive Mechanics- Bricklaying and Plastering- Plumbing and sheet metal- Carpentry and Joinery- Design, Cutting and Tailoring- Welding Trade Test- Computer appreciation Diploma in: <ul style="list-style-type: none">- Human Resource Management Advanced Certificate in: <ul style="list-style-type: none">- Secretarial and Office Management- Food and Beverage Services- Front Office Operations- Registry and records management	Certificates in: <ul style="list-style-type: none">- Tailoring,- Secretarial services,- Computer appreciation,- Auto-mechanics,- Power electrical,- Brick-laying and plastering,- Painting, decorating and sign writing- Catering- Mushroom growing

<ul style="list-style-type: none"> - Poultry Management (Layers and Broilers), - Livestock and Feed Formulation, - Profit maximization in farming, - Bricklaying and Plastering, - Carpentry and joinery, - Design, cutting and tailoring, - Sheet metal and fabrication. 		
	Ziyangami Kachinga (Department of Youth and Sports)	Katete Collage of Agriculture Marketing
	Certificate in: <ul style="list-style-type: none"> - Tailoring - Computer appreciation - Home Economics - Carpentry - Automotive mechanics, - Brick and plastering - Metal and Fabrication 	Certificate level: <ul style="list-style-type: none"> - Agricultural marketing Food processing (Value addition to agricultural products)

Source: Key Informant data, 2017

Conditions of acceptance: All the interviewed training institutions have an affirmative action policy where they aim is to encourage girls and women to enrol l but also to undertake subjects such as auto-mechanics and brick laying and plastering which have traditionally been male dominated.

The entrance requirements for courses of a duration of six months or less is that of having the ability to read and write which means a persons must have attained either Grade Seven or Nine. However, for two year courses which are mainly those for advanced certificate and diploma as in the case of Chipata Trades Training Institute and Katete College of Agriculture Marketing, the entry requirement is that of Grade 12. The key finding is that training institutions can enroll anyone especially at the certificate level as long as they can read and writing, Except for Ziyangami Kachinga, the age of a person is not a limiting factor in respect to enrolment. The age limit for Ziyangami Kachinga is 15 – 35 years. To cater for students who have little understanding of English, Ziyangami Kachinga trains in local language.

Bursaries are provided for students at Chipata Trades Training Institue and Ukwimi Trades Training Institute but not for those at Chipata Centre for Continuing Education and Katete Collage of Agriculture Marketing despite them too being Government institutions. One key informant noted that the segregative provision of bursaries has limited the number of girls who enrol in skills and vocational training centres as they cannot afford the tuition fees. However, there are possibilities as in the case of Ziyangami Kachinga for sponsorship from NGOs such as Worldvision. Another concern which affected the enrolment of some students especially female students is the lack of or inadequate boarding facilities. Although, there are new boarding facilities being constructed at Ukwimi Trades Training Institute (town campus) as well as having boarding facilities at Katete Collage of Agriculture Marketing, these are insufficient to meet the needs of students. Other training institutions do not having boarding facilities.

All the KII for the training institutions noted that these had limited teaching and learning facilities and materials especially for technical subjects and agriculture for them to have practicals. An example which was given was that it was difficult to teach auto mechanics without having the equipment to do so.

The tuition fees vary between the training institutions from ZMK550 for Ziyangami Kachinga in Lundazi to ZMK3,000 for Katete Collage for Agriculture Marketing. All the interviewed training institutions noted that the fees were under review for the 2018 in-takes. The duration was three to six months for the short certificate courses while there are six to one and two year certificate and diploma courses. The duration of the courses is another determinant of tuition fees.

Katete College for Agriculture Marketing has the lowest enrolment of students with a hundred while Chipata Trades Training Institute and Ukwimi Trades Training Institute have an enrolment of over five hundred. Ziyangami Kachinga in Lundazi has an enrolment of 150.

Challenges faced by training institutions: One of the main challenges faced with skills and vocational training institutions is the level of literacy and numeracy. This is a pre-requisite for admission for most skills and vocational training institutions. According to the 2010 Census, the literacy rate at national level was 70.2 percent. Literacy rates for rural and urban areas were 60.5 and 83.8 percent respectively. Males had a higher literacy rate (73.2 percent) than females (67.3 percent). This is associated with the higher dropout rates and lower completion rates for girls compared to boys²⁶.

There are a number of industry specific challenges. The challenge in the agricultural industry are that there are low numbers of women who are interested in gaining skills in agriculture products and marketing. Further, most women who enrol for agriculture skills training would like to find formal employment and not use the knowledge to improve their own production in their gardens²⁷.

The main challenge with the construction industry is that the majority of students who leave college have little understanding of the high standards required by industry²⁸. The barriers in the hospitality industry to employing young people at the rate required for industry growth can be summarized in three simple statements: Youth do not know about the nature and extent of meaningful careers the hospitality industry offers. Youth know about these opportunities but are not suitably qualified for them.

The Zambian Education Policy Review (2016) indicates that the challenges with respect to vocational and skills training are the following:

1. Limited and inequitable access to TEVET,
2. The reservation about the roll-out of the two-tier system being introduced by the Zambian authorities,
3. Lack of public funding for TEVET,
4. Weak TEVET responsiveness to the labour market,
5. Curriculum development not relevant to labour market requirements,
6. Lack of quality trainers,
7. Low quality of training.

Among the training institutions which were assessed during this study identified the following challenges:

1. The bursaries provided by Government are not enough. The example was that whereas in 2017, the Government provided a total of 250 bursaries but the response was so overwhelming and these were not sufficient.
2. Girls are not interested in the technical courses such as automotive mechanics and plumbing which would enable them to be self-employed but opt for catering where they are “forced” to work in restaurants. However, these are the courses where graduates can find employment or be self-employed.
3. The competition from people from Malawi who provide labour at a reduced fee has brought in competition for those who are trained in brick laying and carpentry.
4. There are opportunities for girls who are trained in catering and tailoring to find employment in Chipata. Those who do tailoring have an opportunity to make uniforms for people in the rural areas.
5. The Government does not provide bursaries to institutions such as Katete College of Agriculture marketing

²⁶ 2014 National Gender Policy

²⁷ Key informant interview

²⁸ Key informant interview

Sector needs and gaps: Based on the KIIs, the FGDs and information from the household survey, the following were identified as the sector needs and the skills gaps in the various sectors which were assessed during the study:

Table 32: Skills gap and sector needs

CATEGORY	SKILLS GAP	SECTOR NEEDS
Agriculture	<ul style="list-style-type: none">disease managementanimal feedingAnimal housing for goats, chickens & pigsgroup marketingenterprise skillsmarketing & negotiation skills	Livestock production/animal husbandry <ul style="list-style-type: none">exposure to new technologies and practicesfarming as a businesscollective marketingmanagement of small livestock
	<ul style="list-style-type: none">pest and disease management-crop protectionpost-harvest storage & on farm processingfertilizer usagegroup marketingsoil fertility managementmarketing, access to markets & negotiation skillspost-harvest management	Agronomy: Crop & vegetable production <ul style="list-style-type: none">exposure to new technologies and practicesfarming as a businesscollective marketingvalue addition/processing of vegetables
	<ul style="list-style-type: none">financial literacy and managemententerprise skillsbasic accounting principles	Financial management
	<ul style="list-style-type: none">group dynamicsadult literacy	Group dynamics <ul style="list-style-type: none">forming and managing self help groupscommunity developmentCooperatives
Agro-dealers	<ul style="list-style-type: none">small business developmententrepreneurship skillsbasic accounting principlesbasic preparation of business plansrecord keeping	financial management Enterprise management
Hospitality	<ul style="list-style-type: none">public relationscustomer caremarketing and sales skillssafety and hygiene standardsinnovation & creativity skillscommunication skills	Customer care

Source: Key Informant data, 2017

5. LESSONS LEARNED

The research findings provided a basis for identifying lessons that would be used in formulation of recommendations for interventions. The lessons learnt are based on the opportunities and gaps in vocational and technical skills and livelihood opportunities in the five districts of Eastern province, Zambia.

The number of adolescent girls between 14 – 17 is low per household because a number of them are married off early while some of them have gone to town to seek employment. There is a high level of illiteracy and numeracy and this makes it difficult for the adolescent girls to find employment. The Re-entry Policy of the Ministry of Education offers an opportunity for girls after giving birth to go back to school but they cannot take advantage of this because of lack of funds. Another concern which affects adolescent girls is that of early child marriage. Although this has been outlawed in Zambia and some chiefdoms such as that of Mazimawe has put in place by-laws to forbid it, they are still a lot of girls who are married off.

There are traditional crops like beans and groundnuts and livestock which include goats and chickens which have been kept by the communities for a long time but need support to improve on the quality and quantities. These have a dual purpose of providing nutrition and income. Further, soybeans and sunflower have been introduced in the area and are adopted by women in their production. In support of the value chains, there are a number of organisations in the selected value chains thus points of learning and collaboration. The main concern from vulnerable women is that they do not have funds to start a business or to improve their agricultural production

The lead farmer approach has proven to be an effective extension approach and has been adopted by most livelihood service providers including the Department of Agriculture. Within the communities they are already trained lead farmers who can be used by different organisations.

The different livelihood providers collaborate and compliment each other and this one area which can be built on in supporting the value chains and the training of vulnerable women and adolescent girls. Most livelihood service providers work with women who are in groups and they are some livelihood service providers such as the District Women Development Associations which work particularly with women, however, adolescent girls are not active in these groups. Support to the development of groups should put in a mechanism which encourages adolescent girls to participate.

There are a limited number of business service providers and financial service providers and in some district none. This has a negative effect on the growth of businesses and entrepreneurship. The different development and business sectors have particular needs which cannot be met by the skills in the district. This could be because the skills and vocational training institutions at the district level are few and the tuition fees are too high for most people. However, these institutions offer a range of courses from six months certificate courses to two years advanced certificate/diploma courses. The entry requirements in some courses are beyond the reach of most people in the rural areas such as the need to read and write and having attained a minimum of a Grade Seven Certificate but they are some institutions which provide tuition in the local language and have support of the NGOs to sponsor some students.

6. RECOMMENDATIONS FOR INTERVENTION

Chapter Six provides the recommendations for intervention by Winrock International under the EMPOWER Project to improve support to adolescent girls and women. The following are the recommendations:

6.1 IMPROVING MANAGEMENT OF THE VALUE-CHAINS

6.1.1 The choice of value chains

Agriculture is the mainstay for all the members of the rural communities. There is no single household which does not depend on agriculture either for subsistence and/or for cash. Other income generating activities are secondary to agriculture production. Thus, the primary focus for the EMPOWER Project is to support the development of agriculture value chain which are appropriate for women and adolescent girls.

It is proposed that in consideration of the gender dimensions, the following crop value chains should be supported to improve on the lives of vulnerable women and adolescent girls; soybeans, beans and sunflower. With respect to livestock, it is proposed to support the goat and village chicken value chain. This is a value chain which is already being supported by several livelihood service providers, it is promoted through a Government policy and has a local and outside the province market.

6.1.2 Improving agricultural production

In consideration that there is degradation of the soils due to the farming system, there is a need to enhance and build upon the existing conservation farming incorporating agro forestry strategy (using trees such as Musangu, cresidia and sesbania) which in the words of the community members “*Ibweza ntaka*” meaning it has the ability to return the soil to its former status.

In consideration that the households with adolescent girls do not have sufficient agricultural assets, to improve their production, they should be linked to service providers who provide agricultural inputs or finance.

6.1.3 The agricultural extension approach

The lead farmer approach has proven to be successful as noted by the number of NGOs who use it as a means of extension. This can be adopted taking into consideration the weaknesses which are identified with the other service providers.

6.1.4 Marketing of agricultural products

Marketing is recognized as a key in the development of the value chain. It is thus important to collaborate with livelihood service providers who are supporting the marketing of agricultural products and the crop marketing institutions especially for those value chains which will be supported.

6.1.5 Collaboration with livelihood providers

Different livelihood service providers operate at different nodes of the value chain. Some NGOs such as COMACO control the value chain from production to distribution. It is important to establish institutional linkages with them.

6.2 IMPROVING THE EMPLOYABILITY OF ADOLESCENT GIRLS

6.2.1 Improving numeracy and literacy of the adolescent girls

The level of education for the persons in the rural communities is very low. Most of them do not even have the basic level of literacy and numeracy. Thus it is important the first step to improving the ability of the target group to be employable and/or establish their own businesses is to improve their level of reading and writing.

Adolescent girls in the ages of 15 – 17 are part of the household and should not be supported separately. The recommendation is to support the household with girls in the age group with agricultural support while supporting the individual girls with improving their education and entrepreneurial skills.

6.2.2 The sector needs and skills gaps

The different business sectors identified their needs on the level and type of skills which would improve their performance. The most important skills is the ability to read and write which should be complimented with the technical skills.

6.3 TAKING ADVANTAGE OF THE BUSINESS OPPORTUNITIES

6.3.1 Building on the existing livelihood strategies

It is recommended not to get the girls and women out of their homes with the hope of finding employment but to build upon their current livelihoods. The competition in most businesses make it difficult to employ the required staff as they would not break-even.

6.3.2 Creation and improving on institutional linkages

There are none or very few business development service and financial service providers who are able to support persons who are managing small scale businesses which do not have collateral. It is thus important to find means of creating linkages with livelihood service providers who are supporting lending and saving among the rural communities or established micro-finance institutions which support individual or groups who do not have physical collateral.

7. CONCLUSION

The target communities exhibit high poverty levels which are noted through the low number of assets and the periods of food insecurity. There were low number of adolescent girls in the ages 14 – 17 years in each household. This is because most of them are married off or are working in the urban areas. Those who are in the communities and are not married stay within the household of the guardian or their parents. Thus any form of support should take into consideration that they are not a separate unit from the household.

The livelihood opportunities in the rural communities of the target districts are agricultural with a focus on upland crop production where maize, soybeans, beans and sunflower are grown. Other than maize, these crops are suitable as a means of poverty alleviation for vulnerable women and adolescent girls. Although cattle are kept by some community members, these are usually managed by men, however, goats are more appropriate for supporting vulnerable women as they require little inputs such as veterinary medicine.

Soybeans, beans and sunflower have been proposed as the crop value chain which should be promoted to support vulnerable women and adolescent girls. These crops have a lot of livelihood service providers supporting them, availability and low input requirements, have a ready market and have possibility. With respect to small livestock, the proposal is to support the goat and the village chickens value chains.

There are several livelihood service providers in each of the target district. These are in two categories i.e. the public institution (Government) and the non-governmental. These provide a range of services which compliment each other but in certain instances overlap. The public livelihood service providers are underfunded as such are not able to effectively undertake their programmes such as the provision of agricultural extension services. This space has been taken up by the non-governmental service providers.

There is a gap in the financial service and business development service providers who are able to meet the needs of adolescent girls and vulnerable women. This gap is filled by Government Department such as that of Community Development and NGOs such as Plan which support training in entrepreneurship and business development and saving and lending and COMACO which provides agriculture inputs.

Among all the sectors, the only one which had the possibility for employment for the adolescent girls is that of the hospitality industry i.e. working in guesthouses, restaurants and lodges. There are also minimal possibilities for employment in larger scale shops such as SPAR. The condition for employment, however, is that the girls need to have attained basic education i.e. they are able to read, write and basic numeracy. The business organisations in the communication industry such as Airtel and ZAMTEL are centralised but they have possibilities of sales agent, however, they require a person to have Grade 12 education.

The number of skills and vocational training institutions in the target districts is low compared to the need. Most of these are public institutions which are underfunded and do not have adequate learning and teaching materials. However, these institutions have a flexible enrolment requirements where certain short courses of six months only require a person to be able to read and write. Some of these institutions even give their lessons in the local language.

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