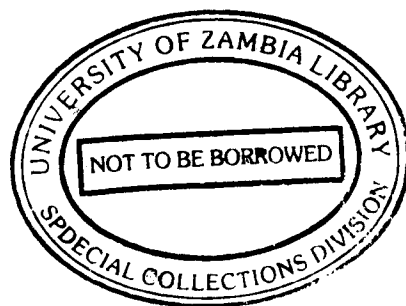


GENDER MAINSTREAMING IN AGRICULTURE: A CASE STUDY OF FARMERS IN
PIG PRODUCTION IN CHIBOMBO DISTRICT.

S/P
AGRIC
2005
KAM

A Thesis Presented to the Department of Agricultural Economics and Extension Education
of the University Of Zambia



By
ESTHER KAMWIMBA

In partial fulfillment of the requirements for the degree of Bachelor of Agricultural Sciences

©Esther Kamwimba, 2005

ACKNOWLEDGEMENTS

I am greatly indebted to all the people who have helped me to make this thesis possible. Special thanks go to Livestock Development Trust and Agriculture Support Program facilitator Miss Lweendo for the logistical support and all the farmers for their cooperation in data collection.

In the Economics and Extension Education Department, my deep gratitude is due to Mr. Maimbo, my supervisor and my lecturer for all his guidance and to Dr Kalinda for his help and untimely guidance, and also to the rest of the lecturers for imparting me with the knowledge that has greatly assisted me in preparing this thesis. My acknowledgements also go to my friends Mary, Winnie, Adams and Ector for their support.

Lastly, I am more than indebted to my sweet papa and mama for their support and encouragement that has enabled me to come this far in my education. To Paul Siyanda for believing in me and for being there for me always. To these I dedicate my work.

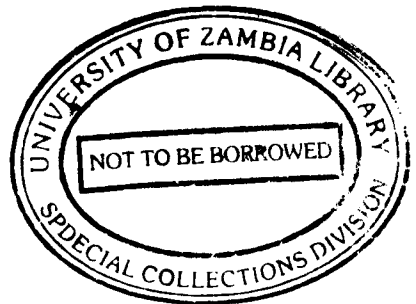


TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....i

TABLE OF CONTENTS.....ii

LIST OF TABLES.....iv

LIST OF FIGURES.....v

LIST OF ABBREVIATIONS.....vi

ABSTRACT.....vii

CHAPTER 1: INTRODUCTION 1

1.1 Introduction and Background..... 1

1.2 Problem Statement 3

1.3 Objectives..... 4

1.3.1 General Objective 4

1.3.2 Specific Objectives 4

1.4 Hypotheses 4

1.5 Rationale 4

1.6 Limitations of the Study..... 5

1.7 Organization of Thesis 5

CHAPTER 2: LITERATURE REVIEW 7

2.1 Introduction..... 7

2.2 Concept of Gender 7

2.3 Women Empowerment and Gender Equality 10

2.4 Women in Livestock Production..... 11

2.5 Summary 12

CHAPTER 3: METHODOLOGY 14

3.1 Introduction..... 14

3.2 Study Area and Project Background 14

3.3 Data Collection Procedure 14

3.3.1 Sample Selection..... 14

3.3.2 Survey Process and Types of Data..... 15

3.3.3	Data Collection Limitations	15
3.4	Data Analysis	15
3.4.1	Tools of Analysis	15
CHAPTER 4: FINDINGS.....		17
4.1	Introduction.....	17
4.2	Social Economic Characteristics of Respondents	17
4.2.1	Gender of Farmers	17
4.2.2	Age Group of Farmers	17
4.2.3	Marital Status of Farmers.....	18
4.2.4	Education of Farmers	19
4.2.5	Occupation of Farmers.....	19
4.3:	Agricultural Activities.....	20
4.3.1	Crop Production	20
4.3.2	Livestock Production	20
4.3.3	Providing Shelter for Livestock	21
4.3.4	Participation in Production Activities.....	21
4.4	Analysis of Low Female Participation Levels	22
4.4.1	Decision Making over Production Activities.....	22
4.4.2	Decision to be on LDT	24
4.4.3	Selection Criteria to be on LDT	24
4.4.4	Perception (Opinions) on Selection Criteria	25
4.4.5	Problems encountered with regard to gender.....	26
4.4.6	influence of problems faced on other activities	26
4.5	Gender Mainstreaming.....	28
4.5.1	Gender Awareness Levels.....	28
4.5.2	Knowledge about Gender.....	28
4.5.3	Receiving Information about Gender.....	29
4.5.4	How Information is Received	29
4.5.5	Division of Labor.....	30
4.5.6	Power Relations	31
4.5.6.1	Control over Productive Resources.....	31
4.5.6.2	Incorporation of Gender Concept by LDT Beneficiaries.....	32

4.5.6.3 Control over Money 33

4.6 Diversification..... 34

4.6.1 Multiple Roles..... 34

4.6.2 Household Chores 35

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS 37

5.1 Introduction..... 37

5.2 Conclusions..... 37

5.3 Recommendations..... 38

5.4 Further Research 39

REFERENCES..... 40

APPENDICES.....41

Appendix I Questionnaire.....42

LIST OF TABLES

Table 1: Distribution of Farmers by Gender.....	17
Table 2: Distribution of Farmers by Age Group.....	18
Table 3: Distribution of Farmers by Marital Status	18
Table 4: Distribution of Farmers by Level of Education.....	19
Table 5: Distribution of Farmers by Occupation.....	19
Table 6: Relationship between Decision Making and Participation in LDT.....	23
Table 7: Distribution of Respondents Knowledge about Gender	29
Table 8: Distribution of Respondents Receiving Information about Gender	29
Table 9: Distribution of How Respondents Receive Information about Gender	30
Table 10: Distribution of How Respondents Perform their Production Activities	31
Table 11: Relationship between Participation in LDT and Control over Money	32

LIST OF FIGURES

Figure 1:Distribution of Farmers by Type of Crop Produced..... 20

Figure 2:Distribution of Farmers by Type of Livestock Kept 21

Figure 3:Perception (opinions) of Farmers about LDT 26

Figure 4:Distribution of Reasons for Problems faced..... 27

Figure 5:Percent Distribution of Respondents In Relation who Controls over 32

Figure 6:Distribution of Respondents with regards to Control over money..... 33

Figure 7:Distribution of Factors Affecting Diversification 35

LIST OF ABBREVIATIONS

ASP	Agriculture Support Program
RPO	Rural Producer Organizations
CSO	Central Statistics Office
LDT	Livestock Development Trust
NGP	National Gender Policy
PRSP	Poverty Strategic Paper
ZNFU	Zambia National Farmers Union
TBZ	Tobacco Board of Zambia
SHEMP	Small Holder Enterprise and Marketing Program
ACF	Agricultural Consultative Forum
CGA	Central Growers Association
CDT	Cotton Development Trust
CLUSA	Cooperative League of the United States of America
ILO	International Labor Organization
ZAHVAC	Zambia Association OF High Value Crops

ABSTRACT

GENDER MAINSTREAMING IN AGRICULTURE: A CASE STUDY OF FARMERS IN PIG PRODUCTION IN CHIBOMBO DISTRICT

Esther Kamwimba
University of Zambia, 2005

Supervisor:
Mr. F Maimbo

Livestock Development Trust (LDT) is a private and public partnership established in 2002 that seeks to promote livestock development initiatives for farmers in a gender sensitive and participatory manner. This survey was an attempt to find out how much of gender concepts have been mainstreamed in the Agricultural sector in Zambia especially in the areas where rural producer organizations such as LDT in partnership with Agricultural Support Programme (ASP) are operational. The study was triggered by the low levels of female participation in development initiatives such as the pig production facilitated by LDT

The study covered just one part of Chibombo District in Zambia, namely, Katuba Agricultural Camp in the areas known as Mutakwa, Namununga, Shikwasha, Mutokoma and Chombela. A total of 70 farmers were interviewed. The sample was composed of two types of farmers- the beneficiaries of the LDT initiative and non-beneficiaries.

Participation of males and females in crop and livestock (pig) production was analyzed in light of decision making, problems encountered in pig production and their influence on other enterprises, the perceptions of farmers about LDT selection criteria, the level of gender mainstreaming in the study area and diversification by female farmers. The study reveals that though participation by females in crop production is higher than in pig production but less than that of males relative to pig production; statistically there is no association between gender of farmer and engagement in pig production. Further more, both male and female farmers indicated that no significant gender related problems exist in pig production and other livestock.

The differences in participation levels in pig production by both males and females were due to different decision-making power that exists between them. On the overall, the study reveals that males make most decisions than females, concerning what to produce and have control over both household production resources and money. The study also reveals that not much has been done in sensitizing farmers about gender in the study area. Only those farmers that are under ASP expressed some level of gender awareness, but the majority of farmers did not receive such information. This indicates that not much has been done in the study area concerning gender, hence the level of gender mainstreaming is low.

Based on the study findings, it is recommended that intentional efforts should be made by LDT project managers to recruit female farmers in lucrative enterprises such as pig production. Women that are willing but do not have resources should be given preference to reduce gender imbalances. It is also recommended that ASP facilitators should sensitize farmers in their operational areas on equity issues with regard to access to and control over resources within households. The government should also develop more channels of communication to improve on awareness of gender issues as a way of reaching the majority of farmers who do not receive such information.

CHAPTER 1

INTRODUCTION

1.1 Introduction and Background

Agriculture in Zambia is being considered a sector with the potential to enhance economic growth and reduce poverty as improvements in the sector are assumed to translate into job creation, broadened tax base and increased household food security. Agriculture generates 18-20% of GDP and provides a livelihood for more than 50% of the population absorbs about 67% of the labor force and remains the source of income and employment for rural women who constitute 65% of the total population (National Agricultural Policy, 2004).

Women and men have different roles and responsibilities which vary from region to region but in most cases not only do they share responsibility with men in all aspects of commercial activities, but are also responsible for household food security and nutrition for their families. Women are major contributors to the economy, both through their remunerative work on farms and through the unpaid work they traditionally render at home and in the community. Women contribute 60-80% of the total labor force as small-scale farmers though their contribution is most often than not considered domestic (Wood, 1990). Statistics show that 36% of women as opposed to 16% men were employed as unpaid family workers in 1998 (Poverty Reduction Strategic Paper 2002-2004).

Despite playing a pivotal role in agricultural production and development, women have been disadvantaged by the unequal access with their male counterparts to productive resources such as information, credit, land, and technology. Their immobility prevents them also to access markets for their produce.

This unequal access has led to gender gaps and feminization of poverty. 60.4% of female-headed households are poor compared to only 51.5% of the male headed. (CSO: living conditions in Zambia, 1998) The gender gap has also been attributed to the prevailing culture that favored men and treated women as minors, in both the pre and post independence period; women were marginalized in terms of access to education employment and other social services (Natural Gender Policy, 2000).

However women continue to be economic agents in agriculture. Improving their productivity has economic effects in terms of both growth and distribution.

Improved productivity raises incomes and this stimulates an overall increase in the demand for locally produced necessity products and this in turn provides a greater stimulus to local production, local employment and local investment. This creates conditions for rapid economic growth and a broader population participation in the growth.

And as such the government has recognized the need for full participation of women in the development process at all levels and has committed itself to facilitating the process of removing gender imbalances in its policy frameworks through the implementation of the National Gender Policy (NGP).

The government in its efforts to improve efficiency, competitiveness and sustainable growth in agriculture, has created an environment for promotion of public and private sector partnerships and as such, has provided niches for rural producer organizations to foster linkages between farmers, cooperatives, credit financing, and in some cases also do contract farming (National Agricultural Policy, 2004).

One such organization involved in promotion of public and private sector partnerships is the Livestock Development Trust (LDT). LDT is a private and public partnership established in 2002 that seeks to promote livestock development initiatives among farmers in a gender sensitive and participatory manner. LDT operates within the Agricultural Support Program (ASP) livestock commercialization program in the 8 districts of ASP's operational areas and has centers including Chibombo, Zimba, Feni, Mbabala, Mulashi, Mpika and Nyampande.

The specific objectives of LDT includes-

- To increase the income levels of the participating farmers by US\$500 annually by December 2005 from their level at the start of the program.
- To increase the number of livestock by 2 dairy cows, 2 pigs and 5 goats for participating farmers in the dairy, piggery and goat restocking program respectively.
- To increase the business activities (trading) in the operational areas of livestock, livestock products and livestock related activities.

LDT gives 2 dairy cows, 2 pigs and 5 goats to viable farmers on loan and follows an out grower model of operation, and ensures that the associated livestock feeds and drugs are made available to support high management production. The farmers, however, have to meet the selection criteria provided and should successfully finish the training program in livestock management before they can receive the animals.

For the purpose of this study on gender mainstreaming in agriculture, farmers in livestock production were considered and in particular those under the LDT initiative but also other farmers in LDT's operational area, a case of Chibombo district.

1.2 Problem Statement

Despite the government's efforts in reducing gender imbalances through the implementation of the NGP, gender inequalities have continued in the agricultural sector. For instance only 19.2% of women own land, a key productive resource, with title compared to 63.9% of men (Wamulume, 2004).

Lack of understanding of NGP within line ministries, weak coordination at national and ministerial levels, inadequate funding at provincial levels, understaffing of Gender in Development Division (GIDD) in relation to its national mandate of mainstreaming gender has led to many Rural Producer Organizations (RPO) failing to have clear written gender policies, let alone gender specific objectives and gender specific indicators which can be useful in monitoring and evaluation of activities from a gender perspective (Judai and Associates, 2002).

Failure to conceptualize, operationalise and analyze gender in relation to differing situations of men and women by RPO (Wonani, 2004) meant much needed to be known about issues affecting men and women.

Though gender was considered by LDT, the 30% female representation prescribed, as a guide was not met in the operational areas. Only 20% were females adding to the existing information that females generally are less involved in livestock production especially the big animals (Wood, 1990).

Low participation level by women in LDT raised a number of questions such as;

1. Why participation was so low compared to that of men?
2. Who decided what enterprise to take part in?
3. Was it that women had a comparative advantage in other enterprises?
4. Were there any gender specific problems related to pig production? Or
5. Were women sensitized enough to take part in such lucrative enterprises?

1.3 Objectives

1.3.1 General Objective

- To find out the reasons behind the low participation by women in pig production

1.3.2 Specific Objectives

- To find out who makes decisions concerning production alternatives.
- To find out the problems faced in rearing pigs with respect to gender.
- To find out how such problems influence other enterprises apart from pig rearing.
- To find out the perception of farmers on the LDT initiative selection criteria
- To find out how many farmers know about gender

1.4 Hypotheses

- The multiple roles that women have prevent them from diversifying into livestock production
- Women have a comparative advantage in crops than in animal production
- The decision maker is the one who decides what to produce

1.5 Rationale

The choice of the study was based on the importance to have the right perspective of the role that women play in agricultural production and the development process. Women contribute significantly to food production, processing and marketing, and are therefore economically valuable members of society. Nonetheless, they represent the group in society that is adversely hit by poverty. Also communities are not homogeneous as people have different

needs, interests and access to and control over resources based on a variety of factors including gender. A gender analysis gives an understanding of the different starting points of both men and women.

Enhancing the economic productivity of women and empowering them is a necessity for improving the welfare of many rural households that have continued to live below the poverty line. This is because women's income easily translates into better health and nutrition, and the general household food security ultimately reducing poverty at household level.

The low levels of participation in livestock production by women as compared to men acted as an impetus for such a research.

The findings from the study are hoped to bring out niches for good intervention measures that will result in optimal return.

1.6 Limitations of the Study

The female farmers in the study (37.1%) was smaller compared with that of males hence some of the responses by the females may seem statistically insignificant and affect the generalizations that could be made about gender mainstreaming. However it is worth noting here that the small number of females can in itself point to the very fact that livestock, particularly pig production is male dominated.

The sample size of 70 is relatively small to make generalizations concerning gender mainstreaming in agriculture as a sector. Conclusions made in this study therefore are applicable to the areas studied only.

1.7 Organization of Thesis

The thesis has five chapters. The first chapter gives an introduction on the study topic and the Agriculture Sector in general with regards to gender, and then outlines the study objectives, hypotheses and rationale and study limitations. Review of literature about related topics on gender and livestock production follows as the second chapter. The third chapter,

methodology, gives detail on the study area and project background, data collection procedures and analysis, and then the fourth chapter gives analyses of findings and finally the fifth chapter outlines the conclusions and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

A number of literatures were reviewed to check what has been done on the subject of gender mainstreaming in agriculture in general and specific to pig production. Literature included national agriculture policy, the gender policy and a number of reports relevant to the study.

About 51% of Zambia's population of 10 million is women and 49% men. Women, regardless of their predominance, constitute effectively an underprivileged group in all aspects of life due to gender imbalances, which do not favor them in terms of social-economic, cultural and political spheres in politics for instance between 1996-1999, only 16 out of 150 members of parliament were females representing only 10.6% (Monze, 2000). Gender imbalances have prevented women from effectively contributing to and benefiting from the development process.

2.2 Concept of Gender

Gender is an analytical concept, which focuses on women's roles and responsibilities in relation to those of men. It has been defined as a psychological or cultural concept, which refers to one's femaleness and maleness subjective feelings (NGP, 2000). International Fund defines gender for Agriculture Development (IFAD) as: "the socio-economic and evolving roles and functions of men and women as they relate to and complement each other within a specific socio-cultural and economic context". Despite such a definition, gender is often misunderstood as being the promotion of women only. However, gender issues focus not only on women, but also on the relationship between men and women, their roles, access to and control over resources, and division of labor and needs. Gender relations determine household security, well-being of the family, planning, production and many other aspects of life.

Issues of gender analysis in the development process are very important both from an efficiency or effective perspective and from an equitable development perspective. The former gives insights into activities which take place within and outside the farm enterprises

thereby identifying where potential for efficiency/ effective development exists, while latter gives an understanding of the different starting points of women and men and explicit consideration of gender equality issues.

The Poverty Reduction Strategic Paper (2002-2004) recognizes the gender-based differences that exist in Zambia and shows that women are less educated than men. In 1998, 29% of women compared to only 24% of men received no education at all. Women also have a very small share in formal employment, which is generally more rewarding than informal employment. Only 12% of formal employment accrued to women and the rest 88% to men. Further 39% of women as opposed to 16% men were employed as unpaid family workers.

This disparity has made poverty to hit women more (60.4%) than men (51.5%). The differences in poverty levels were attributed to the unequal access to, and a poor command over productive resources such as land, capital, credit and technology by women compared to men (Schalkwyk et.al, 1996).

Land ownership has continued to show inequalities despite Zambia ratifying the United Nations Convention on the elimination of all forms of discrimination against women (1985) which granted women legal equality in their participation in national development (Shapi,1994). PRSP (2002-2004) attributes this to the cumbersome procedures due to administrative policies, which usually are intimidating, given the high illiteracy levels among women. Women do not also easily access credit because they do not have collateral, usually given as land.

The negative cultural beliefs and customs perpetuate gender imbalances especially the traditional ways of socializing girls and boys (women's manifesto 2000). Such inequality especially where productive resources are concerned enhance the viscous cycle of poverty among females.

Literature reviewed in the agricultural sector show that women have a pivotal role in the development process where they contribute more than 70% labor (NGP, 2000). According to Durdley Seers (1969) as quoted by Todaro (1981), development in the economic sense, was defined in terms of reduction or elimination of poverty, inequality and unemployment.

Todaro further says that to achieve development, direct attacks on poverty through poverty-focused plans are more effective in the short run and the long run, but detailed knowledge of poverty's location, extent and characteristics is essential.

Given the incidence and burden of poverty falling more on women than men, the Zambia government adopted the National Gender Policy in 2000, which recognizes the contribution of women to development. However, this was not the case in the past, due to lack of an explicit policy recognizing the contribution of women to agricultural production for example, let alone gives female farmers preferential treatment. This was due to gender attitudes, both imported (colonial masters) and traditional, of the new planners and policy makers who were predominantly men and productive resources were male-oriented (Wood, 1990). The NGP has been taken as a tool for mitigating gender imbalances.

A study done by Wonani (2004) on gender dimensions of RPOs (ZNFU, CLUSA, ACF, ZAHVAC, AGRIFLORA, SHEMA, Dunavant, CDT, CGA, TBZ, among others) in Zambia, with specific objectives as

- Reviewing and assessing the RPOs and evaluating the role of women and men in these organizations, in order to ascertain and identify factors that inhibit and/or enhance women's and men's participation in decision making;
- Conducting a gender needs assessment of the RPO's in terms of gender mainstreaming in their organization; reviewing and assessing the lower level local organizations and evaluating gender issues at farmer group level;
- Evaluating economic and agricultural policies from a gender perspective, in order to link national level policy and organizational policies of the RPOs:

The study made the following observations,

- There was very limited capacity amongst RPOs to address gender issues and was done on an ad-hoc basis and often based on the conditionality given by funding agencies.
- With regards design and preparation of interventions most activities assumed to target both men and women but men were more active than women. Little consultation was done with communities on intended programs and women did not participate much.

- The RPOs objectives and activities rarely had gender specific indicators and budget lines did not provide for gender related activities.
- Most project personnel were not also familiar with gender issues though they expressed willingness to learn, and the institutional framework did not demonstrate gender sensitivity in their programs per se though they did indicate the importance of working with men and women but rarely went beyond.
- Monitoring and evaluation from a gender perspective was also not done systematically due to lack of gender-disaggregated data and also due to analysis of such data where it existed.
- None of the RPOs interviewed had an information system to detect and evaluate the effects of the projects on women and men separately.

These findings clearly showed that most RPO failed to conceptualize and operationalise the gender policy though mostly those who attempted followed the 30% female representation. The study was both field and desktop. Review of project and organization documents, and in depth interviews with staff and major stake holders and some farmer group members were done.

2.3 Women Empowerment and Gender Equality

Another study done by Judai and Associates (2002) as part of the ILO's in focus program on boosting employment through small enterprises in Africa and Zambia in particular with emphasis on women entrepreneurship development, which is highly relevant to the implementation of NGP, PRSP process and to achievement of the Millennium Development Goals particularly goal 3, relating to women empowerment and gender equality revealed that,

- Women have predominated the micro enterprises and the informal sector (Agriculture) various social-cultural factors limit women's access to and participation in enterprise development
- Administration and implementation of several critical laws and regulations still adversely impact on women despite claims of "gender equality".

- There was a lack of knowledge and analysis of gender and development on the part of researchers and government institutions as illustrated by lack of data and research findings desegregated by sex.

Though women are predominant in the informal sector, they are only engaged in survivalist enterprises and subsistence agriculture, which does not earn much income. Usually cash crops and ownership of livestock is left to their male counterparts. (Wood 1990) records that there are more men than women, that own livestock.

2.4 Women in Livestock Production

Other literature reviewed on women in livestock production. Concerning livestock development, there was a high level of agreement in the literature that socio-economics and institutional frameworks play an important role in determining who does what, and who gets what. Social and cultural norms dictate the division of labor and control over assets. Policy and institutional structures often restrict existing sources of support to women; particularly credit to acquire large ruminants (IFAD).

A study done by Akmal et al, 2004 on Women and Livestock Management in Sindh in Pakistan reviewed that, compared to crop production the participation of rural women in livestock related activities was much higher. Except for grazing, women were involved in almost all livestock related activities starting from fodder cutting to milk processing. However, the level of involvement varied from one activity to the other.

Females were not only consulted but had a major role in decision making for livestock-rearing and related activities. Females decided about the number of poultry birds and the size of the herd to be reared. Decisions regarding selling poultry products and animals were also undertaken in consultation with women. They were also mainly responsible for making decisions regarding animal vaccination. However, their involvement in decisions regarding use of artificial insemination for animal breeding, area allocation to fodder crop and use of improved fodder varieties was found very low.

A study undertaken by Tegegne et.al, 2002 on Urban Livestock Production and Gender in Addis Ababa, Ethiopia showed that about 45% of livestock owners were women.

Economically, dairy cattle, sheep and poultry were the most important livestock species, although goats and to a lesser extent equines made significant contributions to the urban economy and the food security and livelihoods of households. Women owned about 43% of dairy cattle, 81% of chickens, 47% of sheep and 33% of goats. The average number of cattle owned was 7 animals per household. Small ruminants were the most common livestock

Species next to cattle and chickens kept by both women and men urban livestock keepers. Women were responsible for feeding large animals, cleaning the barns, milking dairy cattle, processing milk and marketing livestock products, but they received the assistance of men, female children and/or other relatives.

Constraints faced by both men and women livestock keepers in the study were high cost of inputs (feed and drugs), availability, cost and quality of concentrated feed and grass hay, the absence of a market for fluid milk and the low prices of milk and milk products.. Problems such as a lack of skill development or training and technical advice on livestock production were reported more often by women (30%) livestock keepers than men (15%).

In Zambia, gender is still a new concept that is in the operationalisation stage and therefore most information in livestock especially pig, is much on the production aspects than the gender related issues. The Heifer project in Zambia has attempted to encourage women farmers in livestock production in the central, southern and southern provinces by providing them with livestock such as goats and dairy animals. There is little known on the details of gender mainstreaming in their operations.

2.5 Summary

From the reports reviewed, little was known about enterprise specific activities where women are engaged especially livestock production such as pig production and this was a major limitation to how much can be reviewed from secondary data.

The studies reviewed say little on the gender perceptions from the farmers towards the projects implemented in their communities. It was believed that a gender oriented study from the farmers point of view will bring out bottlenecks in production, which may occur and therefore provide niches for good intervention by project management.

Pig production is one of the lucrative livestock activities that if females took part, would increase their incomes, as the enterprise is estimated to have gross margins of over K1 200 000 per year with a loan investment of K2 000 000. These farmers received 2 pigs costing K1 000 000 each, and the gilts were assumed to have 8 units per liter, giving 960 kgs of pork which if sold at K7000 per kg would give the farmer an income of K6 720 000 before deducting variable costs and the total fixed costs.

CHAPTER3

METHODOLOGY

3.1 Introduction

This chapter describes the study area and the project background then outlines how the study was carried out and the instruments used in both collection and analysis. It further gives detail on data collection limitations.

3.2 Study Area and Project Background

The study focused on farmers in pig production in Katuba area in Chibombo, a district found in Kabwe rural. Katuba area is approximately 17 kilometers from Lusaka. Katuba is one of the areas of operation for the LDT initiative and in this area, LDT gave 2 pigs each to viable farmers on loan. The places surveyed included Mutakwa, Namununga, Shikwasha, Mutokoma and Chombela. The majority of the farmers in these areas are Lenjes and use Lenje as the mainly language for communication only an insignificant number use Nyanja for communication with other farmers

3.3 Data Collection Procedure

3.3.1 Sample Selection

The sample population included all the farmers rearing pigs both those on LDT as beneficiaries and those outside the program. Most of the pig farmers got their pigs from LDT program initiative. The farmers outside LDT (62.9%) were randomly selected; however those on LDT were (37.1%) were purposively selected. This was because generally LDT is currently working with a small number (30) of farmers and if these were subjected to simple sampling procedures, only a small portion of the beneficiaries were going to be included in the study sample

Both male and female farmers on the LDT program and those outside the program constituted the sample. Farmers outside the program helped to reduce biases in responses given. The sample size was 70

3.3.2 Survey Process and Types of Data

The study relied mainly on primary data. This data was mainly collected through personal interviews with the farmers. A structured questionnaire (see appendix for the questionnaire used) was the main instrument for collecting data. The questionnaire contained both open ended and close-ended questions. There were more open-ended questions, which gave the respondents an opportunity to bring out issues, as they perceived them and allowed for further probing where it was deemed necessary, especially from a gender point of view.

3.3.3 Data Collection Limitations

The main limitation in collecting data was the medium of communication. As indicated earlier, Lenje is mainly used as a language for communication and therefore needed someone very conversant with it. This language problem poses a threat to how accurately data was translated and hence inefficient communication.

3.4 Data Analysis

Data collected was coded for easy data entry and possessing. These coded data were then statistically analyzed using Statistical Package for social Sciences (SPSS).

Descriptive statistics were used in data interpretations.

The data were analyzed and interpreted in a way that allowed both independent and combined analyses of the LDT program beneficiaries and none LDT beneficiaries. This was necessary to explain the findings of the study as they relate to the problem statement and the study objectives.

3.4.1 Tools of Analysis

3.4.1.1 Frequency Tables

These were employed to categorize the respondents in line with their characteristics such as sex, age group and their responses concerning a certain variable.

3.4.1.2 Bar and Pie Charts

These were used to depict frequency distributions in order to allow an immediate grasp of their characteristics based on visual representation.

3.4.1.3 Chi-Square Test

This was used to test hypothesis based on the comparison between observed and the expected frequencies in order to see whether observed frequency supports the suggested proposition. Nevertheless, the chi square does not give information about the degree of relationship between the variables. This tool was used only on categorical data.

Hypothesis Testing

Null hypothesis (**H0**): there is no significant difference in the observed and expected frequencies of various categories of data in the sample.

Alternative hypothesis (**H1**): there is significant difference in the observed and expected frequencies of various categories of data in the sample

Assumptions

The data are randomly and independently selected

All categories are mutually exclusive

Expected frequency is atleast 5 in each category

Decision Rules

Level of significance $\alpha = 0.05$ (non directional)

If $\chi^2_{obs} < \chi^2_{crit}$ then H0 is not rejected

If $\chi^2_{obs} \geq \chi^2_{crit}$ then H0 is rejected

CHAPTER 4

FINDINGS

4.1 Introduction

The chapter explains the findings from the data collected and analyzed based on the social characteristics of the respondents, the types of agricultural activities performed, the analysis of level of participation both males and females in livestock production and lastly gender mainstreaming in the study area.

4.2 Social Economic Characteristics of Respondents

4.2.1 Gender of Farmers

The majority of the respondents in the study were males. Females only accounted for 37.1%. The small percent of females in the sample is owed to the fact during sampling, mainly farmers involved in livestock production in the study area were considered. It was discoverer that only a small number of females were involved hence confirming the reality that there are more males in livestock production than females. (See Table 1 below)

Table 1: Distribution of Farmers by Gender

Sex of respondent	Frequency	Percentage
Male	44	62.7%
Female	26	37.1%
Total	70	100%

Source: Own sample survey

4.2.2 Age Group of Farmers

Most of the respondents, on average, were aged between 30 to 59 years (see Table 2). The highest (31.4%) age group was 40 – 49 years. This was followed by 30 – 39 years (28.6%).

Therefore mainly farmers who are still strong and able to meet the physical demands of farming constituted the sample.

Table 2: Distribution of Farmers by Age Group

Age group of respondent in years	Frequency	Percentage
20 – 29	6	8.6%
30 – 39	20	28.6%
40 – 49	22	31.4%
50 – 59	15	21.4%
Above 60	4	5.7%
Don’t know	3	4.3%
Total	70	100%

Source: Own sample survey

4.2.3 Marital Status of Farmers

The majority (82.9%) of respondents in the study area were married as can be seen in Table 3. The percent for both the single and the divorced was the same. Only 8.6% were divorced. Marital status in this study was important in order to find out how decisions are made in a given household.

Table 3: Distribution of Farmers by Marital Status

Marital status	Frequency	Percentage
Single	3	4.3%
Married	58	82.9%
Divorced	3	4.3%
Widowed	6	8.6%
Total	70	100%

Source: Own sample survey

4.2.4 Education of Farmers

The level of education among the respondents was low. This was showed by a bigger percent (61.4%) that only attained primary education. 5.7% had gone to college while 7.1% did not have any formal education (see Table 4 below). It can therefore be said that in the study area, illiteracy levels are quiet low.

Table 4: Distribution of Farmers by Level of Education

Educational attainment	Frequency	Percentage
Primary	43	61.4%
Secondary	18	25.7%
College	4	5.7%
None	5	7.1%
Total	70	100%

Source: Own sample survey

4.2.5 Occupation of Farmers

The majority (97.1%) of respondents took up farming as occupation and they drew their incomes for sustenance. 2.9% were involved in other ventures such as managing groceries. It is evident from Table 5 below that a bigger percentage of the respondents rely on farming and there is an insignificant number involved in other occupations.

Table 5: Distribution of Farmers by Occupation

Occupation	Frequency	Percentage
Farmer	68	97.1%
Other forms	2	2.9%
Total	70	100%

Source: Own sample survey

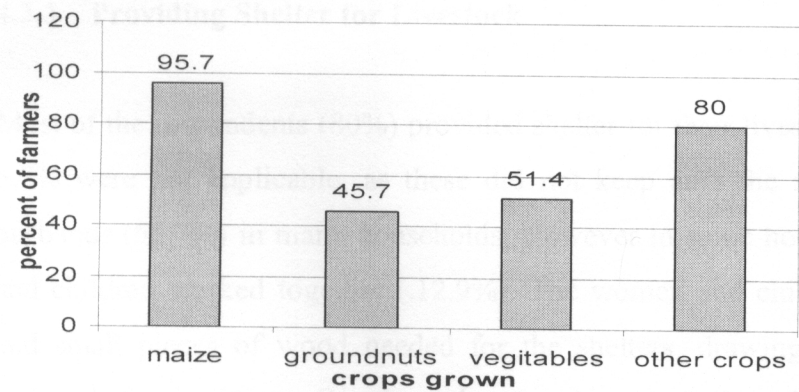
4.3: Agricultural Activities

The crop and livestock production activities performed in the study area studied.

4.3.1 Crops Production

The different types of crops grown in the area were looked. It was observed that all the respondents in the study area were involved in crop production (see Figure 1) 95.7 % of the respondents grew maize, 45.7% groundnuts, 51.4% vegetables, and 80% grew other crops such as cotton, soyabeans, and sunflower. It can be seen from these percentages of crops grown that maize is the most important crop in the area. Other economic crops that were largely grown consisted of cotton and sunflower.

Figure 1: Distribution of Farmers by Type of Crop Produced



Source: Own sample survey

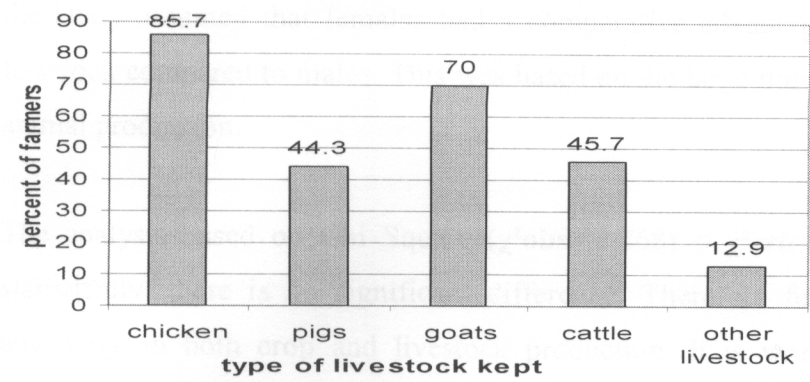
4.3.2 Livestock Production

The study also looked livestock production in the area; only 5.7% did not keep livestock while the rest of the 94.3% kept. The reasons for not keeping livestock included animals dying and not having enough resources to buy the animals.

85.7% of the respondents kept chicken, 70% goats, 44.3% pigs, 45.7% cattle, while other livestock such as ducks, genea fowls and doves constituted 12.9%. Chickens being the smallest and easy to keep were the most kept livestock by majority of the respondents,

followed by goats, in the same vein. On other hand, pigs accounted for a lesser percentage and this could indicate the demands, both financially and physically associated with pig production. Figure 2 below displays livestock production I the study area.

Figure 2: Distribution of Farmers by Type of Livestock Kept



Source: Own sample survey

4.3.3 Providing Shelter for Livestock

Most of the respondents (80%) provided shelter for their livestock, only 14.3% did not, and 5.7% were not applicable, as these did not keep any. the shelters were mainly built by husbands (55.7%) in many households. However in some households, the husbands, wives and children worked together (.12.9%). The women and children assisted in cutting grass and small pieces of wood needed for the shelters, drawing water and bringing the soil required for building. On the other hand only 8.6% of households hired labor for construction while 2.9% females built the shelters by themselves. These were single, divorced or widowed

4.3.4 Participation in Production Activities

Although all the males and females were involved in crop production, the qualitative analysis exposed the important differences in levels of participation in livestock production. There were more males (58.6%) than females (35.7%) keeping any type of livestock.

However with respect to pig production, only 14.3% were females, both LDT beneficiaries and none beneficiaries, compared to 30% males. This observed difference might be

attributed to the fact that pig production is male dominated. It suffices to mention here that just 11.4% females were on the LDT program as pig keepers in comparison with 31.4% males.

In an effort to find out why female participation on LDT pig production initiative was low, the study assumed that females had a comparative advantage in crop production than in livestock compared to males. This was based on the large number of females in crop than in animal production.

The analysis based on Chi Square (χ^2_{obs} (0.268) < χ^2_{crit} (3.84) at df 1), showed that statistically, there is no significant difference. Therefore females and males have same advantage in both crop and livestock production. It is worth mentioning here that this conclusion may not be the same if the sample size was increased to include more females.

In addition, it was found that though at face value, the levels of females in pig production seem to differ greatly from that of males, statistically; there is no significant difference between them. (χ^2_{obs} (0.569) < χ^2_{crit} (3.84), at df 1)

Consequently it can be said that, statistically there is no strong relationship between sex and involvement in livestock keeping late alone pig production.

The low level of participation by females cannot be attributed to sex of the farmer. May be other aspects, which the project did not capture such as access to credit and culture could explain this observed difference.

4.4 Analysis of Low Female Participation Levels

This analysis attempted to find out why participation of females in livestock, especially pig production was low. Both respondents on LDT initiative and those outside were studied.

The following variables were considered.

4.4.1 Decision Making over Production Activities

Table 6 displays how decisions are made in a household concerning production activities and alternatives. Production alternatives are other agricultural activities which a household can engage in when an opportunity arises, such as that provided by LDT initiative.

The majority (51.4%) of respondents said that husbands made decisions concerning production alternatives and 17.1% from these participated on LDT. 11.4% were males and 5.7% females. Some households (30%) indicated that both husbands and wives made decisions. Depending on fact that these households made joint decisions, one may expect such households to have equal levels of participation, by males and females in development initiative such as the one being provided by LDT. The households that indicated that wives made decisions were 17.1% and only 5.7% of these were females participating on the LDT

Table 6: Relationship between Decision Making and Participation in LDT

Is on LDT	Husband	Wife	Both husband and wife	Involves other family members	Total
Male	11.4%	-	12.9%	1.4%	25.7
Female	5.7%	5.7%		-	11.4%
Total	17.1%	5.7%	12.9%	1.4%	37.1%

Source: Own sample survey

The analysis showed a bigger portion (32%) of the male and 18.6% female respondents saying that husbands made decisions. For those that said households made joint decisions, 28.6% were males and only 1.4% females. While only 15.7% females and 1.45% males said wives were decision makers. It was observed that males made most of these production decisions compared to females. This pattern seemed to match with the low participation of females in pig production as observed on LDT.

However to check for statistical significance of these differences, a square test was run. It was found that there is a significant difference between decision-making and participation on LDT. That is to say decision-making is highly associated with participation on LDT.
 $(\chi'^{obs} (41.615) > \chi'^{crit} (21.03) \text{ at df } 12)$

4.4.2 Decision to be on LDT

The respondents (those on LDT) were interviewed to check how they made decisions to be on the program.

Most of the respondents (18.6%) said that each one of them decided by themselves to participate. Of these, 10% were males and 8.6% females. Others (12.9%) said that they participated on the program because their partners had agreed that they should represent them. The analysis showed that the 12.9% was all males.

In addition, 5.8 % of males said that they were on LDT because their wives were not interested or wife committed elsewhere.

It can be observed here also that decision making concerning who should participate in production activities seem to have a bearing on the low level of participation of females in pig production under LDT as there exist an evident disparity in decision making between males and females, though the degree is not stated.

4.4.3 Selection Criteria to be on LDT

The respondents were also asked about the selection criteria used to be LDT. Both the beneficiaries and none beneficiaries were interviewed. Selection was mainly done through the agriculture support program (ASP).

The beneficiaries were 37.1%, none beneficiaries 35.8% while 27.1% were none applicable cases. Of the 37.1% beneficiaries on LDT, 27.1% said they were selected through ASP while 10% were selected through other means which included having previously kept pigs or being member of a well known cooperative.

The criteria used for those under ASP were based on the frequency of attending ASP meetings, having access to a good source of water for the pigs, having a down payment of K200, 000 for the loan and successful completion of the training program facilitated by LDT officers. All the females on the LDT initiative were selected through ASP.

4.4.4 Perception (Opinions) on Selection Criteria

The perception about the criteria used by LDT through ASP varied from being fair and gender sensitive to farmers not able to afford the requirements. This analysis is important to see how much of gender concepts have been incorporated in the operations of ASP.

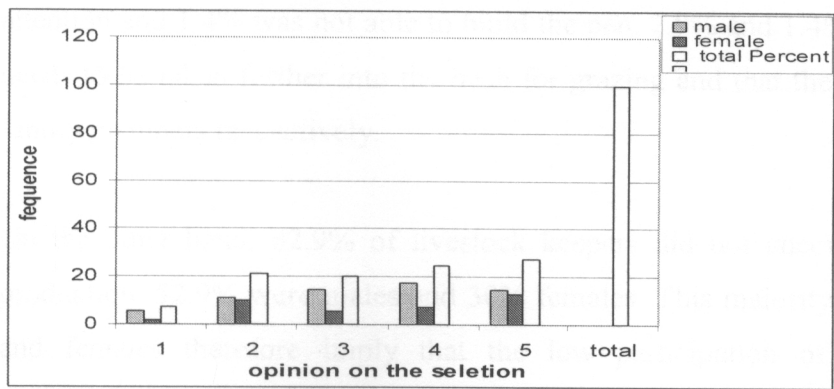
According to Figure 3, the following are the percentages expressing different views, as represented by the bars in the graph. (Note that the different shades of color represent males, females and total percent of a combination of both).

7.1% said that the selection was fair and gender sensitive (1). Of these 5.7% were males and 1.4%females. Nonetheless, 21.4 %,(11.4% males, 10%females) who had the same view also said that majority of women could not afford the down payment of K2000000 even though they were willing in the first place (2).On the other hand, 20 %(14.3% males, 5.7% females) said that though the criteria were fair, still the farmers had to meet the necessary requirements such as building costs for the pen (3). Though women were willing, some did not have children to help out in looking after the pigs because of the demand that these animals have, and others just stayed back because they did not perceive the benefits of such an enterprise. This could attribute to the low participation of females on LDT.

In addition, 24.1% (17.14% males, 7.14% females) said the criteria were fair since everyone was given a chance and women were encouraged to participate (4). ASP facilitators ensured that as many women as possible took part by encouraging them to attend ASP meetings and the training sessions for rearing pigs.27.1% (14.3% males, 12.9% females) were none applicable cases either because they were not on ASP or had never heard of LDT (5).

On the overall, the respondents were of the view that the selection criteria were fair and gender sensitive. This fact did not however overshadow the view that still a substantial number of women could not afford the down payment of K2000000. This may be associated with low participation levels on LDT. This may suggest that women in the study did not have access to credit sources to finance their participation on LDT

Figure 3: Perception (opinions) of Farmers about LDT



Source: Own sample survey

- 1 = fair and gender sensitive, except some women did not attend meetings
- 2 = fair and gender sensitive except some women could not afford the down payments.
- 3 = other opinions such as fair though the farmer had to be able to meet building costs for the pen, some women did not have children to help out, some lacked perceived benefits.
- 4 = fair because every one was given a chance and women were encouraged
- 5 = not applicable because either not ASP or never heard of LDT

Also as can be seen in Figure 3, a relatively good percentage of females interviewed (12.9%) were either ignorant of ASP or never heard of LDT. This may suggest that though the criteria were fair, these women were not covered prior to the implementation of the LDT program. However the level of association with low participation on the program cannot be attributed to this because other factors could influence participation even if these females knew about ASP or LDT. These factors may include access to finances, ability to manage pigs and also empowerment in decision-making in their respective households.

4.4.5 Problems Encountered with regard to Gender

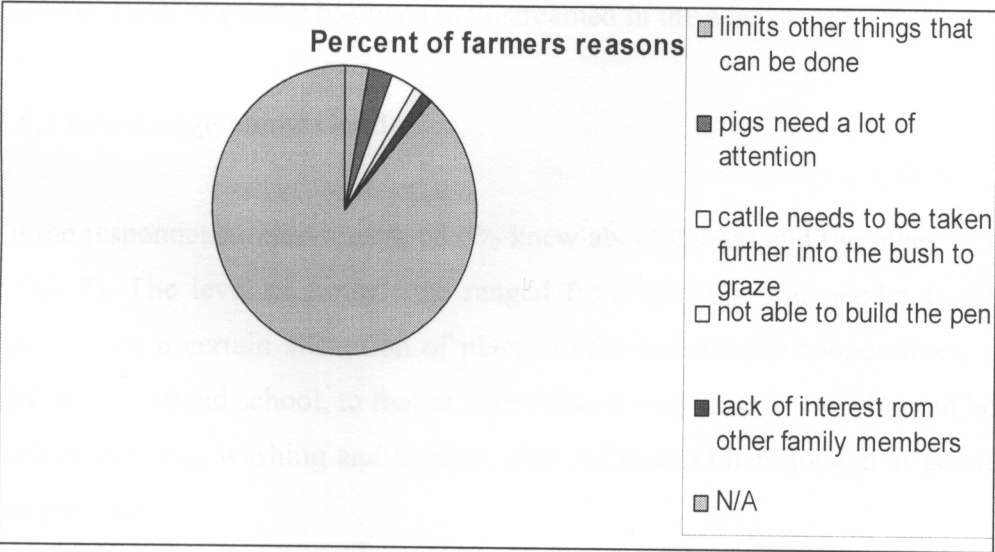
The problems encountered in pig production and other livestock with respect to gender in the study area were looked at and how such problems affected other production enterprises. Only 11.4% of the respondents indicated having problems while 82.9% did not. Both the males and females respondents that had problems accounted for 5.7% each. (See Figure 4). The problems that were indicated by these respondents included; limited other things that could be done (2.9%) such as keeping other livestock on a commercial basis that equally

demands attention as the pigs. And on the part of females, only 2.9% said pigs need a lot of attention and 1.4% was not able to build the pen. 2.9% and 1.4% males only said that cattle needs to be taken further into the bush for grazing and that they lacked interest from other family members respectively.

On the other hand, 82.9% of livestock keepers did not encounter problems in livestock production, 52.9% were males and 30% females. This majority of respondents, both males and females therefore imply that the low participation of females in livestock and particularly pig production has nothing to do with problems based on gender of participant. Other factors then could be responsible, such as the level of empowerment that females have in making their own decisions concerning what they should produce and the resources at their disposal.

It can therefore be said that they are little gender specific problems as revealed by percentages of males and females refusing to have these problems.

Figure 4: Distribution of Reasons for Problems faced in Livestock Production with regard to gender



Source: Own sample survey

4.4.6 Influence of Problems Encountered on other Activities

With regards to how such problems mentioned earlier influenced other enterprises, from the 7.1% said that they diverted resources from other enterprise into the pig and/or other production in order to buy feed which was not delivered on time or had to pay off some people hired to build the pens. While 1.4% each said time is limited or has negligible effects.

4.5 Gender Mainstreaming

4.5.1 Gender Awareness Levels

In order to see how much gender has been mainstreamed in Chibombo District especially the areas where the study was undertaken; tools that are usually used to mainstream gender were studied. Respondents were asked if and how many knew about gender, how and if they receive any information on gender, and how other decisions in the households (power relations) are made concerning division of work, productive resources usage, control of money and opinions concerning, and the issue of diversification by female farmers. Both LDT beneficiaries and non beneficiaries were interviewed. This was important in order to see how much of gender has been mainstreamed in the study area.

4.5.2 Knowledge about Gender

Of the respondents interviewed, 68.6% knew about gender and the other 31.4% did not (see Table 7). The level of knowledge ranged from thinking that gender is all about females being given a certain allocation of places in the community cooperatives, encouraging the girl child to attend school, to that of males also taking turns in carrying out household chores such as cooking, washing and looking after children. Others looked at gender as promoting the girl child.

It can be seen that these respondents, though they seem to know about gender inequalities, they are far from knowing or at least recognizing the fact that gender is a development issue that looks at the different levels that both males and females have in terms of access to and control over production resources that both sexes will need if they are to develop.

Table 7: Distribution of Respondents Knowledge about Gender

Response	Frequency	Percentage
Yes	48	68.6%
no	22	31.4%
Total	70	100%

Source: Own sample survey

4.5.3 Receiving Information about Gender

With regards to receiving information about gender, Table 8 below shows that only 45.7% indicated having received mainly through ASP (28.6%). It is evident from these percentages that the majority of respondents in the study area do not receive any information on the subject. Therefore, one would wonder how gender can be mainstreamed if there is no sensitization.

Table 8: Distribution of Respondents Receiving Information about Gender

Receive information	Frequency	Percentage
Yes	32	45.7%
no	38	54.3%
Total	70	100%

Source: Own sample survey

4.5.4 How Information is received

Information on gender in the study area is mostly received through ASP (28.6%), followed by media methods (27.1%) (See Table 9 for details). The low percent through media methods may imply that there is not enough sensitization being done in study area or that if it is being carried out, then it’s possible that a good number of respondents may not be a position to own radios. The study also reveals that friends, family and neighbors can also be means through which gender information can be transmitted despite the fact that medium

accounts for only a smaller percent (12.9%). 31.4% of the respondents did not have access to information on gender. This is a relatively bigger portion of respondents who are ignorant about gender and calls for more sensitization in the study area if gender concepts are to be mainstreamed in agriculture.

Table 9: Distribution of How Respondents Receive Information about Gender

How information is received	Frequency	Percentage
Through ASP	20	28.6%
Through media	19	27.1%
Through friends, family and neighbors	9	12.9%
Not applicable	22	31.4%
Total	70	100%

Source: Own sample survey

4.5.5 Division of Labor

Table 10 reveals that less than or equal to 11.4% of the respondents indicated that they usually divided the work to be performed in both crop and livestock production. Women tended to look after small animals such as goats, which did not require much attention while men big animals such as cattle that need to be taken fur into the bush for grazing. Nonetheless some of the division was attributed to tradition. In crops, mostly men tilled the land while the women planted and weeded.

On other hand those that worked together in all the activities said that only when it came to cotton spraying was there division. The men were the ones spraying because of the chemicals involved which the said were harmful to women especially that these handled children often.

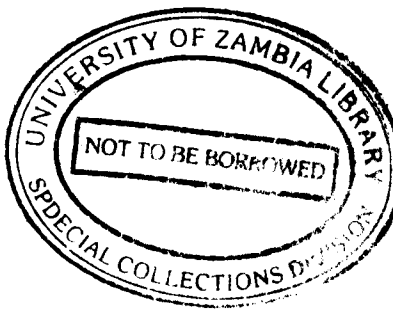


Table 10: Distribution of How Respondents Perform their Production Activities

Response	Frequency	Percentage
Division of work	8	11.4%
No division of work	62	88.6%
Total	70	100%

Source: Own sample survey

4.5.6 Power Relations

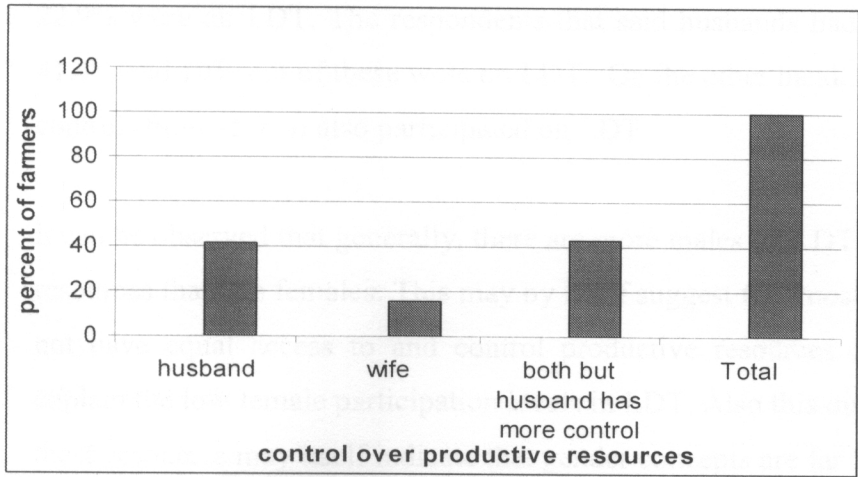
Power relations are necessary variables to check if gender concepts are being incorporated in daily living by farmers. A general analysis was done to check how the respondents both those on LDT and outside LDT, related and then see the level of gender concepts that they receive from ASP were being used. It is worth mentioning here that most of the respondents were under ASP, which is said to be gender sensitive in its deliberation

4.5.6.1 Control over Productive Resources

Productive resources are the inputs used in the production of either crops or livestock. In the study area, 41.4% of the respondents said that husbands controlled these resources. Only 15.7% said wives had control. And 42.9% said both husbands and wives controlled the resources but mainly husbands had the final say on how these were to be used. This was because the husbands were said to be heads of the homes and therefore tradition required them to have control.

The fact that males have more control over the resources in a household may suggest their high level of participation in production alternatives such as that of LDT than females. As revealed by study, as long as the females do not have equal control over production resources in a household, they will not participate on the same level as males.

Figure 5: Percent Distribution of Respondents in Relation to who has Controls over Productive Resources



Source: Own sample survey

4.5.6.2 Incorporation of Gender Concept by LDT Beneficiaries

In order to check whether the respondents that knew about gender especially through ASP also had incorporated this concept in their decision making concerning control over productive resources, a cross tabulation was done to show the relationship between participation in LDT and control over resources Refer to Table 11 to see the interaction.

Table 11: Relationship between Participation in LDT and Control over Productive Resources

		Control over productive resources			Total
		Husband	Wife	Both husband and wife but husband has more control	
On LDT	yes	10%	4.3%	22.9%	37.2%
	No	31.4%	11.4%	20%	62.8%
Total		41.4%	15.7%	42.9%	100%

Source: Own sample survey

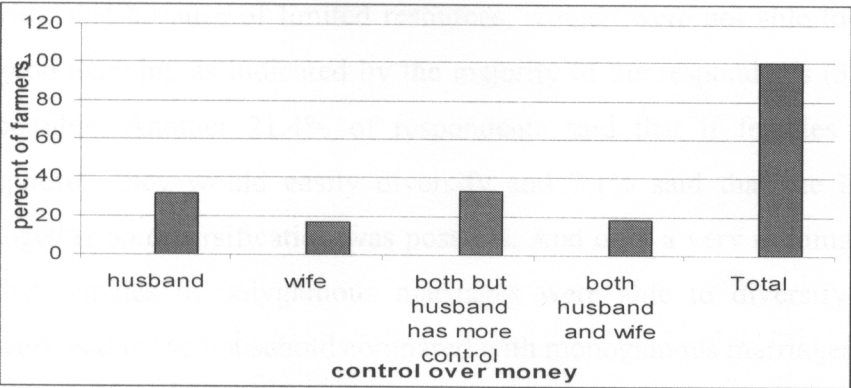
The study reveals that most of respondents (42.9%) said that both husbands and wives had control but husbands had more control over productive resources than wives. Of these 22.9% were on LDT. The respondents that said husbands had control over resources were 41.4% and 10% out of these were on LDT. On the other hand, only 4.3% of wives, who had control (from 15.7%) also participated on LDT

It can be observed that generally, there are more males on LDT with control over productive resources than the females. This may by itself suggest that most females in the study area do not have equal access to and control productive resources in the household and hence explain the low female participation levels in LDT. Also this disparity in having control over these resources may itself indicate that gender concepts are far from being incorporated very much by farmer households.

4.5.6.3 Control over Money

A similar trend of males having more control than females was observed as shown by Figure 4.6 when it came to control of money coming from various enterprises. Husbands (31.4%) were found to have more control over money than wives (17.1%) some respondents (32.9%) said both but still husbands had more control, and only 18.6% said both had same control over the money. However it is interesting to note that even in cases were wives were said to be in control, still, they could not use the money without the husbands approval. See Figure 6 presentation of responses.

Figure 6: Distribution of Respondents with regards to Control over Money from Various Sources.



Source: Own sample survey

4.6 Diversification

Diversification by female farmers into more crop and animal production was also sought out in the study survey. Diversification in the study was referred to the respondent being able to have separate fields of different crops or having different livestock enterprises at the same time.

4.6.1 Multiple Roles

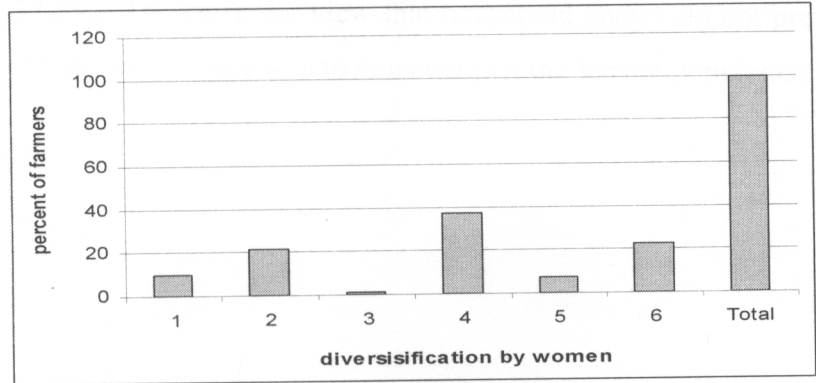
The respondents were asked whether the multiple roles that females had prevented them from diversifying. Multiple roles refer to the productive, reproductive and community responsibilities that females are expected to perform in any given society.

24.3% (8.6% females and 15.7% males) of the respondents agreed to the proposition that the multiple roles that females have prevented them from diversifying while 75.7 % (28.8% females and 47.1% males.) disagreed with this proposition. The majority expressed the view that females could diversify besides these roles. And statistically it was found that there is no strong relationship between multiple roles and level of diversification as expressed by the respondents. ($\chi^2_{obs} (0.033) < \chi^2_{crit} (3.86)$ at df 1). Therefore, it can be said that the multiple roles females have do not have a bearing on their possibility of diversifying.

However, the respondents gave different possibilities of things that may or may not favor female farmers to diversify. These possibilities were presented in the Figure 4.7 below.

According to Figure 7 below, it was found that most of the respondents (22.9%) were of the view that because of limited resources, women were not able to diversify. Otherwise with good planning as indicated by the majority of the respondents (37.1%), diversification was possible. Another 21.4% of respondents said that if females received help from their spouses, they would easily diversify and 7.1% said that the husband and wife worked together so diversification was possible. And only a very minimal percent (1.4%) indicated that females in polygamous marriages were able to diversify because of the lessened workload in the household compared with monogamous marriages

Figure 7: Distribution of Factors Affecting Diversification as Indicated By Farmers



Source: Own sample survey

Key

- Females can not diversify if their husbands are not supportive (1),
- Females can diversify if they received help from their husbands (2),
- Females in polygamous marriages (3),
- Diversification depended on good planning (4),
- The husband and wife work together so female can manage to diversify (5),
- Females had limited resources (6).

Based on these factors attributed to affect diversification, it can be said that diversification by female farmers cannot be hindered by their multiple roles. These farmers can diversify if they are empowered with resources and the necessary facilitations such teaching them how to plan are put in place.

4.6.2 Household Chores

Last but not the least, the household chores were as well looked at to see if they too prevented female farmers from diversifying into livestock production. 30% of the respondents said that household chores prevented female farmers from diversifying while 65.7% said that these did not. Those that said household chores prevented women, 20% were males, and 10% females respondents. Furthermore, those that refused, 41.4% were males and 24.3% females.

The study reveals that though the percentage of the respondents saying that household chores do not prevent women from diversifying were mainly males, still the proportion of

females is large enough compared to the number in the sample. (That is 24.3% out of 37.2%). Therefore the view that household chores do not prevent women from diversifying is valid even if one was to consider just the female population in the sample.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This last chapter contains the conclusions and recommendations that were made from the study. The conclusions and recommendations are made in line with the study objectives. It then suggests possible studies that could be undertaken to develop more insights into gender mainstreaming.

5.2 Conclusions

- The survey showed that all the respondents in study area; both males and females were involved in crop production. Nonetheless, in livestock, especially pig production, there seemed to be more males than females. However statistically, this difference was not significant. Thus, rejecting the proposition that women have comparative advantage in crop than in animal production. According to the test statistic used in the analysis, there is no association between sex and involvement in livestock production.
- Decision-making and power relations among farmers interviewed had an influence on the level of participation by females on LDT. The association between decision to be on LDT and who the decision maker was statistically significant. Generally, the females made less decision and were less involved in pig production compared to the males. Majority of husbands made decisions, and those that said both the wives and husbands made decisions, still husbands had more control. As long as males and females do not have equal opportunities in decision making and other power relations, they will always lag behind in production alternatives as observed in the study area.
- Concerning the specific problems faced in pig production with regard to gender, the survey showed that these exists but only applicable to a minimal number of farmers. The majority said they did not face such problems, except problems external to

gender, such as late or delays in receiving feed for pigs from the project managers. Therefore they are no main gender related problems that could be associated with the low level of female participation on the LDT initiative and the general livestock production in the study area.

- Gender related problems impacts less on involvement in livestock production. The only influence that such had, were resource diversion from other enterprises, and limiting time of other things that could be done in other enterprises. Though a good number of farmers knew about gender, their knowledge did not consider gender to be a development tool and the level of application of such concepts in decision making and control over both productive resources and money from other enterprises was low, especially when gender is viewed as having equal access to and control over household resources. Men made more decisions than women statistically and had more control over both resources and money in the households.
- The study also indicated that statistically, the multiple roles that women have did not prevent them from diversifying into more crops and animals. Among the important things that were pointed out were limited resources and good planning.
- The study also confirms the existing data that they generally few females in livestock, late alone pig production.

5.3 Recommendations

- Pig production is a lucrative enterprise, which if all farmers regardless of sex were encouraged to undertake, would lift up the income earning abilities and reduce gender imbalances.
- Although there is no statistically significant difference between the number of women and men in pig production and / or under livestock (most likely due to the small size of females in the sample survey), intentional efforts should be made by LDT project managers to recruit female farmers in such developmental issues.

Women that are willing but do not have resources should be given preference. They should also know what livestock women are interested in if high participation levels are expected.

- As reviewed by the survey, the power relations in different households are biased towards males in decision-making and control over both productive resources and money from various enterprises. There is therefore need by the ASP facilitators to sensitize farmers in their operational areas more on access to and having control over resources as part of their gender education if equity and equality is to be achieved. This in turn will lead to increased levels of female participation in any development initiative targeted at small farmers.
- The government should develop more channels of communication about gender, as majority of farmers do not receive such information.

5.4 Further Research

There is need to do a further study on the role that culture plays in livestock production by women. And also the contents of gender sensitization packages given to farmers by ASP to know whether it focuses on the relationship between men and women, their roles, access to and control over productive resources.

REFERENCES

- Azage T., M. Tadesse and Z. Sileshi, (2002) **Scoping Study on Interactions Between Gender Relations and Livestock Keeping Practices in Addis Ababa, Ethiopia.** Natural Resources International Ltd, Kent, UK
- Bennett L. (1992) **Women, Poverty and Productivity in India.**
- Government of the Republic of Zambia, (2000). **National Gender Policy.**
- Government of the Republic of Zambia, (2000). **Zambia Poverty Reduction Strategic Paper (PRSP), 2002-2004**
- Judai and Associates, (2002) **Women Entrepreneurs in Zambia.** Lusaka.
- Ministry of Agriculture and Cooperatives, (2004) **National Agriculture Policy.**
- Nadeem A. and T. Sajida. (2004) **Women and Livestock Management in Sindh in Pakistan** (<http://www.parc.gov.pk/articles/walsindh.html>)
- Todaro M. (1977) **Economic Development in the Third World**, London: Longmans
- Shalkwyk, J., H. Thomas and B. Woroniuk (1996), **Handbook for Gender Mainstreaming in the Agriculture Sector.**
- Wonani, C.(2004) **Business Experience Exchange Project-Gender Dimensions in Rural Producer Organization in Zambia,** Lusaka.
- Wood A.P. (1990) **The Dynamics of Agriculture Policy and Reform in Zambia**, Iowa State University Press. United States of America.

APPENDICES

APPENDIX I: QUESTIONNAIRE

SECTION A

BACKGROUND INFORMATION

Name of respondent

Age

Sex

MALE []

FEMALE []

Marital status

Single []

Married []

Divorced []

Widowed []

Other []

Education attainment

Primary []

Secondary []

College []

University []

None []

Occupation

SECTION B

Production Activity Profile

Are you involved in any crop production activities?

Yes []

No []

If yes which crops

Maize []

Groundnuts []

Millet

Vegetables []

Other []

Are you involved in any livestock production activities?

Yes	[]
No	[]

If yes which livestock?

Chickens	[]
Pigs	[]
Goats	[]
Sheep	[]
Cattle	[]
Other	[]

If no, why not?

.....

.....

.....

.....

Who decides the production activities to undertake?

.....

Do you provide shelter for your livestock? Yes [] No []

Who builds the shelter?

.....

.....

Are you on the livestock development program?

Yes	[]	No	[]
-----	-------	----	-------

Did you decide on your own to be on the program?

Yes	[]	No	[]
-----	-------	----	-------

Explain,
.....
.....

How do you get selected?
.....
.....
.....

What can you say about the selection criteria? (Probe on gender sensitivity)
.....
.....

What is the system of management do you use?
Outdoor system []
Indoor system []

Who controls the money /profits from the pig production?
.....
.....

Do you find any difficulties rearing pigs and other livestock because you are a
Male Yes [] No []
Female Yes [] No []

What are those difficulties?
.....
.....
.....

Where do you think you can produce best given the hindrances?
.....

How often do you consult LDT field officers?
Very often [] Often [] Not often [] Never []

Does your gender influence your answer?
Explain
.....
.....

SECTION C

Gender Awareness Levels

Do you know about gender is? Yes [] No []

Do you receive any information on gender?
Yes [] No []

How do you receive it and from who?
.....
.....

Who makes decisions on production activities in your household?
.....

How are the activities performed in both crop and livestock production?
.....
.....
.....

Explain your answer (probe more on differences observed)
.....
.....

Who has control over production resources?
.....

Who has control over money coming from the various production alternatives?
.....

Do you think the multiple roles women have prevent them from diversifying?
Yes [] No []

Explain.
.....
.....
.....